DB2 for OS/390
Version 5

Messages and Codes

GC26-8979-02

Note!

Before using this information and the product it supports, be sure to read the general information under “Notices” on page vii.

First Edition (June 1997)

This edition applies to Version 5 of IBM DATABASE 2 Server for OS/390 (DB2 for OS/390), 5655-DB2, and to any subsequent releases until otherwise indicated in new editions. Make sure you are using the correct edition for the level of the product.

The technical changes for this edition are summarized under “Summary of Changes to this Book” in the Introduction. Specific changes are indicated by a vertical bar to the left of a change. A vertical bar to the left of a figure caption indicates that the figure has changed. Editorial changes that have no technical significance are not noted.

This softcopy version is based on the printed version of the book, and includes the changes indicated in the printed version by vertical bars. Additional changes made to this softcopy version of the manual since the hardcopy manual was published are indicated by the hash (#) symbol in the left-hand margin.

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Programming Interface Information

This book is intended to help you interpret messages issued by IBM DATABASE 2 for OS/390 (DB2 for OS/390).

This book also documents General-use Programming Interface and Associated Guidance Information provided by DB2 for OS/390.

General-use programming interfaces allow the customer to write programs that obtain the services of DB2 for OS/390.

General-use Programming Interface and Associated Guidance Information is identified where it occurs by an introductory statement to a chapter or section.

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DFSMSdfp	SAA
DFSMSdss	SQL/DS
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Distributed Relational Database Architecture	System/370
DRDA	System/390
Extended Services	VTAM

Throughout the library, the DB2 licensed program and a particular DB2 subsystem are each referred to as “DB2.” In each case, the context makes the meaning clear. The term *MVS* is used to represent the MVS/Enterprise Systems Architecture (MVS/ESA). *CICS* is used to represent CICS/MVS and CICS/ESA; *IMS* is used to represent IMS/ESA; *C* and *C language* are used to represent the C/370 programming language.

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Introduction to This Book and the DB2 Library

This chapter contains specific information about this book and a general overview of the DB2 library.

Throughout this book, “DB2” means the program product IBM DATABASE 2 Server for OS/390 (DB2 for OS/390). Other DB2 products are given their complete names or abbreviations.

Who Should Read This Book

This book, *IBM DATABASE 2 Server for OS/390 Messages and Codes*, lists messages and codes issued by DB2, with explanations and suggested responses. This book is intended for users and system programmers who might encounter DB2 messages and codes.

How to Use This Book

This book consists of the following six sections and four appendixes:

- “Section 1. Introduction” on page 1-1 explains the different types of messages and codes that DB2 generates.
- “Section 2. SQL Return Codes” on page 2-1 lists the SQL return codes.
- “Section 3. DB2 Messages” on page 3-1 lists the various DB2 messages.
- “Section 4. DB2 Codes” on page 4-1 lists the various DB2 codes.
- “Section 5. IRLM Messages and Codes” on page 5-1 lists the various IRLM messages and codes.
- “Section 6. SNA Codes” on page 6-1 lists the SNA codes.
- “Appendix A. CICS Transaction Abend/Dump Code” on page X-3 explains the CICS transaction abend/dump code (DSNC).
- “Appendix B. Problem Determination” on page X-5 lists the diagnostic items and resource types you can use to resolve problems.
- “Appendix C. SQLSTATE Values—Common Error Codes” on page X-13 lists the error code SQLSTATE values. These values provide common return codes for common error conditions.
- “Appendix D. New, Changed, and Deleted Messages and Codes” on page X-25 lists the new, changed, and deleted messages and codes.

The introduction provides general information about DB2 messages and codes. You will be referred to it from appropriate places in the manual. However, it is recommended that you become familiar with this material ahead of time.

The SQL return codes are listed by numeric sequence. The DB2 messages are listed in order of their subcomponent identifier and further by their numeric identifier. The codes are listed by their hexadecimal ID and further by their numeric identifier. The IRLM messages and codes are listed by numeric sequence.

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Message identifiers and CSECT names are used to identify messages. Unless the message is issued by a subcomponent operating outside the DB2 environment (such as the precompiler or attachment facilities), messages are preceded by a *subsystem recognition character* that is defined during system installation. The subsystem recognition character is not shown in the message texts in this book.

All DB2 message identifiers are eight characters long. The first three characters are always DSN: it is the DB2 component prefix name. The fourth character is the *subcomponent identifier*. it identifies the subcomponent of DB2 that issued the message. Each subcomponent has an associated *hexadecimal identifier* (hex ID): it is the hexadecimal representation of the subcomponent identifier. The fifth through seventh characters represent the *numeric identifier* : it is unique within the subcomponent. The last character of the message identifier is the *message type code*. It indicates the type of response that the message requires. A *subsystem identifier* is an optional field found after the message number: it is also known as the *csect-name*. Message identifiers and CSECT names have the following format:

```
DSNB209I DSNB1CHK
```

where:

`DSN`	is the DB2 subsystem prefix name.
`B`	is the subcomponent identifier; in this example B identifies the DB2 buffer manager and the hexadecimal ID for this subcomponent is X'C2'.
`209`	is the numeric identifier.
`I`	indicates that this message is for information only.
`DSNB1CHK`	is the csect name; it is an optional field.

The DB2 reason codes and subsystem termination reason codes are 4 bytes long. The first byte is always 00: it is the *high-order byte*. The second byte is the *hexadecimal identifier* (hex ID): it identifies the DB2 subcomponent. The last 2 bytes are the *numeric identifier*: it is unique within the subcomponent. The codes have the following format:

```
00E50041
```

where:

`00`	is the high-order byte.
`E5`	is the hexadecimal identifier; it identifies the DB2 agent services manager.
`0041`	is the numeric identifier.

Accompanying each message and code is the following information, when applicable:

Explanation: This section tells what the message or code means, why it occurred, and what caused it. To assist in diagnosing problems, the CSECTs that issued the message are also included. However, if the issuing CSECT is placed in the message text at run time, it is not included in the explanation.

System Action: This part tells what is happening as a result of the condition causing the message or code. If this information is not shown, no system action is taken.

User Response: If a response by the user is necessary, this section tells what the pertinent responses are and their effect. If this information is not shown, no user response is required.

Operator Response: If an operator response is necessary, this section tells what the pertinent responses are and their effect. If this information is not shown, no operator response is required.

System Programmer Response: If a response by the system programmer is needed, this part tells what the pertinent responses are and their effect. If this information is not shown, no system programmer response is required.

Programmer Response: If a programmer response is necessary, this part tells what the pertinent responses are and their effect. If this information is not shown, no programmer response is required.

Problem Determination: This section lists the actions that can be performed to obtain adequate data for support personnel to diagnose the problem. If this information is not shown, no problem determination is required.

Message Type Codes

The last character of a message identifier is the *type code*. Four type codes are used, as shown in the following list:

A	Immediate action	Action is required immediately. The associated task does not continue until the requested action is taken.
D	Immediate decision	Decision or action is required immediately. The associated task does not continue until the requested decision is made or action is taken.
E	Eventual action	Action is required at some point; however, the associated task continues. All RC=8 error messages that are not host related (SOFT errors) have the E changed to a W in precompiler output when SQL(ALL) is in effect. All RC=8 errors (HARD errors) look the same as they have in the past.
I	Information only	No action is required.

DB2 Message Severity Codes

Messages issued by the precompiler subcomponent of DB2, as well as some messages issued by the service controller and utility subcomponents of DB2, provide severity codes. The specific meanings of the severity codes differ slightly for each of the subcomponents. In general, the higher the severity level, the more significant the situation.

Severity codes for these subcomponents are described at the beginning of the individual subcomponent sections in “Section 3. DB2 Messages” on page 3-1. They are also included in the individual messages, where appropriate.

DB2 Abend Completion Codes (X'04E' and X'04F')

DB2 uses two system abend completion codes: X'04E' and X'04F'.

X'04E' and X'04F' identify:

- Internal errors encountered during DB2 operation
- Diagnostic information for problem determination
- Subsystem actions initiated by the DB2 subcomponent involved in the error

X'04E'
An X'04E' abend completion code indicates that DB2 detected an internal error and abended a DB2 internal task (TCB) or a user-connected task. Errors associated with an X'04E' abend completion code might be preceded by an MVS system code or by internal errors.

The diagnostic material generated by the X'04E' abend must be examined to determine the source of the error that actually resulted in a subsequent task or subsystem termination.

X'04F'
An X'04F' abend completion code indicates that DB2 detected a severe error and abended the entire DB2 subsystem. When an X'04F' is issued, DB2 determined that continued operation could result in the loss of data integrity. Errors associated with an X'04F' abend completion code might be preceded by an MVS system error or by one or more DB2 X'04E' abend completion codes.

Table 1 summarizes the diagnostic information and subsystem actions available to DB2 when these abend completion codes are issued. Some pieces of this information are not relevant to some error situations and will not help in problem diagnosis. In these cases, DB2 does not produce any diagnostic information that is unnecessary. The information that DB2 produces for a given error depends upon the specific problem. The MVS services that provide diagnostic information are discussed in “DB2 Diagnostic Information” on page 1-7

Table 1 (Page 1 of 2). Abend Completion Codes

	X'04E'	X'04F'
Explanation	• Error during DB2 normal operation	• Severe error; continued operation may jeopardize data integrity
System action	• Internal DB2 task is abended • Connected user task is abended	• The entire DB2 subsystem is abended • User task with an active DB2 connection may be abnormally terminated with an X'04F' • Possible MEMTERM (memory termination) of connected allied address space
Diagnostic information	• SVC dump • SYS1.LOGREC entries • VRA data entries	• SYS1.LOGREC entries • VRA data entries

Table 1 (Page 2 of 2). Abend Completion Codes

	X'04E'	X'04F'
Associated reason codes	• DB2 abend reason code • Associated MVS system codes	• Subsystem termination reason code • MVS system completion codes and X'04E' codes that precede the X'04F' abend
Location of accompanying codes	• SVC dump title • Message DSNW050I • Register 15 of SDWA section "General Purpose Registers at Time of Error" • SYS1.LOGREC entries • VRA data entries	• SYS1.LOGREC entries • VRA data entries • Message DSNV086E, which is sent to MVS system operator

DB2 Diagnostic Information

DB2's functional recovery routines use MVS services to provide diagnostic information for assistance in problem determination.

The following MVS services provide diagnostic information:

- SVC dumps

  The DB2 abend completion code X'04E' uses the MVS SDUMP service to create SVC dumps. The content and storage areas associated with these dumps vary depending on the specific error and the state of the DB2 subsystem at the time the error.

- SYS1.LOGREC entries

  Entries are requested in the SYS1.LOGREC data set at the time of the error using the MVS SETRP service. The following are also recorded in SYS1.LOGREC:

  – Subsystem abnormal terminations
  – Secondary abends occurring in a recovery routine
  – Recording requests from recovery routines percolated to by the recovery termination manager.

- Variable recording area (VRA) data

  Data entries are added to the VRA of the SDWA by using an MVS VRA defined key. VRA data includes a series of diagnostic data entries common to both DB2 abend completion codes. Additional information is provided by the invoking subcomponent recovery routine during initial error processing or recovery termination manager percolation.

MVS Abends Resulting from DB2 Operation

During DB2 operation, an abend can occur with an MVS system completion code. If you receive an MVS abend during DB2 operation, refer to the appropriate MVS publication.

How to Use the DB2 Library

Titles of books in the library begin with DB2 for OS/390 Version 5. However, references from one book in the library to another are shortened and do not include the product name, version, and release. Instead, they point directly to the section that holds the information. For a complete list of books in the library, and the sections in each book, see the bibliography at the back of this book.

Throughout the library, the DB2 for OS/390 licensed program and a particular DB2 for MVS/ESA subsystem are each referred to as "DB2." In each case, the context makes the meaning clear.

The most rewarding task associated with a database management system is asking questions of it and getting answers, the task called *end use*. Other tasks are also necessary—defining the parameters of the system, putting the data in place, and so on. The tasks associated with DB2 are grouped into the following major categories (but supplemental information relating to all of the below tasks for new releases of DB2 can be found in *Release Guide*):

Installation: If you are involved with DB2 only to install the system, *Installation Guide* might be all you need.

If you will be using data sharing then you also need *Data Sharing: Planning and Administration*, which describes installation considerations for data sharing.

End use: End users issue SQL statements to retrieve data. They can also insert, update, or delete data, with SQL statements. They might need an introduction to SQL, detailed instructions for using SPUFI, and an alphabetized reference to the types of SQL statements. This information is found in *Application Programming and SQL Guide* and *SQL Reference*.

End users can also issue SQL statements through the Query Management Facility (QMF) or some other program, and the library for that program might provide all the instruction or reference material they need. For a list of some of the titles in the QMF library, see the bibliography at the end of this book.

Application Programming: Some users access DB2 without knowing it, using programs that contain SQL statements. DB2 application programmers write those programs. Because they write SQL statements, they need *Application Programming and SQL Guide*, *SQL Reference*, and *Call Level Interface Guide and Reference* just as end users do.

Application programmers also need instructions on many other topics:

- How to transfer data between DB2 and a host program—written in COBOL, C, or FORTRAN, for example
- How to prepare to compile a program that embeds SQL statements
- How to process data from two systems simultaneously, say DB2 and IMS or DB2 and CICS
- How to write distributed applications across platforms
- How to write applications that use DB2 Call Level Interface to access DB2 servers

- How to write applications that use Open Database Connectivity (ODBC) to access DB2 servers
- How to write applications in the Java programming language to access DB2 servers

The material needed for writing a host program containing SQL is in *Application Programming and SQL Guide* and *Application Programming Guide and Reference for Java*. The material needed for writing applications that use DB2 Call Level Interface or ODBC to access DB2 servers is in *Call Level Interface Guide and Reference*.

For handling errors, see *Messages and Codes*.

Information about writing applications across platforms can be found in *Distributed Relational Database Architecture: Application Programming Guide*.

System and Database Administration: *Administration* covers almost everything else. *Administration Guide* divides those tasks among the following sections:

- Section 2 (Volume 1) of *Administration Guide* discusses the decisions that must be made when designing a database and tells how to bring the design into being by creating DB2 objects, loading data, and adjusting to changes.
- Section 3 (Volume 1) of *Administration Guide* describes ways of controlling access to the DB2 system and to data within DB2, to audit aspects of DB2 usage, and to answer other security and auditing concerns.
- Section 4 (Volume 1) of *Administration Guide* describes the steps in normal day-to-day operation and discusses the steps one should take to prepare for recovery in the event of some failure.
- Section 5 (Volume 2) of *Administration Guide* explains how to monitor the performance of the DB2 system and its parts. It also lists things that can be done to make some parts run faster.

In addition, the appendixes in *Administration Guide* contain valuable information on DB2 sample tables, National Language Support (NLS), writing exit routines, interpreting DB2 trace output, and character conversion for distributed data.

If you are involved with DB2 only to design the database, or plan operational procedures, you need *Administration Guide*. If you also want to carry out your own plans by creating DB2 objects, granting privileges, running utility jobs, and so on, then you also need:

- *SQL Reference*, which describes the SQL statements you use to create, alter, and drop objects and grant and revoke privileges
- *Utility Guide and Reference*, which explains how to run utilities
- *Command Reference*, which explains how to run commands

If you will be using data sharing, then you need *Data Sharing: Planning and Administration*, which describes how to plan for and implement data sharing.

Additional information about system and database administration can be found in *Messages and Codes*, which lists messages and codes issued by DB2, with explanations and suggested responses.

Diagnosis: Diagnosticians detect and describe errors in the DB2 program. They might also recommend or apply a remedy. The documentation for this task is in *Diagnosis Guide and Reference* and *Messages and Codes*.

How to Obtain DB2 Information

DB2 on the Web

Stay current with the latest information about DB2. View the DB2 home page on the World Wide Web. News items keep you informed about the latest enhancements to the product. Product announcements, press releases, fact sheets, and technical articles help you plan your database management strategy. Technical professionals can access DB2 publications on the Web and follow links to other Web sites with more information about DB2 family and OS/390 solutions. Access DB2 on the Web with the following URL:

http://www.ibm.com/software/db2os390

DB2 Publications

The DB2 publications are available in both hardcopy and softcopy format. Using online books on CD-ROM, you can read, search across books, print portions of the text, and make notes in these BookManager books. With the appropriate BookManager READ product or IBM Library Readers, you can view these books on the MVS, VM, OS/2, DOS, AIX and Windows platforms.

When you order DB2 Version 5, you are entitled to one copy of the following CD-ROM, which contains the DB2 licensed book for no additional charge:

DB2 Server for OS/390 Version 5 Licensed Online Book, LK2T-9075.

You can order multiple copies for an additional charge by specifying feature code 8207.

When you order DB2 Version 5, you are entitled to one copy of the following CD-ROM, which contains the DB2 and DATABASE 2 Performance Monitor online books for no additional charge:

DB2 Server for OS/390 Version 5 Online Library, SK2T-9092

You can order multiple copies for an additional charge through IBM's publication ordering service.

Periodic updates will be provided on the following collection kit available to licensees of DB2 Version 5:

IBM Online Library Transaction Processing and Data Collection, SK2T-0730

SK2T-9092 will be superseded by SK2T-0730 when updates to the online library are available.

In some countries,including the United States and Canada, you receive one copy of the collection kit at no additional charge when you order DB2 Version 5. You will automatically receive one copy of the collection kit each time it is updated, for no additional charge. To order multiple copies of SK2T-0730 for an additional charge, see “How to Order the DB2 Library” on page 1-11. In other countries, updates will be available in displayable softcopy format in the IBM Online Book Library Offering

(5636–PUB), SK2T-0730 IBM Online Library Transaction Processing and Data Collection at a later date.

See your IBM representative for assistance in ordering the collection.

DB2 Server for OS/390 books are also available for an additional charge on the following collection kits, which contain online books for many IBM products:

IBM Online Library MVS Collection, SK2T-0710, in English

Online Library Omnibus Edition OS/390 Collection, SK2T-6700, in English

IBM Online Library MVS Collection Kit, SK88-8002, in Japanese, for viewing on DOS and Windows platforms

How to Order the DB2 Library

You can order DB2 publications and CD-ROMs through your IBM representative or the IBM branch office serving your locality. If you are located within the United States or Canada, you can place your order by calling one of the toll-free numbers :

- In the U.S., call 1-800-879-2755.
- In Canada, call 1-800-565-1234.

To order additional copies of licensed publications, specify the SOFTWARE option. To order additional publications or CD-ROMs, specify the PUBLICATIONS & SLSS option. Be prepared to give your customer number, the product number, and the feature code(s) or order numbers you want.

DB2 Classes

IBM Education and Training offers a wide variety of classroom courses to help you quickly and efficiently gain DB2 expertise. Classes are scheduled in cities all over the world. For more information, including the current local schedule, please contact your IBM representative.

Classes can also be taught at your location, at a time that suits your needs. Courses can even be customized to meet your exact requirements. The diagrams below show the DB2 curriculum in the United States. *Enterprise Systems Training Solutions, GR28-5467* describes these courses. You can inquire about or enroll in them by calling 1-800-IBM-TEACh (1-800-426-8322).

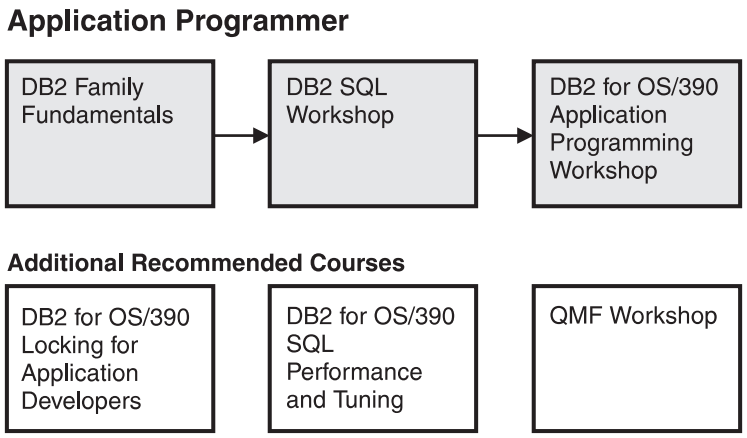

Figure 1. Application Programmer Curriculum

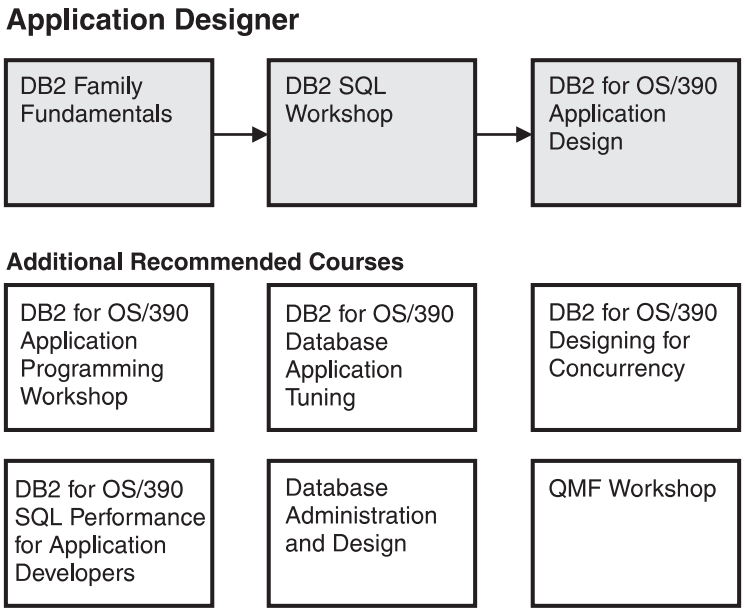

Figure 2. Application Designer Curriculum

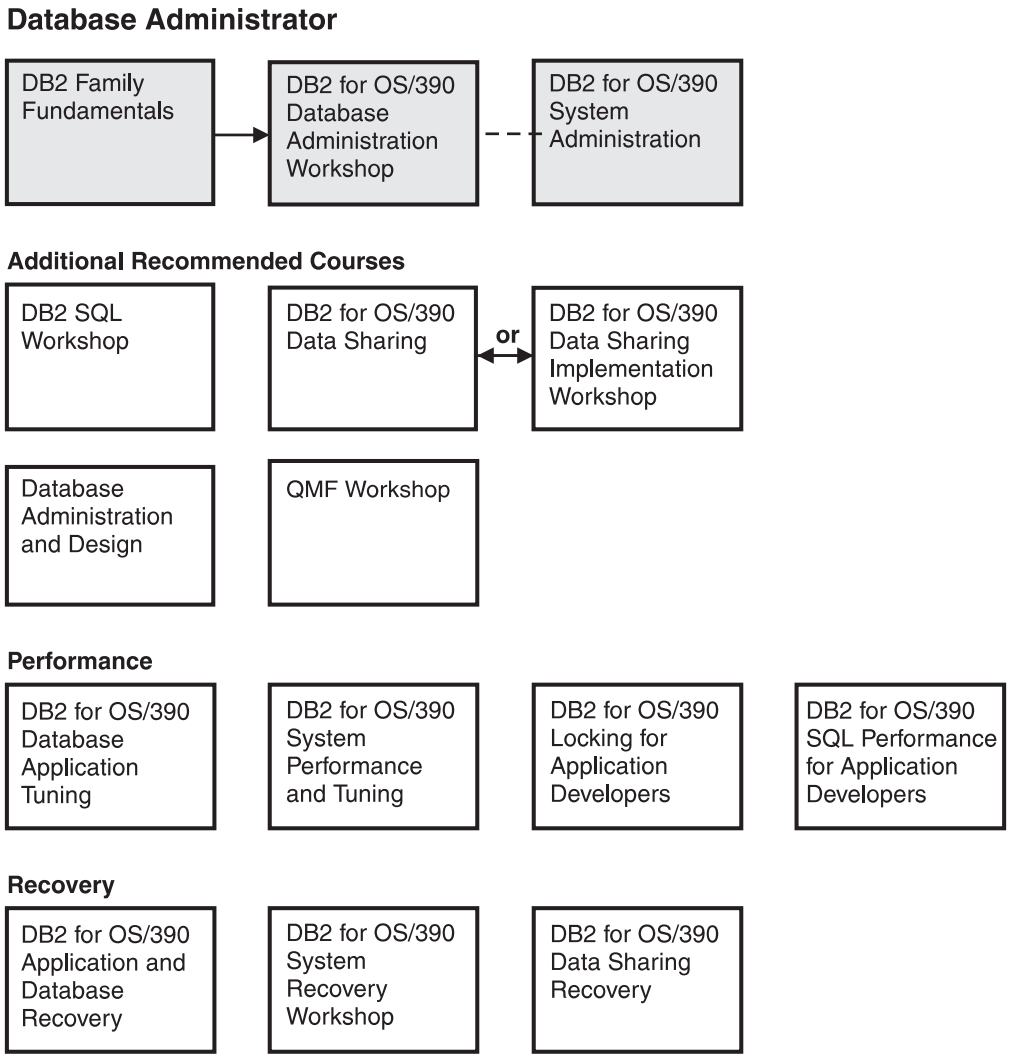

Figure 3. Database Administrator Curriculum

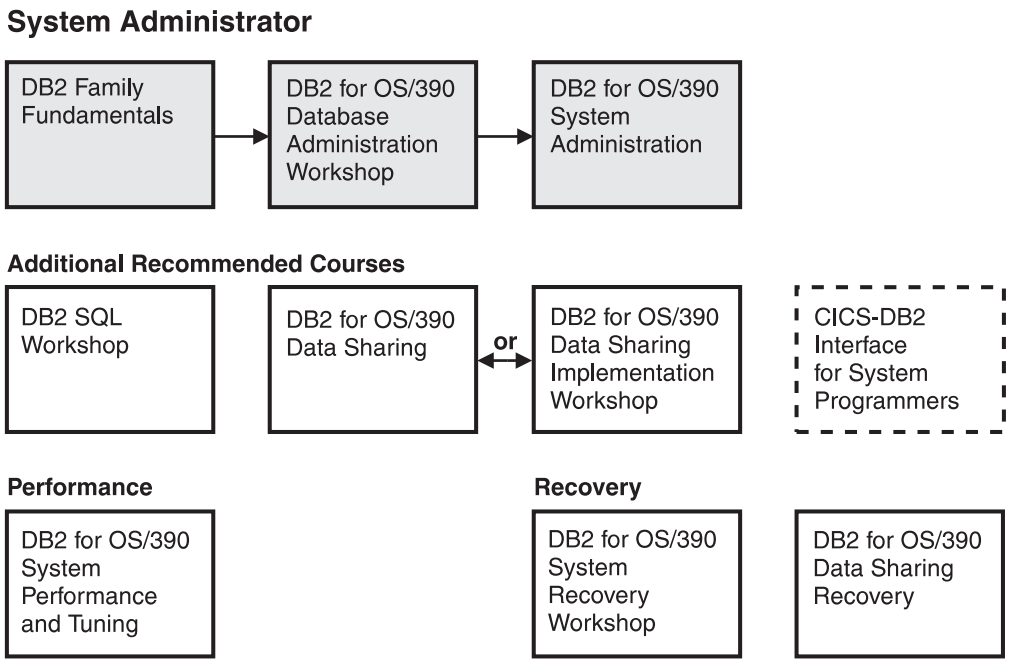

Figure 4. System Administrator Curriculum

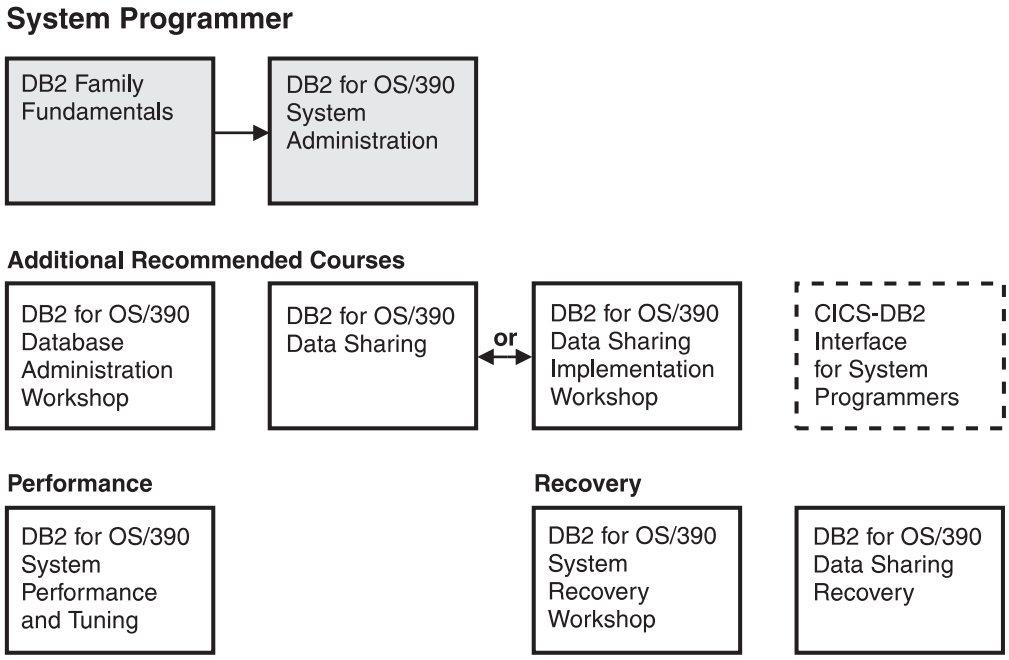

Figure 5. System Programmer Curriculum

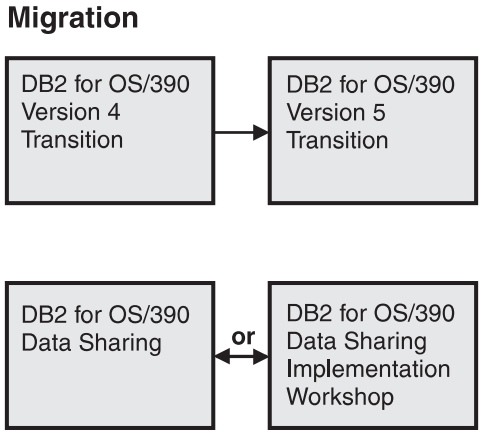

Figure 6. Migration Curriculum

Summary of Changes to DB2 for OS/390 Version 5

DB2 for OS/390 Version 5 delivers a database server solution for OS/390. Version 5 supports all functions available in DB2 for MVS/ESA Version 4 plus enhancements in the areas of performance, capacity, and availability, client/server and open systems, and user productivity.

If you are currently using DB2, **you can migrate only from a DB2 for MVS/ESA Version 4 subsystem**. This summary gives you an overview of the differences to be found between these versions.

Server Solution

OS/390 retains the classic strengths of the traditional MVS/ESA operating system, while offering a network-ready, integrated operational environment.

The following features work directly with DB2 for OS/390 applications to help you use the full potential of your DB2 subsystem:

- Net.Data for OS/390
- DB2 Installer
- DB2 Estimator for Windows
- DB2 Visual Explain
- Workstation-based Performance Analysis and Tuning
- DATABASE 2 Performance Monitor

Net.Data for OS/390

Net.Data provides support for Internet access to DB2 data through a Web server. Applications built with Net.Data make data stored in any DB2 server more accessible and useful. Net.Data Web applications provide continuous application availability, scalability, security, and high performance.

This no charge feature can be ordered with DB2 Version 5 or downloaded from Internet. The Net.Data URL is:

http://www.ibm.com/software/data/net.data/downloads.html

DB2 Installer

DB2 Installer offers the option to install DB2 on an OS/2 workstation. Now, you can use a friendly graphical interface to complete installation tasks easily with DB2 Installer.

This function is delivered on CD-ROM with DB2 Visual Explain.

DB2 Estimator for Windows

DB2 Estimator provides an easy-to-use capacity planning tool. You can estimate the sizes of tables and indexes, and the performance of SQL statements, groups of SQL statements (transactions), utility runs, and groups of transactions (capacity runs). From a simple table sizing to a detailed performance analysis of an entire DB2 application, DB2 Estimator saves time and lowers costs. You can investigate the impact of new or modified applications on your production system, *before* you implement them.

This no charge feature can be ordered with DB2 Version 5 or downloaded from the Internet. From the internet, use the IBM Software URL:

http://www.ibm.com/software/

From here, you can access information about DB2 Estimator using the download function.

DB2 Visual Explain

DB2 Visual Explain lets you tune DB2 SQL statements on an OS/2 workstation. You can see DB2 EXPLAIN output in a friendly graphical interface and easily access, modify, and analyze applications with DB2 Visual Explain.

Workstation-based Performance Analysis and Tuning

The new workstation-based Performance Analysis and Tuning function simplifies system administration. You can access statistical data to help you analyze and improve system performance. This function works with the optional DB2 PM feature to provide full analysis and tuning functionality.

DATABASE 2 Performance Monitor (DB2 PM)

DB2 PM lets you monitor, analyze, and optimize the performance of DB2 Version 5 and its applications. An online monitor, for both host and workstation environments, provides an immediate "snap-shot" view of DB2 activities and allows for exception processing while the system is operational. The workstation-based online monitor can connect directly to the Visual Explain function of the DB2 base product.

DB2 PM also offers a history facility, a wide variety of customizable reports for in-depth performance analysis, and an EXPLAIN function to analyze and optimize SQL statements. For more information, see *DB2 PM for OS/390 General Information* .

This feature can be ordered with DB2 Version 5.

Performance

Sysplex Query Parallelism

The increased power of Sysplex query parallelism in DB2 for OS/390 Version 5 allows DB2 to go far beyond DB2 for MVS/ESA Version 4 capabilities; from the ability to split and process a single query within a DB2 subsystem to processing that same query across many different DB2 subsystems in a data sharing group.

The advances this release offers in scalable query processing let you process queries quickly while accommodating the potential growth of data sharing groups and the increasing complexity of queries.

Prepared Statement Caching

DB2 reduces the cost of duplicate prepares for the same dynamic SQL statement by saving them in a cache. Now, different application processes can share prepared statements and they are preserved past the commit point. This performance improvement offers the most benefit for:

- Client/server applications that frequently use dynamic SQL for repeated execution of SQL statements
- Relatively short dynamic SQL statements for which PREPARE cost accounts for most of the CPU expended

Reoptimization

When host variables, parameter markers, or special registers were used in previous releases, DB2 could not always determine the best access path because the values for these variables were unknown. Now, you can tell DB2 to reevaluate the access path at run time, after these values are known. As a result, queries can be processed more efficiently, and response time is improved.

Faster Transactions and Batch

- Caching of package authorization improves performance at run time for remote packages and applications that use pattern-matching characters in a package list.
- You can define a table space to use ***selective partition locking***, which can reduce locking costs for applications that do partition-at-a-time processing. It also can reduce locking costs for certain data sharing applications that rely on an affinity between members and data partitions.
- A new standalone utility lets you preformat active logs.
- With LOAD and REORG, you can preformat data sets up to the high allocated RBA, which can make processing for sequential inserts more predictable.

Faster Utilities

- LOAD and REORG jobs run faster and more efficiently with enhanced index key sorting that reduces CPU and elapsed time, and an inline copy feature that lets you make an image copy without a separate copy step.
- New REORG options let you select rows to discard during a REORG and, optionally, write the discarded records to a file.
- When you run the REBUILD, RECOVER, REORG, or LOAD utility on DB2-managed indexes or table spaces, a new option lets you logically reset and reuse the DB2-managed objects.

- RECOVER INDEX and LOAD run faster on large numbers of rows per page.
- Sampling support for RUNSTATS reduces the processing required to collect nonindexed column statistics.
- BSAM striping improves the I/O capability of DB2 utilities.

Other Performance Enhancements

- There are several significant performance enhancements to data sharing, including selective partition locking, the MAXROWS option, and several optimizations to reduce data sharing overhead.
- DB2 installations that run in the OS/390 Version 2 Release 6 environment can now have as many as (approximately) 25 000 open DB2 data sets at one time. The maximum number of open data sets in earlier releases of OS/390 is 10000.
- You can easily alter the length of variable-length character columns using the new ALTER COLUMN clause of the ALTER TABLE statement.
- SQL CASE expressions let you eliminate queries with multiple UNIONs and improve performance by using only one table scan.
- You can collect a new statistic on concatenated index keys to improve the performance of queries with correlated columns. The statistic lets DB2 estimate the number of rows that qualify for the query more accurately, and select access paths more efficiently.
- DB2 scans partitions more efficiently and allows scans during parallel processing.
- Query enhancements include the ability to:
  - Use indexes for joins on string columns that have different lengths
  - Use an index to access predicates with noncorrelated IN subqueries
- Noncolumn expressions in simple predicates are evaluated at stage 1 and can be indexable.

Increased Capacity

DB2 for OS/390 Version 5 introduces the concept of a *large* partitioned table space. Defining your table space as large allows a substantial capacity increase: to approximately one terabyte of data and up to 254 partitions. In addition to accommodating growth potential, large partitioned table spaces make database design more flexible, and can improve availability.

Improved Availability

Online REORG

DB2 for OS/390 Version 5 adds a major improvement to availability with *Online REORG*. Now, you can avoid the severe availability problems that occurred while offline reorganization of table spaces restricted access to read only during the unload phase and no access during reload phase of the REORG utility. Online REORG gives you full read and write access to your data through most phases of the process with only very brief periods of read only or no access.

Data Sharing Enhancements

- Version 5 provides continuous availability with group buffer pool duplexing. Prior releases of DB2 rely on DASD and the merged recovery logs to recover group buffer pool (GBP) data that is lost if a coupling facility fails. With group buffer pool duplexing, DB2 writes changed pages to both a *primary GBP* and a *secondary GBP.* Overlapped writes to the GBPs provide good performance and eliminate the writes to DASD.
- Group buffer pool rebuild makes coupling facility maintenance easier and improves access to the group buffer pool during connectivity losses.
- Automatic group buffer pool recovery accelerates GBP recovery time, eliminates operator intervention, and makes data available faster when GBPs are lost because of coupling facility failures.
- Improved restart performance for members of a data sharing group reduces the impact of retained locks by making data available faster when a group member fails.
- Changes to traces and DISPLAY GROUPBUFFERPOOL output improve monitoring.

Tracker site for disaster recovery

You can set up a tracker site that shadows the activity of a primary site, and eliminate the need to constantly ship image copies.

Client/Server and Open Systems

Native TCP/IP Network Support

DB2's support of TCP/IP networks allows DRDA clients to connect directly to DDF and eliminate the gateway machine. In addition, customers can now use asynchronous transfer mode (ATM) as the underlying communication protocol for both SNA and TCP/IP connections to DB2.

Stored Procedures

- Return multiple SQL result sets to local and remote clients in a single network operation.
- Receive calls from applications that use standard interfaces, such as Open Database Connectivity** (ODBC) and X/Open** Call Level Interface, to access data in DB2 for OS/390.
- Run in an enhanced environment. DB2 supports multiple stored procedures address spaces managed by the MVS Workload Manager (WLM). The WLM environment offers efficient program management and allows WLM-managed stored procedures to run as subprograms and use RACF security.
- Use individual MVS dispatching priorities to improve stored procedure scheduling.
- Access data sources outside DB2 with two-phase commit coordination.
- Use an automatic COMMIT feature on return to the caller that reduces network traffic and the length of time locks are held.
- Have the ability to invoke utilities, which means you can now invoke utilities from an application that uses the SQL CALL statement.

• Support IMS Open Database Access (ODBA). Now a DB2 stored procedure
can directly connect to IMS DBCTL and access IMS data.

Dynamic Query and Network Performance

Improvements for DRDA Applications

- Reduced processing costs for block fetch operations
- DRDA support for OPTIMIZE FOR n ROWS on SELECT
- Faster dynamic SQL queries and reduced processing costs for VTAM network operations
- Reduced message traffic for dynamic SQL SELECT statements

Improved Application Portability

- DB2 for OS/390 Version 5 introduces the DB2 Call Level Interface (CLI) to MVS/ESA. Unlike applications that use embedded SQL to access DB2 data, applications that choose CLI are not tied to a precompiler, packages, or a plan.

  Workstation and desktop applications use standard interfaces, such as Open Database Connectivity (ODBC), to access relational data. Standard interfaces need one version of an application to access many data sources. Now, you can port UNIX workstation and PC desktop applications to DB2 for OS/390 and exploit the CLI (ODBC) capabilities without modification. In addition, applications can issue ODBC or CLI calls from within a stored procedure.

• You can now access DB2 for OS/390 databases in your Java applications. You
can use DB2 Connect Java Database Connectivity (JDBC) for your dynamic
SQL applications, or SQLJ for your static SQL applications.

• DB2 adds DRDA support for the DESCRIBE INPUT statement to improve per-
formance for many ODBC applications.

• Now, you can write multithreaded DB2 CLI applications, and restrictions on
connection switching no longer exist.

- DB2 now provides ASCII table support for clients and servers across platforms. This support reduces the cost of translation between EBCDIC and ASCII encoding schemes. ASCII table support also offers an alternative to writing field procedures that provide the ASCII sort sequence, which improves performance.

Improved Security

- DB2 for OS/390 supports Distributed Computing Environment (DCE) for authenticating remote DRDA clients. DCE offers the following benefits:
  - Network security: By providing an encrypted DCE ticket for authentication, remote clients do not need to send an MVS password in readable text.
  - Simplified security administration: End users do not need to maintain a valid password on MVS to access DB2; instead, they maintain their DCE password only.
- New descriptive error codes help you determine the cause of network security errors.
- You can change end user MVS passwords from DRDA clients.

User Productivity

Improved SQL Compatibility

DB2 conforms to the ANSI/ISO SQL entry level standard of 1992. Application programmers can take advantage of a more complete set of standard SQL to use across the DB2 family to write portable applications. New SQL function includes:

- More check options for view definitions.
- Foreign keys that reference UNIQUE keys as well as PRIMARY keys.
- An extension to GRANT that lets the REFERENCES privilege apply to a list of columns.
- A new delete rule, NO ACTION, that you can use to define referential constraints for self-referencing tables.
- SQL CASE expressions provide the capability to create conditional logic wherever an expression is allowed.
- SQL temporary tables allow application programs to easily create and use temporary tables that store results of SQL transactions without logging or recovery.

New Access Choice

A new attachment facility, the Recoverable Resource Manager Services attachment facility, improves access in a client/server environment. It coordinates two-phase commit processing between DB2 and other participating resource managers in any MVS application environment. Other key features include the ability for multiple users to run in a single address space, thread reuse, and moving threads between MVS tasks.

Image Copy Enhancements

The COPY, LOAD, and REORG utilities provide:

- Features of the COPY utility that help you quickly determine what type of image copy to take, when to take it, and let DB2 automatically take it for you.
- Inline copy in LOAD and REORG that lets you create an image copy while improving data availability.

Improved Integration of C++ and IBM COBOL for MVS & VM Support

It is easier for application programmers to use object-oriented programming techniques in their DB2 applications. DB2 for OS/390 Version 5 adds COBOL and C++ languages as options on installation panels, DB2I panels, the DSNH command, and DCLGEN.

Other Usability Enhancements

- To prevent long running units of work and to help avoid unnecessary work during the recovery phase of restart, DB2 issues new warning messages at an interval of your choice.
- A new special register for decimal precision provides better granualarity, so that applications that need different values for decimal precision can run in the same DB2 subsystem.
- Trace records for IFCID 0022 now include most information in the PLAN_TABLE.

- An increase from 127 to 255 rows on a page improves table space processing and eliminates the need for compression.
- Install SYSOPR can recover objects using the START DATABASE command.
- A filtering capability for DISPLAY BUFFERPOOL limits statistics information to a specified set of page sets.
- You can enter comments within the SYSIN input stream for DB2 utilities.

Summary of Changes to This Book

This edition adds and modifies messages and codes to support DB2 Version 5. It also incorporates technical corrections and changes made to previously published information.

Section 2. SQL Return Codes

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SQL Return Codes

The information in this chapter is General-use Programming Interface and Associated Guidance Information, as defined in “Notices” on page vii.

Introduction

Structured Query Language (SQL) return codes, and the tokens referred to in the explanations, are returned in the SQL communication area (SQLCA).

The SQLCA is an area in the application program (defined by the application program) for the use of DB2. It is described in Appendix C of *SQL Reference* .

The SQL return code is returned in the SQLCODE field of the SQLCA. The tokens are returned in the SQLERRM field. If there are several tokens, they appear sequentially in SQLERRM in the order in which they appear in the message text. The tokens are separated by the character X'FF'.

A token appears in the message text in lowercase letters. When an SQL return code is returned through SPUFI, the tokens have been substituted into the message text and the text is displayed. The substitution of tokens into message text is performed by a DB2 module named DSNTIAR. This module can also be used by application programs. Refer to Section 3 of *Application Programming and SQL Guide* for more information about DSNTIAR.

Checking the Execution of SQL Statements

An application program containing executable SQL statements must either provide a structure named SQLCA or a stand-alone integer variable named SQLCODE (SQLCOD in FORTRAN). An SQLCA may be provided by using the INCLUDE SQLCA statement. INCLUDE SQLCA must not be used if a stand-alone SQLCODE is provided.

The SQLCA includes an integer variable named SQLCODE. The option of providing a stand-alone SQLCODE instead of an SQLCA allows for conformance with the ISO/ANSI SQL standard. The use of this option must be indicated to the precompiler.

SQLCODE

Regardless of whether the application program provides an SQLCA or a stand-alone variable, SQLCODE is set by DB2 after each SQL statement is executed. DB2 conforms to the ISO/ANSI SQL standard as follows:

- If SQLCODE = 0, execution was successful.
- If SQLCODE > 0, execution was successful with a warning.
- If SQLCODE < 0, execution was not successful.
- SQLCODE = 100, "no data" was found. For example, a FETCH statement returned no data because the cursor was positioned after the last row of the result table.

SQLSTATE

SQLSTATE is also set by DB2 after the execution of each SQL statement. Thus, application programs can check the execution of SQL statements by testing SQLSTATE instead of SQLCODE. SQLSTATE (SQLSTT in FORTRAN) is a 5-byte character string variable in the SQLCA.

SQLSTATE provides application programs with common codes for common error conditions (the values of SQLSTATE are product-specific only if the error or warning is product-specific). Furthermore, SQLSTATE is designed so that application programs can test for specific errors or classes of errors. The coding scheme is the same for all IBM relational database products. See “Appendix C. SQLSTATE Values—Common Error Codes” on page X-13 for more information and a complete list of the possible values of SQLSTATE.

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Successful Execution SQL Code

000 SUCCESSFUL EXECUTION

Explanation: Unqualified successful execution or successful execution with one or more warnings. If SQLWARN0 is blank, there are no warnings. If SQLWARN0 = W, at least one of the other warning indicators in the SQLCA has been set to indicate a warning condition. For example, SQLWARN1 is used to indicate that a value of a string column was truncated when assigned to a host variable. SQLWARNx fields are described in Appendix C of *SQL Reference*.

Destination: 00000 for unqualified successful execution

Destination: 01ddd for successful execution with warning `'ddd'`.

Warning SQL Codes

+012 THE UNQUALIFIED COLUMN NAME *column-name* WAS INTERPRETED AS A CORRELATED REFERENCE

Explanation: The column name does not identify a column of a table or view in the FROM clause of the subquery. However, it does identify a column of a table or view in a FROM clause at a higher level in the statement.

System Action: The column name is interpreted as a correlated reference.

Programmer Response: If DB2's interpretation of the column name was not what you intended, rewrite the SQL statement and submit it again. If you intend the column name to refer to a table named at a higher level, we advise rewriting the statement anyway, using a table name or correlation name as a qualifier for the column name. The unqualified column name could be interpreted differently if you do a rebind after altering one of the tables to which you refer.

Destination: 01545

+098 A DYNAMIC SQL STATEMENT ENDS WITH A SEMICOLON.

Explanation: The statement string of a PREPARE or EXECUTE IMMEDIATE statement is a valid dynamic SQL statement, but it ends with a semicolon.

System Action: The semicolon and any subsequent text are ignored.

Programmer Response: Check that the semicolon is being used as a statement terminator.

Destination: 01568

+100 ROW NOT FOUND FOR FETCH, UPDATE OR DELETE, OR THE RESULT OF A QUERY IS AN EMPTY TABLE

Explanation: One of the following conditions occurred:

- No row met the search conditions specified in an UPDATE or DELETE statement.
- The result of a SELECT INTO statement was an empty table.
- A FETCH statement was executed when the cursor was positioned after the last row of the result table.
- The result of the subselect of an INSERT statement is empty.

When a SELECT statement is executed using SPUFI, this SQLCODE indicates normal completion.

System Action: No data was retrieved, updated, or deleted.

Destination: 02000

+110 SQL UPDATE TO A DATA CAPTURE TABLE NOT SIGNALED TO ORIGINATING SUBSYSTEM

Explanation: DataPropagator (DPropNR) exit routine issued an SQL INSERT, UPDATE, or DELETE statement to a table defined with DATA CAPTURE CHANGES. Since data capture is already in progress, notification is not sent back to the originating IMS subsystem.

System Action: DB2 changes the data and records the change in the log. DB2 does not notify DPropNR's exit routine of the change, because doing so might cause the same change to be made again.

User Response: None required.

Destination: 01561

+111 THE SUBPAGES OPTION IS NOT SUPPORTED FOR TYPE 2 INDEXES

Explanation: You cannot use the SUBPAGES option for type 2 indexes.

System Action: The option is ignored and processing continues.

Programmer Response: Remove the SUBPAGES option to get rid of the warning.

Destination: 01590

+117 THE NUMBER OF INSERT VALUES IS NOT THE SAME AS THE NUMBER OF OBJECT COLUMNS

Explanation: The number of insert values in the value list of the INSERT statement is not the same as the number of object columns specified.

System Action: A valid plan or package will be created if no errors are detected. The statement is bound dynamically on each execution of the statement.

Programmer Response: For better performance, rebind the plan or package after correcting the statement. To correct the statement, specify one and only one value for each of the specified object columns.

Destination: 01525

+162 TABLESPACE *database-name.tablespace-name* **HAS BEEN PLACED IN CHECK PENDING**

Explanation: The indicated table space is in check pending status because the ALTER TABLE statement was used to specify a referential constraint or a check constraint (while special register CURRENT RULES = 'DB2') on a populated table. The table space is not generally available until the check pending status is removed from the table space.

System Action: The table space was placed in check pending status.

Programmer Response: Run the CHECK DATA utility. The enforcement of the referential constraint or the check constraint is deferred until the CHECK DATA utility is run.

Destination: 01514

+203 THE QUALIFIED COLUMN NAME *column-name* **WAS RESOLVED USING A NON-UNIQUE OR UNEXPOSED NAME**

Explanation: The table designator selected to resolve a qualified column name is one of the following:

- An unexposed name
- An exposed name that has an exposed duplicate in the same FROM clause
- An exposed name that has an unexposed duplicate which appears before the selected name in the ordered list of names to which the qualifier is compared

Therefore, the statement does not conform to the guidelines for using only unique exposed names as qualifiers or it is possible that the column reference was not resolved to the intended instance of the table or view.

System Action: DB2 uses the selected name to resolve the reference.

Programmer Response: If DB2's resolution of the qualifier was not what you intended, rewrite the SQL statement and submit it again. The rules used to resolve column name qualifiers are given in Chapter 3 of *SQL Reference*.

Destination: 01552

+204 *name* **IS AN UNDEFINED NAME**

Explanation: The object identified by 'name' is not defined in the DB2 subsystem. This return code can be generated for any type of DB2 object.

System Action: A valid plan or package will be created if no errors are detected. The statement is bound dynamically on each execution of the statement.

Programmer Response: For better performance, rebind the plan or package after correcting the statement. To correct the statement, determine that the object name was correctly specified in the SQL statement (including any required qualifiers). If so, ensure that the object exists in the system before resubmitting the statement.

Destination: 01532

+206 *column-name* **IS NOT A COLUMN OF AN INSERTED TABLE, UPDATED TABLE, OR ANY TABLE IDENTIFIED IN A FROM CLAUSE**

Explanation: This return code is used to report one of these errors:

- In the case of an INSERT or UPDATE statement, the specified column is not a column of the table or view that was specified as the object of the insert or update.
- In the case a SELECT or DELETE statement, the specified column is not a column of any of the tables or views identified in a FROM clause in the statement.
- There is a correlated reference in GROUP BY.
- There is an unresolved qualified reference in HAVING.

System Action: A valid plan or package will be created if no errors are detected. The statement is bound dynamically on each execution of the statement.

Programmer Response: For better performance, rebind the plan or package after correcting the statement. To correct the statement, verify that the column and table names are specified correctly in the SQL statement. In the case of a SELECT statement, check to be sure that all of the required tables were named in the FROM clause.

Destination: 01533

+218 THE SQL STATEMENT REFERENCING A REMOTE OBJECT CANNOT BE EXPLAINED

Explanation: The user has used EXPLAIN(YES) on the bind subcommand to bind an application which has SQL statement referencing a remote object or the user has a static EXPLAIN SQL statement which references a remote object in the application program. EXPLAIN on a remote object is not supported by DB2.

It is issued at BIND time, and only with VALIDATE(RUN).

System Action: The plan or package will be bound successfully, but no information will be filled in the user's PLAN-TABLE for the SQL statement referencing a remote object. An SQLCODE -512 will be issued at run time if the EXPLAIN statement is found to explain a remote object.

Destination: 01537

+219 THE REQUIRED EXPLANATION TABLE *table-name* **DOES NOT EXIST**

Explanation: The EXPLAIN statement assumes the existence of the explanation table and it is not defined in the DB2 subsystem as a base table. Refer to Chapter 6 of *SQL Reference* for more information.

System Action: A valid plan or package will be created if no errors are detected. The statement is bound dynamically on each execution of the statement.

Programmer Response: For better performance, rebind the plan or package after correcting the statement. To correct the statement, determine whether the required explanation table does exist. If not, create the required table.

Destination: 01532

+220 **THE COLUMN** *column-name* **IN EXPLANATION TABLE** *table-name* **IS NOT DEFINED PROPERLY**

Explanation: An error occurred during the insertion of a row into the explanation table. The table is improperly defined for the following reasons:

- A column is missing.
- Columns are defined in the wrong order.
- The table contains an extra column.
- A column description is invalid because of its name, data type, length, or null attributes.

System Action: A valid plan or package will be created if no errors are detected. The statement is bound dynamically on each execution of the statement.

Programmer Response: For better performance, rebind the plan or package after correcting the statement. To correct the statement, correct the definition of the required explanation table. Refer to Chapter 6 of *SQL Reference* for information about defining an explanation table.

Destination: 01546

+304 **A VALUE WITH DATA TYPE** *data-type1* **CANNOT BE ASSIGNED TO A HOST VARIABLE BECAUSE THE VALUE IS NOT WITHIN THE RANGE OF THE HOST VARIABLE IN POSITION** *position-number* **WITH DATA TYPE** *data-type2*

Explanation: A FETCH or SELECT into a host variable list or structure, position number 'position-number' failed because the host variable having data type 'data-type2' was not large enough to hold the retrieved value having data type 'data-type1'.

System Action: The FETCH or SELECT could not return the data for the indicated SELECT item, the indicator variable is set to negative two (-2) to indicate a null value returned. Processing continues.

Programmer Response: Verify that table definitions are current, and that the host variable has the proper data type. See the explanation for SQLCODE -405 for ranges of SQL data types.

Destination: 01515

+331 **THE NULL VALUE HAS BEEN ASSIGNED TO A HOST VARIABLE BECAUSE THE STRING CANNOT BE TRANSLATED. REASON** *reason-code***, CHARACTER** *code-point***, HOST VARIABLE** *position-number*

Explanation: A string assigned to a host variable had to be translated from its coded character set to the coded character set of the host variable and an error occurred during the translation. The position-number is the ordinality of the host variable in the SQLDA. See the description of SQLCODE -331 for further information including the meaning of the reason-code and code-point.

System Action: The host variable is unchanged and its indicator variable is set to -2 to indicate that a null value is returned. Execution of the statement continues as if the translation error had not occurred.

Destination: 01520

+339 **THE SQL STATEMENT HAS BEEN SUCCESSFULLY EXECUTED, BUT THERE MAY BE SOME CHARACTER CONVERSION INCONSISTENCIES**

Explanation: The application is connected to a DB2 Version 2 Release 3 database server. The SQL statement is using an alias or three-part name, which refers to another DB2 subsystem that is at the Version 2 Release 2 level. DB2 Version 2 Release 2 does not support character conversion. Since the execution of SQL statements from an EBCDIC DRDA requester to an EBCDIC Version 2 Release 2 DB2 server could require character conversion, a warning is generated. If the requester system CCSID is inconsistent with the DB2 Version 2 Release 2 environment, most EBCDIC character code points match to the same character. Only certain special characters typically lead to data integrity concerns. Therefore, a warning is generated.

System Action: The statement is successfully executed.

Programmer Response: If the DB2 Version 2 Release 2 table is accessed from other environments (different CCSID), incorrect results might occur (relative to what the other environment might expect). You should understand what characters might not be consistent with the DB2 Version 2 Release 2 environment (its inherent CCSID) and avoid use of those characters or understand the exposure you face if you use them.

System Programmer Response: If the application must refer to the Version 2 Release 2 subsystem data, the Version 2 Release 2 DB2 subsystem can be migrated to Version 2 Release 3 where character conversion is supported.

Destination: 01569

+402 **LOCATION** *location* **IS UNKNOWN**

Explanation: A remote object is referenced and either the table SYSIBM.LOCATIONS is not defined or the referenced 'location' matches no entry in the SYSIBM.LOCATIONS.LOCATION column.

System Action: For the CREATE ALIAS statement, the alias is created. For binding a plan or package with the VALIDATE(RUN) option, the plan or package is created.

Destination: 01521

+403 **THE LOCAL OBJECT REFERENCED BY THE CREATE ALIAS STATEMENT DOES NOT EXIST**

Explanation: The local object referenced by the CREATE ALIAS statement does not exist when creating the alias.

System Action: The alias is created.

Destination: 01522

+464 **PROCEDURE** *proc* **RETURNED** *num* **QUERY RESULT SETS, WHICH EXCEEDS THE DEFINED LIMIT** *integer*

Explanation: The stored procedure named by *proc* completed normally. However, the stored procedure exceeded the defined limit on the number of query result sets the procedure can return.

- *num* identifies the number of query result sets returned by the stored procedure.

- *integer* identifies the defined limit on the number of query result sets for the stored procedure.

Only the first *integer* query result sets are returned to the SQL program that issued the SQL CALL statement.

The possible causes are as follows:

- The stored procedure is unable to return *num* result sets due to the limit established in the RESULT_SETS column of SYSIBM.SYSPROCEDURES.
- The stored procedure is unable to return *num* result sets due to the DRDA limitations imposed by the client. The DRDA client establishes this limit with the MAXRSLCNT DDM code point.

System Action: The SQL statement is successful. The SQLWARN9 field is set to 'Z'.

Destination: 01609

+466 **PROCEDURE** *proc* **RETURNED** *num* **QUERY RESULT SETS**

Explanation: The stored procedure named by *proc* completed normally. The procedure returned the number of SQL query result sets specified in *num*.

System Action: The SQL statement is successful. The SQLWARN9 field is set to 'Z'.

Destination: 01610

+494 **NUMBER OF RESULT SETS IS GREATER THAN NUMBER OF LOCATORS**

Explanation: The number of result set locators specified on the ASSOCIATE LOCATORS statement is less than the number of result sets returned by the stored procedure. The first "n" result set locator values are returned, where "n" is the number of result set locator variables specified on the SQL statement.

System Action: The SQL statement is successful. The SQLWARN3 field is set to 'Z'.

Programmer Response: Increase the number of result set locator variables specified on the SQL statement.

Destination: 01614

+535 **THE RESULT OF THE POSITIONED UPDATE OR DELETE MAY DEPEND ON THE ORDER OF THE ROWS.**

Explanation: A positioned update of a primary key or a delete from a table with a self-referencing constraint was requested.

System Action: DB2 executes the UPDATE or DELETE statement and the contents of the table are changed.

Destination: 01591

+541 **THE REFERENTIAL OR UNIQUE CONSTRAINT** *name* **HAS BEEN IGNORED BECAUSE IT IS A DUPLICATE**

Explanation: A FOREIGN KEY clause uses the same key and parent table as another FOREIGN KEY clause, or a UNIQUE clause uses the same column list as another UNIQUE clause. In either case, the duplicate clause is ignored. 'name' is either the foreign key name or the name of the first column in the constraint that is ignored.

System Action: DB2 continues processing.

Programmer Response: If the duplication is an error, correct the statement and execute it again.

Destination: 01543

+551 *auth-id* **DOES NOT HAVE THE PRIVILEGE TO PERFORM OPERATION** *operation* **ON OBJECT** *object-name*

Explanation: Authorization ID 'auth-id' has attempted to perform the specified 'operation' on object 'object-name' without having been granted the proper authority to do so. This error might also occur if the specified object does not exist, if the object is a read-only view (for UPDATE or INSERT), or if 'auth-id' is trying to create a table or view with an authorization ID other than its own. Only if your authorization ID is SYSADM, DBADM, or DBCTRL can you create a table or view from an 'auth-id' other than your own.

If this error occurs while DB2 is creating or altering a table involving referential constraints, this code reports that the user does not have the necessary ALTER privilege to perform a FOREIGN KEY, DROP FOREIGN KEY, or DROP PRIMARY KEY operation. The 'object-name' identifies the object table of the CREATE or ALTER TABLE statement, not the table for which the user lacks the ALTER privilege.

System Action: A valid plan or package will be created if no errors are detected. The statement is bound dynamically on each execution of the statement.

Programmer Response: For better performance, rebind the plan or package after correcting the statement. To correct the statement, ensure that 'auth-id' has been granted the authority to perform the desired operation, that 'object-name ' exists, and that 'auth-id' is not trying to create a table with a different authorization ID.

Destination: 01548

+552 *auth-id* **DOES NOT HAVE THE PRIVILEGE TO PERFORM OPERATION** *operation*

Explanation: Authorization ID 'auth-id' has attempted to perform the specified 'operation' without having been granted the authority to do so.

System Action: A valid plan or package will be created if no errors are detected. The statement is bound dynamically on each execution of the statement.

Programmer Response: For better performance, rebind the plan or package after correcting the statement. To correct the statement, ensure that the authorization-ID has been granted the authority necessary to perform the desired operation.

Destination: 01542

+558 **THE WITH GRANT OPTION IS IGNORED**

Explanation: The GRANT statement contained one of the following situations:

- PUBLIC was within the list of 'grantee' authorization IDs.
- BINDAGENT privilege was being granted.
- ANY package privilege on collection-id.* was being granted.

The WITH GRANT option may not be used in the above situations.

System Action: The offending privilege(s) in the authorization specification are granted without the GRANT option. If the grantee is PUBLIC, all the privileges in the authorization specification are granted without the GRANT option.

Destination: 01516

+561 THE ALTER, INDEX, AND REFERENCES PRIVILEGES CANNOT BE GRANTED TO PUBLIC AT ALL LOCATIONS

Explanation: You specified a GRANT statement with either an ALL or ALL PRIVILEGES keyword. ALL and ALL PRIVILEGES imply the granting of ALTER, INDEX, and REFERENCES privileges that cannot be granted to a remote user.

System Action: DB2 executes the GRANT statement. However, it does not grant the ALTER, INDEX, or REFERENCES privileges to PUBLIC*.

Destination: 01523

+562 A GRANT OF A PRIVILEGE WAS IGNORED BECAUSE THE GRANTEE ALREADY HAS THE PRIVILEGE FROM THE GRANTOR

Explanation: At least one of the privileges in the GRANT statement was ignored because the privilege was already granted to the grantee by the grantor.

System Action: The privileges previously granted are ignored; all others are granted.

Programmer Response: None.

Destination: 01560

+610 INDEX *index-name* HAS BEEN PLACED IN RECOVER PENDING

Explanation: The identified index is in the recover pending state because CREATE INDEX with DEFER YES was specified on a populated table. The index is not generally available until the index is removed from the recover pending state.

System Action: The index was placed in recover pending state.

Programmer Response: Use the RECOVER INDEX utility to rebuild the index and remove the recover pending state.

Destination: 01566

+625 THE DEFINITION OF TABLE *table-name* HAS BEEN CHANGED TO INCOMPLETE

Explanation: This warning code is used to report that the definition of the indicated table is incomplete because DROP INDEX was used to drop its primary index. The table is not generally available until a new primary index is created.

System Action: The definition of the table is marked as incomplete. Subsequent SQL references to the table, except to grant or revoke privileges on it, will cause SQLCODE -540 to be returned. Attempts to run already bound plans referencing the table will result in SQLCODE -904 or -923 with resource unavailable reason code 00C9009F. CHECK and LOAD utilities involving the table are not allowed. If they are used, you will receive message DSNU305I or DSNT500I with reason code 00C9009F. Utilities other than CHECK and LOAD are allowed.

Programmer Response: Recreate the primary index using CREATE INDEX. This will remove the table from INCOMPLETE DEFINITION status.

Note: The reason that a primary index may need to be dropped and recreated is to change the STOGROUP or SUBPAGES parameters of the index.

Destination: 01518

+626 DROPPING THE INDEX TERMINATES ENFORCEMENT OF THE UNIQUENESS OF A KEY THAT WAS DEFINED WHEN THE TABLE WAS CREATED

Explanation: The index was created to enforce the uniqueness of a key that was defined as UNIQUE when the table was created. Dropping the index terminates enforcement of the unique constraint by DB2.

System Action: The index is dropped.

Programmer Response: If the unique constraint is still intended to apply, create a new unique index with the same key as the dropped index.

Destination: 01529

+645 WHERE NOT NULL IS IGNORED BECAUSE THE INDEX KEY CANNOT CONTAIN NULL VALUES

Explanation: The WHERE NOT NULL clause is ignored on the CREATE INDEX statement because the index key is defined on columns that cannot contain null values.

System Action: The option is ignored; processing continues.

Programmer Response: Remove the WHERE NOT NULL clause to get rid of the warning.

Destination: 01528

+650 THE TABLE BEING CREATED OR ALTERED CANNOT BECOME A DEPENDENT TABLE

Explanation: This table is defined with the maximum number of columns. It cannot be altered to be a dependent table later.

System Action: The table is created. Check to see if the table will become a dependent table at a later time. If yes, drop and recreate the table with fewer than 750 columns.

Destination: 01538

+653 TABLE *table-name* IN PARTITIONED TABLESPACE *tspace-name* IS NOT AVAILABLE BECAUSE ITS PARTITIONED INDEX HAS NOT BEEN CREATED

Explanation: An attempt has been made to insert or manipulate data in or create a view on a partitioned table (that is, a table residing in a partitioned table space) before the partitioned index for that table has been created.

A table residing in a partitioned table space cannot be referenced in any SQL manipulative statement or a CREATE VIEW statement before the partitioned index for that table has been created.

System Action: A valid plan or package will be created if no errors are detected. The statement is bound dynamically on each execution of the statement.

Programmer Response: For better performance, rebind the plan or package after correcting the statement. To correct the statement, verify that the correct table was specified in the statement. If so, ensure that the partitioned index for the table has been created successfully before attempting to execute any SQL manipulative statements that reference that table.

Destination: 01551

+658 THE SUBPAGES VALUE IS IGNORED FOR THE CATALOG INDEX *index-name*

Explanation: Only SUBPAGES 1 is allowed for this catalog index.

System Action: The index was altered successfully using SUBPAGES 1. If you are also altering the TYPE option to a new value, the index is placed in recovery pending status.

Destination: 01600

+664 THE INTERNAL LENGTH OF THE LIMIT-KEY FIELDS FOR THE PARTITIONED INDEX *index-name* **EXCEEDS THE LENGTH IMPOSED BY THE INDEX MANAGER**

Explanation: The CREATE INDEX statement defines a partitioned index (that is, the cluster index for a table residing in a partitioned table space), and the length of the limit key exceeds the permitted maximum.

The index manager restricts the internal length of the limit keys for a partitioned index to a maximum of 40 bytes. The sum of the internal lengths of the limit keys specified in the PART clause of the CREATE INDEX statement exceeds that 40-byte maximum. The limit key was truncated to 40 bytes.

System Action: The specified index was created but the limit key was truncated to 40 bytes.

Destination: 01540

+738 DEFINITION CHANGE OF *object object_name* **MAY REQUIRE SIMILAR CHANGE ON READ-ONLY SYSTEMS**

Explanation: A change was made to the definition of the specified object that may also require a similar change to any read-only shared systems.

System Action: The statement is successfully executed.

Programmer Response: Check the read-only shared systems that have the specified object defined, and determine if a change must be made to the object on those systems.

Destination: 01530

+802 EXCEPTION ERROR *exception-type* **HAS OCCURRED DURING** *operation-type* **OPERATION ON** *data-type* **DATA, POSITION** *position-number*

Explanation: The exception error 'exception-type' occurred while doing an ADDITION, SUBTRACTION, MULTIPLICATION, DIVISION, or NEGATION operation on a field whose 'data-type' is DECIMAL, FLOAT, SMALLINT, or INTEGER. The error occurred while processing an arithmetic expression in the SELECT list of an outer SELECT statement, and the position in the select list is denoted by 'position-number'. The possible exception types are FIXED POINT OVERFLOW, DECIMAL OVERFLOW, DIVIDE EXCEPTION, EXPONENT OVERFLOW, and ZERO DIVIDE. The data type displayed in the message may indicate the data type of the temporary internal copy of the data, which may differ from the actual column or literal data type due to conversions by DB2.

A fixed point overflow can occur during any arithmetic operation on either INTEGER or SMALLINT fields.

A decimal overflow exception can occur when one or more nonzero digits are lost because the destination field in any decimal operation is too short to contain the result.

A divide exception can occur on a decimal division operation when the quotient exceeds the specified data-field size. A zero divide exception occurs on any division by zero.

An exponent overflow can occur when the result characteristic of any floating-point operation exceeds 127 and the result fraction is not zero, i.e. the magnitude of the result exceeds approximately 7.2E+75.

Note: Parts of 'exception-type', 'data-type', 'operation-type', and 'position-number' may or may not be returned in SQLCA, depending upon when the error was detected.

System Action: For each expression in error the indicator variable is set to negative two (-2) to indicate a null value returned. The data variable is unchanged. Execution of the statement continues with all nonerror columns and expressions of the outer SELECT list being returned. If the statement is cursor controlled then the CURSOR will remain open.

Programmer Response: Examine the expression for which the warning occurred to see if the cause (or the likely cause) of the problem can be determined. The problem may be data-dependent, in which case it will be necessary to examine the data that was being processed at the time the error occurred.

See the explanation of SQLCODE -405 for allowed ranges of numeric data types.

Destination: 01519

+806 BIND ISOLATION LEVEL RR CONFLICTS WITH TABLESPACE LOCKSIZE PAGE OR LOCKSIZE ROW AND LOCKMAX 0

Explanation: The specification of isolation level RR is incompatible with the LOCKSIZE PAGE or LOCKSIZE ROW and LOCKMAX 0 specification for a table space accessed by the application. Table space locking is used to protect the integrity of the application.

System Action: A valid package/plan is created if no errors are detected. Table space locking is used. RR isolation level is preserved.

Programmer Response: If you do not want table space locking, use isolation level UR, CS, or RS.

Destination: 01553

+807 THE RESULT OF DECIMAL MULTIPLICATION MAY CAUSE OVERFLOW

Explanation: An arithmetic expression contains a decimal multiplication that may cause an overflow condition when the statement is executed. The problem may be corrected by restructuring the arithmetic expression so that decimal multiplication precedes decimal division or by changing the precision and scale of the operands in the arithmetic expression. Refer to Chapter 3 of *SQL Reference* for the precision and scale of the decimal multiplication and division results.

System Action: A valid package will be created if no errors are detected.

Destination: 01554

+863 THE CONNECTION WAS SUCCESSFUL BUT ONLY SBCS WILL BE SUPPORTED

Explanation: The target AS supports only the DB2 SBCS CCSID. The DB2 Mixed CCSID or GRAPHIC CCSID or both are not supported by the target AS. DB2 character data sent to the target AS must be restricted to SBCS.

System Action: The CONNECT statement is successful. The release level of the target AS has been placed into the SQLERRP field of the SQLCA (see *SQL Reference* for the CONNECT statement).

Programmer Response: Do not execute any SQL statements which pass either mixed data or graphic data as input host variables.

Destination: 01539

+2000 TYPE 1 INDEXES WITH SUBPAGES GREATER THAN 1 CANNOT BECOME GROUP BUFFER POOL DEPENDENT IN A DATA SHARING ENVIRONMENT.

Explanation: A SUBPAGES value of greater than 1 was specified on a CREATE INDEX or ALTER INDEX statement in a data sharing environment. Type 1 indexes with a SUBPAGES value greater than 1 can only be accessed in a data sharing environment in non-group buffer pool dependent mode. Any read or update request that would cause the index to become group buffer pool dependent will be denied with a 'resource unavailable' condition. Only type 2 indexes or type 1 indexes with SUBPAGES 1 can become group buffer pool dependent.

System Action: The statement is successfully executed. If ALTER INDEX was performed, then the index is placed in recovery pending status.

Destination: 56094

+30100 OPERATION COMPLETED SUCCESSFULLY BUT A DISTRIBUTION PROTOCOL VIOLATION HAS BEEN DETECTED. ORIGINAL SQLCODE=*original-sqlcode* **AND ORIGINAL SQLSTATE=***original-sqlstate*

Explanation: The application requested operation (either COMMIT or ROLLBACK) has completed successfully but the response from the remote server and the SQLCODE that was returned from the remote server are inconsistent. For example, the reply message from the remote server indicates that a COMMIT operation completed successfully but the SQLCODE returned from the AS was negative.

System Action: An alert was generated. A DSNL031I message may have been written to the console. Refer to the description of this message for further information.

The SQLCODE returned by the remote server is replaced with +30100 and the SQLSTATE returned by the remote server is replaced with 01558.

The SQLCODE and SQLSTATE values that were returned from the AS are stored in the SQLERRM field in a string of the following format:

`'original-sqlcode 'FF'X original-sqlstate'`

Programmer Response: Notify the System Programmer for assistance in analyzing the trace data that was generated.

Destination: 01558

Error SQL Codes

-007 STATEMENT CONTAINS THE ILLEGAL CHARACTER *character*

Explanation: The specified 'character' is not a valid character in SQL statements.

System Action: The statement cannot be executed.

Programmer Response: Correct the syntax and resubmit the statement. Refer to Chapter 3 of *SQL Reference* for information about the valid SQL character set.

Destination: 42601

-010 THE STRING CONSTANT BEGINNING *string* **IS NOT TERMINATED**

Explanation: The statement contains a string constant, beginning with 'string', that is not terminated properly.

System Action: The statement cannot be executed.

Programmer Response: Examine the statement for missing quotation marks or apostrophes in the indicated string constant.

Destination: 42603

-029 INTO CLAUSE REQUIRED

Explanation: SELECT statements embedded in an application program must have an INTO clause to denote where the results of the SELECT are to be placed. Dynamic SELECT statements do not permit the INTO clause.

System Action: The statement cannot be executed.

Programmer Response: Add the INTO clause to the SELECT statement and precompile the application program again.

Destination: 42601

-060 INVALID *type* **SPECIFICATION :** *spec*

Explanation: 'type' is either LENGTH or SCALE. 'spec' is the specified length or scale. Length or scale must be specified by an unsigned integer constant and the value must be in the range allowed by the data type.

System Action: The statement cannot be executed.

Programmer Response: Correct the statement. Refer to Chapter 3 of *SQL Reference* for rules for length and scale.

Destination: 42815

-084 UNACCEPTABLE SQL STATEMENT

Explanation: This SQL statement is unacceptable to DB2. One of the following has occurred:

- An attempt has been made to PREPARE or EXECUTE IMMEDIATE an SQL statement that cannot be prepared; refer to the proper SQL statement in *SQL Reference*
- The embedded SQL statement is not an SQL statement supported by DB2.
- The statement referenced an undeclared cursor.
- An attempt was made to prepare an ALLOCATE CURSOR statement but the statement identifier is already associated with a declared cursor.

System Action: The statement cannot be executed.

Programmer Response: If the situation involves an SQL statement that cannot be prepared, the problem is in the source of the SQL statement, not the application program. Thus, no action is necessary unless the source of the SQL statement is the application program itself.

If the situation involves an SQL statement that is not supported by DB2, remove it from the application program and precompile again.

If the situation involves an invalid PREPARE of an ALLOCATE CURSOR statement, change the application program to use a statement identifier that is not associated with a declared cursor.

Destination: 42612

-101 THE STATEMENT IS TOO LONG OR TOO COMPLEX

Explanation: The statement cannot be executed because it exceeds the system limits for either length or complexity. Enabling parallelism will increase the complexity of the statement.

System Action: The statement cannot be executed.

Programmer Response: Break the statement up into shorter or less complex SQL statements. If parallelism is enabled, try disabling parallelism by using the DEGREE(1) bind option for static SQL or by setting the CURRENT DEGREE special register to '1' for dynamic SQL.

Destination: 54001

-102 LITERAL STRING IS TOO LONG. STRING BEGINS *string*

Explanation: The string constant beginning with 'string' has a length greater than 254 characters or 124 graphic characters. Character strings with lengths greater than 254 and graphic strings with lengths greater than 124 can be specified only through assignment from host variables. For SET CURRENT PACKAGESET, up to 18 characters are allowed; for SET CURRENT SQLID, up to 8 characters are allowed; for SET CURRENT DEGREE, up to 3 characters are allowed.

Two consecutive string delimiters are used to represent one string delimiter within the character string, but these count as 2 bytes when calculating the lengths of character string constants.

System Action: The statement cannot be executed.

Programmer Response: The requested function is not available interactively. If the error occurred in the context of an SQL statement embedded in an application program, the desired result can be achieved by assigning the long string to a host variable, and substituting that variable for the string literal in the SQL statement.

Destination: 54002

-103 *literal* **IS AN INVALID NUMERIC LITERAL**

Explanation: The indicated 'literal' begins with a digit, but is not a valid integer, decimal, or float literal.

System Action: The statement cannot be executed.

Programmer Response: Correct the invalid literal.

Destination: 42604

-104 **ILLEGAL SYMBOL "***token***". SOME SYMBOLS THAT MIGHT BE LEGAL ARE:** *token-list*

Explanation: A syntax error was detected where the symbol "*token*" occurs in the SQL statement. The list of symbols that might be legal shows some alternate symbols that could possibly be correct at that point, if the preceding part of the statement is entirely correct.

However, the preceding part of the statement might be incorrect. For example, if an important keyword is omitted, DB2 detects the error later, and not always immediately after the point where the keyword should appear. The list of alternate symbols are only suggestions. Some of those symbols might not even be legal for statements to be executed by DB2. Those symbols are possibly correct for statements sent to other database management systems.

System Action: The statement cannot be executed.

Programmer Response: Correct the statement and execute it again.

Destination: 42601

-105 **INVALID STRING**

Explanation: The statement contains an invalid string. It is neither a character string nor a graphic string.

System Action: The statement cannot be executed.

Programmer Response: Specify the correct format of the string. Check for a graphic string, paired delimiters, the character G or N, and an even number of bytes within the string.

Destination: 42604

-107 **THE NAME** *name* **IS TOO LONG. MAXIMUM ALLOWABLE SIZE IS** *size*

Explanation: The *name* is too long. The maximum permissible length for names of that type is indicated by *size*.

Names for the following cannot contain more than 64 characters:

- Version-id

Names for the following cannot contain more than 18 characters (20 including SQL escape characters, if present):

- SQL columns
- SQL tables
- SQL views
- SQL indexes
- SQL aliases
- SQL synonyms
- Collection-ids
- Check constraints

Names for the following cannot contain more than 16 characters:

- Location-name

The following cannot contain more than 8 characters:

- Table qualifiers
- View qualifiers
- Library member names specified in an INCLUDE statement
- Storage group names
- Database names
- Table space names
- Application plans
- Database request modules (DBRMs)
- Referential constraint names specified in CREATE or ALTER TABLE statements
- Package-id

Host variable names cannot contain more than 64 characters. Volume serial numbers cannot contain more than 6 characters. Labels cannot contain more than 30 characters.

System Action: The statement cannot be executed.

Programmer Response: Choose a shorter name for the object.

Destination: 42622

-108 **THE NAME** *name* **IS QUALIFIED INCORRECTLY**

Explanation: The name *name* is improperly qualified.

A target name on the RENAME statement may not have a qualifier.

System Action: The statement cannot be executed.

Programmer Response: Remove the qualifier and reissue the statement.

Destination: 42601

-109 *clause* **CLAUSE IS NOT PERMITTED**

Explanation: The indicated clause is not permitted in the context in which it appears in this SQL statement for the following reasons:

- A subselect cannot have an INTO clause.
- A CREATE VIEW statement cannot have INTO, ORDER BY, or FOR UPDATE clauses.
- An embedded SELECT statement cannot have ORDER BY or FOR UPDATE clauses
- SELECT statements used in cursor declarations cannot have an INTO clause.
- A CREATE TABLESPACE statement cannot specify the LARGE clause without the NUMPARTS option.
- A CREATE TABLESPACE statement cannot specify LOCKPART without the NUMPARTS option.
- An ALTER TABLESPACE statement cannot specify LOCKPART for a non-partitioned table space.
- A table space with LOCKPART YES cannot be altered to LOCKSIZE TABLESPACE.
- A table space with LOCKSIZE TABLESPACE cannot be altered to LOCKPART YES.

System Action: The statement cannot be executed.

Programmer Response: Correct the SQL statement.

Destination: 42601

-110 INVALID HEXADECIMAL LITERAL BEGINNING *string*

Explanation: The literal beginning with the specified 'string' contains one or more characters that are not valid hexadecimal digits.

System Action: The statement cannot be executed.

Programmer Response: Correct the invalid literal.

Destination: 42606

-111 A COLUMN FUNCTION DOES NOT INCLUDE A COLUMN NAME

Explanation: The specification of a column function (AVG, MAX, MIN, or SUM) was invalid because such functions must include a column name in the operand.

System Action: The statement cannot be executed.

Programmer Response: A column name must be specified as an operand to the function. Refer to Chapter 4 of *SQL Reference* for information about the proper usage of column functions.

Destination: 42901

-112 THE OPERAND OF A COLUMN FUNCTION IS ANOTHER COLUMN FUNCTION

Explanation: The operand of a column function can be either an expression or DISTINCT followed by an expression. The operand cannot be another column function.

System Action: The statement cannot be executed.

Programmer Response: Correct the function specification. Refer to Chapter 4 of *SQL Reference* for information about the proper usage of column functions.

Destination: 42607

-113 INVALID CHARACTER FOUND IN *string***, REASON CODE** *nnn*

Explanation: The *string* contains an invalid character. It can be an SQL ordinary identifier name, a host variable name, or a DBCS comment.

For SBCS SQL ordinary identifiers, names of buffer pools, databases, plans, and storage groups must contain only uppercase alphabetic or national characters and numerics when CHARSET is KATAKANA; the first character must be alphabetic or national.

The following reason codes apply to SBCS identifiers:

000 An invalid character was found in the SBCS identifier (including the case in which a DBCS identifier was used where only an SBCS identifier is allowed.)

The following reason codes apply to DBCS identifiers or comments:

101 An odd number of bytes exists between the shift-out and the shift-in character.

102 Either a shift-in or shift-out character is missing.

103 DBCS blanks X'4040' are not allowed.

104 There are no characters between the shift-out and the shift-in characters.

105 Shift-out cannot be the first byte of the DBCS character between the shift-out and the shift-in characters.

System Action: Processing is terminated.

User Response: Correct the name.

Destination: 42602

-114 THE LOCATION NAME *location* **DOES NOT MATCH THE CURRENT SERVER**

Explanation: A 3-part SQL procedure name was provided for one of the following SQL statements:

```
ASSOCIATE LOCATORS
CALL
DESCRIBE PROCEDURE
```

The first part of the SQL procedure name, which specifies the location where the stored procedure resides, did not match the value of the SQL CURRENT SERVER special register.

System Action: The statement cannot be executed.

Programmer Response: Take one of these actions to resolve the mismatch:

- Change the location qualifier to match the CURRENT SERVER special register.
- Issue an SQL CONNECT to the location where the stored procedure resides before issuing the SQL statement. Ensure that the SQL CALL statement is issued before the ASSOCIATE LOCATORS or DESCRIBE PROCEDURE.

Destination: 42961

-115 A PREDICATE IS INVALID BECAUSE THE COMPARISON OPERATOR operator IS FOLLOWED BY A PARENTHESIZED LIST OR BY ANY OR ALL WITHOUT A SUBQUERY

Explanation: A simple comparison like '>' must not be followed by a list of items. ANY and ALL comparisons must be followed by a subselect, rather than an expression or a list of items.

System Action: The statement cannot be executed.

Programmer Response: Correct the SQL statement. Refer to Chapter 6 of *SQL Reference* for information about the syntax of SQL statements.

Destination: 42601

-117 THE NUMBER OF INSERT VALUES IS NOT THE SAME AS THE NUMBER OF OBJECT COLUMNS

Explanation: The number of insert values in the value list of the INSERT statement is not the same as the number of object columns specified.

System Action: The statement cannot be executed. No data was inserted into the object table.

Programmer Response: Correct the statement to specify one and only one value for each of the specified object columns.

Destination: 42802

-118 THE OBJECT TABLE OR VIEW OF THE INSERT, DELETE, OR UPDATE STATEMENT IS ALSO IDENTIFIED IN A FROM CLAUSE

Explanation: The table or view specified as the object of an INSERT, DELETE, or UPDATE statement also appears in the FROM clause of a subselect within the statement.

The table or view that is the object of an INSERT, UPDATE, or DELETE cannot also be used to supply the values to be inserted or to qualify the rows to be inserted, updated, or deleted.

System Action: The statement cannot be executed. No data was inserted, updated, or deleted.

Programmer Response: The implied function is not supported by DB2. It may be possible to obtain the desired result by creating a temporary copy of the object table or view and addressing the subselect to that copy. Refer to Chapter 6 of *SQL Reference* for information about the syntax of SQL statements.

Destination: 42902

-119 A COLUMN IDENTIFIED IN A HAVING CLAUSE IS NOT INCLUDED IN THE GROUP BY CLAUSE

Explanation: A column identified in a HAVING clause (possibly within a scalar function) does not appear in the GROUP BY clause. Columns specified in a HAVING clause must appear within column functions or also be specified in the GROUP BY clause.

System Action: The statement cannot be executed.

Programmer Response: The implied function is not supported by DB2. Refer to Chapter 5 of *SQL Reference* for information about the proper usage of HAVING and GROUP BY clauses.

Destination: 42803

-120 A WHERE CLAUSE OR SET CLAUSE INCLUDES A COLUMN FUNCTION

Explanation: A column function is not permitted in a SET clause. A column function is allowed in a WHERE clause only if the WHERE clause appears within a subquery of a HAVING clause.

System Action: The statement cannot be executed.

Note: The 'column-name' may or may not be returned in SQLCA, depending on the nature of the error occurring in the SQL statement.

Programmer Response: The implied function is not supported by DB2. Refer to Chapter 5 of *SQL Reference* for information about restrictions on operands that can be specified within WHERE and SET clauses.

Destination: 42903

-121 THE COLUMN *name* IS IDENTIFIED MORE THAN ONCE IN THE INSERT OR UPDATE STATEMENT

Explanation: The same column 'name' is specified more than once, either in the list of object columns of an INSERT statement, or the SET clause of an UPDATE statement.

System Action: The statement cannot be executed. No data was inserted or updated in the object table.

Programmer Response: Correct the syntax of the statement so that each column name is specified only once.

Destination: 42701

-122 A SELECT STATEMENT WITH NO GROUP BY CLAUSE CONTAINS A COLUMN NAME AND A COLUMN FUNCTION IN THE SELECT CLAUSE OR A COLUMN NAME IS CONTAINED IN THE SELECT CLAUSE BUT NOT IN THE GROUP BY CLAUSE

Explanation: The SELECT statement contains one of these errors:

- The statement contains a column name and a column function in the SELECT clause, but no GROUP BY clause.
- A column name is contained in the SELECT clause (possibly within a scalar function) but not in the GROUP BY clause.

  Note: A HAVING clause specified without a GROUP BY clause implies a GROUP BY with no columns. Thus, no column names are allowed in the SELECT clause.

System Action: The statement cannot be executed.

Programmer Response: You can correct the statement by:

- including the columns in the GROUP BY clause that are in the SELECT clause, or
- removing the columns from the SELECT clause.

Refer to Chapter 5 of *SQL Reference* for information about the use of GROUP BY clauses in SQL statements.

Destination: 42803

-125 AN INTEGER IN THE ORDER BY CLAUSE DOES NOT IDENTIFY A COLUMN OF THE RESULT

Explanation: The ORDER BY clause in the statement contains a column number that is either less than one, or greater than the number of columns of the result table (the number of items in the SELECT clause).

System Action: The statement cannot be executed.

Programmer Response: Correct the syntax of the ORDER BY clause such that each column identifier properly denotes a column of the result table.

Destination: 42805

-126 THE SELECT STATEMENT CONTAINS BOTH AN UPDATE CLAUSE AND AN ORDER BY CLAUSE

Explanation: The SELECT statement in the declaration for a cursor contains both an UPDATE clause and an ORDER BY clause. An ORDER BY clause cannot be specified in the declaration for a cursor that is to be used for update.

System Action: The statement cannot be executed. The cursor remains undefined in the application program.

Programmer Response: The implied function is not supported by DB2. A cursor that is to be used for update cannot be defined to fetch the rows of the object table in a specific order.

Refer to Chapter 5 of *SQL Reference* for information about restrictions on the declarations for cursors to be used for update.

Destination: 42829

-127 DISTINCT IS SPECIFIED MORE THAN ONCE IN A SUBSELECT

Explanation: The DISTINCT qualifier can be used only once in a SELECT statement or a subselect.

System Action: The statement cannot be executed.

Programmer Response: The implied function is not supported by DB2. Refer to Chapter 5 of *SQL Reference* for information about restrictions on the use of the DISTINCT qualifier.

Destination: 42905

-128 INVALID USE OF NULL IN A PREDICATE

Explanation: The use of NULL in the search condition does not conform to the rules of SQL syntax.

System Action: The statement cannot be executed.

Programmer Response: The implied function is not supported by DB2. Refer to Chapter 3 of *SQL Reference* for information about the proper use of the NULL operand.

Destination: 42601

-129 THE STATEMENT CONTAINS TOO MANY TABLE NAMES

Explanation: A subselect (including all subqueries) can have a maximum of 15 references to table names.

System Action: The statement cannot be executed.

Programmer Response: Break the SQL statement into two or more simpler statements with 15 or fewer table references in each. The count will include the number of base table occurrences from each table or view on the FROM list. Refer to Chapter 5 of *SQL Reference* for the definition of a subselect.

Destination: 54004

-130 THE ESCAPE CLAUSE CONSISTS OF MORE THAN ONE CHARACTER, OR THE STRING PATTERN CONTAINS AN INVALID OCCURRENCE OF THE ESCAPE CHARACTER

Explanation: The ESCAPE character must be a single character, either SBCS or DBCS as appropriate. For 'column-name LIKE pattern', the ESCAPE character can only appear in the character string if it is followed by itself, %, or _ (underscore). The Escape Clause cannot be specified if the column name at the left of the LIKE or NOT LIKE has the MIXED subtype.

System Action: The statement cannot be executed.

Programmer Response: Correct the string pattern, or choose a different ESCAPE character and change the pattern accordingly, or eliminate the use of the Escape Clause on the LIKE or NOT LIKE predicate where the column name to the left has the MIXED subtype.

Destination: 22019 if other than invalid ESCAPE pattern. 22025 if invalid ESCAPE pattern.

-131 STATEMENT WITH LIKE PREDICATE HAS INCOMPATIBLE DATA TYPES

Explanation: If the column name at the left of LIKE or NOT LIKE is of type character, the expression at the right and the ESCAPE character must be of type character. If the column name is of type graphic, the expression at the right and the ESCAPE character must be of type graphic.

System Action: The statement cannot be executed.

Programmer Response: Check the data type of every operand.

Destination: 42818

-132 A LIKE PREDICATE IS INVALID BECAUSE THE SECOND OPERAND IS NOT A STRING

Explanation: The token following LIKE must be a special register, a string constant, or a host variable with a string value.

System Action: The statement cannot be executed.

Programmer Response: The implied function is not supported by DB2. Refer to Chapter 3 of *SQL Reference* for information about the proper syntax for LIKE and NOT LIKE predicates.

Destination: 42824

-133 A COLUMN FUNCTION IN A SUBQUERY OF A HAVING CLAUSE IS INVALID BECAUSE ALL COLUMN REFERENCES IN ITS ARGUMENT ARE NOT CORRELATED TO THE GROUP BY RESULT THAT THE HAVING CLAUSE IS APPLIED TO

Explanation: If a column function has a correlated column reference, it must be correlated from within a HAVING clause to the GROUP BY result that the HAVING clause is applied to. All column references in the argument must satisfy this condition.

System Action: The statement cannot be executed.

Programmer Response: Refer to Chapter 5 of *SQL Reference* for information about restrictions on the syntax of the HAVING clause.

Destination: 42906

-134 IMPROPER USE OF LONG STRING COLUMN *column-name* OR A HOST VARIABLE OF MAXIMUM LENGTH GREATER THAN 254

Explanation: A long string was referenced in a context in which long strings are not allowed. For an exhaustive list of such contexts, refer to "Varying Length Character Strings" in Chapter 3 of *SQL Reference*.

System Action: The statement cannot be executed.

Note: The 'column-name' might not be returned in SQLCA, depending on the nature of the error and the syntax in which it occurred.

Programmer Response: The requested operation on a long string value is not supported by DB2. Refer to Chapter 3 of *SQL Reference* for information about restrictions on the specification and manipulation of long string values.

Destination: 42907

-136 SORT CANNOT BE EXECUTED BECAUSE THE SORT KEY LENGTH IS GREATER THAN 4000 BYTES

Explanation: A sort key is derived from the list of columns specified following a DISTINCT qualifier, or in an ORDER BY or GROUP BY clause. If both a DISTINCT qualifier and an ORDER BY or GROUP BY clause are present, the sort key is derived from the combination of both lists of columns.

The *internal* length of the sort key cannot exceed 4000 bytes. In attempting to process the SQL statement, the internal length of the sort key derived from the DISTINCT and/or ORDER BY or GROUP BY specifications was found to exceed that 4000-byte maximum.

System Action: The statement cannot be executed.

Programmer Response: The statement must be modified such that the internal length of the sort key will not exceed 4000 bytes. In general, this means that one or more column names must be deleted from the ORDER BY or GROUP BY clause, or the list following the DISTINCT qualifier.

Destination: 54005

-137 RESULT OF CONCATENATION TOO LONG

Explanation: The length of the result of a concatenation exceeds 32,764 (if character operands) or 16,382 (if graphic operands).

System Action: The statement cannot be executed.

Programmer Response: Ensure that the total of the lengths of the concatenated operands is less than or equal to 32,764 (for character operands) or 16,382 (for graphic operands).

Destination: 54006

-138 THE SECOND OR THIRD ARGUMENT OF THE SUBSTR FUNCTION IS OUT OF RANGE

Explanation: One of the following conditions exists:

- The second argument of the SUBSTR function is less than 1 or greater than M.
- The third argument of the SUBSTR function is an integer constant 0 or an expression whose value is less than 0 or greater than M–N+1.

M is the length of the first argument, if it is of fixed-length, or M is the maximum length of the first argument, if it is of varying-length. N is the value of the second argument.

System Action: The statement cannot be executed.

Programmer Response: Ensure that the second and third arguments of the SUBSTR function have legal values according the above rules.

Destination: 22011

-144 INVALID SECTION NUMBER *number*

Explanation: One of the following:

1. The user attempted to execute an invalid section.
2. This release of DB2 does not support the SQL statement.
3. The section number in the call parameter list is one of these:
   - Negative
   - An invalid duplicate
   - Greater than the maximum section number of the DBRM or package.

System Action: The statement is not executed.

Programmer Response: For case 1: If you are executing a package that was bound with SQLERROR(CONTINUE), determine whether the statement in question was bound as a valid section. You can use the following statements to query the DB2 catalog:

```
SELECT SQLERROR
FROM   SYSIBM.SYSPACKAGE
WHERE  COLLID    = collection-id AND
       NAME      = package-id    AND
       VERSION   = version-name;
```

If that query returns 'C', the package was bound with SQLERROR(CONTINUE).

```
SELECT STMTNO, TEXT
FROM   SYSIBM.SYSPACKSTMT
WHERE  COLLID    = collection-id AND
       NAME      = package-id    AND
       VERSION   = version-name  AND
       SECTNO    = number        AND
       BINDERROR = 'Y';
```

If that query returns any rows, the section is invalid. Refer to the error messages issued during the bind to determine the cause. Correct any errors and bind the package again, using the REPLACE option.

For case 2: If the DB2 system has fallen back to a previous release, determine whether there are any SQL statements with a section number of zero that are not supported by that release. You can use the following statements to query the DB2 catalog.

When executing from a DBRM, use:

```
SELECT *
FROM   SYSIBM.SYSSTMT
WHERE  SECTNO = 0
ORDER BY NAME, PLNAME, STMTNO, SEQNO;
```

When executing from a package, use:

```
SELECT *
FROM   SYSIBM.SYSPACKSTMT
WHERE  SECTNO = 0
ORDER BY COLLID, NAME, VERSION, STMTNO, SEQNO;
```

For case 3: Examine the application to determine whether the call parameter list was changed in some way. In general, you should not attempt to change the output of the precompiler.

Destination: 58003

-148 THE SOURCE TABLE *source-name* CANNOT BE RENAMED BECAUSE IT IS A VIEW OR AN ACTIVE RLST TABLE OR HAS A SYNONYM DEFINED ON IT

Explanation: The RENAME statement cannot be used to rename a view, an active RLST table, or a table for which a synonym is defined.

System Action: The statement cannot be executed.

Programmer Response: Change the source name to the name of an object that can be renamed and reissue the statement.

Destination: 42809

-150 THE OBJECT OF THE INSERT, DELETE, OR UPDATE STATEMENT IS A VIEW FOR WHICH THE REQUESTED OPERATION IS NOT PERMITTED

Explanation: The view named in the INSERT, UPDATE, or DELETE statement is defined in such a way that the requested insert, update, or delete operation cannot be performed upon it.

Inserts into a view are prohibited if:

- The view definition contains a join, a GROUP BY, or a HAVING clause.
- The SELECT clause in the view definition contains the DISTINCT qualifier, an arithmetic expression, a string expression, a built-in function, or a constant.
- Two or more columns of the view are derived from the same column.
- A base table of the view contains a column that does not have a default value and is not included in the view.

Updates to a view are prohibited if:

- The view definition contains a join, a GROUP BY, or a HAVING clause.
- The SELECT clause in the view definition contains the DISTINCT qualifier or a function.

Also, a given column in a view cannot be updated (that is, the values in that column cannot be updated) if the column is derived from an arithmetic expression, a constant, a column that is part of the key of a partitioned index, or a column of a catalog table that cannot be updated.

Deletes against a view are prohibited if:

- The view definition contains a join, a GROUP BY, or a HAVING clause.
- The SELECT clause in the view definition contains the DISTINCT qualifier or a built-in function.

System Action: The statement cannot be executed. No data was inserted, updated, or deleted.

Programmer Response: The requested function cannot be performed on the view. Refer to Chapter 6 of *SQL Reference* for further information regarding inserting, deleting, and updating views.

Destination: 42807

-151 THE UPDATE STATEMENT IS INVALID BECAUSE THE CATALOG DESCRIPTION OF COLUMN *column-name* INDICATES THAT IT CANNOT BE UPDATED

Explanation: The specified column cannot be updated for one of the following reasons:

- The object table is partitioned (that is, resides in a partitioned table space) and the column is included in the partitioning key.
- The object table is a view and the specified column is defined (in the definition of the view) in such a way that it cannot be updated.
- The object table is a catalog table with no columns that can be updated.

The values for columns occurring in the partitioning key of a partitioned table cannot be updated.

Individual columns in a view cannot be updated for one of the following reasons:

- The column is derived from an SQL function, an arithmetic expression, or a constant.
- The column is defined for a column that is in the partitioning key of a partitioned table.
- The column is defined for a column of an underlying view that cannot be updated.

System Action: The statement cannot be executed. No data was updated in the object table or view.

Programmer Response: The requested function is not supported by DB2. Refer to the description of the UPDATE statement in Chapter 6 of *SQL Reference* for information about restrictions on the ability to update columns in partitioned tables and views.

Destination: 42808

-152 THE DROP *clause* CLAUSE IN THE ALTER STATEMENT IS INVALID BECAUSE *constraint-name* IS A *constraint-type*

Explanation: Either the DROP FOREIGN KEY clause of an ALTER TABLE statement tried to drop a check constraint, or the DROP CHECK clause of an ALTER TABLE statement tried to drop a referential constraint.

The *clause* is either CHECK or FOREIGN KEY. The *constraint-type* is either REFERENTIAL CONSTRAINT or CHECK CONSTRAINT.

System Action: The ALTER TABLE DROP statement cannot be executed. No object was dropped.

Programmer Response: Drop the existing object with the correct DROP clause of the ALTER TABLE statement.

Destination: 42809

-153 THE CREATE VIEW STATEMENT DOES NOT INCLUDE A REQUIRED COLUMN LIST

Explanation: You must specify a list of column names if the result table of the subselect has duplicate column names or an unnamed column (a column derived from a constant, function, or expression).

System Action: The statement cannot be executed. The specified view was not created.

Programmer Response: Correct the statement by providing a list of names for the columns of the view. Refer to Chapter 6 of *SQL Reference* for information about the syntax of the CREATE VIEW statement.

Destination: 42908

-154 THE CREATE VIEW FAILED BECAUSE THE VIEW DEFINITION CONTAINS A UNION, A UNION ALL, OR A REMOTE OBJECT

Explanation: The view defined in the CREATE VIEW statement contains a UNION, a UNION ALL, or a remote object. DB2 cannot create views containing unions or a remote object.

System Action: The CREATE VIEW statement cannot be executed. The specified view is not created.

Programmer Response: Refer to Chapter 6 of *SQL Reference* for information about restrictions on the definitions for views.

Destination: 42909

-156 THE STATEMENT DOES NOT IDENTIFY A TABLE

Explanation: The statements ALTER TABLE, DROP TABLE, LOCK TABLE, and CREATE INDEX apply only to tables. Indexes can be defined only on tables.

System Action: The statement cannot be executed. The specified view or remote object was not altered, dropped, or locked, or the index was not created.

Programmer Response: Verify that the proper name was specified in the statement.

Destination: 42809

-157 ONLY A TABLE NAME CAN BE SPECIFIED IN A FOREIGN KEY CLAUSE. *object-name* **IS NOT THE NAME OF A TABLE.**

Explanation: The indicated object was identified in a FOREIGN KEY clause of a CREATE or ALTER TABLE statement. A FOREIGN KEY clause must identify a table.

System Action: The statement cannot be executed.

Programmer Response: Correct the statement to specify a table name in the foreign key clause.

Destination: 42810

-158 THE NUMBER OF COLUMNS SPECIFIED FOR THE VIEW IS NOT THE SAME AS THE NUMBER OF COLUMNS SPECIFIED BY THE SELECT CLAUSE

Explanation: The number of column names specified for a view in a CREATE VIEW statement must equal the number of elements (column names, SQL functions, expressions, etc.) specified in the following AS SELECT clause.

System Action: The statement cannot be executed. The specified view was not created.

Programmer Response: Correct the syntax of the statement to specify a column name for each column in the view to be created. Refer to Chapter 6 of *SQL Reference* for information about the syntax of the CREATE VIEW statement.

Destination: 42811

-159 DROP OR COMMENT ON *token* **IDENTIFIES A(N)** *token* **RATHER THAN A(N)** *token*

Explanation: The object specified in the DROP VIEW statement, DROP ALIAS statement, or COMMENT ON ALIAS statement identifies a table instead of a view or an alias.

The DROP VIEW statement can have only a view as its object. The DROP ALIAS or COMMENT ON ALIAS statement can have only an alias as its object. You must use the DROP TABLE statement to drop a table that is neither a view nor an alias. You must use the COMMENT ON TABLE statement to comment on a table or view.

System Action: The statement cannot be executed.

Programmer Response: Correct the DROP VIEW, DROP ALIAS, or COMMENT ON ALIAS statement so that the view name or the alias name is specified correctly (with the proper qualifier). If you intended to drop or comment on the specified table, use the DROP TABLE or COMMENT ON TABLE statement.

Destination: 42809

-160 THE WITH CHECK OPTION CANNOT BE USED FOR THE SPECIFIED VIEW

Explanation: The WITH CHECK OPTION does not apply to a view definition under either of the following circumstances:

- The view is read-only (for example, the view definition includes DISTINCT GROUP BY, or JOIN).
- The view definition includes a subquery.

System Action: The statement cannot be executed. The specified view was not created.

Programmer Response: Refer to Chapter 6 of *SQL Reference* for rules regarding use of the WITH CHECK OPTION in view definitions.

Destination: 42813

-161 THE INSERT OR UPDATE IS NOT ALLOWED BECAUSE A RESULTING ROW DOES NOT SATISFY THE VIEW DEFINITION

Explanation: The WITH CHECK OPTION applies to the view that is the object of the INSERT or UPDATE statement. Consequently, all attempts to insert or update rows in that view are checked to ensure that the results will conform to the view definition.

System Action: The statement cannot be executed. No inserts or updates were performed, and the contents of the object view (and underlying base table) remain unchanged.

Programmer Response: Examine the view definition to determine why the requested INSERT or UPDATE was rejected. Note that this may be a data-dependent condition.

Destination: 44000

-164 *auth-id1* **DOES NOT HAVE THE PRIVILEGE TO CREATE A VIEW WITH QUALIFICATION** *authorization* **ID**

Explanation: The authorization ID 'auth-id' does not have the authority necessary to create views with qualifiers other than its own authorization ID. Specifically, the attempt to create a view with qualifier 'authorization ID' is rejected.

System Action: The statement cannot be executed. The specified view was not created.

Programmer Response: Do not attempt to create views with other than your own ID as a qualifier. Only an authorization ID that holds 'SYSADM' authority can create views for other authorization IDs.

Destination: 42502

-170 **THE NUMBER OF ARGUMENTS SPECIFIED FOR** *function-name* **IS INVALID**

Explanation: An SQL statement includes the scalar function 'function-name' with either too many or too few arguments.

System Action: The statement cannot be executed.

Programmer Response: Correct the statement. Refer to Chapter 4 of *SQL Reference* for information about the number of arguments required by the scalar function 'function-name'.

Destination: 42605

-171 **THE DATA TYPE, LENGTH, OR VALUE OF ARGUMENT** *nn* **OF** *function-name* **IS INVALID**

Explanation: Either the data type, the length or the value of argument 'nn' of scalar function 'function-name' is incorrect.

System Action: The statement cannot be executed.

Programmer Response: Correct the statement. Refer to Chapter 4 of *SQL Reference* for rules for each argument of the scalar function 'function-name'.

Destination: 42815

-173 **UR IS SPECIFIED ON THE WITH CLAUSE BUT THE CURSOR IS NOT READ-ONLY**

Explanation: The cursor is not a read-only cursor. WITH UR can be specified only if DB2 can determine that the cursor is read-only.

System Action: Statement execution fails.

Programmer Response: If the cursor is intended to be read-only but is ambiguous, add the FOR FETCH ONLY clause. If the cursor is updateable, change the isolation level specified on the WITH clause.

Destination: 42801

-180 **THE DATE, TIME, OR TIMESTAMP VALUE** *value* **IS INVALID**

Explanation: The length or string representation of a DATE, TIME, or TIMESTAMP `value` does not conform to any valid format.

The `value` can contain one of the following:

- For a host variable, the position number of the input host variable. If the position number cannot be determined, a blank is displayed.
- For a character string constant, the character string constant. The maximum length that is displayed is the length of SQLERRM.
- For a character column, the column name. If the column is a VIEW column and it has a corresponding base column, the VIEW column name is displayed. If the column is a VIEW column but it does not have a corresponding base column, a string of '*N' is displayed.

Otherwise, `value` is a string of '*N'.

System Action: The statement cannot be executed.

Programmer Response: Correct the program to ensure the specified value conforms to the syntax of DATE, TIME, and TIMESTAMP. Refer to Chapter 3 of *SQL Reference* for a list of valid DATE and TIME formats.

Destination: 22007

-181 **THE STRING REPRESENTATION OF A DATETIME VALUE IS NOT A VALID DATETIME VALUE**

Explanation: The string representation of a datetime is not in the acceptable range or is not in the correct format. The proper ranges for datetime values are as follows:

Table 2.

Datetime		Numeric Range
Years		0001 to 9999
Months		1 to 12
Days	April, June, September, November (months 4, 6, 9, 11)	1 to 30
	February (month 2)	1 to 28 (Leap year 1 to 29)
	January, March, May, July, August, October, December (months 1, 3, 5, 7, 8, 10, 12)	1 to 31
Hours		0 to 24 (If hour is 24, other parts of time values are zeroes. If hour is USA, maximum hour is 12.)
Minutes		0 to 59
Seconds		0 to 59
Microseconds		0 to 999999

System Action: The statement cannot be executed.

Programmer Response: Check whether the value is within the valid range and is in the proper format. Refer to Chapter 3 of *SQL Reference* for information on string data formats.

Destination: 22007

-182 AN ARITHMETIC EXPRESSION WITH A DATETIME VALUE IS INVALID

Explanation: The specified arithmetic expression contains an improperly used datetime value or labeled duration.

System Action: The statement cannot be executed.

Programmer Response: Correct the indicated arithmetic expression.

Destination: 42816

-183 AN ARITHMETIC OPERATION ON A DATE OR TIMESTAMP HAS A RESULT THAT IS NOT WITHIN THE VALID RANGE OF DATES

Explanation: The result of an arithmetic operation is a date or timestamp that is not within the valid range of dates which are between 0001-01-01 and 9999-12-31.

System Action: The statement cannot be executed.

Programmer Response: Examine the SQL statement to see if the cause of the problem can be determined. The problem may be data-dependent, in which case it will be necessary to examine the data that was processed at the time the error occurred.

Destination: 22008

-184 AN ARITHMETIC EXPRESSION WITH A DATETIME VALUE CONTAINS A PARAMETER MARKER

Explanation: The specified arithmetic expression contains a parameter marker improperly used with a datetime value.

System Action: The statement cannot be executed.

Programmer Response: Correct the indicated arithmetic expression.

Destination: 42610

-185 THE LOCAL FORMAT OPTION HAS BEEN USED WITH A DATE OR TIME AND NO LOCAL EXIT HAS BEEN INSTALLED

Explanation: The local format option has been used with a datetime value and no datetime exit has been installed. This may occur if the LOCAL DATE LENGTH or LOCAL TIME LENGTH on the Installation Application Programming Defaults Panel indicated that an exit for datetime was supplied, but in fact the exit supplied by DB2 was not replaced. This may also occur if the datetime exit was replaced and the corresponding LOCAL DATE LENGTH or LOCAL TIME LENGTH on the Installation Application Programming Defaults Panel was not set to a nonzero value.

System Action: The statement cannot be executed.

Programmer Response: Contact the system programmer about installation of the date or time exit.

Destination: 57008

-186 THE LOCAL DATE LENGTH OR LOCAL TIME LENGTH HAS BEEN INCREASED AND EXECUTING PROGRAM RELIES ON THE OLD LENGTH

Explanation: The local format option has been used with a datetime value and DB2 has discovered that the datetime exit routine has been changed to produce a longer local format.

System Action: The statement cannot be executed.

Programmer Response: If the statement receiving this error is embedded in the application program, then a REBIND command must be issued for the application plan. If the statement was dynamic SQL, then the statement can be reentered.

Destination: 22505

-187 A REFERENCE TO A CURRENT DATE/TIME SPECIAL REGISTER IS INVALID BECAUSE THE MVS TOD CLOCK IS BAD OR THE MVS PARMTZ IS OUT OF RANGE

Explanation: DB2 has encountered an invalid time-of-day (TOD) clock. The user referenced one of the special registers: CURRENT DATE, CURRENT TIME, CURRENT TIMESTAMP, or CURRENT TIMEZONE. If the user referenced CURRENT TIMEZONE, the MVS parameter PARMTZ was out of range.

System Action: The statement cannot be executed.

Programmer Response: For CURRENT TIMEZONE, check that the MVS parameter PARMTZ is between –24 and +24 hours. For the other CURRENT special registers, check that the MVS TOD clock has been set correctly.

Destination: 22506

-188 THE STRING REPRESENTATION OF A NAME IS INVALID

Explanation: The host variable referenced in the DESCRIBE statement does not contain a valid string representation of a name. One of the following error conditions has occurred.

- The first byte of the variable is a period or a blank.
- The number of identifiers is greater than 3.
- An identifier is too long.
- A period not contained in a delimited identifier is followed by a period or a blank.
- A delimited identifier is followed by a character other than a period or a blank.
- A delimited identifier is not terminated by a quotation mark.

System Action: The statement cannot be executed.

Programmer Response: Correct the value of the host variable so that it is a valid string representation of a name.

Destination: 22503

-189 CCSID *ccsid* IS UNKNOWN OR INVALID FOR THE DATA TYPE OR SUBTYPE

Explanation: To determine the subtype of an input host variable or result column, the SYSSTRINGS catalog table was accessed with the specified CCSID and:

- The CCSID is not a value of either INCCSID or OUTCCSID, or
- The TRANSTYPE column classifies the CCSID as GRAPHIC rather than CHARACTER.

This error can occur when SYSSTRINGS is accessed with a pair of CCSIDs to determine if a translation is defined for the pair. In this case, the error is the inconsistency between the data type of a string and the TRANSTYPE classification of its CCSID (one is GRAPHIC and the other is CHARACTER).

This error can also occur when a CCSID specified in DECP does not exist as a value in the INCCSID or OUTCCSID columns of SYSSTRINGS.

System Action: The statement cannot be bound or executed.

Programmer Response: Ensure that the CCSSID is valid and consistent with the data type of the string. If a valid CCSID is not listed in a built-in row of SYSSTRINGS, it can be defined by inserting a user-provided row. If a valid CCSID is misclassified in a user-provided row, that row can be updated to correct the mistake. Refer to the appendices of *Installation Guide* for more information on CCSIDs and to *SQL Reference* for more information on the SYSSTRINGS catalog table.

Destination: 22522

-191 A STRING CANNOT BE USED BECAUSE IT IS INVALID MIXED DATA

Explanation: The operation required the translation of a mixed data character string to a different coded character set. The string could not be translated because it does not conform to the rules for well-formed mixed data. For example, the string contains EBCDIC shift codes that are not properly paired.

System Action: The statement cannot be executed.

Programmer Response: If the string contains the intended information, the description of the column or host variable should be changed from MIXED DATA to BIT or SBCS DATA. If the description of the column or host variable is correct, the string is the problem and it must be changed to conform to the rules for well-formed mixed data. For more information about well-formed MIXED DATA refer to Chapter 3 of *SQL Reference*.

Destination: 22504

-197 QUALIFIED COLUMN NAMES IN ORDER BY CLAUSE NOT PERMITTED WHEN UNION OR UNION ALL SPECIFIED

Explanation: A SELECT statement that specifies both the union of two or more tables and the ORDER BY clause cannot use qualified column names in the ORDER BY clause.

Programmer Response: Change the statement so that qualified names are not necessary in the ORDER BY clause.

System Action: The statement is not executed.

Destination: 42877

-198 THE OPERAND OF THE PREPARE OR EXECUTE IMMEDIATE STATEMENT IS BLANK OR EMPTY

Explanation: The operand (host variable or literal string) that was the object of the PREPARE or EXECUTE IMMEDIATE statement either contained all blanks or was an empty string. A DBRM built in Version 2 Release 3 cannot be used on a Version 2 Release 2 system if the distributive functions were used. If this error appears on Version 2 Release 2 and the DBRM was built on Version 2 Release 3,the program needs to be precompiled again to correct the problem.

System Action: The statement cannot be executed.

Programmer Response: Correct the logic of the application program to ensure that a valid SQL statement is provided in the operand of the PREPARE or EXECUTE IMMEDIATE statement before that statement is executed.

Destination: 42617

-199 ILLEGAL USE OF KEYWORD *keyword*. TOKEN *token-list* WAS EXPECTED

Explanation: A syntax error was detected in the statement at the point where the keyword 'keyword' appears.

As an aid to the programmer, a partial list of valid tokens is provided in SQLERRM as 'token-list'. Only those tokens that will fit are listed. Some tokens in the list might not be valid in statements to be executed by DB2; those tokens are valid for sending to other database management systems.

System Action: The statement cannot be executed.

Programmer Response: Examine the statement in the area of the indicated keyword. A colon or SQL delimiter might be missing.

Destination: 42601

-203 A REFERENCE TO COLUMN *column-name* IS AMBIGUOUS

Explanation: An unqualified column name is ambiguous if more than one table or view identified in the FROM clause has a column with that name, or if more than one column of a nested table expression has that name.

A qualified column name is ambiguous only if the qualifier is the correlation name for a nested table expression and the column name is not unique.

System Action: The statement cannot be executed.

Programmer Response: If the problem is caused by a nonunique column name in a nested table expression, change the nested table expression so that the column name is unique. If the problem is caused by the use of an unqualified name, qualify it with a table, view, or correlation name.

Destination: 42702

-204 *name* **IS AN UNDEFINED NAME**

Explanation: The object identified by *name* is not defined in the DB2 subsystem. This SQLCODE can be generated for any type of DB2 object.

System Action: The statement cannot be executed.

Programmer Response: Verify that the object name was correctly specified in the SQL statement, including any required qualifiers. If it is correct, ensure that the object exists in the system before resubmitting the statement.

If the specified object is a stored procedure, add a row to the SYSIBM.SYSPROCEDURES catalog table to define the stored procedure. Issue the -START PROCEDURE command to activate the new definition.

Destination: 42704

-205 *column-name* **IS NOT A COLUMN OF TABLE** *table-name*

Explanation: No column with the specified 'column-name' occurs in the table or view 'table-name'.

System Action: The statement cannot be executed.

Programmer Response: Verify that the column and table names are specified correctly (including any required qualifiers) in the SQL statement.

Destination: 42703

-206 *column-name* **IS NOT A COLUMN OF AN INSERTED TABLE, UPDATED TABLE, OR ANY TABLE IDENTIFIED IN A FROM CLAUSE**

Explanation: This return code is used to report one of these errors:

- In the case of an INSERT or UPDATE statement, the specified column is not a column of the table or view that was specified as the object of the insert or update.
- In the case of a SELECT or DELETE statement, the specified column is not a column of any of the tables or views identified in a FROM clause in the statement.
- There is a correlated reference in GROUP BY.
- There is an unresolved qualified reference in HAVING.

System Action: The statement cannot be executed. No data was retrieved, inserted, or updated.

Programmer Response: Verify that the column and table names are specified correctly in the SQL statement. In the case of a SELECT statement, check to be sure that all of the required tables were named in the FROM clause.

Destination: 42703

-208 **THE ORDER BY CLAUSE IS INVALID BECAUSE COLUMN** *name* **IS NOT PART OF THE RESULT TABLE**

Explanation: The statement is invalid because a column ('name') specified in the ORDER BY list does not appear in the result table (that is, it is not specified in the SELECT-list). Only columns that are to appear in the result table can be used in ordering that result.

System Action: The statement cannot be executed.

Programmer Response: Correct the syntax of the statement, either by adding the specified column to the result table, or deleting it from the ORDER BY clause. Refer to Chapter 5 of *SQL Reference* for information about restrictions on the use of the ORDER BY clause to order the result of an SQL SELECT.

Destination: 42707

-219 **THE REQUIRED EXPLANATION TABLE** *table-name* **DOES NOT EXIST**

Explanation: The EXPLAIN statement assumes the existence of the explanation table and it is not defined in the DB2 subsystem as a base table. Refer to Chapter 6 of *SQL Reference* for more information.

System Action: The statement cannot be executed.

Programmer Response: Determine whether the required explanation table does exist. If not, create the required table.

Destination: 42704

-220 **THE COLUMN** *column-name* **IN EXPLANATION TABLE** *table-name* **IS NOT DEFINED PROPERLY**

Explanation: An error occurred during the insertion of a row into the explanation table. The table is improperly defined for the following reasons:

- A column is missing.
- Columns are defined in the wrong order.
- The table contains an extra column.
- A column description is invalid because of its name, data type, length, or null attributes.

System Action: The statement cannot be executed. The explanation information is not generated.

Programmer Response: Correct the definition of the required explanation table. Refer to Chapter 6 of *SQL Reference* for information on defining an explanation table.

Destination: 55002

-221 **"SET OF OPTIONAL COLUMNS" IN EXPLANATION TABLE** *table-name* **IS INCOMPLETE. OPTIONAL COLUMN** *column-name* **IS MISSING**

Explanation: The EXPLAIN statement assumes the required explanation table is defined properly. The optional column indicated is not defined in the indicated explanation table. PLAN-TABLE can have none or all of the Version 2 Release 2 optional columns (PREFETCH, COLUMN-FN-EVAL, MIXOPSEQ). If the Version 2 Release 2 optional columns are present, it can also have all or none of the optional Version 2 Release 3 columns (VERSION,COLLID).

System Action: The explanation information is not generated.

Programmer Response: Correct the definition of the required explanation table to include all five optional columns, just the Version 2 Release 2 optional columns, or no optional columns. Refer to Chapter 6 of *SQL Reference* for information on defining an explanation table.

Destination: 55002

-240 THE PART CLAUSE OF A LOCK TABLE STATEMENT IS INVALID

Explanation: The LOCK TABLE statement is invalid for one of the following reasons:

- The table space in which the table resides is not partitioned or does not have the LOCKPART YES attribute, and the PART clause is specified.
- An integer specified in the PART clause does not identify a partition of the table space.

System Action: The LOCK TABLE statement cannot be executed.

Programmer Response: Determine whether the specified table resides in a partitioned table space defined with LOCKPART YES.

- If it is partitioned and defined with LOCKPART YES, specify a PART clause that identifies the partition you want to lock.
- If it is partitioned but does not have the LOCKPART YES attribute and you want to lock a single partition, use ALTER TABLESPACE to change the LOCKPART attribute to YES.
- If it is not partitioned, do not specify the PART clause.

Destination: 428B4

-250 THE LOCAL LOCATION NAME IS NOT DEFINED WHEN PROCESSING A THREE-PART OBJECT NAME

Explanation: A three-part object name (table, view, or alias) cannot be used until the local location name is defined.

System Action: Install or reinstall the DB2 distributed data facility (DDF) with a registered location name for local DB2.

Programmer Response: Define the local location name and then retry the function.

Destination: 42718

-251 TOKEN *name* IS NOT VALID

Explanation: A location name cannot contain alphabetic extenders. (The standard alphabetic extenders in the United States are #, @, $.)

System Action: The statement cannot be executed

Programmer Response: Correct the location name.

Destination: 42602

-300 THE STRING CONTAINED IN HOST VARIABLE OR PARAMETER *position-number* IS NOT NUL-TERMINATED

Explanation: A host variable or parameter is invalid. Its entry in the SQLDA is indicated by *position-number*. The host variable or parameter is a C string variable that is one of the following:

- Used as an input parameter to a stored procedure.
- Returned as an output parameter from a stored procedure.
- Referenced as an input variable in an embedded SQL statement.
- Used to provide a value for a parameter marker of a dynamic SQL statement.

If the data type of the variable is character string, it is invalid because it does not include X'00'. If the data type of the variable is graphic string, it is invalid because it does not include X'0000'.

System Action: The statement cannot be executed.

Programmer Response: Append a NUL-terminator to the end of the string.

Destination: 22024

-301 THE VALUE OF INPUT HOST VARIABLE OR PARAMETER NUMBER *position-number* CANNOT BE USED AS SPECIFIED BECAUSE OF ITS DATA TYPE

Explanation: DB2 received data that could not be used as specified in the statement because its data type is incompatible with the requested function.

The *position-number* identifies either the host variable number (if the message is issued as a result of an INSERT, UPDATE, DELETE, or SELECT statement), or the parameter number (if the message is issued as the result of a CALL statement).

System Action: The statement cannot be executed.

Programmer Response: Correct the application program or stored procedure. Ensure that the data type of the indicated input host variable or parameter in the statement is compatible with the way it is used.

Destination: 42895

-302 THE VALUE OF INPUT VARIABLE OR PARAMETER NUMBER *position-number* IS INVALID OR TOO LARGE FOR THE TARGET COLUMN OR THE TARGET VALUE

Explanation: DB2 received data that was invalid or too large to fit in the corresponding column of the table or the corresponding target value. The *position-number* identifies either the host variable number (if the message is issued as a result of an INSERT, UPDATE, DELETE, or SELECT statement), or the parameter number (if the message is issued as the result of a CALL statement).

One of the following occurred:

- The column is defined as a string and the host variable or parameter contains a string that is too long for the column.
- The column is defined as numeric and the host variable or parameter contains a numeric value too large for the definition of the column.
- The host variable is defined as decimal, but contains invalid decimal data.
- The target value is a string constant and the host variable or parameter contains a string that is too long for the target value.
- The target value is a numeric constant and the host variable or parameter contains a numeric value that is too large for the target value.

System Action: The statement cannot be executed.

Programmer Response: Correct the application program or stored procedure. Check the column type and length of the value or the data type and contents of the input host variable or parameter *position-number*. Ensure that the value of the host variable or parameter will fit in the column or contains

valid decimal data. Valid decimal data is a System/370 packed decimal number.

Destination: 22003 if *number too large for target*; 22001 otherwise.

-303 A VALUE CANNOT BE ASSIGNED TO OUTPUT HOST VARIABLE NUMBER *position-number* **BECAUSE THE DATA TYPES ARE NOT COMPARABLE**

Explanation: A CALL, FETCH, or SELECT into the output host variable, whose entry in the output SQLDA is indicated by *position-number*, could not be performed. The data type of the variable was not compatible with the data type of the corresponding SELECT or CALL list element. The output host variable and the corresponding SELECT or CALL list element must be in one of the following categories:

- Both values must be numbers.
- Both values must be character strings.
- Both values must be graphic strings.

In addition, for datetime and timestamp values, the host variable must be a character string variable with a correct length.

System Action: The CALL, FETCH, or SELECT statement cannot be executed. No data was retrieved.

Programmer Response: Verify that table definitions are current and that the host variable has the correct data type.

Destination: 42806

-304 A VALUE WITH DATA TYPE *data-type1* **CANNOT BE ASSIGNED TO A HOST VARIABLE BECAUSE THE VALUE IS NOT WITHIN THE RANGE OF THE HOST VARIABLE IN POSITION** *position-number* **WITH DATA TYPE** *data-type2*

Explanation: A CALL, FETCH, or SELECT into a host variable list or structure in position number *position-number* failed because the host variable with data type *data-type2* was not large enough to hold the retrieved value with data type *data-type1*.

System Action: The statement cannot be executed. No data was retrieved. If the statement was a FETCH, the cursor remains open.

Programmer Response: Verify that table definitions are current, and that the host variable has the correct data type. See the explanation for SQLCODE -405 for ranges of SQL data types.

Destination: 22003

-305 THE NULL VALUE CANNOT BE ASSIGNED TO OUTPUT HOST VARIABLE NUMBER *position-number* **BECAUSE NO INDICATOR VARIABLE IS SPECIFIED**

Explanation: A FETCH or embedded SELECT operation resulted in the retrieval of a null value to be inserted into the output host variable, designated by entry number 'position-number' of the output SQLDA, for which no indicator variable was provided. An indicator variable must be supplied if a column returns a null value.

System Action: The statement cannot be executed. No data was retrieved.

Programmer Response: Examine the definition of the table that is the object of the FETCH or SELECT, and correct the application program to provide indicator variables for all host variables into which null values can be retrieved. This includes host variables for columns which can contain null values and host variables which receive the results of column functions whose result table could be empty.

Destination: 22002

-309 A PREDICATE IS INVALID BECAUSE A REFERENCED HOST VARIABLE HAS THE NULL VALUE

Explanation: The statement could not be processed because a host variable appearing in a predicate such as

```
column-name = host-variable
```

had the NULL value. Such a predicate is not permitted when the host variable contains the NULL value even though the object column might contain nulls.

System Action: The statement cannot be executed.

Programmer Response: Rebind the plan or package containing the statement. The condition described is not an error in DB2 Version 2 Release 3 and later releases.

Destination: 22512

-310 DECIMAL HOST VARIABLE OR PARAMETER *number* **CONTAINS NON-DECIMAL DATA.**

Explanation: DB2 received nondecimal data from either an application (in the form of a host variable) or a stored procedure (in the form of a parameter that was passed to or from a stored procedure).

number Identifies either the host variable number (if the message is issued as a result of an INSERT, UPDATE, DELETE, or SELECT statement), or the parameter number (if the message is issued as the result of a CALL statement).

System Action: The statement cannot be executed.

Programmer Response: Correct the application program or stored procedure. Ensure that all decimal variables or parameters contain valid System/370 packed decimal numbers.

Destination: 22023

-311 THE LENGTH OF INPUT HOST VARIABLE NUMBER *position-number* **IS NEGATIVE OR GREATER THAN THE MAXIMUM**

Explanation: When evaluated, the length specification for input host string variable, whose entry in the SQLDA is indicated by position-number, was negative or greater than the maximum.

System Action: The statement cannot be executed.

Programmer Response: Correct the program to ensure that the lengths of all host string variables are not negative or that they are not greater than the maximum allowed length.

Destination: 22501

-312 UNDEFINED OR UNUSABLE HOST VARIABLE *variable-name*

Explanation: The host variable *variable-name* appears in the SQL statement, but:

- The SQL statement is a prepared statement, or
- The attributes of the variable are inconsistent with its usage in the static SQL statement, or
- The variable is not declared in the application program.

System Action: The statement cannot be executed.

Programmer Response: Verify that

- The variable name is spelled properly in the SQL statement.
- The variable is allowed in the SQL statement.
- The application program contains a declaration for that variable.
- The attributes of the variable are compatible with its use in the statement.

Destination: 42618

-313 THE NUMBER OF HOST VARIABLES SPECIFIED IS NOT EQUAL TO THE NUMBER OF PARAMETER MARKERS

Explanation: The number of host variables specified in the EXECUTE or OPEN statement is not the same as the number of parameter markers (question marks) appearing in the prepared SQL statement.

System Action: The statement cannot be executed.

Programmer Response: Correct the application program so that the number of host variables specified in the EXECUTE or OPEN statement is the same as the number of parameter markers appearing in the prepared SQL statement.

Destination: 07001

-314 THE STATEMENT CONTAINS AN AMBIGUOUS HOST VARIABLE REFERENCE

Explanation: A host variable used in the statement has been defined more than once in this application program causing confusion as to which host variable defined should be used.

System Action: The statement cannot be executed.

Programmer Response: Make the host variable unique or use qualifications to indicate which host variable definition is to be used.

Destination: 42714

-327 THE ROW CANNOT BE INSERTED BECAUSE IT IS OUTSIDE THE BOUND OF THE PARTITION RANGE FOR THE LAST PARTITION.

Explanation: When a row is inserted, the calculated partition key value for the new row must be within the bounds of a partition (as specified in the VALUES clause of the CREATE INDEX statement).

System Action: The statement cannot be executed.

Programmer Response: Correct the statement to specify a value for the partition key that is within the bounds of the last partition of the partitioned table space.

Destination: 22525

-330 A STRING CANNOT BE USED BECAUSE IT CANNOT BE TRANSLATED. REASON *reason-code***, CHARACTER** *code-point***, HOST VARIABLE** *position-number*

Explanation: A translation error occurred during the translation of a string to a different coded character set. The type of error is indicated by the *reason-code*:

8 Length exception (for example, expansion required for PC MIXED data exceeds the maximum length of the string).

12 Invalid code point (for example, use of the ERRORBYTE option of SYSSTRINGS).

16 Form exception (for example, invalid MIXED data).

20 Translate procedure error (for example, an exit set the length control field of the string to an invalid value).

24 SBCS character found in string contained in a wchar_t host variable.

If the *reason-code* is 12, *code-point* is the invalid code point. Otherwise, *code-point* is either blank or an additional *reason-code* returned by an exit. If the string is the value of an input host variable, the *position-number* is the ordinality of the variable in the SQLDA. If the string is not the value of a host variable, the *position-number* is blank.

System Action: The statement cannot be executed.

Programmer Response: Take one of the following actions based on the *reason-code*

- If the *reason-code* is 8, extend the maximum length of the host variable to allow for the expansion that occurs when the string is translated.
- If the *reason-code* is 12, either change the translate table to accept the *code-point* or the data to eliminate the *code-point*.
- If the *reason-code* is 16 and the string is described as MIXED data, either change its description or the string to conform to the rules for well-formed mixed data.
- If the *reason-code* is 20, correct the translate procedure.
- If the *reason-code* is 24, delete the SBCS character from the graphic string.

Destination: 22021

-331 A STRING CANNOT BE ASSIGNED TO A HOST VARIABLE BECAUSE IT CANNOT BE TRANSLATED. REASON *reason-code***, CHARACTER** *code-point***, POSITION** *position-number*

Explanation: The operation required the translation of a string to the coded character set of the host variable and a translation error occurred. The type of error is indicated by the 'reason-code':

- 8 for length exception (e.g., expansion required for PC MIXED data exceeds the maximum length of the string).
- 12 for invalid 'code point' (e.g., use of the ERRORBYTE option of SYSSTRINGS).
- 16 for form exception (e.g., invalid MIXED data).
- 20 for translate procedure error (e.g., an exit set the length control field of the string to an invalid value).

If the 'reason-code' is 12, 'code-point' is the invalid 'code point'. Otherwise, 'code-point' is blank. The 'position-number' is the ordinality of the output variable in the SQLDA.

System Action: The statement cannot be executed.

Programmer Response: If the 'reason-code' is 8, the maximum length of the result column must be extended to allow for the expansion that occurs when the string is translated. If the 'reason-code' is 12, either the translate table must be changed to accept the 'code-point' or the data must be changed to eliminate the 'code point'. If the 'reason-code' is 16, and the string is described as MIXED data, either its description must be changed or the string must be changed to conform to the rules for well-formed MIXED data. If the 'reason-code' is 20, the translate procedure must be corrected. An alternative to these corrective actions is to provide an indicator variable so that a null value and a warning can be returned rather than an error. Refer to Chapter 3 of *SQL Reference* for more information on coded character set.

Destination: 22021

-332 SYSSTRINGS DOES NOT DEFINE A TRANSLATION FROM CCSID *ccsid* TO *ccsid*

Explanation: The operation required a translation of a string to a different coded character set, but the particular translation is not described in the SYSSTRINGS catalog table. The first 'ccsid' identifies the coded character set of the string and the second 'ccsid' identifies the coded character set to which it must be translated.

System Action: The statement cannot be executed.

Programmer Response: If the CCSIDs are correct, the only corrective action is to provide for the translation by inserting a row into SYSSTRINGS. For an SBCS translation, the row must contain a translate table or the name of a user-provided translate procedure. For a DBCS translation, the row must contain the name of a user-provided translate procedure. Refer to Chapter 3 of *SQL Reference* for more information on coded character set.

Destination: 57017

-333 THE SUBTYPE OF A STRING VARIABLE IS NOT THE SAME AS THE SUBTYPE KNOWN AT BIND TIME AND THE DIFFERENCE CANNOT BE RESOLVED BY TRANSLATION

Explanation: The CCSID in the run time SQLDA is inconsistent with the bind time subtype of the host variable or parameter marker. Either the run time description is BIT and the bind time description was not BIT, or the run time description is not BIT and the bind time description was BIT

System Action: The statement cannot be executed.

Programmer Response: Change the CCSID in the SQLDA so that the subtype of the host variable is consistent with the bind time subtype of the host variable or parameter marker. Refer to Chapter 3 of *SQL Reference* for more information on coded character set.

Destination: 56010

-338 AN ON CLAUSE IS INVALID

Explanation: This return code reports a violation of one of the following:

- One expression of the predicate must only reference columns of one of the operand tables of the associated join operator, and the other expression of the predicate must only reference columns of the other operand table.
- A VALUE or COALESCE function is allowed in the ON clause only when the join operator is a FULL OUTER JOIN or FULL JOIN.
- An operator other than '=' is not allowed in a FULL OUTER JOIN or FULL JOIN.

System Action: The statement cannot be executed.

Programmer Response: Correct the syntax of the statement so that each ON clause expression references only one of the operand tables.

You can work around the second restriction by using a nested table expression with the VALUE/COALESCE function in the SELECT list of the table expression.

For example, this statement violates the restriction and results in SQLCODE -338.

```
SELECT T1.C2,T2.C2,T3.C2 FROM T1 FULL JOIN T2 ON T1.C1=T2.C1
    LEFT JOIN T3 ON COALESCE(T1.C1,T2.C1)=T3.C1;
```

You can rewrite the statement as follows:

```
SELECT X.C2,X.C3,T3.C2 FROM
 (SELECT COALESCE(T1.C1,T2.C1) AS C1,T1.C2,T2.C2 AS C3 FROM
      T1 FULL JOIN T2 ON T1.C1=T2.C1) AS X
        LEFT JOIN T3 ON X.C1=T3.C1;
```

Destination: 42972

-339 THE SQL STATEMENT CANNOT BE EXECUTED FROM AN ASCII BASED DRDA APPLICATION REQUESTOR TO A V2R2 DB2 SUBSYSTEM

Explanation: The application is connected to a DB2 Version 2 Release 3 database server. The SQL statement is using an alias or three-part name, which refers to another DB2 subsystem that is at the Version 2 Release 2 level. DB2 Version 2 Release 2 does not support character conversion. Since the execution of SQL statements from an ASCII DRDA requester to an EBCDIC Version 2 Release 2 DB2 server could require character conversion, access to the Version 2 Release 2 DB2 is denied for data integrity reasons.

System Action: The statement cannot be executed.

Programmer Response: Remove statements from the application that resolve to a DB2 Version 2 Release 2 subsystem.

System Programmer Response: If the application must refer to the Version 2 Release 2 subsystem data, the Version 2 Release 2 DB2 subsystem must be migrated to Version 2 Release 3 where character conversion is supported.

Destination: 56082

-351 AN UNSUPPORTED SQLTYPE WAS ENCOUNTERED IN POSITION "<position-number>" ON A PREPARE OR DESCRIBE OPERATION.

Explanation: Some SQL data types are not supported by DB2 Version 5. "<position- number>" is the position of the first element with an invalid data type in the SQLDA. A common reason why this error occurs is when DB2 attempts to describe large object data residing at a non-DB2 server. Some of the SQLTYPEs that can cause this error are: LOB, BLOB, CLOB, and DBLOB.

System Action: The statement cannot be executed.

Programmer Response: The application program must not include any SQL operations that describe SQL data types which DB2 Version 5 does not support when DB2 is the application requester (AR). For example, instead of dynamically selecting all columns from SYSTABLES, only select those columns that have data types defined to DB2. If the error is caused by an unsupported LOB type, then exclude such data from the list of data to be described.

Destination: 56084

-400 THE CATALOG HAS THE MAXIMUM NUMBER OF USER DEFINED INDEXES

Explanation: Only one hundred user-defined indexes can be created in the catalog database.

System Action: The statement cannot be executed.

Programmer Response: If this index must be created, another user-defined index on the catalog must be dropped. After that index is dropped, this statement can be executed.

Destination: 54027

-401 THE OPERANDS OF AN ARITHMETIC OR COMPARISON OPERATION ARE NOT COMPARABLE

Explanation: An arithmetic operation appearing within the SQL statement has a mixture of numeric and nonnumeric operands, or the operands of a comparison operation are not compatible.

System Action: The statement cannot be executed.

Programmer Response: Check the data types of all operands to ensure that their data types are comparable and compatible with their usage in the statement.

If all the operands of the SQL statement are correct, then, if a view is being accessed, check the data types of all the operands in the view definition.

Destination: 42818

-402 AN ARITHMETIC FUNCTION OR OPERATOR *arith-fop* IS APPLIED TO CHARACTER OR DATETIME DATA

Explanation: A nonnumeric operand has been specified for the arithmetic function or operator 'arith-fop'.

System Action: The statement cannot be executed.

Programmer Response: Examine and correct the syntax of the SQL statement such that all operands of the specified function or operator are numeric.

Destination: 42819

-404 THE UPDATE OR INSERT STATEMENT SPECIFIES A STRING THAT IS TOO LONG *column-name*

Explanation: An INSERT or UPDATE statement specifies a value that is longer than the maximum-length string that can be stored in the indicated column.

System Action: The statement cannot be executed.

Note: 'column-name' may or may not be returned in SQLCA, depending on the syntax of the INSERT or UPDATE statement.

Programmer Response: Check the length of the object column, and correct the program or SQL statement so that the length of the insert or update string does not exceed that maximum.

Destination: 22001

-405 THE NUMERIC LITERAL literal CANNOT BE USED AS SPECIFIED BECAUSE IT IS OUT OF RANGE

Explanation: The specified numeric literal is not in the proper range.

The proper ranges for SQL values are as follows:

- 5.4E−79 to 7.2E+75 for FLOAT values
- $-(10^{31} -1)$ to $+(10^{31} -1)$ for DECIMAL values
- −2147483648 to 2147483647 for INTEGER values
- −32768 to +32767 for small integer (SMALLINT) values.

System Action: The statement cannot be executed.

Programmer Response: The value of the literal should be reduced to the appropriate size for this data type.

Destination: 42820

-406 A CALCULATED OR DERIVED NUMERIC VALUE IS NOT WITHIN THE RANGE OF ITS OBJECT COLUMN

Explanation: A value derived or calculated during processing of the SQL statement was outside the range of the data type of its object column. This problem might have arisen because either the values occurring in the object column were out of range, or the SQL operation performed was not appropriate for the values in the object column.

System Action: The statement cannot be executed.

Programmer Response: See the explanation of SQLCODE -405 for allowed ranges for numeric data types.

Destination: 22003

-407 AN UPDATE OR INSERT VALUE IS NULL, BUT THE OBJECT COLUMN *column-name* CANNOT CONTAIN NULL VALUES

Explanation: One of the following conditions occurred:

- A null insert or update value was specified for a column defined as NOT NULL.
- No insert value was provided for a column that does not have a default value.

System Action: The statement cannot be executed. The 'column-name' might be returned in SQLCA, depending on

the syntax of the SQL statement in which the error was detected.

Programmer Response: Examine the definition of the object table to determine which columns of the table have the NOT NULL attribute, and correct the SQL statement accordingly.

Destination: 23502

-408 AN UPDATE OR INSERT VALUE IS NOT COMPARABLE WITH THE DATA TYPE OF ITS OBJECT COLUMN *column-name*

Explanation: The data type of the value to be inserted into or set in the column 'column-name' by an INSERT or UPDATE statement is incompatible with the declared data type of that column. Both must be numeric or both must be graphic string; or both must be either:

- Dates or character
- Times or character
- Timestamps or character.

However, dates, times, or timestamps cannot be assigned to a character column that has a field procedure.

System Action: The statement cannot be executed. No data was inserted or updated.

Programmer Response: Examine the current definition for the object table, and ensure that the host variable or literal value assigned to the specified column has the proper data type.

Destination: 42821

-409 INVALID OPERAND OF A COUNT FUNCTION

Explanation: The operand of the COUNT function in the statement violates SQL syntax. A common error is a column name or other expression without DISTINCT.

System Action: The statement cannot be executed.

Programmer Response: Correct the syntax and resubmit the statement. Refer to Chapter 4 of *SQL Reference* for information about the proper form for the operands of a COUNT function.

Destination: 42607

-410 THE FLOATING POINT LITERAL *literal* **CONTAINS MORE THAN 30 CHARACTERS**

Explanation: The specified floating-point literal is more than 30 characters in length. A floating-point literal has a maximum length of 30 characters.

System Action: The statement cannot be executed.

Programmer Response: Correct the indicated literal.

Destination: 42820

-411 CURRENT SQLID CANNOT BE USED IN A STATEMENT THAT REFERENCES REMOTE OBJECTS

Explanation: A reference to the CURRENT SQLID special register is invalid in a statement that contains the three-part name or alias of an object that is remote to the remote server.

System Action: The statement cannot be executed.

Programmer Response: Either remove the reference to CURRENT SQLID or the reference to the remote object.

Destination: 56040

-412 THE SELECT CLAUSE OF A SUBQUERY SPECIFIES MULTIPLE COLUMNS

Explanation: In the context in which it was used in the SQL statement, the subquery can have only one column specified in its SELECT clause.

System Action: The statement cannot be executed.

Programmer Response: Correct the syntax of the SQL statement. Refer to Chapter 5 of *SQL Reference* for information about restrictions on the syntax for subqueries.

Destination: 42823

-413 OVERFLOW OCCURRED DURING NUMERIC DATA TYPE CONVERSION

Explanation: During processing of the SQL statement, an overflow condition arose when converting from one numeric type to another. Numeric conversion is performed according to the standard rules of SQL.

System Action: The statement cannot be processed. No data was retrieved, updated, or deleted.

Programmer Response: Examine the syntax of the SQL statement to determine the cause of the error. If the problem is data-dependent, it might be necessary to examine the data processed at the time of the error.

Destination: 22003

-414 A LIKE PREDICATE IS INVALID BECAUSE THE FIRST OPERAND IS NOT A STRING

Explanation: The data type of the first operand of the LIKE predicate must be a character string or graphic string.

System Action: The statement cannot be executed.

Programmer Response: Respecify the predicate so that the data type of each operand is a character string or a graphic string.

Destination: 42824

-415 THE CORRESPONDING COLUMNS, *column-number***, OF THE OPERANDS OF A UNION OR A UNION ALL DO NOT HAVE COMPARABLE COLUMN DESCRIPTIONS**

Explanation: The column descriptions of corresponding columns of the operands of a UNION or UNION ALL must be comparable. The columns of ordinality 'column-number' of the operands in this UNION or UNION ALL do not satisfy this requirement. For columns to be comparable, they must both be either numeric, character, graphic, date, time, or timestamp. They cannot be a mixture of these groups. If corresponding columns have field procedures, they must both have the same field procedure.

System Action: The statement cannot be executed.

Programmer Response: Check the data types of the specified columns and correct the UNION or UNION ALL statement so that all corresponding columns have comparable column descriptions.

Destination: 42825

-416 AN OPERAND OF A UNION CONTAINS A LONG STRING COLUMN

Explanation: The UNION specified in the SQL statement could not be performed because one of the tables participating in the union contains a long string column (for example, a VARCHAR column with length greater than 254). The operands of a UNION cannot contain long string columns.

System Action: The statement cannot be executed.

Programmer Response: The implied function is not supported by DB2. Refer to Chapter 3 of *SQL Reference* for information about restrictions on the manipulation of long string columns.

Destination: 42907

-417 A STATEMENT STRING TO BE PREPARED INCLUDES PARAMETER MARKERS AS THE OPERANDS OF THE SAME OPERATOR

Explanation: The statement string specified as the object of a PREPARE contains a predicate or expression where parameter markers have been used as operands of the same operator—for example:

```
? > ?
```

This syntax is not permitted.

System Action: The statement cannot be executed.

Programmer Response: Correct the logic of the application program so that this syntax error does not occur. Refer to Chapter 6 of *SQL Reference* for information about the proper usage of parameter markers within SQL statements to be prepared.

Destination: 42609

-418 A STATEMENT STRING TO BE PREPARED CONTAINS AN INVALID USE OF PARAMETER MARKERS

Explanation: Parameter markers cannot be used in the SELECT list, as the sole argument of a scalar function, or in a concatenation operation. Parameter markers cannot be used in the string expression of an EXECUTE IMMEDIATE SQL statement.

System Action: The statement cannot be executed.

Programmer Response: Correct the logic of the application program so that this error does not occur. Refer to Chapter 6 of *SQL Reference* for information about the proper usage of parameter markers within SQL statements and for EXECUTE IMMEDIATE SQL statement restrictions.

Destination: 42610

-419 THE DECIMAL DIVIDE OPERATION IS INVALID BECAUSE THE RESULT WOULD HAVE A NEGATIVE SCALE

Explanation: The decimal division is invalid because it will result in a negative scale.

The formula used internally to calculate the scale of the result for decimal division is explained in Chapter 3 of *SQL Reference*.

System Action: The statement cannot be executed. No data was retrieved, updated, or deleted.

Programmer Response: Examine the precision and scale of all columns that may have participated in a decimal division. Note that an integer or small integer value may have been converted to decimal for this calculation.

Destination: 42911

-420 THE VALUE OF A CHARACTER STRING ARGUMENT WAS NOT ACCEPTABLE TO THE *function-name* FUNCTION

Explanation: A character string argument did not conform to the requirements of the function. For example, a character string passed to the DECIMAL function did not conform to the rules for forming an SQL integer or decimal constant.

System Action: The statement cannot be executed.

Programmer Response: Change the argument value so that it conforms to the requirements of the function as specified in *SQL Reference*.

Destination: 22018

-421 THE OPERANDS OF A UNION OR UNION ALL DO NOT HAVE THE SAME NUMBER OF COLUMNS

Explanation: The operands of a UNION or UNION ALL must have the same number of columns.

System Action: The statement cannot be executed.

Programmer Response: Correct the SQL statement so that there are exactly the same number of columns in each operand.

Destination: 42826

-423 INVALID RESULT SET LOCATOR VALUE

Explanation: The value specified in a result set locator host variable does not identify a valid result set locator.

System Action: The SQL statement fails.

Programmer Response: There are two common causes for this error:

- The host variable used as a result set locator was never assigned a valid result set locator value. Result set locator values are returned by the DESCRIBE PROCEDURE and ASSOCIATE LOCATORS statements. Make sure the value in your host variable is obtained from one of these statements.
- Result set locator values are only valid as long as the underlying SQL cursor is open. If a commit or rollback operation closes an SQL cursor, the result set locator associated with the cursor is no longer valid.

Destination: 0F001

-426 DYNAMIC COMMIT NOT VALID AT AN APPLICATION SERVER WHERE UPDATES ARE NOT ALLOWED

Explanation: An application executing using DRDA protocols has attempted to issue a dynamic COMMIT statement, or a stored procedure has attempted to issue a COMMIT_ON_RETURN, while connected to a location at which updates are not allowed. A dynamic COMMIT or COMMIT_ON_RETURN can be issuedonly while connected to a location at which updates are allowed.

System Action: The statement cannot be executed. No COMMIT is performed.

Programmer Response: The IMS or CICS protocols should be used to commit work in these environments.

Destination: 2D528

-427 DYNAMIC ROLLBACK NOT VALID AT AN APPLICATION SERVER WHERE UPDATES ARE NOT ALLOWED

Explanation: An application executing using DRDA protocols has attempted to issue a dynamic ROLLBACK statement while connected to a location at which updates are not allowed. A dynamic ROLLBACK may be issued only while connected to a location at which updates are allowed.

System Action: The statement cannot be executed. No ROLLBACK is performed.

Programmer Response: The IMS or CICS protocols should be used to rollback work in these environments.

Destination: 2D529

-440 THE NUMBER OF PARAMETERS IN THE PARAMETER LIST DOES NOT MATCH THE NUMBER OF PARAMETERS EXPECTED FOR STORED PROCEDURE *name*, AUTHID *authid*, LUNAME *luname*. *number* PARAMETERS WERE EXPECTED.

Explanation: DB2 received an SQL CALL statement for a stored procedure. DB2 found the row in the SYSIBM.SYSPROCEDURES catalog table associated with the requested procedure name. However, the number of parameters supplied on the CALL statement does not match the number of parameters defined in the PARMLIST column of the SYSIBM.SYSPROCEDURES table.

The definition of a stored procedure might be cached. If you suspect that this message is being issued because the cached definition of a procedure does not match the definition of a procedure in the SYSIBM.SYSPROCEDURES table, issue the -START PROCEDURE command to refresh the cache.

name The name of the stored procedure from the PROCEDURE field in SYSIBM.SYSPROCEDURES.

authid The authorization id from the AUTHID field in SYSIBM.SYSPROCEDURES.

luname The logical unit name from the LUNAME field in SYSIBM.SYSPROCEDURES.

number The expected number of parameters for the stored procedure with the NAME, AUTHID, and LUNAME described above.

System Action: The statement cannot be executed.

Programmer Response: If the SQL CALL statement is coded incorrectly, modify the SQL application to provide the correct number of parameters on the SQL CALL statement.

If the PARMLIST column of the SYSIBM.SYSPROCEDURES table contains incorrect information, make the required updates to the PARMLIST column and issue the -START PROCEDURE command to activate the updated definition.

Destination: 42884

-444 USER PROGRAM *name* COULD NOT BE FOUND

Explanation: DB2 received an SQL CALL statement for a stored procedure and found the row in the SYSIBM.SYSPROCEDURES catalog table associated with the requested procedure name. However, the MVS load module identified in the LOADMOD column of the SYSIBM.SYSPROCEDURES row could not be found.

name The name of the MVS load module that could not be found

System Action: The statement cannot be executed.

Programmer Response: If the LOADMOD column value in the SYSIBM.SYSPROCEDURES table was specified incorrectly, correct the value and issue the -START PROCEDURE command to activate the changed definition.

If the LOADMOD column value is correct, use the MVS linkage editor to create the required MVS load module in one of the MVS load libraries used by your installation for stored procedures.

Destination: 42724

-450 STORED PROCEDURE *name*, PARAMETER NUMBER *number*, OVERLAYED STORAGE BEYOND ITS DECLARED LENGTH.

Explanation: While returning parameters from a stored procedure to an application, DB2 detected an overlay of one of the parameters. A stored procedure overwrote storage beyond a parameter's declared length.

name The name of the stored procedure from the NAME field in the SYSIBM.SYSPROCEDURES catalog table.

number The parameter from the PARMLIST field in the SYSIBM.SYSPROCEDURES catalog table.

System Action: The results of the stored procedure cannot be returned.

Programmer Response: Examine the stored procedure to determine the cause of the overlay. Ensure that all parameters are declared correctly and that they match the definitions in SYSIBM.SYSPROCEDURES for procedure *name*.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Destination: 39501

-469 SQL CALL STATEMENT MUST SPECIFY AN OUTPUT HOST VARIABLE FOR PARAMETER *number*.

Explanation: DB2 received an SQL CALL statement for a stored procedure. DB2 found the row in the SYSIBM.SYSPROCEDURES catalog table associated with the requested procedure name. However, parameter *number* was identified in the PARMLIST column of the SYSIBM.SYSPROCEDURES table as an OUT or INOUT parameter. A host variable must be supplied on the SQL CALL statement for parameters defined as OUT or INOUT.

number The parameter number from the PARMLIST field in SYSIBM.SYSPROCEDURES.

System Action: The statement cannot be executed.

Programmer Response: If the SQL CALL statement is coded incorrectly, modify the SQL application to provide an output host variable on the SQL CALL statement.

If the PARMLIST column of the SYSIBM.SYSPROCEDURES table contains incorrect information, perform the required updates to the PARMLIST column and issue the -START PROCEDURE command to activate the updated definition.

Destination: 42886

-470 SQL CALL STATEMENT SPECIFIED A NULL VALUE FOR INPUT PARAMETER *number*, BUT THE STORED PROCEDURE DOES NOT SUPPORT NULL VALUES.

Explanation: DB2 received an SQL CALL statement for a stored procedure and found a null value in the incoming parameter list. The DB2 stored procedure was defined in the SYSIBM.SYSPROCEDURES catalog table with LINKAGE=' ', which specifies that the DB2 stored procedure does not accept null values.

number The parameter from the PARMLIST field in SYSIBM.SYSPROCEDURES.

System Action: The statement cannot be executed.

Programmer Response: If the stored procedure should not accept null values, change the calling application to provide a nonnull value.

If the stored procedure should accept null values, change the LINKAGE column in SYSIBM.SYSPROCEDURES to N.

Use the -START PROCEDURE command to activate the changes to the SYSIBM.SYSPROCEDURES table.

Destination: 39002

-471 SQL CALL FOR STORED PROCEDURE *name* FAILED DUE TO REASON *rc*

Explanation: DB2 received an SQL CALL statement for a stored procedure. The CALL statement was not accepted because of DB2 reason code *rc*.

name The name of the stored procedure specified on the SQL CALL statement.

rc The DB2 reason code describing the cause of the failure. Possible values are: 00E79000, 00E79001, 00E79002, 00E79003, 00E79004, 00E79005, 00E79006, 00E79007, 00E7900B, 00E7900C.

System Action: The statement cannot be executed. A DSNX9xx message describing the error might be displayed on the MVS system console.

Programmer Response: Correct the condition described by the DB2 reason code.

Destination: 55023

-480 THE PROCEDURE *procedure-name* HAS NOT YET BEEN CALLED

Explanation: The procedure identified in a DESCRIBE PROCEDURE or an ASSOCIATE LOCATORS statement has not yet been called within the application process or the procedure has been called, but an explicit or implicit commit occurred before the statement.

System Action: The statement cannot be executed.

Programmer Response: Correct the order of the statements and rerun them.

Destination: 51030

-482 THE PROCEDURE *procedure-name* RETURNED NO LOCATORS

Explanation: The procedure identified in an ASSOCIATE LOCATORS statement returned no result set locators.

System Action: The statement cannot be executed.

Programmer Response: Determine if result set locators are returned from the identified procedure by using the DESCRIBE PROCEDURE statement.

Destination: 51030

-496 THE SQL STATEMENT CANNOT BE EXECUTED BECAUSE IT REFERENCES A RESULT SET THAT WAS NOT CREATED BY THE CURRENT SERVER

Explanation: The SQL statement cannot be executed because the current server is different from the server that called a stored procedure. The SQL statement can be any of the following:

- ALLOCATE CURSOR
- DESCRIBE CURSOR
- FETCH (using an allocated cursor)
- CLOSE (using an allocated cursor)

System Action: The statement cannot be executed.

Programmer Response: Connect to the server that called the stored procedure which created the result set before running the SQL statement that failed.

Destination: 51033

-499 CURSOR *cursor-name* HAS ALREADY BEEN ASSIGNED TO THIS OR ANOTHER RESULT SET FROM PROCEDURE *procedure-name*.

Explanation: An attempt was made to assign a cursor to a result set using the SQL statement ALLOCATE CURSOR and one of the following applies:

- The result set locator variable specified in the ALLOCATE CURSOR statement has been previously assigned to cursor *cursor-name*.
- Cursor *cursor-name* specified in the ALLOCATE CURSOR statement has been previously assigned to a result set from stored procedure *procedure-name*.

System Action: The statement cannot be executed.

Programmer Response: Determine if the target result set named in the ALLOCATE CURSOR statement has been previously assigned to a cursor.

If the result set has been previously assigned to cursor *cursor-name*, then either choose another target result set or call stored procedure *procedure-name* again and reissue the ASSOCIATE LOCATOR and ALLOCATE CURSOR statements.

If the result set has not been previously assigned to a cursor, the cursor *cursor-name* specified in the ALLOCATE CURSOR statement has been previously assigned to some result set from stored procedure *procedure-name*. You can not assign cursor *cursor-name* to another result set, so you must specify

a different cursor name in the ALLOCATE CURSOR statement.

Destination: 24516

-500 THE IDENTIFIED CURSOR WAS CLOSED WHEN THE CONNECTION WAS DESTROYED

Explanation: The FETCH, UPDATE, DELETE, or CLOSE statement identifies a closed cursor that was defined with the WITH HOLD option. The cursor was closed when the connection on which it was dependent was destroyed during a commit operation. The connection was destroyed because the application process placed it in the released state, or the application plan was bound with the DISCONNECT(AUTOMATIC) option.

System Action: The statement cannot be executed.

Programmer Response: The correction depends on the desired state of both the cursor and the connection, as follows:

- If you want the cursor closed, change the application program so that the cursor is not referenced in the closed state.
- If you want the cursor open and the connection was placed in the released state by the application program, change the program so that the connection is not placed in the released state until the cursor is explicitly closed.
- If you want the cursor open and the connection was placed in the released state as a result of the DISCONNECT(AUTOMATIC) option, rebind the plan using DISCONNECT(CONDITIONAL).

Correct the error in the application, rebind the plan, and resubmit the job.

Destination: 24501

-501 THE CURSOR IDENTIFIED IN A FETCH OR CLOSE STATEMENT IS NOT OPEN

Explanation: The application program attempted to either:

1. FETCH using a cursor, or
2. CLOSE a cursor

at a time when the specified cursor was not open.

System Action: The statement cannot be executed.

Programmer Response: Check for a previous SQL return code that may have closed the cursor. Commit and rollback operations close cursors. SQLCODES -404, -652, -679, -901, -904, -909, -910, -911, and -913 will force the cursor to close. After the cursor is closed, any fetches or close cursor statements will receive this SQLCODE -501.

If no previous SQL return codes have been issued, correct the logic of the application program to ensure that the cursor is open at the time the FETCH or CLOSE statement is executed.

Destination: 24501

-502 THE CURSOR IDENTIFIED IN AN OPEN STATEMENT IS ALREADY OPEN

Explanation: The application program attempted to execute an OPEN statement for a cursor that was already open.

System Action: The statement cannot be executed. The cursor was unchanged (that is, it was not 'reopened').

Programmer Response: Correct the logic of the application program to ensure that it does not attempt to execute an OPEN statement for a cursor that is already open.

Destination: 24502

-503 A COLUMN CANNOT BE UPDATED BECAUSE IT IS NOT IDENTIFIED IN THE UPDATE CLAUSE OF THE SELECT STATEMENT OF THE CURSOR

Explanation: The application program attempted to update (using a cursor) a value in a column of the object table that was not identified in the FOR UPDATE clause in the cursor declaration.

Any column that is to be updated must be identified in the FOR UPDATE clause of the cursor declaration.

System Action: The statement cannot be executed. No data was updated in the object table.

Programmer Response: Correct the application program. If the column is to be updated, its name must be added to the FOR UPDATE clause of the cursor declaration.

Destination: 42912

-504 THE CURSOR NAME *cursor-name* IS NOT DEFINED

Explanation: Cursor *cursor-name* was referenced in an SQL statement, and one of the following is true:

- Cursor *cursor-name* was not declared (using the DECLARE CURSOR statement) or allocated (using the ALLOCATE CURSOR statement) in the application program before it was referenced.
- Cursor *cursor-name* was referenced in a positioned UPDATE or DELETE statement which is not a supported operation for an allocated cursor.
- Cursor *cursor-name* was allocated, but a CLOSE cursor statement naming *cursor-name* was issued and deallocated the cursor before this cursor reference.
- Cursor *cursor-name* was allocated, but a ROLLBACK operation occurred and deallocated the cursor before this cursor reference.
- Cursor *cursor-name* was allocated, but its associated cursor declared in a stored procedure was not declared WITH HOLD, and a COMMIT operation occurred and deallocated the cursor before this cursor reference. The COMMIT operation can be either explicit (the COMMIT statement) or implicit (that is, a stored procedure defined as COMMIT_ON_RETURN = 'Y' was called before this cursor reference).
- Cursor *cursor-name* was allocated, but its associated stored procedure was called again since the cursor was allocated, new result sets were returned, and cursor *cursor-name* was deallocated.

System Action: The statement cannot be executed.

Programmer Response: Check the application program for completeness and for a possible spelling error in the cursor declaration or allocation. The declaration for or allocation of a cursor must appear in an application program before SQL statements that reference the cursor.

If the *cursor-name* was <UNKNOWN>, then the cursor was not successfully declared or allocated. This can occur if SQL(DB2) was used, and a warning message was issued during precompilation. Check the precompile output for warning messages on the DECLARE CURSOR or ALLOCATE CURSOR statement, and correct the statement.

For an allocated cursor, if an implicit or explicit COMMIT, ROLLBACK, or CLOSE occurred since the cursor was successfully allocated, modify the application program logic to do one of the following:

- After the COMMIT, ROLLBACK, or CLOSE operation, call the associated stored procedure again, and reissue the ASSOCIATE LOCATORS and ALLOCATE CURSOR statements.
- For COMMIT, declare the associated cursor in the stored procedure WITH HOLD so the COMMIT operation will not deallocate the cursor.

For an allocated cursor, if the associated stored procedure was called again and new result sets were returned since the cursor was allocated, reissue the ASSOCIATE LOCATORS and ALLOCATE CURSOR statements.

Destination: 34000

-507 THE CURSOR IDENTIFIED IN THE UPDATE OR DELETE STATEMENT IS NOT OPEN

Explanation: The application program attempted to execute an UPDATE or DELETE WHERE CURRENT OF cursor statement at a time when the specified cursor was not open.

System Action: The statement cannot be executed. No update or delete was performed.

Programmer Response: Check for a previous SQL return code that might have closed the cursor. SQLCODES -404, -652, -679, -901, -904, -909, -910, -911, and -913 force the cursor to close. After the cursor is closed, any fetches or close cursor statements receive SQLCODE -501. Any updates or deletes receive this SQLCODE -507. Correct the logic of the application program to ensure that the specified cursor is open at the time the UPDATE or DELETE statement is executed.

Destination: 24501

-508 THE CURSOR IDENTIFIED IN THE UPDATE OR DELETE STATEMENT IS NOT POSITIONED ON A ROW

Explanation: The application program attempted to execute an UPDATE or DELETE WHERE CURRENT OF cursor statement at a time when the specified cursor was not positioned on a row of the object table. The cursor must be positioned on the row that is to be updated or deleted.

Note that the cursor is no longer positioned on a row if the row is deleted or an index column of the row is updated by another cursor in the same application program.

System Action: The statement cannot be executed. No data was updated or deleted.

Programmer Response: Correct the logic of the application program to ensure that the cursor is correctly positioned on the intended row of the object table before the UPDATE or DELETE statement is executed. Note that the cursor is not positioned on a row if FETCH returned an SQLCODE = 100.

Destination: 24504

-509 THE TABLE IDENTIFIED IN THE UPDATE OR DELETE STATEMENT IS NOT THE SAME TABLE DESIGNATED BY THE CURSOR

Explanation: The application program attempted to execute an UPDATE or DELETE WHERE CURRENT OF cursor statement where the table named in that statement did not match the name of the table specified in the declaration for that cursor.

System Action: The statement cannot be executed. The update or delete was not performed.

Programmer Response: Correct the application program to ensure that the table identified in the UPDATE or DELETE statement is the same table identified in the declaration for the cursor.

Destination: 42827

-510 THE TABLE DESIGNATED BY THE CURSOR OF THE UPDATE OR DELETE STATEMENT CANNOT BE MODIFIED

Explanation: The application program attempted to execute an UPDATE or DELETE WHERE CURRENT OF cursor statement against a table or view that cannot be updated or deleted. This can occur for a delete from a read-only view or for an update in which the cursor was not defined with the FOR UPDATE clause.

This error code is also returned when the table exists at a remote location and DB2 has employed block fetching because you explicitly declared the cursor FOR FETCH ONLY, or because the application is bound CURRENTDATA(NO) and the cursor is ambiguous.

This error code is also returned if DB2 has employed
parallelism to execute the SELECT statement associated with
the cursor named in a DELETE WHERE CURRENT OF cursor
statement, or if a DELETE WHERE CURRENT OF is issued
against a row which DB2 cannot guarantee to have not been
modified by another application since the time the cursor was
positioned upon it (in accordance with ISO(CS)) semantics for
an ambiguous cursor in an application bound
CURRENTDATA(NO)).

System Action: The statement cannot be executed. No data was updated or deleted in the object table.

Programmer Response: The requested UPDATE or DELETE cannot be performed. Refer to Chapter 6 of *SQL Reference* for information about restrictions on using UPDATE and DELETE operations against views.

For a remote table, modify the DECLARE CURSOR and then rebind the PLAN.

For a cursor that uses parallelism, disable parallelism for the
query by using the DEGREE(1) BIND option for static SQL or
by setting the CURRENT DEGREE special register to '1' for
dynamic SQL.

For an ambiguous cursor in an application bound CURRENTDATA(NO), either make the cursor unambiguous (declare it FOR UPDATE OF), or rebind the application CURRENTDATA(YES).

Destination: 42828

-511 THE FOR UPDATE CLAUSE CANNOT BE SPECIFIED BECAUSE THE TABLE DESIGNATED BY THE CURSOR CANNOT BE MODIFIED

Explanation: The result table of the SELECT statement cannot be updated. This can occur if the SELECT specifies more than one table or view in the FROM clause, if the SELECT list contains a built-in function or DISTINCT, or if the statement contains an ORDER BY or GROUP BY or HAVING clause. This can also occur if a view is specified in the FROM clause and the view cannot be updated.

System Action: The statement cannot be executed. The specified cursor remains undefined in the application program.

Programmer Response: Updates cannot be performed on the result table as it is specified. Refer to Chapter 6 of *SQL Reference* for information about restrictions on the updating of views.

Destination: 42829

-512 STATEMENT REFERENCE TO REMOTE OBJECT IS INVALID

Explanation: One of the following conditions exists:

- The statement refers to multiple locations.
- A statement with a remote reference is being EXPLAINED either by a dynamic EXPLAIN statement or the EXPLAIN(YES) option.
- An alias is used incorrectly.
- A three-part name is implicitly or explicitly used in a statement that is not supported by the DB2 private protocols.

System Action: The statement cannot be executed.

Programmer Response: If the object cannot be meaningfully eliminated from the statement, see your Database Administrator for other ways to obtain the data required. Refer to Chapter 4 of *SQL Reference* for more information about using remote objects.

Destination: 56023

-513 THE ALIAS *alias-name* MUST NOT BE DEFINED ON ANOTHER LOCAL OR REMOTE ALIAS

Explanation: The object indicated by 'alias-name' is a local or remote alias. An alias is not allowed to be defined on a local alias, and it should not be defined on a remote alias.

System Action: The statement cannot be executed.

Programmer Response: Modify the SQL statement to ensure that all object references are to base tables or views.

Destination: 42924

-514 THE CURSOR *cursor-name* IS NOT IN A PREPARED STATE

Explanation: The application program has tried to use a cursor, 'cursor-name,' that is not in a prepared state. The cursor is associated with a statement that either (1) has never been prepared, or (2) has been invalidated by a commit or rollback operation.

System Action: The statement cannot be executed.

Programmer Response: For case (1), ensure that you prepare the statement that is named in the DECLARE CURSOR statement for 'cursor-name' before you try to open the cursor. For case (2), do one of the following:

- Use the WITH HOLD option of DECLARE CURSOR.
- Do not execute a commit or rollback operation until you are finished using the cursor.
- Prepare the statement again after the commit or rollback.

Destination: 26501

-516 THE DESCRIBE STATEMENT DOES NOT IDENTIFY A PREPARED STATEMENT

Explanation: An attempt was made to execute a DESCRIBE for a statement that had not been successfully prepared beforehand. This error can occur when the DESCRIBE originates on an application requester that supports extended dynamic SQL. Because the target statement is static on the DB2 for MVS/ESA subsystem, the DESCRIBE statement fails.

System Action: The statement cannot be executed.

Programmer Response: Correct the logic of the application program to ensure that a statement is properly prepared before a DESCRIBE of the statement is attempted. If the DESCRIBE is a distributed request that originated on a system that supports extended dynamic SQL, contact your system administrator about changing the DB2 subsystem parameter DESCSTAT to YES to tolerate these DESCRIBE requests against static SQL.

Destination: 26501

-517 CURSOR *cursor-name* CANNOT BE USED BECAUSE ITS STATEMENT NAME DOES NOT IDENTIFY A PREPARED SELECT STATEMENT

Explanation: The cursor 'cursor-name' could not be used as specified because the prepared statement named in the declaration for the cursor was not a SELECT statement.

System Action: The statement cannot be executed.

Programmer Response: Verify that the statement-name is specified correctly in the PREPARE statement and the DECLARE CURSOR statement for cursor 'cursor-name'. Alternatively, correct the application program logic to ensure that only prepared SELECT statements are used in association with cursor declarations.

Destination: 07005

-518 THE EXECUTE STATEMENT DOES NOT IDENTIFY A VALID PREPARED STATEMENT

Explanation: One of the following conditions exists:

- The statement named in the EXECUTE statement has not been prepared.
- The statement named in the EXECUTE statement identifies a SELECT statement.
- The statement named in the EXECUTE IMMEDIATE statement identifies a SELECT statement.

System Action: The statement cannot be executed.

Programmer Response: Ensure that you prepare the statement prior to EXECUTE. Also, ensure that the statement you prepare is not a SELECT statement.

Destination: 07003

-519 THE PREPARE STATEMENT IDENTIFIES THE SELECT STATEMENT OF THE OPENED CURSOR *cursor-name*

Explanation: The application program has attempted to PREPARE (actually, re-PREPARE) the SELECT statement for the specified cursor at a time when that cursor was already open.

System Action: The statement cannot be executed. The cursor was not affected.

Programmer Response: Correct the logic of the application program so that it does not attempt to re-PREPARE the SELECT statement for a cursor when that cursor is open.

Destination: 24506

-525 THE SQL STATEMENT CANNOT BE EXECUTED BECAUSE IT WAS IN ERROR AT BIND TIME FOR SECTION = *sectno* **PACKAGE =** *pkgname* **CONSISTENCY TOKEN = X'contoken'**

Explanation: One of the following:

- The statement was in error when the package was bound, but the error was ignored then because the option SQLERROR (CONTINUE) was used. Since the statement contains an error, it cannot be executed.
- The statement might not be an executable statement at this location, or might only be executable by a DB2 application requester (for example, DECLARE TABLE in an application running on OS/2 causes this message).

The variables are:

sectno	Section number
pkgname	locid.collid.pkgid
contoken	Consistency token in hexadecimal

System Action: The statement cannot be executed.

Programmer Response: If the SQL statement is not supposed to execute at the indicated location, then correct the program so that the statement in error does not execute at that location. Precompile, compile, and bind replace the package. If the SQL statement is supposed to execute at the indicated location, correct the problem found when it was bound and bind the package over using BIND with ACTION(REPLACE). If multiple versions of the package have been bound, issue the following SELECT statement to determine which version has the error: SELECT VERSION FROM locid.SYSIBM.SYSPACKAGE WHERE LOCATION = ' ' AND COLLID = 'collid' AND NAME = 'pkgid' AND HEX(CONTOKEN) = 'contoken'

Where:

locid	Location name
collid	Collection id
pkgid	Program name

Destination: 51015

-526 THE REQUESTED FUNCTION DOES NOT APPLY TO GLOBAL TEMPORARY TABLES

Explanation: The SQL statement being executed refers to a temporary table. A temporary table cannot be used in the given context.

System Action: The statement cannot be processed.

Programmer Response: Modify the SQL statement to ensure that the object references are not to temporary tables.

Destination: 42995

-530 THE INSERT OR UPDATE VALUE OF FOREIGN KEY *constraint-name* **IS INVALID**

Explanation: An UPDATE or INSERT operation attempted to place a value in a foreign key of the object table; however, this value was not equal to some value of the parent key of the parent table.

When a row is inserted into a dependent table, the insert value of a foreign key must be equal to the value of the parent key of some row of the parent table in the associated relationship.

When the value of the foreign key is updated, the update value of a foreign key must be equal to the value of the parent key of some row of the parent table of the associated relationship.

System Action: The UPDATE or INSERT statement cannot be executed. The object table is unchanged.

Programmer Response: Examine the insert or update value of the foreign key first, and then compare it with each of the parent key values of the parent table to determine the cause of the problem.

Destination: 23503

-531 PARENT KEY IN A PARENT ROW CANNOT BE UPDATED BECAUSE IT HAS ONE OR MORE DEPENDENT ROWS IN RELATIONSHIP *constraint-name*

Explanation: For plans and packages bound beginning with Version 5 or dynamic SQL, a multi-row update of a parent key attempted to remove a parent key value on which a foreign key was dependent.

For plans and packages bound prior to Version 5 an UPDATE operation attempted to update a primary key in the specified row of the object table; however, the primary key in the specified row had dependent rows associated with it. The value of a primary key in a parent row cannot be updated if the parent row has any dependent rows.

System Action: The UPDATE statement cannot be executed. The object table is unchanged.

Programmer Response: Examine the parent key of the object table and the foreign key of the dependent table to determine if the value of the specified row of the parent keyshould be changed. If this does not expose the problem, examine the contents of the object table and the dependent table to determine the cause of the problem.

Destination: 23504

-532 THE RELATIONSHIP *constraint-name* RESTRICTS THE DELETION OF ROW WITH RID X'rid-number'

Explanation: A DELETE operation attempted to delete a specified parent row in the object table and all related descendent rows in the descendent tables. However, a delete rule of RESTRICT or NO ACTION was specified for one or more descendent tables.

A row of the table cannot be deleted because it has a dependent in a relationship with a delete rule of RESTRICT or NO ACTION or the deletion cascades to a row which is a dependent in a relationship with a delete rule of RESTRICT or NO ACTION.

System Action: The DELETE statement cannot be executed. The contents of the object table are unchanged.

Programmer Response: Examine the delete rule for all descendent tables to determine the cause of the problem. The specific tables involved can be determined from the relationship 'constraint-name'. The specific descendent row is known by RID X'rid-number'.

Destination: 23504

-533 INVALID MULTIPLE-ROW INSERT

Explanation: An INSERT operation with a subselect attempted to insert multiple rows into a self-referencing table.

The subselect of the INSERT operation should return no more than one row of data.

System Action: The INSERT statement cannot be executed. The contents of the object table are unchanged.

Programmer Response: Examine the search condition of the subselect to make sure that no more than one row of data is selected.

Destination: 21501

-534 THE PRIMARY KEY CANNOT BE UPDATED BECAUSE OF MULTIPLE-ROW UPDATE

Explanation: An UPDATE operation attempted to update a primary key on multiple rows of the object table.

An UPDATE statement updating the primary key cannot be used to update more than one row of the object table.

Note: This SQLCODE will only be issued for plans and packages bound prior to Version 5. SQLCODE -534 will not be issued for dynamic SQL or plans and packages bound with Version 5 or later releases.

System Action: The UPDATE statement cannot be executed. The contents of the object table are unchanged.

Programmer Response: Examine the search condition of the UPDATE statement to make sure that no more than one row of the object table is selected to be updated.

Destination: 21502

-536 THE DELETE STATEMENT IS INVALID BECAUSE TABLE table-name CAN BE AFFECTED BY THE OPERATION

Explanation: A DELETE operation with the indicated table referenced in a subquery was attempted.

If 'T' is the object table of the DELETE, the indicated table is one of the following:

- A dependent of 'T' in a relationship with a delete rule of CASCADE or SET NULL
- A dependent of another table in a relationship with a delete rule of CASCADE or SET NULL in which deletions from 'T' can cascade to that table.

System Action: The DELETE statement cannot be executed. The contents of the object table are unchanged.

Programmer Response: Do not attempt to reference a table in a subquery of a DELETE statement when the table can be affected by the DELETE statement.

Destination: 42914

-537 THE PRIMARY KEY CLAUSE, A FOREIGN KEY CLAUSE, OR A UNIQUE CLAUSE IDENTIFIES COLUMN *column-name* MORE THAN ONCE

Explanation: PRIMARY KEY, FOREIGN KEY, or UNIQUE can each be followed by a list of column names. The statement violates the rule that no column name can appear more than once in any such list.

System Action: The statement cannot be executed.

Programmer Response: Correct the statement to specify unique names for each column.

Destination: 42709

-538 FOREIGN KEY *name* DOES NOT CONFORM TO THE DESCRIPTION OF A PARENT KEY OF TABLE *table-name*

Explanation: The code is used to report that the definition of the indicated foreign key does not conform to the description of a parent key of the indicated table. Either the keys do not have the same number of columns or their descriptions are not identical. The requirement for identical descriptions includes data type, length attribute, and field procedure. The 'name' is the constraint-name specified in the foreign key clause or, if a constraint-name was not specified, the first column-name specified in the clause.

System Action: The statement cannot be executed.

Programmer Response: Correct the statement so that the description of the foreign key conforms to that of a parent key of the indicated table.

Destination: 42830

-539 TABLE *table-name* DOES NOT HAVE A PRIMARY KEY

Explanation: The CREATE or ALTER TABLE statement cannot be executed because the indicated table does not have a primary key. Thus, the primary key cannot be dropped, or the table cannot be defined as a parent in a referential constraint.

System Action: The statement cannot be executed.

Programmer Response: Correct the statement to reference a table with a primary key or define a primary key before referencing the table in a FOREIGN KEY clause.

Destination: 42888

-540 **THE DEFINITION OF TABLE** *table-name* **IS INCOMPLETE BECAUSE IT LACKS A PRIMARY INDEX OR A REQUIRED UNIQUE INDEX**

Explanation: The table named was defined with a PRIMARY KEY clause or a UNIQUE clause. Its definition is incomplete, and it cannot be used until a unique index is defined for the primary key (the primary index) and for each set of columns in any UNIQUE clause (the required unique indexes). An attempt was made to use the table in a FOREIGN KEY clause or in an SQL manipulative statement.

System Action: The statement cannot be executed.

Programmer Response: Define a primary index or a required unique index on the table before referencing it.

Destination: 57001

-542 *column-name* **CANNOT BE A COLUMN OF A PRIMARY KEY, A UNIQUE CONSTRAINT, OR A PARENT KEY BECAUSE IT CAN CONTAIN NULL VALUES**

Explanation: The code is used to report that a column identified in a PRIMARY KEY, a UNIQUE constraint clause, or a parent key (via a REFERENCES clause) is defined to allow null values.

System Action: The statement cannot be executed.

Programmer Response: In the case of a column identified in a PRIMARY KEY or a UNIQUE constraint clause, correct the statement and rerun it.

In the case of a column identified in a REFERENCES clause, correction will involve dropping the parent table then recreating the parent table with referenced columns defined as NOT NULL. Then rerun the statement.

Destination: 42831

-543 **A ROW IN A PARENT TABLE CANNOT BE DELETED BECAUSE THE CHECK CONSTRAINT** *check-constraint* **RESTRICTS THE DELETION**

Explanation: The delete operation cannot be executed because the target table is a parent table and is connected with a referential constraint to a dependent table with a delete rule of SET NULL. However, a check constraint defined on the dependent table restricts the column from containing a null value.

System Action: The DELETE statement was not executed. The contents of the tables are unchanged.

Programmer Response: Examine the foreign key and its delete rule in the dependent table and the conflicting check constraint. Change either the delete rule or the check constraint so that they do not conflict.

Destination: 23511

-544 **THE CHECK CONSTRAINT SPECIFIED IN THE ALTER TABLE STATEMENT CANNOT BE ADDED BECAUSE AN EXISTING ROW VIOLATES THE CHECK CONSTRAINT**

Explanation: An existing row violates the check constraint specified in the ALTER TABLE statement.

System Action: The statement cannot be executed. The check constraint definition is not added to the table. The table definition is unchanged.

Programmer Response: Examine the check constraint definition that was specified in the ALTER TABLE statement and the data in the table to determine why the ALTER TABLE statement was rejected.

You can determine which rows violated the check constraint by using the SELECT statement, negating the check constraint in the WHERE clause. For example:

```
SELECT * FROM table WHERE (NOT (check-condition));
```

Destination: 23512

-545 **THE REQUESTED OPERATION IS NOT ALLOWED BECAUSE A ROW DOES NOT SATISFY THE CHECK CONSTRAINT** *check-constraint*

Explanation: Table check constraint violations occurred on an INSERT or UPDATE statement. The resulting row violated the check constraint definition on the table.

System Action: The INSERT or UPDATE statement cannot be executed. The contents of the table are unchanged.

Programmer Response: Examine the data and the check constraint definition in the SYSIBM.SYSCHECKS catalog table to determine why the INSERT or UPDATE statement was rejected. The data must be changed to satisfy the check constraint.

Destination: 23513

-546 **THE CHECK CONSTRAINT** *constraint-name* **IS INVALID**

Explanation: A check constraint in the CREATE TABLE or ALTER TABLE statement is invalid for one or more of the following reasons:

- The constraint definition refers to a column that has a field procedure.
- The constraint definition refers to a column with a data type that is lower in the hierarchy of numeric data types than the data type of any other operand. The hierarchy is as follows:

  ```
  small integer < large integer < decimal  <
  single precision float < double precision float
  ```

- The constraint definition refers to a column with a numeric data type that is not the same numeric data type as that of the other column operands.
- The constraint definition refers to a column with a length that is shorter than the other operands when the column and other operands are not character string data types.

System Action: The statement is not executed.

For ALTER TABLE, the check constraint is not added to the object table. The definition of the table is unchanged.

For CREATE TABLE, the table is not created.

Programmer Response: Correct the check constraint definition and execute the statement again.

Destination: 42621

-548 A CHECK CONSTRAINT THAT IS DEFINED WITH *column-name* IS INVALID

Explanation: A check constraint in the CREATE TABLE or ALTER TABLE statement is invalid for one or more of the following reasons:

- The constraint definition refers to a column that has a field procedure.
- The constraint definition refers to a column with a data type that is lower in the hierarchy of numeric data types than the data type of any other operand. The hierarchy is as follows:

  ```
  small integer < large integer < decimal  < single precision float < double precision float
  ```

- The constraint definition refers to a column with a numeric data type that is not the same numeric data type as that of the other column operands.
- The constraint definition refers to a column with a length that is shorter than the other operands when the column and other operands are not character string data types.

System Action: The statement is not executed.

For ALTER TABLE, the check constraint is not added to the object table. The definition of the table is unchanged.

For CREATE TABLE, the table is not created.

Programmer Response: Correct the check constraint definition and execute the statement again.

Destination: 42621

-549 THE *statement* STATEMENT IS NOT ALLOWED FOR *object_type1 object_name* BECAUSE THE BIND OPTION DYNAMICRULES(BIND) IN THE *object_type2* IS IN EFFECT.

Explanation: A program attempted to issue the indicated SQL statement that is one of several SQL statements that cannot be issued from a plan or package for which the option DYNAMICRULES(BIND) is in effect. Those SQL statements are:

- Dynamic GRANT statement
- Dynamic REVOKE statement
- Dynamic ALTER statement
- Dynamic CREATE statement
- Dynamic DROP statement
- Static or dynamic SET CURRENT SQLID statement

The indicated SQL statement is bound to one of the following:

- The named plan or package that was bound with the option DYNAMICRULES(BIND)
- The named package that was not bound with the DYNAMICRULES option, but is appended to a plan that was bound with DYNAMICRULES(BIND)

statement The SQL statement in error

object_type1 PACKAGE or DBRM

object_name If *object_type1* is PACKAGE, *object_name* is the name of the package in the format 'location-id.collection-id.package-id'.

If *object_type1* is DBRM, *object_name* is the name of the DBRM in the format 'plan-name DBRM-name'.

object_type2 PLAN or PACKAGE

If *object_type1* is PACKAGE, *object_type2* can be either PACKAGE or PLAN (whichever is bound with DYNAMICRULES(BIND)).

If *object_type1* is DBRM, *object_type2* is PLAN.

System Action: The SQL statement cannot be executed.

Programmer Response: Do one of the following to correct the error:

- If the SQL statement is embedded, remove it, precompile and compile the application program again, and reissue the BIND command with the DYNAMICRULES(BIND) option.
- If appropriate, use the SQL statement with a package or plan that is bound with DYNAMICRULES(RUN).
- Issue the REBIND command with the DYNAMICRULES(RUN) option for the plan or package to which the SQL statement is bound

Refer to the BIND PACKAGE(DSN), BIND PLAN(DSN), REBIND PACKAGE(DSN), or REBIND PLAN(DSN) statement in *Command Reference* for the description of the DYNAMICRULES option and the expected results. Determine if either the SQL statement should be removed from the program or the plan or package should be rebound with the DYNAMICRULES(RUN) option.

Destination: 42509

-551 *auth-id* DOES NOT HAVE THE PRIVILEGE TO PERFORM OPERATION *operation* ON OBJECT *object-name*

Explanation: Authorization ID 'auth-id' attempted to perform 'operation' on object 'object-name' without having been granted the proper authority to do so. This error might also occur if the object is a read-only view (for INSERT, DELETE, or UPDATE), or if 'authorization ID' is trying to create a table or view with an authorization ID other than its own. You can create a table from an 'authorization ID' other than your own only if your authorization ID is SYSADM, DBADM, or DBCTRL. You can create a view from an 'authorization ID' other than your own only if your authorization ID is SYSADM.

When 'operation' is 'GRANT ***', the keyword ALL was used in the GRANT statement, but the grantor 'auth-id' did not possess any privilege to grant.

If this error occurs while DB2 is creating or altering a table involving referential constraints, this code reports that the user does not have the necessary ALTER privilege to perform a FOREIGN KEY, DROP FOREIGN KEY, or DROP PRIMARY KEY operation. The 'object-name' identifies the object table of the CREATE or ALTER TABLE statement, not the table for which the user lacks the ALTER privilege.

If this error occurs for a distributed SQL request, then:

1. If authorization ID translation is in effect for either the requesting DB2 site or the serving (responding) DB2 site, then 'auth-id' is the translated authorization ID. Refer to

Section 3 (Volume 1) of *Administration Guide* for information on authorization ID translation.
2. If an alias name was used in the SQL statement, then 'object-name' is the resolved remote table or view name.

If the operation is a DROP PACKAGE, the object name consists of the collection ID, the package name and the consistency token. The consistency token uniquely identifies which version of the package the user does not have authorization to drop.

Note: Beginning with Version 5, SQLCODE -551 will be returned instead of SQLCODE -204 for the runtime error where an object does not exist and the CURRENT RULES special register is set to 'STD'.

System Action: The statement cannot be executed.

Installation Action: Check for an attempted authorization violation.

Programmer Response: Ensure that 'authorization ID' was granted the authority to perform the desired operation, the 'object-name' exists, and 'authorization ID' is not trying to create a table with a different authorization ID.

Destination: 42501

-552 *auth-id* **DOES NOT HAVE THE PRIVILEGE TO PERFORM OPERATION** *operation*

Explanation: Authorization ID 'auth-id' has attempted to perform the specified 'operation' without having been granted the authority to do so.

System Action: The statement cannot be executed.

Installation Action: Check for an attempted authorization violation.

Programmer Response: Ensure that the authorization ID has been granted the authority necessary to perform the desired operation.

Destination: 42502

-553 *auth-id* **SPECIFIED IS NOT ONE OF THE VALID AUTHORIZATION IDS**

Explanation: The authorization ID specified as the value of the 'authorization-id' or host variable in the SQL SET CURRENT SQLID statement is neither the user's primary authorization ID nor one of the associated secondary authorization IDs.

System Action: The SET CURRENT SQLID statement cannot be executed. The current SQL ID is not changed.

Programmer Response: Correct the error in the statement or contact the security administrator to have the authorization ID defined for your use.

Destination: 42503

-554 **AN AUTHORIZATION ID CANNOT GRANT A PRIVILEGE TO ITSELF**

Explanation: An authorization ID attempted to execute a GRANT statement in which that ID itself appears as one of the entries in the list of 'grantee' authorization IDs.

An authorization ID cannot GRANT a privilege to itself. However, if SQLRULES(STD) is in effect or CURRENT RULES contains STD, GRANT to self is allowed.

System Action: The statement cannot be executed. No privileges were granted.

Programmer Response: Refer to Chapter 5 of *SQL Reference* for information about restrictions on the use of the GRANT statement.

Destination: 42502

-555 **AN AUTHORIZATION ID CANNOT REVOKE A PRIVILEGE FROM ITSELF**

Explanation: An authorization ID attempted to execute a REVOKE statement in which that ID itself appears as one of the entries in the list of authorization IDs to be revoked.

An authorization ID cannot REVOKE its own privilege. However, if SQLRULES(STD) is in effect or CURRENT RULES contains STD, REVOKE to self is allowed.

System Action: The statement cannot be executed. No privileges were revoked.

Programmer Response: Refer to Chapter 6 of *SQL Reference* for information about restrictions on the use of the REVOKE statement.

Destination: 42502

-556 *authid2* **CANNOT HAVE THE** *privilege* **PRIVILEGE** *on_object* **REVOKED BY** *authid1* **BECAUSE THE REVOKEE DOES NOT POSSESS THE PRIVILEGE OR THE REVOKER DID NOT MAKE THE GRANT**

Explanation: The REVOKE statement was not successful for one of the following reasons:

- *Authid2* does not possess the *privilege*.
- The revoker, *authid1*, did not explicitly grant the privilege to *authid2*.
- *Authid2* is the owner of the specified object.
- When *privilege* is '***' the keyword ALL was used in the REVOKE statement, but *authid2* did not possess any privilege to revoke.
- When *authid1* is ALL, the BY ALL clause was used in the REVOKE statement, but *authid2* did not possess any privilege to revoke.

An authorization ID can revoke only the privileges that it has explicitly granted to other authorization IDs, unless the authorization ID has SYSADM or SYSCTRL authority and specifies the BY clause. No authorization ID, not even SYSADM, can revoke 'privileges' on an object from the object owner.

System Action: The statement cannot be executed. No privileges were revoked from any authorization ID.

Programmer Response: Check the appropriate authorization catalog tables to verify that *authid2* possesses the privilege to be revoked. Queries can be made with GRANTEE = *authid2* and the privilege column not = blanks. Correct and reissue the REVOKE statement.

If a user holding SYSADM or SYSCTRL authority receives this SQLCODE, the BY clause might have been omitted from the REVOKE statement.

Destination: 42504

-557 INCONSISTENT GRANT/REVOKE KEYWORD *keyword*. PERMITTED KEYWORDS ARE *keyword-list*

Explanation: The GRANT or REVOKE statement contains a syntax or spelling error at or before the specified 'keyword'. As an aid to the programmer, 'keyword-list' provides a list of the keywords that would be permitted in this context.

Alternatively:

- The mixture of privileges specified on the GRANT or REVOKE statement is not permitted. The privileges must all be of one type, and consistent with the form of the GRANT or REVOKE statement.
- REVOKE UPDATE (column-list) is not permitted; only REVOKE UPDATE is valid.

System Action: The statement cannot be executed.

Programmer Response: Correct the syntax of the GRANT or REVOKE statement.

Destination: 42852

-558 INVALID CLAUSE OR COMBINATION OF CLAUSES ON A GRANT OR REVOKE

Explanation: The location qualifier specified for a GRANT or REVOKE statement is invalid.

System Action: The statement cannot be executed.

Programmer Response: Refer to Chapter 6 of *SQL Reference* for valid keywords for the GRANT statement.

Destination: 56025

-559 ALL AUTHORIZATION FUNCTIONS HAVE BEEN DISABLED

Explanation: The authorization mechanism has been disabled in the DB2 subsystem. Consequently, GRANT and REVOKE statements are ignored.

System Action: The statement cannot be executed. No privileges were granted or revoked.

Programmer Response: Do not attempt to execute GRANT or REVOKE statements unless and until the authorization mechanism is enabled in the DB2 subsystem.

Destination: 57002

-567 *bind-type* AUTHORIZATION ERROR USING *auth-id* AUTHORITY PACKAGE = *package-name* PRIVILEGE = *privilege*

Explanation: The authorization ID given does not have the privilege indicated, and cannot invoke the indicated subcommand against the indicated package.

bind-type — Type of bind subcommand (BIND | REBIND | FREE).

auth-id — Authorization ID of the package owner.

package-name — Name of the package (location.collection.package.version)

privilege — Name of the privilege not held:

- BINDADD—The authority to create a new package using BIND with the ADD option.
- BIND—The authority to BIND (REPLACE) or REBIND a package.
- COPY—The authority to COPY from the indicated package
- CREATE IN—The authority to create a package in the indicated collection.

System Action: The indicated package is not bound, rebound, or freed.

System Programmer Response: The indicated privilege must be granted to the authorization ID that will become the package owner.

Destination: 42501

-571 THE STATEMENT WOULD RESULT IN A MULTIPLE SITE UPDATE

Explanation:

This SQLCODE is issued in the following situations:

- When an application program operating in an IMS or CICS environment attempts to modify data at a remote location where multi-site update capabilities are not supported.
- When an application program has explicit SQL statements within a commit scope that would result in updates at multiple sites where one of the sites at which data is being updated does not support multi-site update.

This SQLCODE can be issued when an application program explicitly modifies data at a single location within a commit scope. This can occur in the following situations:

- A package or plan associated with the application program was invalidated.
- A package or plan was bound at one release of DB2 and fallback occurs to a prior release.

In the situations described above, an implicit autobind is done on behalf of the user. An autobind results in the DB2 catalog being updated. The conditions that must exist for this SQLCODE to be issued when an autobind occurs are:

- One site where data has been modified does not support multi-site update.
- The autobind occurs at a separate and distinct site from where an application program explicitly modifies data.
- At the time of the autobind, locks are being held to process an SQL statement within the application program.

System Action: The statement cannot be executed.

Programmer Response:

- Ensure that all requests for modifications to the data are confined to a single location within any given commit scope for any application that references a location that does not support multi-site update.
- For programs operating in an IMS or CICS environment where the remote database systems do not support multi-site update, all SQL statements must be read-only access.
- If an autobind is causing this SQLCODE to be issued, REBIND the plan or package.

Destination: 25000

-573 **TABLE *table-name* DOES NOT HAVE A UNIQUE KEY WITH THE SPECIFIED COLUMN NAMES**

Explanation: A referential constraint cannot be defined with the specified table as the parent because a unique index with the specified column names does not exist for the identified parent table.

System Action: The statement cannot be executed.

Programmer Response: Create a unique index with the specified columns for the parent table.

Destination: 42890

-574 **THE SPECIFIED DEFAULT VALUE CONFLICTS WITH THE COLUMN DEFINITION**

Explanation: USER, CURRENT SQLID, or a constant value was specified as a default for a column, but either the target column length is too short or its data type is incompatible. This error can occur if the value is more than 254 bytes, including quotes for strings, and introduces characters such as the X for a hex constant.

Programmer Response: Define a column whose length and data type is consistent with the intended default value.

Destination: 42894

-580 **THE RESULT-EXPRESSIONS OF A CASE EXPRESSION CANNOT ALL BE NULL**

Explanation: There is a CASE expression in the statement that has all the *result-expressions* (expressions following the THEN and ELSE keywords) coded with the keyword NULL.

System Action: The statement cannot be processed.

Programmer Response: Change the CASE expression to include at least one *result-expression* with a keyword other than NULL.

Destination: 42625

-581 **THE DATA TYPES OF THE RESULT-EXPRESSIONS OF A CASE EXPRESSION ARE NOT COMPATIBLE**

Explanation: There is a CASE expression in the statement that has *result-expressions* (expressions following THEN and ELSE keywords) that are not compatible. The data type of the *result-expressions* might be incompatible because the CASE condition result data types are not all:

- character
- graphic
- numeric
- date
- time
- timestamp

System Action: The statement cannot be processed.

Programmer Response: Correct the *result-expressions* so that they are compatible.

Destination: 42804

-582 **THE SEARCH-CONDITION IN A SEARCHED-WHEN-CLAUSE CANNOT BE A QUANTIFIED PREDICATE, IN PREDICATE, OR AN EXISTS PREDICATE.**

Explanation: The *search-condition* in a *searched-when-clause* specifies a quantified predicate, an IN predicate, or an EXISTS predicate, but is not allowed.

System Action: The statement cannot be processed.

Programmer Response: Correct the *search-condition*.

Destination: 42625

-601 **THE NAME OF THE OBJECT TO BE CREATED IS IDENTICAL TO THE EXISTING NAME *name* OF THE OBJECT TYPE *obj-type***

Explanation: The CREATE statement tried to create an object *name* of type *obj-type*, but an object of that type with the same name is already defined in the DB2 subsystem.

- If *obj-type* is CONSTRAINT, the *name* was specified in the FOREIGN KEY clause or the CHECK clause of either a CREATE or ALTER TABLE statement. All referential integrity and check constraint names defined on a table must be unique.
- If *obj-type* is TABLE/VIEW, the alias-name specified in the CREATE ALIAS statement is identical to the table-name/view-name specified. The TABLE/VIEW might not exist in the DB2 subsystem.

System Action: The CREATE or ALTER statement cannot be executed. No new object was created, and the existing object was not altered.

Programmer Response: Either drop the existing object or choose another name for the new object. If *obj-type* is data set, do an IDCAMS DELETE of the data set before retrying the CREATE. Refer to Chapter 3 of *SQL Reference* for information about the scope of object names in DB2.

Destination: 42710

-602 **TOO MANY COLUMNS SPECIFIED IN A CREATE INDEX**

Explanation: The number of columns specified in the CREATE INDEX statement exceeds 64, the maximum permitted by DB2.

System Action: The statement cannot be executed. The specified index was not created.

Programmer Response: The index definition must be modified to conform to the system-imposed column limit of 64.

Destination: 54008

-603 **A UNIQUE INDEX CANNOT BE CREATED BECAUSE THE TABLE CONTAINS ROWS WHICH ARE DUPLICATES WITH RESPECT TO THE VALUES OF THE IDENTIFIED COLUMNS**

Explanation: The index defined in the CREATE INDEX statement could not be created as unique because the specified table already contains rows that are duplicates with respect to the values of the identified columns.

System Action: The statement cannot be executed.

Programmer Response: Examine the data to ascertain whether or not the duplicate data is valid. Alternatively, consider creating a nonunique index.

Destination: 23515

-604 A COLUMN DEFINITION SPECIFIES AN INVALID LENGTH, PRECISION, OR SCALE ATTRIBUTE

Explanation: A column definition in the CREATE or ALTER TABLE statement contains an invalid length, precision, or scale attribute specification. In addition, the specification of data type might be incorrect or invalid. Or, the column definition in a view referenced within a CREATE TABLE LIKE *view* has an invalid length.

System Action: The statement cannot be executed. The specified table was not created or altered.

Programmer Response: Correct the syntax, and resubmit the statement. Refer to Chapter 3 of *SQL Reference* for information about valid length, precision, and scale attributes for the columns in a DB2 table.

Destination: 42611

-607 OPERATION OR OPTION *operation* IS NOT DEFINED FOR THIS OBJECT

Explanation: The operation or option cannot be performed on the object specified in the SQL statement.

If the operation is RENAME then one possible reason is that the name of a catalog table was specified as the source name, but catalog tables cannot be renamed.

System Action: The statement cannot be executed.

Programmer Response: If an option of the SQL statement is not allowed for this object, modify the SQL statement and resubmit the statement. If an operation is not defined for the object, the statement cannot be executed.

Destination: 42832

-611 ONLY LOCKMAX 0 CAN BE SPECIFIED WHEN THE LOCK SIZE OF THE TABLESPACE IS TABLESPACE OR TABLE.

Explanation: This message is issued when:

- The LOCKSIZE of the table space is TABLESPACE or TABLE, and LOCKMAX is being altered to or created as a nonzero value.
- The LOCKSIZE of the table space is being altered to TABLESPACE or TABLE, and LOCKMAX is being altered to or created as a nonzero value.

If LOCKSIZE is TABLESPACE or TABLE, LOCKMAX must be 0 because lock escalation is not supported from these levels.

System Action: The statement cannot be executed.

Programmer Response: Do one of the following:

- Reissue the statement with LOCKMAX 0.
- Alter the LOCKSIZE of the table space to a value other than TABLESPACE or TABLE.

Destination: 53088

-612 *column-name* IS A DUPLICATE COLUMN NAME

Explanation: The CREATE INDEX or CREATE TABLE or CREATE VIEW statement specifies the same 'column-name' for two (or more) columns of the index, table, or view. Column names must be unique within an index, a table, or a view.

System Action: The statement cannot be executed. The specified index, table, or view was not created.

Programmer Response: Correct the CREATE statement to specify unique names for each of the columns of the index, table, or view.

This error can also occur on CREATE TABLE when a column list of a PRIMARY KEY, FOREIGN KEY, or UNIQUE clause contains two or more occurrences of the same column name.

Destination: 42711

-613 THE PRIMARY KEY OR A UNIQUE CONSTRAINT IS TOO LONG OR HAS TOO MANY COLUMNS

Explanation: In a list of columns following either PRIMARY KEY or UNIQUE, the number of columns is greater than 64 or the sum of the column length attributes is greater than the number allowed for the type of index.

System Action: The CREATE or ALTER statement cannot be executed. The specified table cannot be created or altered.

Programmer Response: Change the table definition to keep within the prescribed limits.

Destination: 54008

-614 THE INDEX CANNOT BE CREATED BECAUSE THE SUM OF THE INTERNAL LENGTHS OF THE IDENTIFIED COLUMNS IS GREATER THAN THE ALLOWABLE MAXIMUM

Explanation: The index could not be created because the sum of the *internal* lengths of the key columns would exceed the allowable maximum. The maximum length permitted is a function of whether the index is partitioned or not, whether the index is unique or not, and the number of subpages of the index. For a nonpartitioned index with less than 8 subpages (either unique or not), the maximum permitted key length is 255.

System Action: The statement cannot be executed. The specified index was not created.

Programmer Response: The definition for the index must be modified (possibly by eliminating one or more key columns) to reduce the length of the key to the permitted maximum. Refer to Chapter 6 of *SQL Reference* if you require a complete explanation of other possible maximum key lengths and how they are computed.

Destination: 54008

-615 *operation-type* IS NOT ALLOWED ON A PACKAGE IN USE

Explanation: The operation 'operation-type' cannot be performed because the package is in use by the same application process.

operation-type Type of bind operation (BIND, REBIND or DROP).

System Action: The BIND, REBIND, or DROP operation on the package is not performed.

Programmer Response: Change the application to invoke the BIND, REBIND or DROP operation when the package is not use by the same application process.

Destination: 55006

-616 *obj-type1 obj-name1* **CANNOT BE DROPPED BECAUSE IT IS REFERENCED BY** *obj-type2 obj-name2*

Explanation: Some types of objects cannot be dropped if there are other objects which are dependent upon them. For example, a storage group cannot be dropped if there are one or more existing table spaces that use that storage group.

Execution of the specified DROP statement would drop object 'obj-name1' of type 'obj-type1' on which object 'obj-name2' of type 'obj-type2' is dependent.

System Action: The statement cannot be executed. The specified object was not dropped.

Programmer Response: Verify that the object specified in the DROP statement was indeed the object to be dropped. If so, all the existing objects that have a dependency on that object must be dropped first.

Destination: 42893

-617 **A TYPE 1 INDEX CANNOT BE DEFINED ON A TABLE IN A LARGE TABLE SPACE OR IN A TABLE SPACE WITH LOCKSIZE ROW.**

Explanation: All indexes defined on a table within a large table space or a table space with LOCKSIZE ROW must be defined as TYPE 2 indexes.

System Action: The statement cannot be executed.

Programmer Response: Either create the index as TYPE 2 or, if LOCKSIZE ROW was used, alter the LOCKSIZE of the table space containing the table to a value other than LOCKSIZE ROW.

Destination: 56089

-618 **OPERATION** *operation* **IS NOT ALLOWED ON SYSTEM DATABASES**

Explanation: System databases cannot be the object of certain types of operations. The attempted 'operation' cannot be performed on system databases. One possible reason for this error is that CCSID ASCII was specified when a system database was being created.

System Action: The statement cannot be executed. No changes were made to the specified system database.

Programmer Response: Do not attempt to perform the requested operation on system databases.

Destination: 42832

-619 **OPERATION DISALLOWED BECAUSE THE WORK FILE DATABASE IS NOT STOPPED**

Explanation: The statements CREATE, ALTER or DROP for a table space in the work file database cannot be processed unless the work file database is stopped (using the STOP command).

System Action: The statement cannot be executed.

Programmer Response: Issue the -DISPLAY DATABASE command to verify that the work file database is stopped before resubmitting the statement.

Destination: 55011

-620 **KEYWORD** *keyword* **IN** *stmt type* **STATEMENT IS NOT PERMITTED FOR A TABLE SPACE IN THE WORK FILE DATABASE**

Explanation: The specified keyword in the SQL statement is not allowed for a table space in the work file database.

System Action: The statement cannot be executed.

Programmer Response: Correct and resubmit the statement.

Destination: 53001

-621 **DUPLICATE DBID** *dbid* **WAS DETECTED AND PREVIOUSLY ASSIGNED TO** *database-name*

Explanation: The current database being created was assigned a DBID of 'dbid', which is identical to the DBID assigned to database 'database-name'. An inconsistency exists between the DB2 catalog and directory.

System Action: The statement cannot be executed. No new object was created, and the existing object was not altered or modified.

Programmer Response: Notify the system programmer. The inconsistency must be corrected before CREATE DATABASE will be successful.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Destination: 58001

-622 **FOR MIXED DATA IS INVALID BECAUSE THE MIXED DATA INSTALL OPTION IS NO**

Explanation: FOR MIXED DATA is specified in a column description of a CREATE or ALTER TABLE statement, but the MIXED DATA install option is set to NO. FOR MIXED DATA is valid only when the MIXED DATA install option is set to YES.

System Action: The statement is not executed.

Programmer Response: Either change the install option or the FOR clause. If the install option is correctly set to NO, the allowable FOR clause options are BIT and SBCS.

Destination: 56031

-623 A CLUSTERING INDEX ALREADY EXISTS ON TABLE *table-name*

Explanation: The CREATE INDEX statement would create a second cluster index on the specified table. A given table can have only one cluster index.

System Action: The statement cannot be executed.

Programmer Response: Check to determine the identity and validity of the existing cluster index on the object table. Alternatively, consider creating the index without the CLUSTER attribute.

Destination: 55012

-624 TABLE *table-name* **ALREADY HAS A PRIMARY KEY**

Explanation: The code is used to report that a primary key cannot be defined in an ALTER TABLE statement because the indicated table already has a primary key.

System Action: The statement cannot be run.

Programmer Response: A table cannot have more than one primary key.

Destination: 42889

-625 TABLE *table-name* **DOES NOT HAVE AN INDEX TO ENFORCE THE UNIQUENESS OF THE PARENT KEY**

Explanation: The code is used to report that an ALTER TABLE statement is invalid because the table does not have a unique index with a key that is identical to the nominated PARENT KEY.

System Action: The statement cannot be executed.

Programmer Response: Make sure the key list specified on the ALTER TABLE statement identifies an existing unique index of the table.

Destination: 55014

-626 THE ALTER STATEMENT IS NOT EXECUTABLE BECAUSE THE PAGE SET IS NOT STOPPED

Explanation: An ALTER statement specifies a BUFFERPOOL, USING, PRIQTY, SECQTY, ERASE, or GBPCACHE clause, but the page set is not stopped.

System Action: The SQL statement cannot be executed.

Programmer Response: Stop the page set before resubmitting the statement.

Destination: 55015

-627 THE ALTER STATEMENT IS INVALID BECAUSE THE PAGESET HAS USER-MANAGED DATA SETS

Explanation: This code is used if a PRIQTY, SECQTY, or ERASE clause is specified, USING STOGROUP is not specified, and the page set has user-managed data sets.

System Action: The SQL statement cannot be executed.

Programmer Response: Verify that the correct table or partition is specified. The primary and secondary space allocation of a user-managed data set cannot be altered by means of an ALTER statement.

Destination: 55016

-628 THE CLAUSES ARE MUTUALLY EXCLUSIVE.

Explanation: Mutually exclusive clauses were specified in one or more of the following ways:

- A CREATE TABLESPACE statement contains both the SEGSIZE and NUMPARTS clauses.
- A CREATE TABLESPACE statement contains both the SEGSIZE and LARGE clauses.
- A CREATE TABLESPACE statement contains both the SEGSIZE and MEMBER CLUSTER clauses.
- A CREATE or ALTER TABLESPACE contains both the LOCKPART YES and LOCKSIZE TABLESPACE
- A 'column-definition' contains both NOT NULL and DEFAULT NULL clauses.
- A 'column-definition' contains both FIELDPROC and DEFAULT clauses.
- A select-statement contains both the update-clause and the FOR FETCH ONLY clause.
- An ALTER TABLE statement contains both a DROP CONSTRAINT clause and either a DROP FOREIGN KEY clause or a DROP CHECK clause.
- A CREATE or ALTER TABLESPACE statement contains both LOCKPART YES and LOCKSIZE TABLESPACE.

Programmer Response: Specify one clause or the other, but not both.

Destination: 42613

-629 SET NULL CANNOT BE SPECIFIED BECAUSE FOREIGN KEY *name* **CANNOT CONTAIN NULL VALUES**

Explanation: The code is used to report that the SET NULL option of the indicated FOREIGN KEY clause is invalid because no column of the key allows null values. The 'name' is the constraint-name specified in the FOREIGN KEY clause or, if a constraint-name was not specified, the first column-name specified in the clause.

System Action: The statement cannot be run.

Programmer Response: Change a column of the key to allow null values or change the delete rule.

Destination: 42834

-630 THE WHERE NOT NULL SPECIFICATION IS INVALID FOR TYPE 1 INDEXES

Explanation: Type 1 indexes cannot be created with the WHERE NOT NULL specification.

System Action: The statement cannot be executed.

Programmer Response: Either the index must be created as a type 2 index, or the WHERE NOT NULL specification must not be used.

Destination: 56089

-631 FOREIGN KEY *name* IS TOO LONG OR HAS TOO MANY COLUMNS

Explanation: This code is used to report that the sum of the length attributes of the columns identified in the indicated FOREIGN KEY clause is greater than 254 bytes or the number of columns identified is greater than 64. The 'name' is the constraint-name specified in the FOREIGN KEY clause or, if a constraint-name was not specified, the first column-name specified in the clause.

System Action: The statement cannot be executed.

Programmer Response: The table definition must be modified to conform to the system-imposed limit of the sum of the length attributes of the columns identified in the PRIMARY KEY clause.

Destination: 54008

-632 THE TABLE CANNOT BE DEFINED AS A DEPENDENT OF *table-name* BECAUSE OF DELETE RULE RESTRICTIONS

Explanation: This code is used to report that the object of an ALTER TABLE statement cannot be defined as a dependent of the indicated table because either:

- The relationship would form a cycle that would cause the table to be delete-connected to itself.
- The relationship would cause the table to be delete-connected to the indicated table through multiple paths and the delete rule of the existing relationship is SET NULL.

The error is due to the delete rules of existing relationships, not the delete rule specified in the FOREIGN KEY clause of the ALTER TABLE statement.

System Action: The statement cannot be executed.

Programmer Response: Eliminate the particular FOREIGN KEY clause from the ALTER or CREATE TABLE statement.

Destination: 42915

-633 THE DELETE RULE MUST BE *delete-rule*

Explanation: The code is used to report that the 'delete-rule' specified in a FOREIGN KEY clause of the ALTER TABLE statement is invalid. The indicated 'delete-rule' is required because:

- A self-referencing constraint must have a 'delete-rule' of CASCADE or NO ACTION.
- The relationship would cause the table to be delete-connected to the same table through multiple paths and such relationships must have the same 'delete-rule'.

System Action: The statement cannot be executed.

Programmer Response: Change the 'delete rule' in the FOREIGN KEY clause.

Destination: 42915

-634 THE DELETE RULE MUST NOT BE CASCADE

Explanation: The code is used to report that the CASCADE delete rule specified in the FOREIGN KEY clause of an ALTER TABLE statement is invalid because:

- The relationship would form a cycle that would cause a table to be delete-connected to itself.
- The relationship would cause another table to be delete-connected to the same table through multiple paths with different delete rules or with a delete rule equal to SET NULL.

System Action: The statement cannot be executed.

Programmer Response: Change the delete rule.

Destination: 42915

-635 THE DELETE RULES CANNOT BE DIFFERENT OR CANNOT BE SET NULL

Explanation: The code is used to report that the delete rules specified in two FOREIGN KEY clauses of the CREATE TABLE statement are invalid because the table would be delete-connected to the same table through multiple paths involving relationships with different delete rules or with delete rules of SET NULL.

System Action: The statement cannot be executed.

Programmer Response: Change the delete rule.

Destination: 42915

-636 THE PARTITIONING KEYS FOR PARTITION *part-num* ARE NOT SPECIFIED IN ASCENDING OR DESCENDING ORDER

Explanation: In the CREATE INDEX statement for the CLUSTER index for a partitioned table (that is, a table residing in a partitioned table space), the partitioning key values specified in the limit key value specifications were not in either ascending or descending order.

System Action: The statement cannot be executed. The specified cluster index was not created.

Programmer Response: Correct the limit key value specifications in the CREATE INDEX statement for the identified partition so that the limit key values for successive partitions are in strictly ascending or descending order.

Destination: 56016

-637 DUPLICATE *keyword* KEYWORD

Explanation: The SQL statement contains a duplicate specification for the keyword 'keyword'.

System Action: The statement cannot be executed.

Programmer Response: Correct the statement to eliminate all but one specification for the keyword.

Destination: 42614

-638 TABLE *table-name* CANNOT BE CREATED BECAUSE COLUMN DEFINITION IS MISSING

Explanation: The CREATE TABLE statement does not contain any column definition.

System Action: The SQL statement cannot be executed.

Programmer Response: Add column definition to the statement.

Destination: 42601

-639 A NULLABLE COLUMN OF A FOREIGN KEY WITH A DELETE RULE OF SET NULL CANNOT BE A COLUMN OF THE KEY OF A PARTITIONED INDEX

Explanation: A partition key of the clustering index cannot be updated. Therefore, a foreign key column with a delete rule of SET NULL cannot be a column of a partition key if that column is nullable. If this error occurs for an ALTER TABLE operation, the foreign key cannot be created. If this error occurs for a CREATE INDEX operation, the index cannot be created.

System Action: The statement cannot be executed.

Programmer Response: Review the delete rule of the referential constraint and the partition keys for the index. Do one of the following:

- If the operation in error was CREATE INDEX, either change the index partition key definition or drop and redefine the referential constraint with a different delete rule.
- If the operation in error was ALTER TABLE, change the referential delete rule so that all nullable index keys are not part of the foreign keys.

Destination: 56027

-640 LOCKSIZE ROW CANNOT BE SPECIFIED BECAUSE TABLE IN THIS TABLESPACE HAS TYPE 1 INDEX

Explanation: If LOCKSIZE ROW is specified for a table space, all indexes on tables in the table space must be type 2 indexes. The following SQL statement identifies all the type 1 indexes:

```
SELECT I.CREATOR, I.NAME
       FROM SYSIBM.SYSINDEXES I,
            SYSIBM.SYSTABLES T
       WHERE INDEXTYPE = ' '
         AND T.TSNAME = 'table_space_name'
         AND T.DBNAMe = 'database_name'
         AND T.CREATOR = I.TBCREATOR
         AND T.NAME = I.TBNAME;
```

where '*table_space_name*' is the name of the table space that is to be altered; '*database_name*' is the name of the database that contains the table space.

System Action: The statement cannot be executed.

Programmer Response: Since the LOCKSIZE ROW on the table space and the type 1 indexes conflict, either use the ALTER INDEX statement to convert all type 1 indexes to type 2 indexes or use another LOCKSIZE option.

Destination: 56089

-642 TOO MANY COLUMNS IN UNIQUE CONSTRAINTS

Explanation: There is a limit to the total number of columns that can be used in UNIQUE constraints in a CREATE TABLE statement. The statement exceeds the limit.

System Action: The statement is not executed.

Programmer Response: Change the statement to remove some of the unique constraints. You can impose the same constraints later by creating unique indexes on the table, using CREATE INDEX.

Destination: 54021

-643 CHECK CONSTRAINT EXCEEDS MAXIMUM ALLOWABLE LENGTH

Explanation: The check constraint definition exceeds the maximum allowable limit of 3800 characters. The redundant blank spaces are excluded from this limit.

System Action: The CREATE TABLE or ALTER TABLE statement failed.

Programmer Response: Rewrite the check constraint definition so that it is less than 3800 characters. You might need to divide the check constraint into two or more smaller check constraints.

Destination: 54024

-644 INVALID VALUE SPECIFIED FOR KEYWORD *keyword* IN *stmt-type* STATEMENT

Explanation: The value specified for the 'keyword' parameter in the 'stmt-type' SQL statement is not a permitted value.

System Action: The SQL statement cannot be executed.

Programmer Response: Correct the statement. Refer to Chapter 6 of *SQL Reference* for information about the permissible values for the 'keyword' keyword in 'stmt-type' statements.

Destination: 42615

-646 TABLE *table-name* CANNOT BE CREATED IN PARTITIONED/DEFAULT TABLE SPACE *tspace-name* BECAUSE IT ALREADY CONTAINS A TABLE

Explanation: The table space specified in a CREATE TABLE statement is a partitioned or default table space in which an existing table already resides. Only one table may reside in a partitioned or default table space.

System Action: The statement cannot be executed. The specified table was not created.

Programmer Response: Verify that the correct table space was specified in the CREATE statement. Do not attempt to create more than one table in a partitioned or default table space.

Destination: 55017

-647 BUFFERPOOL *bp-name* CANNOT BE SPECIFIED BECAUSE IT HAS NOT BEEN ACTIVATED

Explanation: The buffer pool specified in a CREATE or ALTER statement for a table space or index (index space) is not activated.

Table spaces and indexes (index spaces) can only be assigned or reassigned to buffer pools that are currently activated.

System Action: The statement cannot be executed. The specified table space or index space was not created or altered.

Programmer Response: Verify that the proper buffer pool was specified in the CREATE or ALTER statement. Use the -DISPLAY BUFFERPOOL command to display the attributes of the buffer pool and determine if the buffer pool is activated. If the buffer pool is not activated, use the -ALTER BUFFERPOOL command to change the VPSIZE from 0 to the desired size.

Destination: 57003

-650 THE ALTER INDEX CANNOT BE EXECUTED, REASON *reason*

Explanation: The ALTER INDEX statement cannot be executed for one of the following reasons:

1 Alter to type 1 index is not allowed for the index whose associated table space has a LOCKSIZE specification of ROW.

2 Alter to type 1 index is not allowed for the index defined with UNIQUE WHERE NOT NULL.

3 Alter to type 1 index is not allowed for the index whose associated table space has been defined as a LARGE table space.

4 Alter to type 1 index is not allowed for an index on an ASCII table.

5 Alter PIECESIZE is not allowed for a partitioning index.

6 Alter PIECESIZE 4G is not allowed for non-partitioned indexes on a non-LARGE table.

System Action: The ALTER INDEX statement is not executed.

Programmer Response: Correct the error according to the given reason and execute the statement again.

Destination: 56090

-651 TABLE DESCRIPTION EXCEEDS MAXIMUM SIZE OF OBJECT DESCRIPTOR.

Explanation: The CREATE TABLE or ALTER TABLE statement causes the table descriptor (record OBD) to exceed the object descriptor size limit of 32KB.

Programmer Response: Change the statement by reducing either the number or length (or a combination of both) of the user-defined default string constants or check constraints and execute the statement again.

System Action: The statement is not executed. For an ALTER TABLE statement, the definition of the table is unchanged. For a CREATE TABLE statement, the table is not created.

Destination: 54025

-652 VIOLATION OF INSTALLATION DEFINED EDIT OR VALIDATION PROCEDURE *proc-name*

Explanation: The result of the SQL statement has been rejected by the installation defined edit or validation procedure 'proc-name' for the object table.

System Action: The statement cannot be executed. The contents of the object table were not modified.

Programmer Response: Determine the requirements imposed by the edit or validation procedure for inserts and updates of the object table.

Destination: 23506

-653 TABLE *table-name* IN PARTITIONED TABLE SPACE *tspace-name* IS NOT AVAILABLE BECAUSE ITS PARTITIONED INDEX HAS NOT BEEN CREATED

Explanation: An attempt has been made to insert or manipulate data in or create a view on a partitioned table (that is, a table residing in a partitioned table space) before the partitioned index for that table has been created.

A table residing in a partitioned table space cannot be referenced in any SQL manipulative statement or a CREATE VIEW statement before the partitioned index for that table has been created.

System Action: The statement cannot be executed.

Programmer Response: Verify that the correct table was specified in the statement. If so, ensure that the partitioned index for the table has been created successfully before attempting to execute any SQL manipulative statements that reference that table.

Destination: 57004

-655 THE CREATE OR ALTER STOGROUP IS INVALID BECAUSE THE STORAGE GROUP WOULD HAVE BOTH SPECIFIC AND NONSPECIFIC VOLUME IDS

Explanation: One of the following error conditions occurred:

- Both a specific and a nonspecific ('*') volume ID are specified in the VOLUMES clause of a CREATE STOGROUP statement.
- Both a specific and a nonspecific ('*') volume ID are specified in an ADD VOLUMES clause of an ALTER STOGROUP statement.
- A specific volume ID is specified in an ADD VOLUMES clause of an ALTER of a storage group that has nonspecific volume IDs or mixed volume IDs.
- A nonspecific volume ID ('*') is specified in an ADD VOLUMES clause of an ALTER of a storage group that has specific volume IDs or mixed volume IDs.

System Action: The statement is not executed.

Programmer Response: Specify either specific or nonspecific volume IDs in the VOLUMES clause of CREATE STOGROUP statement and the ADD VOLUMES clause of the ALTER STOGROUP statement. To add specific volume IDs to a storage group with nonspecific volume IDs, use the REMOVE VOLUMES clause to remove the nonspecific volume IDs. To add nonspecific volume IDs to a storage group with

specific volume IDs, use the REMOVE VOLUMES clause to remove the specific volume IDs.

Destination: 56036

-660 **INDEX** *index-name* **CANNOT BE CREATED ON PARTITIONED TABLE SPACE** *tspace-name* **BECAUSE KEY LIMITS ARE NOT SPECIFIED**

Explanation: The CREATE INDEX statement attempted to create a cluster index for a partitioned table (that is, a table residing in a partitioned table space) without specifying limit key values for the partitions of the table space.

System Action: The statement cannot be executed. The specified cluster index was not created.

Programmer Response: Verify that the correct table was specified in the CREATE INDEX statement. If so, the definition for the partitioned table space must be examined so that a proper definition for the cluster index for the table may be constructed. Refer to Chapter 6 of *SQL Reference* for information about the requirements that must be satisfied by the definitions for the cluster indexes for partitioned tables.

Destination: 53035

-661 **INDEX** *index-name* **CANNOT BE CREATED ON PARTITIONED TABLE SPACE** *tspace-name* **BECAUSE THE NUMBER OF PART SPECIFICATIONS IS NOT EQUAL TO THE NUMBER OF PARTITIONS OF THE TABLE SPACE**

Explanation: The CREATE INDEX statement for the cluster index on a partitioned table (that is, a table residing in a partitioned table space) does not contain the same number of PART specifications as there are partitions in the table space. The definition for the cluster index for a partitioned table must contain exactly as many PART specifications as there are partitions in the table space in which that table resides. Also, the part numbers must be valid and unique.

System Action: The statement cannot be executed. The specified cluster index was not created.

Programmer Response: Examine the definition of the partitioned table space to determine how many partitions have been specified, and then correct the syntax of the CREATE INDEX statement to provide the proper number of PART specifications. Refer to Chapter 6 of *SQL Reference* for information about the definitions for cluster indexes on partitioned tables.

Destination: 53036

-662 **A PARTITIONED INDEX CANNOT BE CREATED ON A NON-PARTITIONED TABLE SPACE** *tspace-name*

Explanation: The CREATE INDEX statement contains PART specifications, but the specified object table is not partitioned (that is, does not reside in a partitioned table space).

System Action: The statement cannot be executed. The specified index was not created.

Programmer Response: Verify that the proper object table was specified in the statement. Refer to Chapter 6 of *SQL Reference* for information about the proper usage of PART specifications in CREATE INDEX statements.

Destination: 53037

-663 **THE NUMBER OF KEY LIMIT VALUES IS EITHER ZERO, OR GREATER THAN THE NUMBER OF COLUMNS IN THE KEY OF INDEX** *index-name*

Explanation: The number of limit key value specifications provided in at least one of the PART specifications of the CREATE INDEX statement is either zero or greater than the number of columns in the index key.

System Action: The statement cannot be executed. The specified index was not created.

Programmer Response: Correct the statement so that each PART specification contains exactly the same number of limit key value specifications as there are columns in the index key.

Destination: 53038

-665 **THE PART CLAUSE OF AN ALTER STATEMENT IS OMITTED OR INVALID**

Explanation: The ALTER statement is invalid for one of the following reasons:

- The table space or index is not partitioned and the PART clause is specified.
- The table space or index is partitioned, a partition attribute (FREEPAGE or PCTFREE) is specified, and the PART clause is not specified.
- The integer specified in the PART clause does not identify a partition of the table space or index.
- A USING, PRIQTY, SECQTY, or ERASE clause is used to alter storage attributes, but the partition is not specified.
- A GBPCACHE clause is used to alter the group buffer pool caching attributes, but the partition is not specified.

System Action: The SQL statement cannot be executed.

Programmer Response: Determine whether the table space or index you want to alter is partitioned. If it is partitioned, specify a PART clause that identifies the partition you want to alter. If it is not partitioned, do not specify the PART clause.

Destination: 53039

-666 *stmt-verb object* **CANNOT BE EXECUTED BECAUSE** *function* **IS IN PROGRESS**

Explanation: The SQL statement could not be executed because the named function was executing at the time.

stmt-verb	The type of data definition language (DDL) statement
object	The DB2 object type
function	A utility, the governor, or the distributed data facility (DDF)

If the object is part of the communications database, it cannot be dropped while the DDF is active.

System Action: The statement was not executed.

Programmer Response: If the function is a utility, wait for the function to complete or stop. Then resubmit the statement for execution.

If the function is the governor, the statement cannot be executed until the resource limit facility is stopped or switched to a different resource limit specification table (RLST). In a DB2 data sharing environment, the resource limit facility must be

stopped on all members of the DB2 data sharing group or all members must switch to an RLST that is not associated with the object.

If the function is the DDF, the facility must be stopped before the object can be dropped. In a DB2 data sharing environment, the facility must be stopped on all members of the DB2 data sharing group.

Destination: 57005

-667 THE CLUSTERING INDEX FOR A PARTITIONED TABLE SPACE CANNOT BE EXPLICITLY DROPPED

Explanation: The DROP INDEX statement attempted to drop the cluster index for a table residing in a partitioned table space. The cluster index for such a table cannot be dropped explicitly with the DROP INDEX statement.

System Action: The statement cannot be executed. The specified index was not dropped.

Programmer Response: The cluster index for a table in a partitioned table space can only be dropped implicitly when the associated partitioned table space is dropped.

Destination: 42917

-668 THE COLUMN CANNOT BE ADDED TO THE TABLE BECAUSE THE TABLE HAS AN EDIT PROCEDURE

Explanation: The ALTER TABLE statement attempted to add a column to a table that has an edit procedure. If a table has an edit procedure, no columns can be added to it.

System Action: The statement cannot be executed. The specified table was not altered.

Programmer Response: Verify that the correct table was specified in the ALTER statement. Do not attempt to ALTER the definition of a table that has an installation-written edit procedure associated with it.

Destination: 56018

-669 A TABLE IN A PARTITIONED TABLE SPACE CANNOT BE EXPLICITLY DROPPED

Explanation: The DROP TABLE statement attempted to drop a table that resides in a partitioned table space.

System Action: The statement cannot be executed. The specified table was not dropped.

Programmer Response: The table of a partitioned table space can only be dropped implicitly when the table space itself is dropped.

Destination: 42917

-670 THE RECORD LENGTH OF THE TABLE EXCEEDS THE PAGE SIZE LIMIT

Explanation: The row length for a table cannot exceed the page size of the table space in which that table resides (or is to reside). The page size of the table space is determined by the buffer pool used by that table space.

One of three conditions may occur:

- As defined in a CREATE TABLE statement, the row length for the table would exceed the page size of the specified (or default) table space.
- In the case of an ALTER TABLE statement, addition of the specified column would cause the row length of the table to exceed the page size of the table space.
- The row length in the result of a join exceeds the page size of a work file table space.

System Action: The statement cannot be executed. The object table was not created or altered.

Programmer Response: In the case of CREATE TABLE, either (1) the row length of the table must be reduced (by eliminating or reducing the lengths of one or more of the columns), or (2) the table must be assigned to a table space that uses the 32KB buffer pool (assuming that the row length of the table does not exceed that page size limit).

In the case of ALTER TABLE, either (1) the length of the column to be added to the table must be reduced or, (2) if the row length of the table is already at the maximum, the table cannot be altered to add any additional columns.

In the case of a row length that exceeds the page size of a work file table space, eliminate columns from the result of the join.

Destination: 54010

-671 THE BUFFERPOOL ATTRIBUTE OF THE TABLE SPACE CANNOT BE ALTERED AS SPECIFIED BECAUSE IT WOULD CHANGE THE PAGE SIZE OF THE TABLE SPACE

Explanation: The change to the buffer pool attribute for the table space specified in the ALTER TABLESPACE statement would change the page size of the table space—either from 4KB to 32KB, or vice versa.

Use of the ALTER TABLESPACE statement to change the page size of a table space is not permitted.

System Action: The statement cannot be executed. The table space definition was not altered.

Programmer Response: If the table space uses one of the 4KB buffer pools (for example, BP0, BP1, or BP2), it can be reassigned to one of the other 4KB buffer pools (but not buffer pool BP32K). If, however, it is assigned to buffer pool BP32K, the buffer pool assignment cannot be subsequently altered.

Destination: 53040

-672 OPERATION DROP NOT ALLOWED ON TABLE *table_name*

Explanation: The DROP operation failed for one of the following reasons:

- The table being dropped has the RESTRICT ON DROP attribute.
- The table space or database being dropped contains the specified table, which has the RESTRICT ON DROP attribute.

System Action: The DROP statement cannot be executed.

Programmer Response: Before dropping the table, alter the table, specifying DROP RESTRICT ON DROP.

For DROP TABLESPACE or DROP DATABASE, make sure that there are no other tables within the table space or database with the RESTRICT ON DROP attribute. The following SELECT statement can identify the tables:

```
SELECT CREATOR, NAME
  FROM SYSIBM.SYSTABLES
  WHERE TYPE = 'T'
    AND CLUSTERTYPE = 'Y'
    AND DBNAME = 'database_name'
    AND TSNAME = 'tablespace_name';
```

Destination: 55035

-676 A 32K PAGE BUFFERPOOL MAY NOT BE USED FOR AN INDEX

Explanation: A buffer pool having a 32KB page size was specified in the CREATE INDEX statement. Only 4KB buffer pools (that is, BP0, BP1, and BP2) can be specified for indexes.

System Action: The statement cannot be executed. The specified index was not created.

Programmer Response: Correct the statement to specify a 4KB buffer pool. Refer to Chapter 6 of *SQL Reference* for information about the syntax of SQL statements.

Destination: 53041

-677 INSUFFICIENT VIRTUAL STORAGE FOR BUFFERPOOL EXPANSION

Explanation: An attempt to either open (create) or expand a buffer pool has failed because insufficient virtual storage was available.

This error may occur under either of two circumstances:

- An attempt to create a buffer pool while opening a table space or index(space), or
- An attempt to expand a buffer pool from its current size to its maximum size.

System Action: The statement cannot be executed.

Programmer Response: If this error should occur during interactive execution of an SQL statement or execution of an application program, installation administration should be notified.

Installation Action: It may be necessary to reexamine the buffer pool storage strategy.

One of the following messages has also been sent to the MVS console: DSNB601I, DSNB603I, or DSNB605I. Refer to “Section 3. DB2 Messages” on page 3-1 for explanations of these messages.

Destination: 57011

-678 THE LITERAL literal SPECIFIED FOR THE INDEX LIMIT KEY MUST CONFORM TO THE DATA TYPE *data-type* OF THE CORRESPONDING COLUMN *column-name*

Explanation: The index limit key value 'literal' has been specified incorrectly in the CREATE INDEX statement.

Limit key value specifications must conform to the data type of the corresponding index key column. In this case, the 'literal' must be of data type 'data-type' to conform to the data type of column 'column-name'.

System Action: The statement cannot be executed. The specified index was not created.

Programmer Response: Correct the statement so that each limit key value literal is of precisely the same data type as that of the corresponding index key column.

Destination: 53045

-679 THE OBJECT *name* CANNOT BE CREATED BECAUSE A DROP IS PENDING ON THE OBJECT

Explanation: The application program has executed a DROP for the specified object, and then tried to re-create an object with the same name (and of the same type) before the DROP was completed.

System Action: The statement cannot be executed. The specified object was not created.

Programmer Response: The logic of the application program must be modified to issue a COMMIT (or the IMS or CICS equivalent) between the DROP and CREATE statements.

Destination: 57006

-680 TOO MANY COLUMNS SPECIFIED FOR A TABLE

Explanation: The maximum number of columns permitted per table is 750.

System Action: The statement cannot be executed.

Programmer Response: Do not attempt to CREATE or ALTER a table to contain more than 750 columns. Create separate tables as required to hold the additional information.

Destination: 54011

-681 COLUMN *column-name* IN VIOLATION OF INSTALLATION DEFINED FIELD PROCEDURE. RT: *return-code*, RS: *reason-code*, MSG: *message-token*

Explanation: An installation field procedure returned an error for 'column-name'. The 'reason-code' and 'message-token' are defined by the field procedure. They may give additional information to help determine the cause of the problem.

Return code	Error
4	Invalid value on encode or decode or invalid column description on define
8	Invalid parameter value
12	Field procedure error on any function

Use 'reason-code' and 'message-token' for additional information.

System Action: The statement cannot be executed.

Programmer Response: If it is not a field procedure error, determine the requirements imposed by the field procedure. If it is a field procedure error, examine the field procedure.

Destination: 23507

-682 FIELD PROCEDURE *procedure-name* COULD NOT BE LOADED

Explanation: The field procedure 'procedure-name' cannot be loaded.

System Action: The statement cannot be executed.

Programmer Response: The application should either commit or roll back to previous COMMIT. Then, in general, the application should terminate.

Destination: 57010

-683 INVALID COLUMN TYPE FOR FIELDPROC, BIT DATA, SBCS DATA, OR MIXED DATA OPTION, *column-name*

Explanation: The FIELDPROC, BIT DATA, SBCS DATA, or MIXED DATA option was specified for column 'column-name'. This is invalid. Data subtypes can only be specified for character string columns; and field procedures can only be specified for string columns that allow nulls or have no default value.

System Action: The statement cannot be executed.

Programmer Response: Correct the SQL statement.

Destination: 42842

-684 THE LENGTH OF LITERAL LIST BEGINNING *string* **IS TOO LONG**

Explanation: The length of the literal list beginning with 'string', excluding insignificant blanks and delimiting parentheses is greater than 254.

System Action: The statement cannot be executed.

Programmer Response: Correct the SQL statement.

Destination: 54012

-685 INVALID FIELD TYPE, *column-name*

Explanation: The field description returned by the field procedure is invalid. The data type code denotes a long string or has an invalid value.

System Action: The statement cannot be executed.

Programmer Response: Correct the field procedure so that it returns a valid data type code.

Destination: 58002

-686 COLUMN DEFINED WITH A FIELD PROCEDURE CAN NOT COMPARE WITH ANOTHER COLUMN WITH DIFFERENT FIELD PROCEDURE

Explanation: The columns specified are not compatible. Different field procedures are specified, or only one field procedure is specified.

System Action: The statement cannot be executed.

Programmer Response: Correct the SQL statement. Refer to Chapter 3 of *SQL Reference* for comparison restrictions between columns defined with a field procedure.

Destination: 53043

-687 FIELD TYPES INCOMPARABLE

Explanation: One column cannot be compared with another column that has incompatible field types.

System Action: The statement cannot be executed.

Programmer Response: Correct the SQL statement. Refer to Chapter 3 of *SQL Reference* for comparison restrictions between columns defined with a field procedure.

Destination: 53044

-688 INCORRECT DATA RETURNED FROM FIELD PROCEDURE, *column-name*, *msgno*

Explanation: Unexpected data returned from field procedure for column 'column-name'. For more information see 'msgno'.

System Action: The statement cannot be executed.

Programmer Response: Correct the field procedure so that it returns values that are consistent with their descriptions.

Destination: 58002

-689 TOO MANY COLUMNS DEFINED FOR A DEPENDENT TABLE

Explanation: The maximum number of columns allowed for a dependent table is 749. The code is used to report that the statement is invalid because of one of the following:

- A CREATE TABLE statement is creating a dependent table with 750 columns.
- An ALTER TABLE statement is altering a dependent table with 749 columns to add a column, or altering a table with 750 columns to become a dependent table.

System Action: The statement cannot be executed.

Programmer Response: Correct the SQL statement to conform to the column limit for a dependent table.

Destination: 54011

-690 THE STATEMENT IS REJECTED BY DATA DEFINITION CONTROL SUPPORT. REASON *reason-code*

Explanation: The code is issued by the data definition control support to report that the statement is rejected for the reason indicated by 'reason-code' after consulting the application registration table and object registration table.

The explanation of the given reason code:

- 0001

  Data definition control support is running under the controlling by application name mode. The statement is rejected because the current application is not registered in application registration table with DEFAULTAPPL on.

- 0002

  Data definition control support is running under the controlling by application name with exceptions mode. The statement is rejected because the object is not registered in object registration table and the current application is not registered in application registration table with DEFAULTAPPL on.

- 0003

  Data definition control support is running under the controlling by application name with exceptions mode. The statement is rejected because the object is registered in object registration table but the current application does not match.

- 0004

  Data definition control support is running under the controlling by object name with exceptions mode. The statement is rejected because the object is registered in object registration table but the current application does not match.

- 0005

  Data definition control support is running under the controlling by object name mode. The statement is rejected because the object is registered in object registration table but the current application does not match.

- 0006

  Data definition control support is running under the controlling by object name mode. The statement is rejected because the object is not registered in object registration table.

System Action: The statement cannot be executed.

Programmer Response: None if valid rejection. Otherwise, check to see if data definition control support is running under the desired mode. Check one or both registration table(s) to determine if the entries of the registration table(s) are correct. If they are not, then update the registration table(s).

Destination: 23508

-691 **THE REQUIRED REGISTRATION TABLE** *table-name* **DOES NOT EXIST**

Explanation: The data definition control support assumes the existence of the application registration table and object registration table. But either one or both tables is not defined.

System Action: The statement cannot be executed.

Programmer Response: Determine whether the required registration tables do exist. If not, create the required tables.

Destination: 57018

-692 **THE REQUIRED UNIQUE INDEX** *index-name* **FOR DDL REGISTRATION TABLE** *table-name* **DOES NOT EXIST**

Explanation: A unique index must be defined for each registration table. The code is issued when either the required index does not exist or the index defined is not a unique index.

System Action: The statement cannot be executed.

Programmer Response: Determine whether the required unique index does exist. If not, create the required index. If the index does exist, but is not unique, drop it and recreate it as a unique index.

Destination: 57018

-693 **THE COLUMN** *column-name* **IN DDL REGISTRATION TABLE OR INDEX** *table-name (index-name)* **IS NOT DEFINED PROPERLY**

Explanation: An error occurred during verification of the application or object registration table.

The table is improperly defined for the following reasons:

- A required column is missing.
- A column description is invalid because its name, column number, data type, length, or null attribute is incorrect.

or

The index is improperly defined for the following reasons:

- A required key column is missing.
- A key column description is invalid because of its key sequence or because its ordering is incorrect.
- A defined key column should not be part of the unique key.

System Action: The statement cannot be executed.

Programmer Response: Correct or alter the definition of the required registration table or index.

Destination: 55003

-694 **THE DDL STATEMENT CANNOT BE EXECUTED BECAUSE A DROP IS PENDING ON THE DDL REGISTRATION TABLE** *table-name*

Explanation: An error occurred while accessing the application registration table or object registration table. The application registration table or object registration table was dropped, but the DROP statement was not committed.

System Action: The statement cannot be executed.

Programmer Response: Resubmit the job. If the same error happens, check for the application that issued the DROP statement for the application registration table or the object registration table. Either commit the DROP statement which dropped the table and create a new application registration table or object registration table, or issue a ROLLBACK for the DROP statement to put the tables back.

Destination: 57023

-713 **THE REPLACEMENT VALUE FOR** *special-register* **IS INVALID**

Explanation: The value specified in the SET special-register statement is not a valid value of the indicated special register.

System Action: The statement cannot be executed.

Programmer Response: Correct the replacement value. See *SQL Reference* for an explanation of the valid values of each special register.

Destination: 42815

-715 **PROGRAM** *program-name* **WITH MARK** *release-dependency-mark* **FAILED BECAUSE IT DEPENDS ON FUNCTIONS OF THE RELEASE FROM WHICH FALLBACK HAS OCCURRED**

Explanation: Program 'program-name' depends on a function of DB2 that is not supported by the current active release.

program-name
: Name of the application program.

release-dependency-mark
: A 1-character mark showing the oldest DB2 release supporting this program.

System Action: The BIND operation for this plan or package is not performed.

User Response: The program cannot be used until the DB2 subsystem is remigrated to the newer release.

Operator Response: Notify the system programmer.

System Programmer Response: Warn users not to use plans or packages containing this program until the DB2 subsystem has been remigrated to the newer release.

Destination: 56064

-716 **PROGRAM** *program-name* **PRECOMPILED WITH INCORRECT LEVEL FOR THIS RELEASE.**

Explanation: Program 'program-name' was precompiled under a release not supported by the current level of DB2, or the contents of the DBRM have been modified after the pre-compilation phase.

User Response: Precompile the named program again using the current precompiler. Reissue the BIND subcommand.

Problem Determination: If the program was precompiled at an appropriate release, and the problem persists, collect the following:

- A hexadecimal print of the first record of the failing DBRM
- The listing from the precompile job that generated the DBRM
- Output from the BIND attempt.

Destination: 56065

-717 *bind-type* **FOR** *object-type object-name* **WITH MARK** *release-dependency-mark* **FAILED BECAUSE** *object-type* **DEPENDS ON FUNCTIONS OF THE RELEASE FROM WHICH FALLBACK HAS OCCURRED.**

Explanation: The plan or package indicated depends on a function of DB2 which is not supported by the currently active release.

bind-type — REBIND

object-type — PLAN | PACKAGE

object-name — Name of the application plan, or the package

release-dependency-mark — A one-character mark showing the oldest release of DB2 can support this plan or package. The release dependency mark for the plan is kept in the IBMREQD columns in the DB2 catalog in SYSIBM.SYSPLAN (plans), SYSIBM.SYSPACKAGE(packages).

System Action: The REBIND operation for this plan or package is not performed.

User Response: The plan or package cannot be used until the DB2 subsystem is remigrated to the newer release.

Operator Response: Notify the system programmer.

System Programmer Response: Warn users not to use the plan or package until the DB2 subsystem has been remigrated to the newer release.

Destination: 56066

-718 **REBIND OF PACKAGE** *package-name* **FAILED BECAUSE IBMREQD OF** *ibmreqd* **IS INVALID**

Explanation: The IBMREQD column of the SYSIBM.SYSPACKAGE catalog table for the named package contains an unrecognizable character.

package-name — Name of the package (location.collection.package.version)

System Action: The REBIND failed.

User Response: You must do a BIND ACTION(REPLACE) for this package.

Destination: 56067

-719 **BIND ADD ERROR USING** *auth-id* **AUTHORITY PACKAGE** *package-name* **ALREADY EXISTS**

Explanation: An attempt is made to add a package that already exists. The combination of 'location.collection.package.version' must be unique in the SYSIBM.SYSPACKAGE table. In addition, the combination of 'location.collection.package.consistency-token' must be unique.

auth-id — Authorization ID of the invoker of the BIND subcommand.

package-name — Name of the package (location.collection.package.version).

System Action: No package is created.

System Programmer Response: Check the SYSIBM.SYSPACKAGE catalog table for names of existing application packages. Re-invoke the BIND subcommand with a 'location.collection.package.version' that is not in use.

Destination: 42710

-720 **BIND ERROR, ATTEMPTING TO REPLACE PACKAGE =** *package_name* **WITH VERSION =** *version2* **BUT THIS VERSION ALREADY EXISTS**

Explanation: An attempt is made to create a version of a package that already exists. The version specified in the REPLVER keyword is different from the version specified for the precompile. The version specified for the precompile already exists in the catalog. The combination of 'location.collection.package.version' must be unique in the SYSIBM.SYSPACKAGE catalog table. A common mistake is that the user may believe that the version he is creating is the one specified in the REPLVER keyword. This is not the case. The version specified in the REPLVER keyword is the name of the version being replaced. The version that will be created is the version that was given to the program when it was precompiled.

package_name — Fully qualified package name

version2 — Version-id of package that is to be created

System Action: The bind will fail.

System Programmer Response: There are two approaches to solve this problem. The first is to precompile the program again with a new version name and reissue the original BIND subcommand. The other approach is not to do the precompile but reissue the BIND subcommand with REPLVER(SAME).

Destination: 42710

-721 **BIND ERROR FOR PACKAGE =** *pkg-id* **CONTOKEN = 'contoken'X IS NOT UNIQUE SO IT CANNOT BE CREATED**

Explanation: An attempt is made to add or replace a package with a consistency token that is not unique for that package. In other words, the combination of 'location.collection.package.consistency-token' already exists.

pkg-id — Fully qualified name of the package.

contoken Consistency token in hexadecimal.

System Action: The BIND will fail.

System Programmer Response: Check the SYSIBM.SYSPACKAGE catalog table for names of existing application packages with the indicated consistency token. Reissue the BIND subcommand such that the 'location.collection.package.consistency-token' is unique within the catalog. The following SQL statement can be used to query the catalog:

```
SELECT COLLID,NAME
FROM loc-id.SYSIBM.SYSPACKAGE
WHERE HEX(CONTOKEN) = 'contoken';
```

Destination: 42710

-722 *bind-type* **ERROR USING** *auth-id* **AUTHORITY PACKAGE** *package-name* **DOES NOT EXIST**

Explanation: The indicated subcommand was issued against a package that does not exist. The individual variable fields contain:

bind-type Type of bind subcommand (BIND | REBIND | FREE).

auth-id Authorization ID of the invoker of the BIND subcommand.

package-name Name of the package (location.collection.package.version)

System Action: Package not rebound or freed.

System Programmer Response: Check the SYSPACKAGE catalog table for the correct 'location.collection.package.version' to use.

Destination: 42704

-726 **BIND ERROR ATTEMPTING TO REPLACE PACKAGE = <package_name>. THERE ARE ENABLE OR DISABLE ENTRIES CURRENTLY ASSOCIATED WITH THE PACKAGE**

Explanation: The BIND subcommand was issued to replace a package that has ENABLE or DISABLE entries currently associated with the package.

System Action: Package not bound.

System Programmer Response: FREE the package first and then BIND the package.

Destination: 55030

-730 **THE PARENT OF A TABLE IN A READ-ONLY SHARED DATABASE MUST ALSO BE A TABLE IN A READ-ONLY SHARED DATABASE**

Explanation: An attempt was made to define a relationship between a table in a read-only shared database and a table that is not.

System Action: The statement cannot be executed.

Programmer Response: Insure that the correct tables are being used for the relationship being defined.

Destination: 56053

-731 **USER-DEFINED DATASET** *dsname* **MUST BE DEFINED WITH SHAREOPTIONS(1,3)**

Explanation: The VSAM SHAREOPTIONS must be (1,3) for all of the indexes and table spaces in the database. The user-defined data set identified did not meet this requirement.

System Action: The statement cannot be executed.

Programmer Response: Insure that the data sets used in the shared database are defined with the proper SHAREOPTIONS.

Destination: 56054

-732 **THE DATABASE IS DEFINED ON THIS SUB-SYSTEM WITH THE ROSHARE READ ATTRIBUTE BUT THE TABLE SPACE OR INDEX SPACE HAS NOT BEEN DEFINED ON THE OWNING SUBSYSTEM**

Explanation: Prior to creating a table space or index in a database with the ROSHARE READ attribute, that object must first be defined on the owning subsystem.

System Action: The statement cannot be executed.

Programmer Response: Verify that the table space or index has been defined on the owning system in a ROSHARE OWNER database.

Destination: 56055

-733 **THE DESCRIPTION OF A TABLE SPACE, INDEX SPACE, OR TABLE IN A ROSHARE READ DATABASE MUST BE CONSISTENT WITH ITS DESCRIPTION IN THE OWNER SYSTEM**

Explanation: This code is issued while creating a table space, index, or table in the ROSHARE READ database. These objects must be consistent with their descriptions in the ROSHARE OWNER database as follows:

- For a table space, the following attributes must be the same:

  Page size
  Segment size
  Number of partitions

- For an index, the following attributes must be the same:

  Number of partitions
  Number of subpages
  Table OBID
  Total key length
  Index type (Type 1 or Type 2 Index)
  Number of key columns

- For a table, the following attributes must be the same:

  Table OBID
  Maximum record length
  Number of columns
  Whether an edit procedure exists

System Action: The statement cannot be executed.

Programmer Response: Ensure that the definition of the table space, index, or table is consistent with that in the ROSHARE OWNER database.

Destination: 56056

-734 THE ROSHARE ATTRIBUTE OF A DATABASE CANNOT BE ALTERED FROM ROSHARE READ

Explanation: An attempt was made to ALTER a database from ROSHARE READ to either ROSHARE OWNER or ROSHARE NONE.

System Action: The statement cannot be executed.

Programmer Response: Verify that the correct database was specified on the ALTER DATABASE statement. The ROSHARE attribute of a read-only shared database cannot be altered. To change this, DROP and recreate the database.

Destination: 56057

-735 DATABASE dbid CANNOT BE ACCESSED BECAUSE IT IS NO LONGER A SHARED DATABASE

Explanation: An attempt was made to access an object in the database identified by 'dbid', that is known to the system as having the ROSHARE READ attribute. The database, however, is no longer defined as ROSHARE OWNER on the owning subsystem.

System Action: The statement cannot be executed.

Programmer Response: Verify that the correct object is specified on the statement.

Destination: 55004

-736 INVALID OBID *obid* SPECIFIED

Explanation: An invalid OBID value was given on the CREATE statement. The OBID is invalid for one of the following reasons:

- The specified OBID does not fall within the acceptable range for OBIDs, which is 1 to 32767.
- The specified OBID is already in use for the given database.

System Action: The statement cannot be executed.

Programmer Response: Verify that the given OBID is a valid value for an OBID. If so, ensure that the OBID is correct for the object to be created, then query the catalog to find the object that is already defined as having the same OBID in the database. If an invalid OBID was given for the object to be created, correct the statement and execute it again. If the existing object is in error, then DROP and CREATE that object using the correct OBID value.

It is possible that the OBID “in use” is the OBID for an object that had been previously dropped. If that is the case, and the CREATE was issued for a table in a non-ROSHARE READ database, then select a different OBID for use in the OBID clause. If the object had been previously dropped and the CREATE was issued for a table in a ROSHARE READ database, COMMIT and re-submit the CREATE TABLE request.

Destination: 53014

-737 IMPLICIT TABLE SPACE NOT ALLOWED

Explanation: A CREATE TABLE statement was issued using an implicit table space. An implicit table space may not be used in a database that has been defined as a read-only shared database.

System Action: The statement cannot be executed.

Programmer Response: CREATE a table space for the table, using the same name as is given on the owning system. Then resubmit the CREATE TABLE statement.

Destination: 56056

-741 A WORK FILE DATABASE IS ALREADY DEFINED FOR MEMBER *member-name*

Explanation: A work file database cannot be created for the specified member of the DB2 data sharing group because that member already has a work file database defined for it. Each member can have only one work file database.

System Action: The statement cannot be executed.

Programmer Response: Verify the identity and validity of the existing work file database for the specified member. The existing work file database can be altered or dropped, if necessary. If the existing work file database is dropped, resubmit the CREATE DATABASE statement.

Destination: 55020

-742 DSNDB07 IS THE IMPLICIT WORK FILE DATABASE

Explanation: The WORKFILE clause cannot be used on a CREATE DATABASE statement to create a work file database for a DB2 subsystem that is not a member of a DB2 data sharing group. The system database, DSNDB07, is the implicit work file database.

System Action: The statement cannot be executed.

Programmer Response: To create the work file database for a DB2 subsystem that is not a member of a DB2 data sharing group, create database DSNDB07 without the WORKFILE clause.

Destination: 53004

-750 THE SOURCE TABLE *source-name* CANNOT BE RENAMED BECAUSE IT IS REFERENCED IN EXISTING VIEW DEFINITIONS

Explanation: The *source table* in a RENAME statement cannot be renamed because it is referenced in one or more existing view definitions.

System Action: The statement cannot be executed.

Programmer Response: Change the source name to the name of an object that can be renamed and reissue the statement.

Destination: 42986

-751 A STORED PROCEDURE HAS BEEN PLACED IN MUST_ROLLBACK STATE DUE TO SQL OPERATION *name*

Explanation: A stored procedure issued an SQL operation that forced the DB2 thread to roll back the unit of work.

name The SQL operation that caused the thread to be placed in the MUST_ROLLBACK state is one of the following:

CALL
COMMIT
CONNECT
RELEASE
ROLLBACK
SET CONNECTION
SET CURRENT SQLID

System Action: The statement cannot be executed. All further SQL statements are rejected until the SQL application that issued the SQL CALL statement rolls back the unit of work.

Programmer Response: If this message is received by a stored procedure, the stored procedure must terminate. Remove the unsupported statement from your stored procedure.

When control returns to the SQL application that issued the SQL CALL statement, the SQL application must roll back the unit of work. This can be done by issuing an SQL ROLLBACK statement or the equivalent IMS or CICS operation.

Destination: 42987

-752 THE CONNECT STATEMENT IS INVALID BECAUSE THE PROCESS IS NOT IN THE CONNECTABLE STATE

Explanation: The application process attempted to execute a CONNECT statement while in the unconnectable state. See the description of the CONNECT statement in the *SQL Reference* for an explanation of connection states.

System Action: The statement cannot be executed. The connection state of the application process is unchanged.

Programmer Response: Modify the application program to execute a commit or rollback operation prior to executing the CONNECT statement.

Destination: 0A001

-802 EXCEPTION ERROR 'exception-type' HAS OCCURRED DURING 'operation-type' OPERATION ON 'data-type' DATA, POSITION 'position-number'

Explanation: The processing of an SQL arithmetic function or arithmetic expression that was either in the SELECT list of an SQL select statement, in the search condition of a SELECT, UPDATE, or DELETE statement, during the evaluation of a column function, or in the SET clause of the UPDATE statement has encountered an exception error, possibly indicated by 'exception-type'.

Possible values for 'exception-type' are FIXED POINT OVERFLOW, DECIMAL OVERFLOW, ZERO DIVIDE, DIVIDE EXCEPTION, or EXPONENT OVERFLOW. 'data-type' may indicate the data types of the items being manipulated, and 'operation-type' may indicate the arithmetic operation that was being performed at the time of the error. If the error was in the SELECT list of an outer SELECT statement then 'position-number' may indicate the position of the expression in the select list. The possible data-types are INTEGER, SMALLINT, DECIMAL, and FLOAT. The data type displayed in the message may indicate the data type of the temporary internal copy of the data which may differ from the actual column or literal data type due to conversions by DB2. The possible operation-types are ADDITION, SUBTRACTION, MULTIPLICATION, DIVISION, and NEGATION.

A fixed point overflow can occur during any arithmetic operation on either INTEGER or SMALLINT fields.

A decimal overflow exception can occur when one or more nonzero digits are lost because the destination field in any decimal operation is too short to contain the result.

A divide exception can occur on a decimal division operation when the quotient exceeds the specified data-field size. A zero divide occurs on a division by zero.

An exponent overflow can occur when the result characteristic of any floating-point operation exceeds 127 and the result fraction is not zero, for example, the magnitude of the result exceeds approximately 7.2E+75.

Note: Parts of 'exception-type' 'data-type' 'operation-type', 'position-number' may or may not be returned in SQLCA, depending on where the error was detected.

System Action: The statement cannot be executed. In the case of an INSERT or UPDATE statement, no data is updated or deleted. If the statement was a cursor controlled FETCH then the CURSOR will remain open, else if it was a cursor controlled OPEN then the CURSOR will remain closed.

Programmer Response: Examine the SQL statement to see if the cause (or the likely cause) of the problem can be determined. The problem may be data-dependent, in which case it will be necessary to examine the data that was being processed at the time the error occurred.

If the arithmetic expression in error was within the SELECT list of the outer SELECT statement then it is advisable to include an indicator variable for all expressions in the SELECT list. This allows processing to continue so that nonerror column and expression values can be returned.

See the explanation of SQLCODE -405 for allowed ranges of numeric data types.

Destination: 22012 if ZERO DIVIDE

Destination: 22003 if other than ZERO DIVIDE

-803 AN INSERTED OR UPDATED VALUE IS INVALID BECAUSE THE INDEX IN INDEX SPACE *indexspace-name* CONSTRAINS COLUMNS OF THE TABLE SO NO TWO ROWS CAN CONTAIN DUPLICATE VALUES IN THOSE COLUMNS. RID OF EXISTING ROW IS X'rid'

Explanation: The table that is the object of the INSERT or UPDATE operation is constrained (by UNIQUE INDEX in the INDEX SPACE 'indexspace-name') to have unique values in certain columns. Completion of the requested INSERT or UPDATE would result in duplicate values occurring in row 'rid'.

If a view is the object of the INSERT or UPDATE statement, the table that defines the view is constrained. The update might also be caused by a DELETE operation of a parent row that cascades to a dependent row with a delete rule of SET NULL.

System Action: The INSERT, UPDATE, or DELETE statement cannot be executed. The object table is unchanged.

Programmer Response: Examine the definitions for UNIQUE INDEX in the INDEX SPACE 'indexspace-name' to determine

the uniqueness constraint imposed. Please refer to SYSIBM.SYSINDEXES for the 'indexspace-name' and the associated 'index-name'.

For an UPDATE statement, verify that the specified operation is consistent with the uniqueness constraint. If this does not indicate the error, examine the object table to determine the cause of the problem.

For an INSERT statement, examine the object table to determine which values violate the uniqueness constraint. If the INSERT statement contains a subquery, match the contents of the table addressed by the subquery and the contents of the object table to determine the cause of the problem.

For a DELETE statement, examine the index key columns in the table that defines the index. These columns contain a foreign key, which when set NULL on a cascade delete from the object table, causes the duplicate values.

Destination: 23505

-804 **AN ERROR WAS FOUND IN THE APPLICATION PROGRAM INPUT PARAMETERS FOR THE SQL STATEMENT. REASON** *reason*

Explanation: The call parameter list or the SQLDA is invalid.

- The call parameter list, which is created by the precompiler, might be invalid if the application programmer has modified the output of the precompiler, used a variable name beginning with 'SQL' in the application program, or overwritten the call parameter list in some other way.
- The SQLDA, which is created by the application program, has an invalid data type or data length.
- The value of SQLDABC is not consistent with the value of SQLD.

The following is the list of reason codes:

01 Open issued for non-cursor.

02 Close issued for non-cursor.

03 Prepare of EXECUTE IMMEDIATE.

04 Statement is not recognized.

05 No statement string present.

06 Bad SQLDA format in parameter list.

07 SQLDA length is invalid.

08 Unrecognized input data type.

09 Invalid length for input variable.

10 Invalid data length for output variable.

11 The value of SQLDABC is not consistent with the value of SQLD.

12 Invalid input data pointer.

13 Invalid output data pointer.

14 SQLN has too many items for SQLDABC.

15 Input RDI pointer is invalid

System Action: The statement cannot be executed.

System Programmer Response: Examine the application program for any of the errors noted under the explanation above. In general, the application programmer should not attempt to modify the output of the precompiler.

Destination: 07002

-805 **DBRM or PACKAGE NAME** *location-name.collection-id.dbrm-name.consistency -token* **NOT FOUND IN PLAN** *plan-name***. REASON** *reason*

Explanation: An application program attempted to use a DBRM or package 'location-name.collection-id.dbrm-name.consistency-token' that was not found.

Collection id is blank ('location-name..dbrm-name.consistency-token') if the CURRENT PACKAGESET special register was blank for the local program execution.

The REASON token is blank if the length of 'location-name' is 16, the length of 'collection-id' is 18, and the length of 'dbrm-name' is 8 due to the length of SQLERRMT.

The DBRM or package name was not found for one or more of the following reasons:

- 01
  - The DBRM name was not found in the member list of the plan and there is no package list for the plan. Refer to the first SQL statement under problem determination for assistance in determining the problem.
  - The package name was not found because there is no package list for the plan. Refer to the second SQL statement under Problem Determination for assistance in determining the problem.
- 02

  The DBRM name 'dbrm-name' did not match an entry in the member list or the package list. Any of the following conditions could be the problem:

  Bind conditions:
  - The 'collection-id' in the package list was not correct when the application plan 'plan-name' was bound. Refer to the second SQL statement under Problem Determination for assistance in determining the problem.
  - The 'location-name' in the package list was not correct when the application 'plan-name' was bound. Refer to the second SQL statement under Problem Determination for assistance in determining the problem.
  - The 'location-name' in the CURRENTSERVER option for the bind subcommand was not correct when the application plan 'plan-name' was bound. Refer to the third SQL statement under Problem Determination for assistance in determining the problem.

  Application conditions:
  - The CURRENT PACKAGESET special register was not set correctly by the application.
  - The application was not connected to the proper location.
- 03

  The DBRM name 'dbrm-name' matched one or more entries in the package list and the search of those entries did not find the package. The conditions listed under reason 02 or the following conditions might be the problem.
  - The DBRM of the version of the application program being executed was not bound (A package with the same consistency token as that of the application

program was not found.) Refer to the fourth and fifth SQL statements under the Problem Determination section.

- The incorrect version of the application program is being executed.

- 04

  The package, 'collection-id.dbrm-name.consistency-token', does not exist at the remote site, 'location-name'. Refer to the fifth SQL statement under the Problem Determination section.

System Action: The statement cannot be executed.

System Programmer or Programmer response: Based on the above reasons, the programmer can perform **one or more** of the following operations for each reason to correct the error.

- 01
  - Add the DBRM name 'dbrm-name' to the MEMBER list of the BIND subcommand and bind the application plan 'plan-name', or
  - Add the PKLIST option with the appropriate package list entry to the REBIND subcommand and rebind the application plan 'plan-name'.
- 02
  - Correct the dbrm-name of the entry in the PKLIST option and use the REBIND subcommand to rebind the application plan 'plan-name', or
  - Correct the location-name of the entry in the PKLIST option and use the REBIND subcommand to rebind the application plan 'plan-name', or
  - Correct the location-name in the CURRENTSERVER option and use the REBIND subcommand to rebind the application plan 'plan-name', or
  - Set the CURRENT PACKAGESET special register correctly, or
  - Connect to the correct location name.
- 03

  All the operations under reason 02 above might fix the problem, plus the following operations.
  - Correct the collection-id of the entry in the PKLIST option and use the REBIND subcommand to rebind the application plan 'plan-name', or
  - Bind the DBRM of the version of the application program to be executed into the collection 'collection-id', or
  - Execute the correct version of the application program. The consistency token of the application program is the same as the package that was bound.
- 04

  All the operations under reason 02 and 03 might fix the problem.

Problem Determination: The following queries aid in determining the problem. Run these queries at the local location.

1. This query displays the DBRMs in the member list for the plan. If no rows are returned, then the plan was bound without a member list.

   ```
   SELECT PLCREATOR, PLNAME, NAME, VERSION
   FROM SYSIBM.SYSDBRM
   WHERE PLNAME = 'plan-name';
   ```

2. This query displays the entries in the package list for the plan. If no rows are returned, then the plan was bound without a package list.

   ```
   SELECT LOCATION, COLLID, NAME
   FROM SYSIBM.SYSPACKLIST
   WHERE PLANNAME = 'plan-name';
   ```

3. This query displays the CURRENTSERVER value specified on the BIND subcommand for the plan.

   ```
   SELECT NAME, CURRENTSERVER
   FROM SYSIBM.SYSPLAN
   WHERE NAME = 'plan-name';
   ```

4. This query displays if there is a matching package in SYSPACKAGE. If the package is remote, put the location name in the FROM clause. If no rows are returned, the correct version of the package was not bound.

   ```
   SELECT COLLID, NAME, HEX(CONTOKEN), VERSION
   FROM <location-name.>SYSIBM.SYSPACKAGE
   WHERE NAME = 'dbrm-name'
     AND HEX(CONTOKEN) = 'consistency-token';
   ```

5. This query displays if there is a matching package in SYSPACKAGE. If the package is remote, put the location name in the FROM clause. Use this query when collection-id is not blank. If no rows are returned, the correct version of the package was not bound.

   ```
   SELECT COLLID, NAME, HEX(CONTOKEN), VERSION
   FROM <location-name.>SYSIBM.SYSPACKAGE
   WHERE NAME = 'dbrm-name'
     AND HEX(CONTOKEN) = 'consistency-token'
     AND COLLID = 'collection-id';
   ```

Destination: 51002

-807 **ACCESS DENIED: PACKAGE** *package-name* **IS NOT ENABLED FOR ACCESS FROM** *connection-type connection-name*

Explanation: Access is denied for one of the following reasons:

- It is disabled, either from the 'connection-type' or from the 'connection-type' with the specific 'connection-name'.
- The attach library that you are using is from a previous release of DB2 that does not support the ENABLE and DISABLE options of the bind operation.

The variables are:

package-name	The package name (collection.package-id).
connection-type	One of the following: BATCH, DB2CALL, REMOTE, IMSBMP, IMSMPP, CICS, DLIBATCH, or UNKNOWN.
connection-name	Name of the connection that is restricted. If all connection names from a specific connection-type are restricted, this value is not specified.

System Action: The statement is not executed and the package is not allocated.

System Programmer Response: One of the following:

- Rebind the package to enable it to execute with the required connection type and name.

- Check the SYSPLSYSTEM or SYSPKSYSTEM catalog table to find a connection from which the package can be executed.
- Correct the attach library.

Destination: 23509

-808 THE CONNECT STATEMENT IS NOT CONSISTENT WITH THE FIRST CONNECT STATEMENT

Explanation: The CONNECT semantics that apply to an application process are determined by the first CONNECT statement executed (successfully or unsuccessfully) by the application process. One of the following rules was violated:

- A type 2 CONNECT statement cannot be executed after a type 1 CONNECT statement was executed.
- A type 1 CONNECT statement cannot be executed after a type 2 CONNECT statement was executed.

System Action: The statement cannot be executed.

Programmer Response: The probable cause of this error is that different programs in the application process were precompiled with different CONNECT options.

Ensure that the application process uses either type 1 or type 2 CONNECT statements and then resubmit the job. The type of CONNECT to be used is a precompiler option. The default is type 2 CONNECT.

Destination: 08001

-811 THE RESULT OF AN EMBEDDED SELECT STATEMENT IS A TABLE OF MORE THAN ONE ROW, OR THE RESULT OF THE SUBQUERY OF A BASIC PREDICATE IS MORE THAN ONE VALUE

Explanation: Execution of an embedded SELECT statement has resulted in a result table containing more than one row. Alternatively, a subquery contained in a basic predicate has produced more than one value.

System Action: The statement cannot be executed.

Programmer Response: Examine the syntax of the statement to ensure that it contains the proper condition specifications. If it does, there may be a problem with the data that is causing more than one row or value to be returned when you do not expect it.

Destination: 21000

-812 THE SQL STATEMENT CANNOT BE PROCESSED BECAUSE A BLANK COLLECTION-ID WAS FOUND IN THE CURRENT PACKAGESET SPECIAL REGISTER WHILE TRYING TO FORM A QUALIFIED PACKAGE NAME FOR PROGRAM *program-name.consistency-token* **USING PLAN** *plan-name*

Explanation: A last or only entry in the package list for the plan contained asterisk (*) the 'collection-id ' which requires the 'CURRENT PACKAGESET' special register to be set to a nonblank 'collection-id' in order to form a qualified package name.

System Action: The statement cannot be executed.

Programmer Response: Set the 'CURRENT PACKAGESET' special register to the desired 'collection-id' or have your system administrator check the plan's package list for correctness.

Destination: 22508

-815 A GROUP BY OR HAVING CLAUSE IS IMPLICITLY OR EXPLICITLY SPECIFIED IN AN EMBEDDED SELECT STATEMENT OR A SUBQUERY OF A BASIC PREDICATE

Explanation: An embedded SELECT statement or a subquery of a basic predicate either (1) directly contains a GROUP BY or HAVING clause, or (2) specifies as its object a view having a definition that includes a GROUP BY or HAVING clause. Neither construct is permitted.

System Action: The statement cannot be executed. No data was retrieved.

Programmer Response: The implied function is not supported by DB2. In the case of a view, embedded SELECT statements cannot be used to retrieve data from that view.

The SELECT INTO statement should be changed to a DECLARE CURSOR statement in order to use the GROUP BY/HAVING. In the case of the subquery, there is no coding workaround. A GROUP BY/HAVING cannot be used within the subquery of a basic predicate because the subquery is allowed to return only a single value. For more information on basic predicates, refer to *SQL Reference* .

Destination: 42920

-817 THE SQL STATEMENT CANNOT BE EXECUTED BECAUSE THE STATEMENT WILL RESULT IN A PROHIBITED UPDATE OPERATION.

Explanation: The application attempted to execute an SQL statement that would result in updates to user data or to the subsystem catalog. This is prohibited for one of the following reasons:

- The application is running as an IMS inquiry-only transaction.
- The application is an IMS or CICS application that is attempting to update data at a remote DBMS that does not support two-phase commit.
- The application is attempting to update data at multiple locations and one of the locations does not support two-phase commit.

These SQL statements include INSERT, UPDATE, DELETE, CREATE, ALTER, DROP, GRANT, and REVOKE.

System Action: The statement cannot be executed.

Programmer Response: If the application is running as an IMS inquiry-only transaction, see your IMS system programmer about changing the inquiry-only status of the transaction under which your application is running.

If the IMS or CICS application is attempting a remote update, either the application must be changed to run as a local application on the server DBMS, or the server DBMS must be upgraded to support two-phase commit.

If the application is attempting to update data at multiple locations, either the application must be changed, or all DBMSs involved must be upgraded to support two-phase commit.

Destination: 25000

-818 THE PRECOMPILER-GENERATED TIMESTAMP *x* IN THE LOAD MODULE IS DIFFERENT FROM THE BIND TIMESTAMP *y* BUILT FROM THE DBRM *z*

Explanation: The SQL precompiler places timestamp 'y' in the DBRM, and time stamp 'x' in the parameter list in the application program for each SQL statement. At BIND time, DB2 stores the DBRM timestamp for run-time use. At run-time, timestamp 'x', for the SQL statement being processed, is compared with timestamp 'y' derived from the DBRM 'z' at BIND time. If the two timestamps do not match, the DBRM and the application program were not the result of the same precompile.

This problem can occur if you:

- Precompile, compile, and link, without doing a BIND of the application,
- Precompile and BIND, without doing the compile and link for the application program, or
- BIND the application using a DBRM that resulted from a different precompile of the application program than that which produced the object module that is linked into the application module.

The timestamps 'x' and 'y' are DB2 internal timestamps. They do not have an external interpretation.

System Action: The statement cannot be executed.

Programmer Response: BIND the application again, using the DBRM for the application program that matches the object module.

Destination: 51003

-819 THE VIEW CANNOT BE PROCESSED BECAUSE THE LENGTH OF ITS PARSE TREE IN THE CATALOG IS ZERO

Explanation: SYSIBM.SYSVTREE.VTREE is a varying-length string column that contains the parse trees of views. In processing a view, the length control field of its parse tree was found to be zero.

System Action: The statement cannot be executed.

Programmer Response: This is a system error. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Destination: 58004

-820 THE SQL STATEMENT CANNOT BE PROCESSED BECAUSE *catalog-table* CONTAINS A VALUE THAT IS NOT VALID IN THIS RELEASE

Explanation: A column of the indicated catalog table contains a value that prevents further processing of an SQL statement. The meaning of the value is unknown to the release of DB2. If a fall back has occurred, the value is probably the result of the use of new function prior to the fall back.

System Action: The statement cannot be executed.

Programmer Response: Verify that the statement refers to the intended tables or views and that the problem is the result of a fall back. If this is the case, the statement cannot be corrected because it depends on a function that is not supported in the current release. If the problem is not the result of a fallback, -820 is a system error. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Destination: 58004

-822 THE SQLDA CONTAINS AN INVALID DATA ADDRESS OR INDICATOR VARIABLE ADDRESS

Explanation: The application program has placed an invalid address in the SQLDA.

System Action: The statement cannot be executed.

Programmer Response: Correct the application program such that valid addresses are placed in SQLDA.

Destination: 51004

-840 TOO MANY ITEMS RETURNED IN A SELECT OR INSERT LIST

Explanation: The number of items returned in the select list or presented in an insert list exceeds the allowable maximum of 750.

System Action: The statement cannot be executed.

Programmer Response: Determine whether all the information is actually needed. (Note that the number of items returned by the select list * in the SQL statement SELECT * FROM A, B, C is the sum of the number of columns in all three tables.) If not, rewrite the SQL statement so that only the necessary items of information are returned. If so, break the SQL statement up into two or more statements, as required.

Destination: 54004

-842 A CONNECTION TO *location-name* ALREADY EXISTS

Explanation: One of the following situations occurred:

- A CONNECT statement identifies a location with which the application process has a private connection, using system-directed access.
- SQLRULES(STD) is in effect and a CONNECT statement identifies an existing SQL connection.
- A private connection, using system-directed access, cannot be established because of an existing SQL connection to that location.

System Action: The statement cannot be executed.

Programmer Response: The correction depends on the error, as follows:

- If the location name is not the intended name, correct it.
- If SQLRULES(STD) is in effect and the CONNECT statement identifies an existing SQL connection, replace the CONNECT with SET CONNECTION or change the option to SQLRULES(DB2).
- If the CONNECT statement identifies an existing private connection, destroy that connection (by using the RELEASE statement in a previous unit of work) before executing the CONNECT statement. If the SQL statements following the CONNECT can be executed using system-directed access, an alternative solution is to change the application to use that method.
- If system-directed access cannot be used, destroy the conflicting SQL connection (by using the RELEASE statement

in a previous unit of work) before executing the SQL statement that requires system-directed access. An alternative solution is to change the application so that only application-directed access is used.

Correct the error in the application, rebind the plan or package, and resubmit the job.

Destination: 08002

-843 THE SET CONNECTION OR RELEASE STATEMENT MUST SPECIFY AN EXISTING CONNECTION

Explanation: One of the following rules was violated:

- A SET CONNECTION statement must identify an existing SQL connection of the application process.
- A RELEASE statement must identify an existing connection of the application process.

System Action: The statement cannot be executed.

Programmer Response: The correction depends on the error, as follows:

- If the location name is not the intended name, correct it.
- If the location name does not identify an existing SQL connection, replace the SET CONNECTION with a CONNECT statement.
- If RELEASE CURRENT was executed in the unconnected state or the specified location name does not identify an existing SQL or DB2 private connection, delete the RELEASE statement.

Correct the error in the application, rebind, the plan and resubmit the job.

Destination: 08003

-870 THE NUMBER OF HOST VARIABLES IN THE STATEMENT IS NOT EQUAL TO THE NUMBER OF DESCRIPTORS

Explanation: The number of host variables in the SQL statement does not match the number of host variable descriptors.

System Action: The statement cannot be executed.

Programmer Response: Correct the application program. The most likely cause of this problem is a missing colon before a host variable.

Problem Determination: If the SQL statement is bound locally, descriptors are built by the DB2 precompiler. For a remote SQL statement, descriptors are built by DDF and are passed in the array SQLSTTVRB.

Destination: 58026

-872 A VALID CCSID HAS NOT YET BEEN SPECIFIED FOR THIS MVS/ESA SUBSYSTEM

Explanation: A valid CCSID was not specified on either the ASCII CODED CHAR SET or EBCDIC CODED CHAR SET subsystem parameter on installation panel DSNTIPF.

System Action: The statement cannot be executed.

Programmer Response: Contact your system administrator to have the necessary CCSID defined for your system.

Destination: 51032

-873 DATA ENCODED WITH DIFFERENT CCSIDS CANNOT BE REFERENCED IN THE SAME SQL STATEMENT

Explanation: You cannot refer to a column defined in an ASCII table in the same SQL statement as a column defined in an EBCDIC table.

This situation can also occur when a table is created; a DECP CCSID value is changed; another table is created, and then the two tables are referenced in a single SQL statement.

System Action: The statement cannot be executed.

Programmer Response: Correct the SQL statement.

Destination: 53090

-874 THE ENCODING SCHEME SPECIFIED FOR THE TABLE IS NOT THE SAME AS THAT USED FOR THE TABLE SPACE CONTAINING THIS TABLE

Explanation: If CCSID ASCII was specified, then the containing table space is EBCDIC. If CCSID EBCDIC was specified, then the containing table space is ASCII. The encoding scheme of a table must be the same as the table space which contains the table.

System Action: The statement cannot be executed.

Programmer Response: Correct the SQL statement.

Destination: 53091

-875 *operand* CANNOT BE USED WITH THE ASCII DATA REFERENCED

Explanation: ASCII data was referenced in one of the following situations:

- A LIKE predicate refers to a mixed data column in an ASCII table. The LIKE predicate is not supported for mixed ASCII data.
- A VARGRAPHIC function was specified for a column in an ASCII table. The VARGRAPHIC function is not supported for ASCII data.

System Action: The statement cannot be executed.

Programmer Response: Correct the SQL statement.

Destination: 42988

-876 '*object*' CANNOT BE CREATED, REASON '*reason*'

Explanation: The object cannot be created in the SQL statement.

Possible values for '*object*':

TYPE 1 INDEX The object being created is a type 1 index.

INDEX The object being created is an index.

Possible values for '*reason*':

TABLE DEFINED AS ASCII
The underlying table is defined as ASCII. Only type 2 indexes are supported for ASCII tables.

PIECESIZE IS NOT VALID
PIECESIZE is only valid for non-partitioned indexes.

PIECESIZE 4GB IS NOT VALID
PIECESIZE 4GB is only valid for non-partitioned indexes on LARGE tables.

System Action: The statement cannot be executed.

Programmer Response: Correct the SQL statement for the object being created.

Destination: 53092

-877 CCSID ASCII IS NOT ALLOWED FOR THIS DATABASE OR TABLE SPACE

Explanation: The database or table space specified is required to be in EBCDIC.

System Action: The statement cannot be executed.

Programmer Response: Remove the CCSID ASCII clause from the statement.

Destination: 53093

-878 THE PLAN_TABLE USED FOR EXPLAIN CANNOT BE ASCII

Explanation: PLAN_TABLEs must be encoded in EBCDIC for use with EXPLAIN.

System Action: The statement cannot be executed.

Programmer Response: Drop the existing PLAN_TABLE, and recreate it with the EBCDIC encoding scheme.

Destination: 53094

-879 A COLUMN CANNOT BE CREATED AS GRAPHIC, VARGRAPHIC OR LONG VARGRAPHIC IN AN ASCII TABLE

Explanation: A CREATE or ALTER TABLE statement for an ASCII table cannot define a column as GRAPHIC, VARGRAPHIC or LONG VARGRAPHIC when the MIXED DATA install option is set to NO.

System Action: The statement cannot be executed.

Programmer Response: Contact your system administrator to properly setup the installation options for ASCII tables, or change the data types of the columns in your CREATE or ALTER TABLE statement.

Destination: 53095

-900 THE SQL STATEMENT CANNOT BE EXECUTED BECAUSE THE APPLICATION PROCESS IS NOT CONNECTED TO AN APPLICATION SERVER

Explanation: A previous failure has placed the application process in the unconnected state. The only SQL statements that can be successfully executed from the unconnected state are CONNECT, COMMIT, ROLLBACK, and local SET statements.

System Action: The statement cannot be executed.

Programmer Response: It is possible that no response is required because checking for -900 is one way of detecting the unconnected state. If this is not the case, the logic of the application program must be changed. For additional information, see the description of the CONNECT statement in Chapter 6 of *SQL Reference* .

Destination: 08003

-901 UNSUCCESSFUL EXECUTION CAUSED BY A SYSTEM ERROR THAT DOES NOT PRECLUDE THE SUCCESSFUL EXECUTION OF SUBSEQUENT SQL STATEMENTS

Explanation: A system error occurred that prevented successful execution of the current SQL statement. However, the error does not prevent successful execution of further SQL statements.

The error might occur if the length of the SQL statement is less than 0, or is greater than the DB2 maximum length for a statement.

This SQLCODE might also occur when distributed commit processing encounters an error. In this case, all servers in the unit of work that support distributed two-phase commit backed out the unit of work. If a server that does not support distributed two-phase commit has updates in the unit of work, that server must be queried to determine if its updates were committed or backed out.

System Action: The statement cannot be executed. A X'04E' abend might be requested for the application. The application program can have a recovery routine to recover from such an abend and can retry SQL statements.

Programmer Response: If an abend occurred, notify the system programmer for analysis of the abend that caused this return code.

Even if an abend occurred, an application program receiving this return code can retry and is not prohibited from executing further SQL statements.

Destination: 58004

-902 POINTER TO THE ESSENTIAL CONTROL BLOCK (CT/RDA) HAS VALUE 0, REBIND REQUIRED

Explanation: Pointer to the essential control block, either the CT or the RDA is zeroes. This precludes the successful execution of the current SQL statement, as well as any subsequent SQL statements.

System Action: The statement cannot be executed. The application program is not permitted to issue additional SQL statements. For example, a recovery routine associated with the application program may not issue additional SQL statements.

Programmer Response: Rebind the failing application program and try again. If the problem persists, examine your DBRM and make sure it matches your program.

Destination: 58005

-904 UNSUCCESSFUL EXECUTION CAUSED BY AN UNAVAILABLE RESOURCE. REASON *reason-code***, TYPE OF RESOURCE** *resource-type***, AND RESOURCE NAME** *resource-name*

Explanation: The SQL statement could not be executed because resource 'resource-name' of type 'resource-type' was not available at the time for the reason indicated by 'reason-code'. Refer to Table 3 in “Appendix B. Problem Determination” on page X-5 for an explanation of resource type codes. Refer to “Section 4. DB2 Codes” on page 4-1 for an explanation of the given reason code.

System Action: The SQL statement cannot be executed. If the SQL statement being executed was a cursor FETCH, DB2 closes the cursor. Subsequent attempts to use that cursor without first doing an OPEN for it receive an SQLCODE -501.

Programmer Response: Verify the identity of the resource that was not available. To determine why the resource was unavailable, refer to the specified 'reason-code'.

Destination: 57011

-905 UNSUCCESSFUL EXECUTION DUE TO RESOURCE LIMIT BEING EXCEEDED, RESOURCE NAME = *resource-name* **LIMIT =** *limit-amount1* **CPU SECONDS (***limit-amount2* **SERVICE UNITS) DERIVED FROM** *limit-source*

Explanation: The execution of the SQL statement was terminated because a resource limit was exceeded.

resource-name The name of the resource whose limit was exceeded. It is also the name of the column in the DB2 table from which the limit was derived. The *resource-name* can be ASUTIME, which is the number of CPU seconds permitted for each SQL statement.

limit-amount1 The limit that was exceeded in CPU seconds

limit-amount2 The limit that was exceeded in service units

limit-amount1 The maximum number of CPU seconds permitted

limit-amount2 The maximum number in service units permitted

limit-source The source used to derive the limit-amount: the name of a resource limit specification table, a system parameter, or the SYSIBM.SYSPROCEDURES catalog table. If the source is a system parameter, the resource limit specification table did not contain an applicable entry or an error occurred while accessing the table.

System Action: If the *limit-source* was a resource limit specification table or a system parameter, the execution of this SQL statement is terminated. A record containing more detailed information about this failure is generated. If an SQL cursor is associated with the failed instruction, its position is unchanged and a CLOSE or PREPARE command can be issued. If any other operation is attempted with the cursor, it cannot be executed and SQLCODE -905 is returned. If there is no cursor, this statement was rolled back.

Programmer Response: Determine why this SQL statement or stored procedure took so long and take appropriate action. Consider simplifying the SQL statement, restructuring tables and indexes, or contacting the installation group responsible for maintaining the resource limit specification tables.

If the *limit-source* was a resource limit specification table or a system parameter, the application program that receives this return code can execute additional SQL statements.

If the *limit-source* was the SYSIBM.SYSPROCEDURES table, the application program must roll back.

Destination: 57014

-906 THE SQL STATEMENT CANNOT BE EXECUTED BECAUSE THIS FUNCTION IS DISABLED DUE TO A PRIOR ERROR

Explanation: Execution of the SQL statement failed because the requested function had been disabled by a prior error. This situation can arise if the application program has intercepted an abend (for instance, by an ON ERROR condition in a PL/I program) and continued to execute SQL statements. This situation may also arise if a DB2 CICS transaction encountered a create thread error yet continued to issue SQL requests without issuing a SYNCPOINT ROLLBACK first.

System Action: The statement cannot be executed.

Programmer Response: In general, an application program should terminate upon receipt of this return code. All subsequent attempts by the application to execute other SQL statements will also fail with the same return code. In the case of a DB2 CICS transaction, if the SQLERRP field in the SQLCA contains the module name DSNCEXT1, the transaction may issue a SYNCPOINT ROLLBACK and continue processing. If the transactions chooses to ROLLBACK and continue processing, it must be capable of correcting the situation that caused the create thread error to occur originally.

Destination: 51005

-908 *bind-type* **ERROR USING** *auth-id* **AUTHORITY BIND, REBIND OR AUTO-REBIND OPERATION IS NOT ALLOWED**

Explanation: For BIND and REBIND, the indicated authorization ID is not allowed to perform the indicated bind-type against a plan or package. An entry in the resource limit specification table (RLST) prohibits binding and rebinding by this authorization ID, or all authorization IDs. For AUTO-REBIND, the system parameter controlling AUTO-REBIND operations is set to disallow AUTO-REBIND.

bind-type Type of bind operation (BIND, REBIND or AUTO-REBIND).

auth-id Authorization ID of the invoker of the BIND subcommand or primary authorization ID of the invoker of the plan for AUTO-REBIND operations.

System Action: The plan or package is not bound.

System Programmer Response: If the indicated authorization id should be allowed to bind, change the entry in the active RLST table. If AUTO-REBIND operations are disabled, rebind the package before reexecuting the package.

Destination: 23510

-910 THE SQL STATEMENT CANNOT ACCESS AN OBJECT ON WHICH A DROP OR ALTER IS PENDING

Explanation: The application program has issued a DROP or ALTER against an object, and then attempted to access that object before the DROP or ALTER is completed.

System Action: The statement cannot be executed.

Programmer Response: In the case of ALTER, the logic of the application program must be modified so that a COMMIT (or the IMS or CICS equivalent) is executed between the ALTER and the failing SQL statement.

For DROP, the logic of the application program should be modified such that there is no attempt to access an object after the DROP has been executed.

Destination: 57007

-911 THE CURRENT UNIT OF WORK HAS BEEN ROLLED BACK DUE TO DEADLOCK OR TIMEOUT. REASON *reason-code***, TYPE OF RESOURCE** *resource-type***, AND RESOURCE NAME** *resource-name*

Explanation: The current unit of work was the victim in a deadlock, or experienced a timeout, and had to be rolled back.

The reason code indicated whether a deadlock or timeout occurred. Refer to message DSNT500I under "DSNT... Messages" on page 3-201 for an explanation of 'resource-type' and 'resource-name' Refer to Table 3 in "Appendix B. Problem Determination" on page X-5 for an explanation of resource type codes.

SQLERRD(3) also contains the *reason-code* which indicates
whether a deadlock or timeout occured. The most common
reason codes are:

• 00C90088 — deadlock

• 00C9008E — timeout

Note: The changes associated with the unit of work must be entered again.

System Action: The statement cannot be executed. The application is rolled back to the previous COMMIT.

Programmer Response: A long-running application, or an application that is likely to encounter a deadlock, should (if possible) issue frequent COMMIT commands. This can lessen the possibility of a deadlock occurring. See message DSNT376I for other possible ways to avoid future deadlocks or timeouts. On receipt of the SQLCODE -911, the application should, in general, terminate.

For more information about how IMS, CICS, and TSO handle deadlocks, see Section 4 of *Application Programming and SQL Guide*.

Destination: 40001

-913 UNSUCCESSFUL EXECUTION CAUSED BY DEADLOCK OR TIMEOUT. REASON CODE *reason-code***, TYPE OF RESOURCE** *resource-type***, AND RESOURCE NAME** *resource-name*

Explanation: The application was the victim in a deadlock or experienced a timeout. The reason code indicates whether a deadlock or timeout occurred.

Refer to message DSNT500I under "DSNT... Messages" on page 3-201 for an explanation of 'resource-type' and 'resource-name'. Refer to Table 3 in "Appendix B. Problem Determination" on page X-5 for an explanation of resource type codes.

System Action: The SQL statement cannot be executed. If the SQL statement being executed was a cursor FETCH, DB2 closes the cursor.

SQLERRD(3) also contains the *reason-code* which indicates
whether a deadlock or timeout occured. The most common
reason codes are:

• 00C90088 — deadlock

• 00C9008E — timeout

Programmer Response: The application should either commit or roll back to the previous COMMIT. Then, generally, the application should terminate. See message DSNT376I for possible ways to avoid future deadlocks or timeouts.

For more information about how CICS and TSO handle deadlocks, see Section 4 of *Application Programming and SQL Guide*.

Destination: 57033

-917 BIND PACKAGE FAILED

Explanation: An error has occurred which prevents the package from being created. This SQLCODE can be issued during bind or commit processing.

System Action: The bind fails and the package is not created. If issued during commit processing, all changes to the database are rolled back. If issued during bind processing, only package creation fails. Other changes within the logical unit of work are committable.

Programmer Response: Correct the cause of the problem and try again.

Problem Determination: Inspect the SQLCODES issued for the SQL statements of the package.

Destination: 42969

-918 THE SQL STATEMENT CANNOT BE EXECUTED BECAUSE A CONNECTION HAS BEEN LOST

Explanation: Execution of the SQL statement failed because a communications link between the local DB2 and at least one remote server no longer exists. A previous failure caused this condition.

System Action: In the IMS and CICS environments, all SQL statements are rejected until the rollback occurs. In the other environments, all SQL statements other than a static ROLLBACK are rejected until a static ROLLBACK is executed.

Programmer Response: In general, an application program should issue a static ROLLBACK. Attempts by the application to issue SQL statements other than static ROLLBACK might fail. Once the static ROLLBACK is issued, the application can resume execution.

SQLERRP contains the name of the module that detected the previous failure and placed the application in the must-abort state.

Destination: 51021

-919 A ROLLBACK OPERATION IS REQUIRED

Explanation: The unit of work was placed in a state where a rollback operation is required. This can happen for the following reasons:

- An SQL statement updated a distributed database server, but the database server can be used only for read-only operations. Either updates are currently restricted to servers that support distributed two-phase commit and this application server does not support distributed two-phase commit, or updates are restricted to a single server that does not support distributed two-phase commit and this application server is not that server.

  The unit of work must be terminated by a rollback operation because the update made (but not committed) at the application server cannot be committed consistently with

other current or future updates made to this distributed unit of work.

- An abend occurred during the execution of a stored procedure, or a restricted SQL statement was issued from a stored procedure.

System Action: In the IMS and CICS environments, all SQL statements are rejected until the rollback occurs. In the other environments, all SQL statements other than a static ROLLBACK are rejected until a static ROLLBACK is executed.

Programmer Response: Correct the application or stored procedure, rebind it, and resubmit the job.

SQLERRP contains the name of the module that detected the previous failure and placed the application in the must-abort state.

Destination: 56045

-922 **AUTHORIZATION FAILURE:** *error-type* **ERROR. REASON** *reason-code*

Explanation: Authorization failed because of the error indicated by 'error-type'

error-type — Types of authorization failure
- User authorization
- Plan access
- Duplicate exit requested
- Installation error

reason-code — DB2 reason code associated with authorization failure

System Action: The statement cannot be executed. The connection to DB2 is not established.

Programmer Response: If 'error-type' is 'user authorization:', the authorization-ID specified to DB2 through your attachment facility is not valid for DB2. See your system programmer or your CICS, IMS, or TSO system administrator.

If 'error-type' is 'plan access', then the authorization ID associated with this connection is not authorized to use the specified plan name or the specified plan name does not exist. See your system administrator.

If 'error-type' is 'duplicate exit', then you requested a duplicate exit.

If 'error-type' is 'installation error', a connection or sign-on exit denied your request. See your system programmer.

Look up the reason code in "Section 4. DB2 Codes" for further information.

Any attempts to issue SQL statements following the -922 SQLCODE causes unpredictable results.

Destination: 42505

-923 **CONNECTION NOT ESTABLISHED: DB2** *condition* **REASON** *reason-code*, **TYPE** *resource-type*, **NAME** *resource-name*

Explanation: The connection to DB2 failed for the reason indicated by *condition*, which can be any of the following:

- DB2 not up
- DB2 not operational
- DB2 shutdown in progress
- DB2 restricted access mode
- Allocation error
- DB2 - CICS attachment not up

Possible causes of an allocation error are:

- The application plan does not exist.
- The application plan is inoperative. An explicit REBIND or BIND is required.
- The application plan is invalid. Underlying resources have changed.
- A required database, table space, table, or index is unavailable.
- Data set allocation failed for a required data set.
- There is insufficient virtual storage.
- The application is trying to execute the plan from a system (environment) that was restricted when the plan was bound or rebound. Check the SYSPLSYSTEM table to determine from which systems (for example, IMS or CICS) the plan can be executed.

If the *condition* is "CICS attachment not up", then NAME indicates the DB2 subsystem that is not available. The *reason code* indicates the reason the attachment is not available.

System Action: The statement cannot be executed. The connection to DB2 is not established.

Programmer Response: If the connection failed because either DB2 or a required database, table space, table, or index was unavailable, wait until it is available before invoking the application again.

If allocation failed for an application plan, REBIND the plan to determine the problem. Error messages are produced explaining why the plan could not be allocated.

For other types of allocation errors, installation action might be required to correct the problem.

For CICS attachment failures, resolve the primary cause as noted by the reason code. Then restart the attachment.

Problem Determination: The *reason-code*, *resource-type*, and *resource-name* might not be available. If they are not available, nothing appears. If they are available, refer to Section 4. DB2 Codes for an explanation of the *reason-code*, *resource-type*, and *resource-name*.

Refer to message DSNT500I under DSNT... Messages for an explanation of resource type and resource name. Refer to Table 3 in “Appendix B. Problem Determination” on page X-5 for an explanation of resource type codes. Any attempts to issue SQL statements after receiving SQLCODE -923 will cause unpredictable results.

Destination: 57015

-924 **DB2 CONNECTION INTERNAL ERROR,** *function-code, return-code, reason-code*

Explanation: Connection to DB2 has failed because of an unexpected internal error, identified by the 'reason-code'.

System Action: The statement cannot be executed. The connection to DB2 is not established.

Programmer Response: Look up the abend 'reason-code' in Section 4. DB2 Codes for further information. The requested 'function-code' and 'return-code' may provide additional information. Any attempts to issue SQL statements following the SQLCODE -924 will cause unpredictable results.

Destination: 58006

-925 COMMIT NOT VALID IN IMS OR CICS ENVIRONMENT

Explanation: An application executing in either an IMS or CICS environment attempted to execute a COMMIT statement.

System Action: The statement cannot be executed. No commit is performed.

Programmer Response: The IMS or CICS protocols should be used to commit work in these environments.

If a stored procedure is being called from IMS or CICS, ensure that the stored procedure is not defined to perform a commit on return.

Destination: 2D521

-926 ROLLBACK NOT VALID IN IMS OR CICS ENVIRONMENT

Explanation: An application executing in either an IMS or CICS environment has attempted to execute a ROLLBACK statement. The SQL ROLLBACK statement cannot be executed in these environments.

System Action: The statement cannot be executed. No roll back is performed.

Programmer Response: The IMS or CICS protocols should be used to rollback work in these environments.

Destination: 2D521

-927 THE LANGUAGE INTERFACE (LI) WAS CALLED WHEN THE CONNECTING ENVIRONMENT WAS NOT ESTABLISHED. THE PROGRAM SHOULD BE INVOKED UNDER THE DSN COMMAND

Explanation: In the TSO environment, the user has attempted to execute an application program without first establishing the correct execution environment by issuing the DSN command. In the IMS, CICS, or call attachment facility (CAF) environment, the user has attempted to execute an application program that is not using the correct language interface module.

System Action: The statement cannot be executed.

Programmer Response: In the TSO environment, DB2 application programs should be invoked under the RUN subcommand of the DSN command processor. In the IMS, CICS or CAF environment check that the application was link-edited with or is dynamically allocating the correct language interface module. The language interface modules required in each environment are as follows:

- IMS: DFSLI000
- CICS: DSNCLI
- CAF: DSNALI
- TSO: DSNELI

The DYNAM option can result in the incorrect language interface module being loaded at runtime.

Destination: 51006

-929 FAILURE IN A DATA CAPTURE EXIT: *token*

Explanation: 'token' is an information string provided by DPROP's exit routine which captures data changes in tables defined with DATA CAPTURE CHANGES.

System Action: The information string is placed in in the SQLERRM area of the SQLCA.

System Programmer Response: For documentation of the actions associated with this SQLCODE, refer to the Data Propagator (DPROP) publications.

Destination: 58002

-939 ROLLBACK REQUIRED DUE TO UNREQUESTED ROLLBACK OF A REMOTE SERVER

Explanation: A dynamic commit was executed preceding the execution of this request. The remote server to which the application was CONNECTed during the dynamic COMMIT successfully committed. However, at least one other remote server (which was read-only) rolled back its portion of the distributed unit of work during the dynamic commit.

To ensure that an application that uses cursor-hold cursors does not incorrectly assume cursor position is being maintained at any remote server that rolled back, the application must perform a rollback operation.

Communications are still established with all remote servers.

System Action: In the IMS and CICS environments, all SQL statements are rejected until the rollback occurs. In the other environments, all SQL statements other than a static ROLLBACK are rejected until a static ROLLBACK is executed.

Programmer Response: Issue the appropriate (depending on the environment) request to cause a rollback. Re-establish any cursor positioning and continue the application with the first request that received the -939 SQLCODE.

SQLERRP contains the name of the module that detected the previous failure and placed the application in the must-abort state.

Destination: 51021

-947 THE SQL STATEMENT FAILED BECAUSE IT WILL CHANGE A TABLE DEFINED WITH DATA CAPTURE CHANGES, BUT THE DATA CANNOT BE PROPAGATED

Explanation: The DPROP SUPPORT option on the installation panel is set to 2 (support DPROP only). The SQL statement would have changed a table defined with DATA CAPTURE CHANGES. However, the data cannot be propagated because the SQL statement did not originate from an IMS subsystem, or monitor trace class 6 was not active at the beginning of the unit of work for that change.

System Action: The statement is not executed.

System Programmer Response: Take one of the following actions:

- Change the installation option to 1 (no propagation) or 3 (permit changes from any subsystem).
- Change the application program that receives this SQLCODE so that it can be run in an IMS subsystem, and activate monitor trace class 6.

If the installation option is changed to 3, SQL changes to tables defined with DATA CAPTURE CHANGES are permitted from any subsystem, but they are not propagated unless the environment is set up for propagation.

Destination: 56038

-948 DISTRIBUTED OPERATION IS INVALID

Explanation: The unit of work was initiated before DDF was started, and the application attempted to perform a distributed operation. The unit of work must be terminated by a rollback operation.

System Action: In the IMS and CICS environments, all SQL statements are rejected until a rollback occurs. In the other environments, all SQL statements other than a static ROLLBACK are rejected until a static ROLLBACK is executed.

Programmer Response: An application that performs local database updates before DDF is started cannot perform distributed operations within the same unit of work. The current unit of work must be terminated by a rollback operation and a new unit of work must be initiated before any SQL operations can be performed.

Restart the current unit of work.

Destination: 56062

-950 THE LOCATION NAME SPECIFIED IN THE CONNECT STATEMENT IS INVALID OR NOT LISTED IN THE COMMUNICATIONS DATABASE

Explanation: One of the following conditions applies:

- The location name is blank.
- The data type of the host variable is not character string.
- The length attribute of the host variable is greater than 16.
- The location name does not appear in the LOCATIONS column of the SYSIBM.LOCATIONS table, nor is it the name of the local DB2 subsystem.

System Action: The statement cannot be executed. The application process is placed in the unconnected state.

Programmer Response: If the location name is specified as the value of a host variable, ensure that the name is left justified in the host variable and, if necessary, padded on the right with blanks. If this is not the problem, either SYSIBM.LOCATIONS must be updated to include the specified name, or the specified name must be changed to match a name in SYSIBM.LOCATIONS.

Destination: 42705

-965 STORED PROCEDURE *procname* **TERMINATED ABNORMALLY**

Explanation: DB2 received an SQL CALL statement for a stored procedure. The stored procedure terminated abnormally while attempting to satisfy the request.

procname The name of the stored procedure that terminated abnormally

System Action: The statement cannot be executed. The calling application must issue a ROLLBACK statement before attempting to continue SQL processing.

If the abnormal termination count for procedure *procname* was reached, the procedure is stopped and further requests for the procedure are rejected.

Programmer Response: Correct the cause of the stored procedure abnormal termination. Then issue the DB2 -START PROCEDURE command to activate the stored procedure.

Destination: 51021

-981 THE SQL STATEMENT FAILED BECAUSE THE RRSAF CONNECTION IS NOT IN A STATE THAT ALLOWS SQL OPERATIONS, REASON *reason-code***.**

Explanation: The application attempted to execute an SQL operation but the RRSAF connection was not in a state that allows the processing of SQL statements.

System Action: The statement cannot be executed.

Programmer Response: See `reason-code` in "Section 4. DB2 Codes" on page 4-1 for an explanation of the problem. Correct the error in the application, REBIND, and run the application again.

Destination: 57015

-991 CALL ATTACH WAS UNABLE TO ESTABLISH AN IMPLICIT CONNECT OR OPEN TO DB2. RC1= *rc1* **RC2=** *rc2*

Explanation: Call attach attempted to perform an implicit connect and open as the result of an SQL statement. The connect or open failed with the returned values.

rc1 The value returned in FRBRC1 for the failed CONNECT or OPEN request.

rc2 The value returned in FRBRC2 for the failed CONNECT or OPEN request.

System Action: The statement cannot be executed.

Programmer Response: Verify that the application intended to use the call attachment facility (CAF) as the mechanism to connect to DB2. For stored procedures running in the WLM-established stored procedure address space the application must be link-edited with or dynamically allocate the RRS attachment language interface module (DSNRLI), not CAF.

Destination: 57015

-2001 THE NUMBER OF HOST VARIABLE PARAMETERS FOR A STORED PROCEDURE IS NOT EQUAL TO THE NUMBER OF EXPECTED HOST VARIABLE PARAMETERS. ACTUAL NUMBER *sqldanum***, EXPECTED NUMBER** *opnum*

Explanation: DB2 received an SQL CALL statement for a stored procedure. However, the number of host variable parameters supplied on the CALL statement does not match the expected number of host variable parameters.

sqldanum The number of host variable parameters as determined by examining the SQLDA.

opnum The expected number of host variable parameters as determined by parsing the statement.

System Action: The statement cannot be executed.

Programmer Response: If the SQL CALL statement is coded incorrectly, modify the SQL application to provide the correct number of parameters on the SQL CALL statement.

Destination: 53089

-20104 AN ATTEMPT TO ALTER A CCSID FROM *from-ccsid* **TO** *to-ccsid* **FAILED**

Explanation: The statement attempted to alter the CCSID for a database or table space and the statement failed.

from-ccsid represents the CCSID that is currently in use for the database or table space.

to-ccsid is the CCSID that specified on the alter statement.

System Action: The statement cannot be executed.

Programmer Response: APPENDIX ZZZ of the SQL REFERENCE contains a list of CCSIDs that may be specified on this statement. Only CCSIDs specified in this appendix may be altered, and then, only to the corresponding value listed in the table. Altering the CCSID of a database or table space to a value not listed in the table is not permitted.

Destination: 42856

-30000 EXECUTION FAILED DUE TO A DISTRIBUTION PROTOCOL ERROR THAT WILL NOT AFFECT THE SUCCESSFUL EXECUTION OF SUBSEQUENT COMMANDS OR SQL STATEMENTS: REASON *reason-code (sub-code)*

Explanation: A DRDA protocol error has resulted which prevented successful execution of the current SQL statement. The error was such that it will not preclude the successful execution of further SQL statements.

System Action: The statement cannot be executed. The SQLCA is formatted. Message DSNL031I or DSNL032I, which might contain additional diagnostic information, might be issued to the MVS console.

Programmer Response: Notify the DBA for assistance in analysis of the SQL statement which yielded this SQLCODE.

Problem Determination: The 'reason-code' identifies the DDM code point which represents the DDM reply message received from the remote server in response to the attempt to execute the SQL statement. These represent internal errors detected at the remote server or possibly, by the local DB2 functions.

The 'reason-code' value is the two-byte hexadecimal code point for the DDM reply message that represents the error and is one of the following:

X'1254' - CMDCHKRM
X'220A' - DSCINVRM
X'220E' - DTAMCHRM
X'1245' - PRCCNVRM
X'2202' - QRYNOPRM
X'220F' - QRYPOPRM
X'2207' - RDBACCRM
X'2204' - RDBNACRM
X'124C' - SYNTAXRM

A two-byte 'sub-code' accompanies 'reason-codes' X'220A' (DSCINVRM), X'1245' (PRCCNVRM), and X'124C' (SYNTAXRM). In all other cases, the 'sub-code' is zero.

The 'sub-code' when nonzero, consists of two bytes such that the high-order byte indicates the site at which the error was detected. This is X'01' if the error was detected by the local DB2; it is X'02' if the error was detected by the remote server. The low-order byte is dependent on the 'reason-code' as follows:

1. Description Error Code (DSCERRCD) if 'reason-code' = X'220A' (DSCINVRM).
2. Syntax Error Code (SYNERRCD) if 'reason-code' = X'124C' SYNTAXRM).
3. Conversational Protocol Error Code (PRCCVNCD) if 'reason-code' = X'1245' (PRCCNVRM).

Refer to the *IBM Distributed Data Management (DDM) Reference Guide* for a detailed discussion of the semantics of the DDM terms DSCERRCD, SYNERRCD, and PRCCNVCD.

Destination: 58008

-30020 EXECUTION FAILED DUE TO A DISTRIBUTION PROTOCOL ERROR THAT CAUSED DEALLOCATION OF THE CONVERSATION: REASON *<reason-code (sub-code)>*

Explanation: A DRDA protocol error has occurred that prevented the successful execution of the current SQL statement or command, as well as any subsequent SQL statements.

The 'reason-code' identifies the DDM code point which represents the DDM reply message received from the remote server in response to the attempt to execute the SQL statement. These represent internal errors detected at the remote server site or possibly, by the local DB2 functions.

The 'reason-code' value is the two-byte hexadecimal code point for the DDM reply message that represents the error and is one of the following:

X'1232' - AGNPRMRM
X'1254' - CMDCHKRM
X'220A' - DSCINVRM
X'220E' - DTAMCHRM
X'0010' - FDODSC
X'1218' - MGRDEPRM
X'1245' - PRCCNVRM
X'241A' - QRYDSC
X'2202' - QRYNOPRM
X'220F' - QRYPOPRM
X'2207' - RDBACCRM
X'2204' - RDBNACRM
X'124C' - SYNTAXRM

A two byte sub-code accompanies 'reason codes'. The sub-code, when nonzero, consists of two bytes such that the high-order byte indicates the site at which the error was detected. This is X'01' if the error was detected by the local DB2; It is X'02' if the error was detected by the remote server. The low-order byte is dependent upon the 'reason code' as follows:

Description Error Code (DSCERRCD) if reason code= X'220A' (DSCINVRM).
Syntax Error Code (SYNERRCD) if reason code = X'124C' (SYNTAXRM).
Conversational Protocol Error Code (PRCCVNCD) if reason code = X'1245' (PRCCNVRM).
Manager Dependency Error Code (DEPERRCD) if reason code = X' 1218' (MGRDEPRM).

Refer to *IBM Distributed Data Management (DDM) Reference Guide* for a detailed discussion of the semantics of the DDM terms DSCERRCD, SYNERRCD, PRCCNVCD, and DEPERRCD.

System Action: The statement cannot be executed. The SQLCA is formatted and the conversation on which the error was detected is deallocated. Message DSNL031I or DSNL032I, which might contain additional diagnostic information, might be issued to the MVS console.

Programmer Response: The connection to the server has been broken, and the server has, therefore, rolled back the unit of work. In this case, the only SQL statement that may be successfully executed is ROLLBACK. However, if the requester detects this error on a COMMIT, then it is unknown whether the unit of work was committed or rolled back at the server.

Destination: 58009

-30021 **EXECUTION FAILED DUE TO A DISTRIBUTION PROTOCOL ERROR THAT WILL AFFECT THE SUCCESSFUL EXECUTION OF SUBSEQUENT COMMANDS OR SQL STATEMENTS: MANAGER** *manager* **AT LEVEL** *level* **NOT SUPPORTED ERROR**

Explanation: A DRDA error occurred that prevented the successful execution of the current SQL statement or command and any subsequent SQL statements.

A manager-level conflict was detected during the processing of the DDM EXCSAT command. Refer to the *IBM Distributed Data Management (DDM) Reference Guide* for a detailed description of EXCSAT processing and errors.

The *manager* value is the 2-byte hexadecimal code point of the DDM manager class identified as not supported in the EXCSATRD that reported the error. Refer to the DDM term MGRLVL in the *IBM Distributed Data Management (DDM) Reference Guide* for the 2-byte hexadecimal values.

The *level* value is the 2-byte hexadecimal value of the manager level identified as not supported in the EXCSATRD that reported the error. Refer to the DDM term MGRLVL in the *IBM Distributed Data Management (DDM) Reference Guide* for the 2-byte hexadecimal values.

System Action: The statement cannot be executed.

Programmer Response: Notify the system programmer for analysis of the condition that caused this SQLCODE.

Destination: 58010

-30030 **COMMIT REQUEST WAS UNSUCCESSFUL, A DISTRIBUTION PROTOCOL VIOLATION HAS BEEN DETECTED, THE CONVERSATION HAS BEEN DEALLOCATED. ORIGINAL SQLCODE=***original-sqlcode* **AND ORIGINAL SQLSTATE=***original-sqlstate*

Explanation: The application requested COMMIT operation was unsuccessful and the response from the remote server and the SQLCODE that was returned from the remote server are inconsistent. For example, the reply message from the remote server indicates that a COMMIT operation did not complete successfully but the SQLCODE returned from the remote server was greater than or equal to zero. The unit of work has been rolled back and the connection with the remote server has been deallocated.

System Action: An alert was generated. A DSNL031I message may have been written to the console. Refer to the description of this message for further information.

The SQLCODE returned by the remote server is replaced with -30030 and the SQLSTATE returned by the AS is replaced with '158013' and the connection with the remote server has been deallocated.

The SQLCODE and SQLSTATE values that were returned from the remote server are stored in the SQLERRM field in a string of the following format:

```
'original-sqlcode 'FF'X original-sqlstate'
```

Programmer Response: Notify the system programmer for assistance in analyzing the trace data that was generated.

Destination: 58013

-30040 **EXECUTION FAILED DUE TO UNAVAILABLE RESOURCES THAT WILL NOT AFFECT THE SUCCESSFUL EXECUTION OF SUBSEQUENT COMMANDS OR SQL STATEMENTS. REASON** <*reason-code*> **TYPE OF RESOURCE** <*resource-type*> **RESOURCE NAME** <*resource-name*> **PRODUCT ID** <*pppvvrrm*> **RDBNAME** <*rdbname*>

Explanation: The SQL statement or command requires a non RDB resource that is currently unavailable. The <reason-code> identifies why the resource identified by the <resource-type> and <resource-name> is unavailable. The product, product level, and RDB are identified.

Values for <reason-code>

This is product specific and can be found in the remote server documentation.

Values for <resource-type>

Two byte hexadecimal number defined as follows:

This is product specific and can be found in the remote server documentation.

Values for <resource-name>

Variable length field with alphanumeric characters and a maximum length of 35 bytes.

Values for <pppvvrrm>

Eight-byte field with alphanumeric characters defined as follows:

ppp..... DSN for DB2, ARI for SQL/DS SQL for OS/2 and QSQ for AS/400 (3 bytes)

vv..... version number (2 bytes)

rr..... release level (2 bytes)

m..... modification level (1 byte)

Values for <rdbname>

Sixteen-byte field with the RDBNAME.

System Action: The statement cannot be executed. The local DB2 is disconnected from the remote server.

Programmer Response: Verify the identify of the resource that was not available. The reason the resource is unavailable is identified by the <reason-code>.

Collect the following diagnostic items to help determine the cause of the unavailable resource.

- Console output from the system identified by RDBNAME, and a listing of SYSLOG data set for the period of time spanning the failure.
- Information described for the reason code received.

Destination: 57012

-30041 EXECUTION FAILED DUE TO UNAVAILABLE RESOURCES THAT WILL AFFECT THE SUCCESSFUL EXECUTION OF SUBSEQUENT COMMANDS AND SQL STATEMENTS REASON <*reason-code*> **TYPE OF RESOURCE** <*resource-type*> **RESOURCE NAME** <*resource-name*> **PRODUCT ID** <*pppvvrrm*> **RDBNAME** <*rdbname*>

Explanation: The SQL statement or command requires a non RDB resource that is currently unavailable. The <reason-code> identifies why the resource identified by the <resource-type> and <resource-name> is unavailable. The product, product level, and RDB are identified.

Values for <reason-code>

Four byte binary number that is product specific. This can be found in the remote server documentation.

Values for <resource-type>

Two byte hexadecimal number that is product specific. This can be found in the remote server documentation.

Values for <resource-name>

Variable length field with alphanumeric characters and a maximum length of 35 bytes.

Values for <pppvvrrm>

Eight byte field with alphanumeric characters defined as follows:

ppp..... DSN for DB2, ARI for SQL/DS, SQL for OS/2 and QSQ for AS/400 (3 bytes)

vv..... version number (2 bytes)

rr..... release level (2 bytes)

m..... modification level (1 byte)

Values for <rdbname>

Sixteen byte field with the RDBNAME.

System Action: The statement cannot be executed. The local DB2 is disconnected from the remote server.

Programmer Response: Verify the identity of the resource that was not available. The reason the resource is unavailable is identified by the reason-code.

Collect the following diagnostic items to help determine the cause of the unavailable resource.

- Console output from the system identified by RDBNAME, and a listing of SYSLOG data set for the period of time spanning the failure.
- Information described for the <reason-code> received.

Destination: 57013

-30050 <*command-or-SQL-statement-type*> **COMMAND OR SQL STATEMENT INVALID WHILE BIND PROCESS IN PROGRESS**

Explanation: A remote command or remote SQL execution was attempted while a remote bind was in progress. The only commands allowed during bind are, BIND STATEMENT, END BIND, ROLLBACK, or COMMIT.

System Action: The request is rejected. The local DB2 is disconnected from remote server.

Programmer Response: Ensure the remote bind has completed before attempting to execute an SQL statement or process a remote command. COMMIT and ROLLBACK will terminate the bind processing.

Destination: 58011

-30051 BIND PROCESS WITH SPECIFIED PACKAGE NAME AND CONSISTENCY TOKEN NOT ACTIVE

Explanation: Binding of a statement or end bind was attempted while the package was not undergoing bind processing.

System Action: The bind statement request or end bind request is rejected. The local DB2 is disconnected from the remote server.

Programmer Response: Ensure that the server processing the bind request was not abending when this request was being processed, or that the package name hasn't changed before terminating the remote bind package request.

Destination: 58012

-30052 PROGRAM PREPARATION ASSUMPTIONS ARE INCORRECT

Explanation: The program preparation assumptions in effect for binding a statement (i.e. BINDSQLSTT command) are incorrect.

System Action: The statement is rejected.

Programmer Response: The creation of the package following this error is dependent on the package creation options specified at begin bind time.

Destination: 42932

-30053 OWNER AUTHORIZATION FAILURE

Explanation: An authorization error associated with the package owner is detected. The AS, for example, has determined that the binder has specified a package owner that the binder has no authorization to specify.

System Action: The begin bind request is rejected.

Programmer Response: Correct the authorization problem and reissue the request.

Destination: 42506

-30060 RDB AUTHORIZATION FAILURE

Explanation: The user is not authorized to access an RDB.

System Action: The request is rejected.

Programmer Response: Correct the authorization problem and resubmit the job.

Destination: 08004

-30061 RDB NOT FOUND

Explanation: An attempt was made to access an RDB which cannot be found. This usually means that a requester specified the server location name incorrectly. The server responded by indicating that the requester's specification of the server location name is incorrect. Requester or server changes are needed to make the location names consistent. Location names for DB2 systems are defined in the BSDS DDF record and are also in the DSNL004I console message when DDF is started. For more information about defining location names, see Section 3 of *Installation Guide*.

System Action: The request is not processed.

Programmer Response: Ensure the RDB name was correctly specified and resubmit the job.

Destination: 08004

-30070 <*command*> COMMAND NOT SUPPORTED ERROR

Explanation: The target does not support a particular command. The error causes termination of the connection between the local DB2 and the remote server.

Values for <command>

Two byte hexadecimal DDM code point.

System Action: The command is rejected. The local DB2 is disconnected from the remote server.

Programmer Response: Ensure the proper command was issued.

Destination: 58014

-30071 <*object-type*> OBJECT NOT SUPPORTED ERROR

Explanation: The target does not support a particular object. The error causes the termination of the connection between the local DB2 and the remote server.

Values for <object-type>

Two byte hexadecimal DDM code point.

System Action: The command/SQL statement is rejected. The local DB2 is disconnected from the remote server.

Programmer Response: Ensure the object has been correctly specified and resubmit the job or reissue the command.

Destination: 58015

-30072 <*parameter*>:<*subcode*> PARAMETER NOT SUPPORTED ERROR

Explanation: A particular parameter is not supported by either the application requester or the remote server.

Values for <parameter>

Two byte hexadecimal DDM code point.

Values for <subcode>

Two byte hexadecimal number defined as follows: This subcode is composed of two distinct parts, but may optionally be zero. The high-order byte (when not zero) indicates the site at which the error was detected. This is X'01' if the error was detected by the local DB2; it is X'02' if the error was detected by the remote server. The low order byte is always zero.

System Action: The command/SQL statement is rejected. A disconnect has occurred.

Programmer Response: The connection to the server has been broken, and the server has therefore rolled back the unit of work. In this case, the only SQL statement that may be successfully executed is ROLLBACK. However, if the requester detects this error on a COMMIT, then it is unknown whether the unit of work was committed or rolled back at the server.

Destination: 58016

-30073 <*parameter*>:<*subcode*> PARAMETER VALUE NOT SUPPORTED ERROR

Explanation: The specified parameter value is not supported by either the local DB2 or the remote server.

The *parameter*, is a 2-byte hexadecimal DDM code point. See *IBM Distributed Data Management (DDM) Reference Guide* for a definition of the valid code points. Common values for *parameter* include:

X'0035'	Usually means that a DB2 V2R3 server does not support the single-byte coded character set identifier (CCSID) sent by the requester, or a DB2 V2R3 requester does not support the single-byte CCSID received from a server. See X'119C' for more information.
X'1144'	DRDA servers return this code point when a DB2 client specifies a version for a package and the DRDA server does not support versions.
X'119C'	If the subcode information contains X'01', the requester does not support the single-byte CCSID that the server wants to use. If the subcode information contains X'02', the server does not support the single-byte CCSID that the requester wants to use. Determine the single-byte CCSIDs for the requester and server systems. The single-byte CCSID for DB2 subsystems is defined in DSNHDECP. One or both partners might be using an incorrect CCSID, or support might need to be added. Individual CCSID support for DB2 subsystems is obtained by making changes to the SYSIBM.SYSSTRINGS catalog table. See *Installation Guide* for more information on CCSIDs.
X'147A'	DB2 servers can return this code point when a numeric input host variable is not within the range that DB2 supports. See the explanation of SQLCODE -406 for more information.
X'14AC'	DB2 servers return this code point when a DRDA client requests an authentication mechanism that is not supported by the DB2 server. See the explanation of DB2 reason code 00D3010E for more information.
X'2110'.	Usually means that a requester specified the server location name incorrectly. The server responded by indicating that the requester's specification of the server location name is incorrect, and the length of the location name is longer than that supported by the server. Requester or server changes are needed so the location names are consistent. Location names for DB2 systems are defined in the BSDS DDF record and can also be seen in the DSNL004I

console message when DDF is started. See Section 3 of *Installation Guide* for more information about defining location names.

X'2120' Usually means that the server does not support the use of double quote string delimiters in SQL statements. DB2 COBOL applications can use double quote string delimiters in SQL statements. This requires that the program be precompiled with the SQLDELIM(QUOTESQL) option. If the server product does not support double quote SQL statement string delimiters, then the program must be modified to use single quote SQL string delimiters and be precompiled with the SQLDELIM(APOSTSQL) option.

X'2121' Usually means that the there is a semantic error with the string that specifies the character used as a decimal delimiter in SQL statements.

X'213F' Means that the server was processing a bind or rebind command that specified an unsupported value for the DYNAMICRULES bind parameter. If the server is a DB2 Version 3 system, specify DYNAMICRULES(RUN) or omit the DYNAMICRULES parameter.

The 'subcode', which is a 2-byte hexadecimal number, consists of two distinct parts and can optionally be zero. The high-order byte (when not zero) indicates the site at which the error was detected. If the error was detected by the local DB2, it is X'01'. If the error was detected by the remote server, it is X'02'. The low-order byte is always zero.

System Action: The command or SQL statement is rejected. A disconnect occurred.

Programmer Response: The connection to the server was broken, and the server rolled back the unit of work. The only SQL statement that can be successfully executed is ROLLBACK. However, if the requester detects this error on a COMMIT, then it is unknown whether the unit of work was committed or rolled back at the server.

Destination: 58017

-30074 REPLY MESSAGE WITH *codepoint (svrcod)* **NOT SUPPORTED ERROR**

Explanation: A reply message *codepoint* is not recognized or the reply message *SVRCOD* is not recognized. The error does not affect the processing of subsequent DRDA commands and SQL statements issued by the application program.

Values for *codepoint*

- The *codepoint* is a two-byte hexadecimal value that represents a DDM reply message. *IBM Distributed Data Management (DDM) Reference Guide* defines the valid *codepoints* for reply messages.

Values for *SVRCOD*

- The *SVRCOD* is a one-byte hexadecimal value which represents the reply messages severity code. *IBM Distributed Data Management (DDM) Reference Guide* defines the valid *SVRCOD* for reply messages.

System Action: Processing continues.

Programmer Response: The cause of this error may be a mismatch in source and targe manager levels or might be an internal error.

Destination: 58018

-30080 COMMUNICATION ERROR *code (subcode)*

Explanation: A SNA communications error was detected. *VTAM for MVS/ESA Programming for LU 6.2* contains the valid 'code' and 'subcode' values that can appear in this message.

- 'code' is VTAM's primary LU6.2 return code (RCPRI).
- 'subcode' takes one of the following forms:
  - rcsec-sense
  - rcsec

  The 'rcsec' portion of 'subcode' is VTAM's secondary LU6.2 return code (RCSEC).

  The 'sense' portion of 'subcode' is VTAM's sense code. See “Section 6. SNA Codes” on page 6-1, for descriptions of sense codes that are often associated with SNA network definition errors.

System Action: The statement is not executed. The application was disconnected from the server because of a communication failure. A DSNL500I message containing additional diagnostic information might be issued to the MVS console.

Programmer Response: Review the diagnostic information described in *VTAM for MVS/ESA Programming for LU 6.2* for the particular LU6.2 return codes. Consult with a communications expert to determine the cause of the communication failure.

Destination: 08001

-30081 *prot* **COMMUNICATION ERROR DETECTED. API=***api***, LOCATION=***loc***, FUNCTION=***func***, ERROR CODES=***rc1 rc2 rc3*

Explanation: A communications error was detected while communicating with a remote client or server.

prot Identifies the communication protocol that encountered the error. Currently, 'TCP/IP' is the only possible value.

api Identifies the communication application programming interface (API) used by DB2. Currently, 'SOCKETS' is the only possible value.

loc The network location of the partner system.

For TCP/IP partners, this field contains the dotted decimal IP address of the partner.

func The communication function that failed.

For TCP/IP partners, this field identifies name of the socket call that failed.

rc1 The first return code indicator.

For TCP/IP partners, this field contains the TCP/IP *return code* in decimal format. The *return code* values are documented in *OS/390 OpenEdition Messages and Codes*.

rc2 The second return code indicator.

For TCP/IP partners, this field contains the TCP/IP *reason code* in decimal format. The *reason code* values are documented in *OS/390 OpenEdition Messages and Codes*.

rc3 The third return code indicator.

For TCP/IP partners, this field contains zero.

System Action: The statement is not executed. The application is disconnected from the server.

Programmer Response: Consult with a communications expert to determine the cause of the communication failure.

Destination: 58019

-30082 CONNECTION FAILED FOR SECURITY REASON *reason-code* **(***reason-string***)**

Explanation: The attempt to connect to a remote database server was rejected due to invalid or incorrect security information. The cause of the security error is described by the *reason-code* and *reason-string* values.

The possible values for *reason-code* and *reason-string* appear below:

- 1 (PASSWORD EXPIRED) -- the password used to connect to the remote server has expired.
- 2 (PASSWORD INVALID) -- the password used to connect to the remote server does not match the password stored at the remote server.
- 3 (PASSWORD MISSING) -- the remote server rejected the connection request because the request did not include a password.
- 4 (PROTOCOL VIOLATION) -- the remote server rejected the connection request because the request did not contain the proper security information. Error messages or trace records should be produced by the server system to explain the nature of the security violation.
- 5 (USER-ID MISSING) -- the remote server rejected the connection request because the request did not specify a user-id.
- 6 (USER-ID INVALID) -- the user-id specified in the connection request is not defined at the remote server system.
- 7 (USER-ID REVOKED) -- the user-id specified in the connection request has been revoked.
- 15 (SECURITY FAILURE:*secchkcd:svcerrno*)—Authentication failed at the remote server system. Refer to the *IBM Distributed Data Management (DDM) Reference Guide* for a detailed discussion of the semantics of the DDM terms SECCHKCD and SVCERRNO.
- 16 (NEW PASSWORD INVALID) -- the password specified on a change password request did not meet the server's requirements.
- 17 (UNSUPPORTED FUNCTION) -- the security mechanism specified by the client is invalid for this server. Some typical examples:
  - The client sent a new password value to a server that does not support the DRDA change password function.
  - The client sent DCE authentication information to a server that does not support DCE.

System Action: The attempt to connect to the remote database server fails. If the server system is a DB2 for OS/390 server, a DSNL030I message at the server system describes the cause.

Programmer Response: DB2 uses the communications database (CDB) to control network security functions. Make the appropriate changes to the CDB to correct the security failure.

Destination: 08001

-30090 REMOTE OPERATION INVALID FOR APPLICATION EXECUTION ENVIRONMENT

Explanation: An update operation or a dynamic commit or rollback was attempted at a server that was supporting an application that was in a read-only execution environment (IMS or CICS).

System Action: The request is rejected.

Programmer Response: Do not attempt to update data or issue dynamic commits or rollbacks from IMS or CICS applications that are accessing remote data.

Destination: 25000

-30104 ERROR IN BIND OPTION *option* **AND BIND VALUE** *value***.**

Explanation: While processing the bind parameters that were passed from the requester site, either the bind option or the bind value is not acceptable to the server database, or the option/value pair is not appropriate.

System Action: None.

Programmer Response: The BIND or REBIND command failed. Examine the command options and values, determine the error, and resubmit the command.

Destination: 56095

-30105 BIND OPTION *option1* **IS NOT ALLOWED WITH BIND OPTION** *option2*

Explanation: While processing the bind parameters that were passed from the requester site, it was found that there is a conflict in bind options that are mutually exclusive.

System Action: None.

Programmer Response: The BIND or REBIND command failed. Examine the command options, determine the cause of the conflict, and resubmit the command.

Destination: 56096

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DB2 Messages

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Refer to “Section 1. Introduction” on page 1-1 for a description of message types and message numbering conventions.

Unless the message is issued by a subcomponent operating outside the DB2 environment, messages are preceded by a *command prefix* that is defined during system installation. The command prefix is not shown in the message texts in this book.

In the TSO attachment facility, the user can control whether message IDs are displayed. To see them, type `'PROFILE MSGID'`. To suppress them, type `'PROFILE NOMSGID'`.

DSNA... Messages

The messages in this chapter are written to the trace. They are seen only if the trace is turned on (that is, ddname DSNTRACE was allocated to SYSOUT or the TSO terminal).

DSNA... messages share a basic structure. Here are the message elements, listed in order:

1. Message number (DSNAnnna).
2. The name of the CSECT responsible for writing the message.
3. TCB address of the task currently executing.
4. A series of tokens and token-explanations unique to each message.

Note: The intent of these messages is to aid IBM development and the IBM Support Center. They contain information that might not be meaningful except to IBM.

DSNA002E DSNACA00 TCB=address SYSTEM ERROR - FOUND UNEXPECTED THREAD

Explanation: The DB2 call attachment facility control block, the CAB, indicated that a thread was present when none should have been present. This is a CAF system error.

This message is issued by the following CSECT: DSNACA00

System Action: This message immediately precedes an 04E abend, with reason code 00C10002.

System Programmer Response: Collect a SYSUDUMP and DSNTRACE trace stream.

Programmer Response: Refer the problem to your system programmer.

Problem Determination: Contact your IBM Support Center.

DSNA201E DSNACA00 TCB=address CANNOT USE 'CONNECT', ALREADY CONNECTED TO DB2

Explanation: A CONNECT request was received but a connection to DB2 already existed for the TCB identified by 'address' in the message. This is a CAF error (application program error). The message is accompanied by return code (R15) 200 and code (R0) 00C10201.

This message is issued by the following CSECT: DSNACA00

System Action: No new connection is made to DB2 and an error return and reason code are issued. The DB2 call attachment facility is ready for more input.

System Programmer Response: Refer the problem to the programmer using the DB2 call attachment facility.

Programmer Response: You must DISCONNECT the previous connection before you can re-CONNECT. Correct the logic in your code.

Problem Determination: See a DSNTRACE trace stream to understand the context of this message.

DSNA202E DSNACA00 TCB=address CANNOT USE 'OPEN', PRIOR OPEN OR SQL ALREADY CONNECTED APPLICATION TO DB2

Explanation: An OPEN request was received but a DB2 thread had already been created for the specified TCB. This is a user error. The message is accompanied by return code (R15) 200 and code (R0) 00C10202.

This message is issued by the following CSECT: DSNACA00

System Action: No new DB2 thread is created and an error return and reason code are issued. The DB2 call attachment facility is ready for more input.

System Programmer Response: Refer the problem to the programmer using the DB2 call attachment facility.

Programmer Response: Your application program had already (explicitly or implicitly) established an OPEN level connection to DB2. You cannot do this again until the original OPEN is terminated. 'Explicit' OPENs occur when an application issues the call attachment facility OPEN request. 'Implicit' OPENs occur when an application issues SQL statements before a DB2 connection was established. Correct the logic in your application program.

Problem Determination: See a DSNTRACE trace stream to understand the context of this message.

DSNA203E DSNACA00 TCB=address CANNOT USE 'CLOSE', THERE WAS NO 'OPEN' IN EFFECT

Explanation: A CLOSE request was received but no OPEN level connection (implicit or explicit) existed for this task. This is a user error. The message is accompanied by return code (R15) 200 and code (R0) 00C10203.

This message is issued by the following CSECT: DSNACA00

System Action: No CLOSE is performed. The DB2 call attachment facility is ready for more input.

System Programmer Response: Refer the problem to the programmer using the DB2 call attachment facility.

Programmer Response: Correct the logic in your application. Do not issue CLOSE unless an explicit OPEN has been performed. 'Explicit' OPENs occur when an application issues the call attachment facility OPEN request.

Problem Determination: See a DSNTRACE trace stream to understand the context of this message.

DSNA204E DSNACA00 TCB=address CANNOT USE 'DISCONNECT', THERE WAS NO 'CONNECT' IN EFFECT

Explanation: A DISCONNECT request was received but no DB2 connection had been established. This is a user error. The message is accompanied by return code (R15) 200 and code (R0) 00C10204.

This message is issued by the following CSECT: DSNACA00

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System Action: No DISCONNECT has been performed. The DB2 call attachment facility is ready for more input.

System Programmer Response: Refer the problem to the programmer using the DB2 call attachment facility.

Programmer Response: Correct the logic in your application. Do not issue DISCONNECT unless a CONNECT has been performed.

Problem Determination: See a DSNTRACE trace stream to understand the context of this message.

DSNA205E DSNACA00 TCB=address CANNOT USE 'TRANSLATE', THERE WAS NO CONNECTION TO DB2 OR NOTHING TO TRANSLATE

Explanation: A TRANSLATE request was received but no data was available for translation. You must have valid DB2 call attachment facility control structures before you can make a TRANSLATE request. Control structures are built when you issue explicit or implicit connection requests. This is a user error. The message is accompanied by return code (R15) 200 and code (R0) 00C10205.

This message is issued by the following CSECT: DSNACA00

System Action: No TRANSLATE is performed. The DB2 call attachment facility is ready for more input.

System Programmer Response: Refer the problem to the programmer using the DB2 call attachment facility.

Programmer Response: Correct the logic in your application. Do not issue TRANSLATE unless a DB2 connection has been attempted.

Problem Determination: See a DSNTRACE trace stream to understand the context of this message.

DSNA206E DSNACA00 TCB=address WRONG NUMBER OF PARMS OR VL BIT OFF

Explanation: An erroneous DB2 call attachment facility request was received. The request had too many or too few parameters and could not be processed. The message is accompanied by return code (R15) 200 and code (R0) 00C10206.

This message is issued by the following CSECT: DSNACA00

System Action: The previous request was not processed. The DB2 call attachment facility is ready for more input.

System Programmer Response: Refer the problem to the programmer using the DB2 call attachment facility.

Programmer Response: Correct the logic in your application. Be sure that any parameter list passed to the DB2 call attachment facility has the correct number of parameters for the individual call, and that the high order (VL) bit is turned on to end the parameter list.

Problem Determination: See a DSNTRACE trace stream to understand the context of this message.

DSNA207E DSNACA00 TCB=address DID NOT RECOGNIZE ACTION PARAMETER - parm

Explanation: An unrecognized action request type or parameter was received by the DB2 call attachment facility and could not be processed. The allowable action request types are CONNECT, OPEN, CLOSE, DISCONNECT, and TRANSLATE. For allowable parameters, refer to the CAF section in *Application Programming and SQL Guide*. This message is accompanied by return code (R15) 200 and code (R0) 00C10207.

This message is issued by the following CSECT: DSNACA00

System Action: Control returns to the caller. Your request was not processed. The DB2 call attachment facility is ready for more input.

System Programmer Response: Refer the problem to the programmer using the DB2 call attachment facility.

Programmer Response: Correct the logic in your application. Check the spelling of the action parameter type or keyword on the previous request passed to the DB2 call attachment facility. The action parameter type you passed is listed in the parm field of the DSNA800I trace message. If the error is not the action parameter, the parameter in error is listed in the parm field of this message.

Problem Determination: See a DSNTRACE trace stream to understand the context of this message.

DSNA208E DSNACA00 TCB=address CANNOT HAVE 2 SSIDS (ssid1 AND ssid2) FROM 1 TCB

Explanation: An OPEN request was received specifying a different subsystem identifier (ssid2) than the previous CONNECT request (ssid1). Your task can only be connected to a single DB2 subsystem. The message is accompanied by return code (R15) 200 and code (R0) 00C10208.

This message is issued by the following CSECT: DSNACA00

System Action: Control returns to the caller. Your request was not processed. The DB2 call attachment facility is ready for more input.

System Programmer Response: Refer the problem to the programmer using the DB2 call attachment facility.

Programmer Response: Specify the correct DB2 subsystem identifier on both the OPEN and CONNECT requests.

Problem Determination: See a DSNTRACE trace stream to understand the context of this message.

DSNA209E DSNACA00 A STORED PROCEDURE ISSUED AN EXPLICIT CALL TO DSNALI

Explanation: A stored procedure issued an explicit call to DSNALI. This is not allowed. Return code 200 in register 15 and code 00C10209 in register 0 accompany this message.

System Action: Control returns to the caller. The request was not processed. The DB2 call attachment facility is ready for more input.

System Programmer Response: Refer the problem to the programmer using the DB2 call attachment facility.

Programmer Response: Remove explicit calls to DSNALI from the application program.

Problem Determination: See a DSNTRACE trace job stream to understand the context of this message.

DSNA8xx

Explanation: Messages in the DSNA800 series are intended for diagnosis and are documented in Section 9 of *Diagnosis Guide and Reference*.

DSNB... Messages

DSNB200I UPDATE VVDS FAILED. DSNAME = *dsn*, **MMRC=***cccccccc* **CONNECTION-ID=***xxxxxxxx*, **CORRELATION-ID=***yyyyyyyyyyyy*, **LUW-ID=***logical-unit-of-work-id* **=***token*

Explanation: DB2 was unable to update the data set high-used RBA in the VSAM volume data set (VVDS) when it was ready to close a data set that was used by a RECOVER, LOAD, or REORG utility job. The error was detected by the media manager catalog update function that issues system message IEC161I. The *dsn* indicates the DSNAME of the data set. MMRC is the return code that DB2 received from the media manager catalog update service. Refer to *DFSMS/MVS: Diagnosis Reference for DFSMSdfp* for a description of these codes.

The connection ID, correlation ID, and logical-unit-of-work ID (LUW-ID) identify the user or application that encountered the problem.

An LUW-ID of '*' indicates that the thread does not have an LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

This message is issued by the following CSECT: DSNB1CST

System Action: DB2 continues closing this data set. However, the utility job is informed with a 00C2010C 'resource unavailable' reason code. The utility job is left in a failed state.

Operator Response: Notify the system programmer.

System Programmer Response: To determine the cause of the error, refer to system message IEC161I in the appropriate MVS publication. Correct the error, and then notify the user to reinvoke the application.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 10, 11.

DSNB204I OPEN OF DATA SET FAILED. DSNAME = *dsn*

Explanation: A required data set of a DB2 table or index space could not be opened. The error was detected by the media manager CONNECT function that issues system message IEC161I. The *dsn* indicates the DSNAME of the data set.

After being issued for a given data set, this message is disabled for that data set.

This message is issued by the following CSECT: DSNB1OST

System Action: Buffer manager functions that detect this condition terminate.

Operator Response: Notify the system programmer.

System Programmer Response: To determine the cause of the error, refer to system message IEC161I in the appropriate MVS publication. Correct the error, and reinvoke the application.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 10, 12.

DSNB207I DYNAMIC ALLOCATION OF DATA SET FAILED. REASON = *rrrr* **DSNAME =** *dsn*

Explanation: A required data set of a DB2 table or index space could not be allocated. Reason code *rrrr*, which is returned by dynamic allocation, indicates the reason for the failure. Refer to the appropriate MVS publications for a description of this reason code. The *dsn* indicates the data set's DSNAME.

After being issued for a given data set, this message is disabled for that data set.

This message is issued by the following CSECT: DSNB1OST

System Action: Buffer manager functions that detect this condition terminate and pass a unique error return code.

Operator Response: Notify the system programmer.

System Programmer Response: Correct the situation, and then reinvoke the application.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 10, 12.

DSNB209I *csect-name*–**BUFFER MANAGER TABLESPACE/INDEXSPACE CLEAN–UP ROUTINE (DSNB1CFC) HAS BEEN SCHEDULED FOR DBNAME =** *dbn*, **SPACENAME =** *spn*, **PSID = X'***psid*'

Explanation: DB2 detected an abnormal condition for one of the following reasons:

- The associated table space or index space contains modified pages that cannot be written to DASD for a period of time that is longer than expected. This can be caused by either an unusually long period of contiguous update or by an internal logic error.
- This message follows an abnormal termination due to inconsistent data or an incomplete update to the page.

DB2 scheduled the table space or index space cleanup routine (DSNB1CFC) for the associated table space or index space. DSNB1CFC acquires a drain lock to ensure that no updates are in progress. Data is inaccessible to users during the cleanup process.

For recoverable inconsistent pages with unbalanced write intents, DB2 initiates the recovery process and reconstructs the pages using the DB2 log. For other modified pages with unbalanced write intents, the buffer manager forces the pages to be written back to DASD and then makes the buffer space available for reassignment.

The *dbn* indicates the database name with which the table space or index space is associated. The *spn* is the name of the table space or index space that must be cleaned up. The *psid* is the internal identifier for the table space or index space; it is used to associate this message with follow-on message DSNB221I, which might be issued.

System Action: DB2 is ready to clean up the associated table space or index space. However, before any cleanup is initiated, DB2 requests a drain on the table space or index space. DB2 waits indefinitely for this lock. Therefore, all activ-

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ities against the table space and/or index space must be quiesced before the cleanup process can proceed. If the associated object is an index space, all activities against the table space for which the index space is defined must also be quiesced. After the cleanup process completes, the table space or index space is automatically made accessible to users.

User Response: If the clean up activity does not appear to be completed, DB2 might still be waiting for a drain lock on the table space. Issue a -DISPLAY DATABASE CLAIMERS command for the table space in question (for index spaces, this would be the associated table space) to determine whether the clean up routine is still waiting for a lock and if so, to determine the holders of the table space lock. If the jobs are holding the table space lock for a very long duration (for instance, wait-for-input), it might be necessary to cancel those jobs in order to allow the clean up process to proceed.

DSNB212I *csect-name*–**RECOVER PAGE STARTING DBNAME =** *dbn* **, SPACENAME =** *spn* **, PAGE NUMBER = X'***pno***'**

Explanation: The buffer manager (BM) subcomponent of DB2 discovered an inconsistent page with unbalanced write intents. DB2 is ready to do online recovery on the page using the DB2 log. The *dbn* indicates the associated database name. The *spn* indicates the table space name or index space name. The *pno* is the page number (in hexadecimal) within the table space or index space that is logically inconsistent.

System Action: Processing continues.

DSNB215I *csect-name*–**ONLINE RECOVERY FOR AN INCONSISTENT PAGE HAS BEEN COMPLETED FOR DBNAME =** *dbn* **, SPACENAME =** *spn* **, PAGE NUMBER = X'***pno***'**

Explanation: The recovery process for an inconsistent page completed. The *dbn* indicates the associated database name. The *spn* indicates the table space name or index space name. The *pno* is the page number (in hexadecimal) within the table space or index space that was logically inconsistent.

System Action: Processing continues.

DSNB217I *csect-name*–**ONLINE RECOVERY FOR AN INCONSISTENT PAGE WAS UNSUCCESSFUL FOR DBNAME =** *dbn* **, SPACENAME =** *spn* **, PAGE NUMBER = X'***pno***'**

Explanation: The recovery process for an inconsistent page failed. The page is written to DASD as logically inconsistent. This message is issued in response to message DSNB212I, which was issued to indicate the start of the recovery process. The *dbn* indicates the associated database name. The *spn* indicates the table space name or index space name. The *pno* is the page number (in hexadecimal) within the table space or index space that was logically inconsistent.

System Action: The page is marked as logically inconsistent and is unavailable until it is repaired. The execution unit driving this function proceeds normally.

Problem Determination: A DSNI012I message might be issued before this message to indicate the same failure. If it is, a 00C90102 abend dump might help determine the cause of this failure. Otherwise, see SYS1.LOGREC for any abend that occurred between the associated DSNB212I message and this message. Use the time stamp on the log records to find this abend.

DSNB219I *csect-name*–**BUFFER MANAGER TABLESPACE/INDEXSPACE CLEAN–UP PROCESS HAS BEEN COMPLETED FOR DBNAME =** *dbn* **, SPACENAME =** *spn*

Explanation: This message indicates that the buffer manager (BM) table space or index space cleanup process completed for the associated table space or index space. Refer to message DSNB209I for the reasons why the buffer manager schedules the table space or index space cleanup process. The *dbn* indicates the associated database name. The *spn* indicates the table space name or index space name.

System Action: Processing continues.

DSNB221I *csect-name*–**BUFFER MANAGER TABLESPACE/INDEXSPACE CLEAN–UP PROCESS WAS NOT REQUIRED FOR PSID = X'***psid***'**

Explanation: This message indicates that the buffer manager (BM) table space or index space cleanup process was bypassed for the associated table space or index space. After quiescing all other activities against the table space or index space, the buffer manager discovered that the table space or index space is no longer in active mode; that is, it was closed.

The abnormal condition detected earlier was resolved by buffer manager close page set processing. Refer to the corresponding message, DSNB209I, using *psid* as the matching field, for the reasons the buffer manager schedules the table space or index space cleanup process. The *psid* is the internal identifier for the associated table space or index space.

System Action: Processing continues.

DSNB223I *csect-name*–**BUFFER MANAGER TABLESPACE/INDEXSPACE CLEANUP PROCESS WAS SKIPPED FOR PSID = X'***psid***'**

Explanation: This message indicates that the table space or index space cleanup process was bypassed for the associated table space or index space. During the process of quiescing all other activities against the table space or index space, an error that is not recoverable was detected. The error might be caused by any of the following conditions:

- An out-of-storage condition was detected by IRLM.
- The table space or index space was dropped because of a backout.

It is assumed that the abnormal condition detected earlier can later be resolved by the close page set processing. Refer to the corresponding message DSNB209I (use *psid* as the matching field) for the reasons for scheduling the table space or index space cleanup process. The *psid* specifies the internal identifier for the associated table space or index space.

System Action: Processing continues.

System Programmer Response: The associated table space or index space might contain inconsistent data. Issue the DB2 STOP TABLESPACE or INDEXSPACE command to allow close page set processing to perform cleanup for the associated table space or index space.

DSNB224I *csect-name*– **BUFFER MANAGER I/O ERROR DURING** *function*, **DBNAME=***dbn*,**SPACENAME=***snm*, **DATA SET NUMBER=***dsno*, **PAGE NUMBER=X'***pno*', **MM ERROR FLAG=X'***aa*', **CSW STATUS=X'***bbbb*', **SENSE BYTES=X'***cccc*', **SEEK ADDRESS=X'***dddddddddddddddd*'

Explanation: An I/O error was encountered by the buffer manager (BM) subcomponent of DB2. The function specified in the message is READ, WRITE, or FORMAT. The message gives the database name, table space name or index space name, data set number, and page number (in hexadecimal) of the page for which the I/O operation was being performed. The remaining information is error information returned by the media manager and is used for error analysis by IBM support personnel.

System Action: The system action depends on the function being performed. If the function is WRITE, or if the function is READ and the operation was performed during restart or rollback, the I/O error page range of the data set is updated and message DSNU086I is issued. In most cases (READ, synchronous WRITE, FORMAT), a 'resource not available' is returned to the user with a reason code that identifies the nature of the problem.

After being issued 10 times for a given data set, this message is disabled for that data set until it is closed and reopened.

Operator Response: Notify the system programmer.

System Programmer Response: See documentation in "Section 4. DB2 Codes" on page 4-1 for the reason code returned to the user in the SQLCA or in utility messages. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: See the Problem Determination section of the reason code returned to user.

Check the MVS console log for an IOS error message indicating the type of I/O error that occurred. If an IOS message was issued, follow the problem determination directions for that message.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5.

DSNB225I *csect-name* **- BUFFER MANAGER I/O ERROR DURING** *function* **DBNAME=***dbn*,**SPACENAME=***snm*, **DATA SET NUMBER=***dsno*, **MM ERROR CODES=X'***aaaaaaaa*' **DB2 REASON CODE=X'***bbbbbbbb*'

Explanation: DB2 encountered an I/O error. The function specified in the message is READ, WRITE, CASTOUT, or FORMAT. The message contains the database name, table space name or index space name, data set number, media manager error information returned at the time of the failure, and the DB2 reason code associated with this failure.

System Action: Except for a castout error, the application terminates with abend X'04E' and reason code 00C200A4 or 00C200C0. If an error occurs during castout, processing continues.

Operator Response: Notify the system programmer and follow the directions given for the reason code described in "Section 4. DB2 Codes" on page 4-1.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This message is issued before the occurrence of abend X'04E' and reason code 00C200A4 or 00C200C0 to provide information related to the media manager failure.

Check the MVS console log for an IOS error message indicating the type of I/O error that occurred. If an IOS message was issued, follow the problem determination directions for that message.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 10, 12.

DSNB226I *csect-name* **- BUFFER MANAGER PAGE GET ROUTINE DETECTED AN INVALID PAGE IN DBNAME=***dbn*, **SPACENAME=***snm*, **DATA SET NUMBER=** *dsno*, **PAGE EXPECTED=X'***aaaaaa*', **PAGE RECEIVED=X'***bbbbbb*'

Explanation: An unexpected page was received during buffer manager (BM) get page processing. The page set involved is identified by the database name, space name, and data set number. The page in error is identified by page expected *aaaaaa*. Page number *bbbbbb* was found in the buffer that should contain the expected page.

System Action: The application is terminated with abend X'04E' and reason code 00C200F7.

Operator Response: Notify the system programmer and follow the directions given for reason code 00C200F7 in "Section 4. DB2 Codes" on page 4-1

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This message is issued before the occurrence of abend X'04E' and reason code 00C200F7 to provide information about the page set involved.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 10, 12, 64.

DSNB227I *csect-name* **- DFHSM RECALL FAILED FOR DSNAME=***dsn* **HSMRC=***aaaaaaaa* **HSMRSN=***bbbbbbbb*

Explanation: The attempt to recall a migrated data set failed. DSNAME identifies the data set. HSMRC and HSMRSN are the return code and reason code given by DFHSM.

System Action: A 'resource not available' code is returned to the user.

Operator Response: Notify the system programmer.

System Programmer Response: Use the information provided in the message to determine the reason for the DFHSM recall failure.

Problem Determination: Refer to "Section 4. DB2 Codes" on page 4-1 for an explanation of the return and reason codes contained in this message. Refer to the DFHSM message ARC11nnI, where nn is the value of HSMRC.

DSNB228I *csect-name* **GROUP BUFFER POOL** *gbpname* **CANNOT BE ACCESSED FOR** *function* **MVS IXLCACHE REASON CODE=***reason*

Explanation: While accessing group buffer pool *gbpname* for function *function* DB2 received an error from the MVS IXLCACHE request.

function READ or WRITE

reason Reason code from the MVS IXLCACHE request

System Action: The system action depends on the function being performed. If the function is a WRITE, or a READ performed during rollback or DB2 restart, the page is added to the logical page list (LPL) for the data set and message DSNB250E is issued. Otherwise, 'resource unavailable' is returned to the user with a reason code that identifies the specific problem.

System Programmer Response: See *MVS/ESA Programming: Sysplex Services Reference* for an explanation of the MVS IXLCACHE reason code.

DSNB230I A SHARED OWNING SYSTEM CANNOT CONNECT A SHARED DATASET IN OUTPUT MODE. DSN=*dsn*

Explanation: A required inter-system sharing data set of a DB2 table or index space could not be opened in output mode. The error was detected by the media manager CONNECT function, which issues system message IEC161I. The *dsn* is the DSNAME of the data set.

This message is issued by the following CSECT: DSNB1OST

DSNB231I A SHARED DATASET CANNOT BE CONNECTED IN INPUT MODE. DSN=*dsn*

Explanation: A required inter-system sharing data set of a DB2 table or index space could not be opened in input mode. The error was detected by the media manager CONNECT function, which issues system message IEC161I. The *dsn* is the DSNAME of the data set.

This message is issued by the following CSECT: DSNB1OST

DSNB232I *csect-name* **- UNEXPECTED DATA SET LEVEL ID ENCOUNTERED - LEVEL ID =***lvlid* **EXPECTED LEVEL ID=***xlvlid* **DSN=***dsn*

Explanation: A required data set of a DB2 table space could not be opened. DB2 encountered an unexpected data set level ID.

lvlid The unexpected level ID from the data set

xlvlid The level ID recorded by DB2 previously and is the expected level ID for opening the data set

dsn The DSNAME of the data set.

This problem could be the result of data sets that were restored to a level that is inconsistent with other data sets, inconsistent with the DB2 log, or both.

System Action: DB2 sends back a 'resource unavailable' SQL code to the application and a reason code explaining the error.

Operator Response: Notify the system programmer.

System Programmer Response: To enable access to a data set reported as down level, take one of the following actions:

- Restore the page set or partition to the proper level (use DSN1COPY, DFHSM, or another tool).

  Identify the level ID of a copy of the page set or partition by running the DSN1PRNT(FORMAT) utility. The level ID is found in the header page of the page set or partition.
- Recover the down level page set or partition to currency by running the RECOVER or RECOVER LOGONLY utility.
- Accept the down levelling by running the REPAIR utility with the LEVELID option.

  Inconsistent data problems might result from this action and are the user's responsibility.
- Replace the contents of the page set or partition using the LOAD REPLACE utility.
- Explicitly restore the page set to a prior point in time with the RECOVER utility.

If the expected level ID is less than the encountered level ID, it is possible that the object identified in the message was ported from another system improperly (e.g., test system) or it might indicate that DSNDB01.SYSLGRNX is down level. If the problem is in the object identified in the message, the actions listed above can be used to allow access to the data. If the problem is in SYSLGRNX, this is a serious situation that compromises the recoverability of all objects managed by DB2. Investigate whether SYSLGRNX might have inadvertently been restored to a point in time inconsistent with the rest of the DB2 system.

DSNB250E *csect-name* **A PAGE RANGE WAS ADDED TO THE LOGICAL PAGE LIST DATABASE NAME =** *dbn* **SPACE NAME =** *spn* **DATA SET NUMBER =** *dsno* **PAGE RANGE =** *lowpg* **TO** *highpg* **START LRSN =** *startlrsn* **END LRSN =** *endlrsn* **START RBA =** *startrba*

Explanation: DB2 added a page range to the logical page list (LPL) for the specified data set because of a problem with the pages in the page range. The *startlrsn* and *endlrsn* give the log range needed to recover the pages in the page range. These values are RBA values unless DB2 is in the data sharing environment, in which case these values are LRSN values. In the data sharing environment, *startrba* indicates the starting RBA value of the recovery log range if the value is not zero. The *startrba* only applies to log records for the DB2 member that issued the message.The zero value for *endrba* or *endlrsn* in this message refers to the current end of the recovery log.

System Action: The page range is added to the LPL for the page set. The page remains inaccessible until it is recovered with either the START DATABASE command with the SPACENAM option, the RECOVER utility, or the LOAD utility. Users attempting to access a page in the LPL receive SQLCODE -904 with reason code 00C20206. If MVS detects a problem during group buffer pool access processing, DB2 writes a SYS1.LOGREC entry describing the error.

System Programmer Response: To recover pages from the LPL, use the -START DATABASE command with the SPACENAM option, the RECOVER utility, or the LOAD utility.

DSNB301E *csect-name* **GROUP BUFFER POOL** *gbpname* **CANNOT BE CONNECTED DB2 REASON CODE =** *reason1* **MVS IXLCONN REASON CODE =** *reason2*

Explanation: DB2 was not able to connect to the named group buffer pool. This message is generally issued once for each DB2 subsystem for each DB2 reason code, except 00C20204, until the failure condition is corrected.

reason1 DB2 reason code

reason2 MVS IXLCONN reason code

For DB2 reason code 00C20204, which indicates a problem during MVS IXLCONN processing, this message is issued once for each DB2 subsystem for each IXLCONN reason code until the failure condition is corrected. If the DB2 reason code is not 00C20204, then *reason2* contains zeros. See *MVS/ESA Programming: Sysplex Services Reference* for an explanation of MVS IXLxxxx reason codes

System Action: If the connection was requested on behalf of an access request by an SQL user on this DB2, SQLCODE -904 (resource unavailable) is returned to the SQL user with the DB2 reason code shown in this message.

If the connection was requested on behalf of an SQL user on another DB2 in the data sharing group, SQLCODE -904 (resource unavailable) is returned to the SQL user with DB2 reason code 00C20252. This indicates that the requested table space or index space is unavailable because another DB2 cannot connect to the group buffer pool.

If the MVS IXLCONN reason code is xxxx0C08 (structure allocation failed because there was no suitable facility to allocate based on the preference list in the MVS CFRM administrative policy), or if the MVS IXLCONN reason code is xxxx084C (user does not have proper Security Access Facility (SAF) authorization), then IFCID 0250, if active, contains additional diagnostic information.

DSNB302I *csect-name* **GROUP BUFFER POOL** *gbpname* **IS ALLOCATED IN A VOLATILE STRUCTURE**

Explanation: The DB2 group buffer pool structure is volatile.

One DB2 member issues this message whenever the structure has the volatile attribute. DB2 detects this either on the first connection to the group buffer pool or when the attribute changes later. DB2 always requests nonvolatile group buffer pools but allows allocation in a volatile structure if that is all that is available.

System Action: DB2 processing continues.

System Programmer Response: To cause the group buffer pools to be allocated in nonvolatile coupling facilities, ensure that:

- At least a subset of your coupling facilities are configured correctly for nonvolatility.
- The MVS CFRM policy correctly specifies the nonvolatile coupling facilities in the preference list for the group buffer pool coupling facility structures.

Even when these things are correctly done, there might be instances when a suitable coupling facility in the preference list cannot be found (for example, not enough free space), and therefore allocation occurs in a different coupling facility. MVS tries to allocate the structure in the facility that best meets the structure allocation request as follows:

1st choice: Coupling facility that meets the volatility requirement, the space requirement, and the exclusion list requirement.

2nd choice: Coupling facility that meets the volatility requirement and the storage requirement.

3rd choice: Coupling facility that has the best fit (most available free space) even though this might be less than the amount requested.

4th choice: Structure cannot be allocated.

IFCID 0250, if activated, contains a list of the coupling facilities on which allocation was attempted.

DSNB303E *csect-name* **A LOSS OF CONNECTIVITY WAS DETECTED TO GROUP BUFFER POOL** *gpbname*

Explanation: Connectivity to group buffer pool *gpbname* was lost.

System Action: DB2 disconnects from the coupling facility structure with REASON=FAILURE.

The action taken in response to this problem depends on the attempted function, as follows:

- For a coupling facility read: SQLCODE -904 (resource unavailable) is returned to the SQL user with a reason code indicating the specific error.
- For a coupling facility read during rollback, backout, or restart: The inaccessible page is added to the logical page list (LPL) for the page set. Message DSNB250E is issued for the first page of each data set added to the LPL.
- For a coupling facility read during castout: The castout operation cannot complete.
- For a coupling facility write: The changed page is added to the LPL for the page set.

DSNB304I *csect-name* **GROUP BUFFER POOL** *gbpname* **WAS SET TO 'DAMAGE ASSESSMENT PENDING' STATUS**

Explanation: A coupling facility structure for a group buffer pool was damaged.

System Action:

- DB2 puts the group buffer pool into 'damage assessment pending' (DAP) status. Message DSNB304I indicates the DAP status. The group buffer pool cannot be accessed until DAP status is cleared.
- The DB2 damage assessment process determines which table spaces and index spaces are using the failed group buffer pool and puts those spaces into 'group buffer pool recovery pending' (GRECP) status.
- After DB2 sets all the necessary spaces to GRECP status, the DAP status for the group buffer pool is cleared. Message DSNB305I indicates that DAP status is cleared.

DSNB305I *csect-name* **'DAMAGE ASSESSMENT PENDING' STATUS WAS CLEARED FOR GROUP BUFFER POOL** *gbpname*

Explanation: Damage assessment completed and the 'damage assessment pending' (DAP) status is cleared for the group buffer pool (GBP). At this point, the group buffer pool status is no longer restricted and DB2 attempts to reconnect to the group buffer pool on the next reference to a GBP-dependent page set within the associated buffer pool.

Message DSNB304I precedes this message.

DSNB306I *csect-name* **THE REQUESTED LENGTH OF THE LOCAL CACHE VECTOR COULD NOT BE ALLOCATED FOR GROUP BUFFER POOL** *gbpname* **REQUESTED LENGTH =** *length1* **ALLOCATED LENGTH =** *length2*

Explanation: DB2 connected to the group buffer pool indicated by *gbpname*, but the MVS Cross-system Extended Services (XES) component could not allocate the requested size of the local cache vector (LCV) in the hardware system area (HSA). DB2 requires an LCV size that is large enough to handle all pages in the member's buffer pool (virtual pool and hiperpool combined).

length1 indicates the LCV size (in number of bits) that DB2 requested. *length2* indicates the LCV size (in number of bits) that XES was able to allocate.

To prevent flooding the operator console, this message is only issued once per DB2 member per group buffer pool until the condition is corrected.

System Action: DB2 disconnects from the GBP and issues message DSNB301E with reason code 00C20208, if it has not yet been issued.

SQLCODE -904 is returned to the user with a reason code of 00C20208.

System Programmer Response: There is not enough HSA storage on the processor to support the size of the local cache vector. The details of HSA allocation are machine-dependent and are defined by the hardware. To correct this problem, take one or both of the following actions:

- Consult the documentation for your processor hardware to determine if the HSA storage allocation can be increased, and if so, how to do it.
- Modify the software configuration in your parallel sysplex to reduce the number or size of the vectors that are in use by other coupling facility structure users. Consider the following possible solutions:
  - Use the DB2 ALTER BUFFERPOOL command to reduce the size of this local buffer pool. This means you might have to reduce or eliminate the hiperpool or reduce the size of the virtual pool.
  - Use the DB2 ALTER BUFFERPOOL command to reduce the size of another local buffer pool that is already connected to a group buffer pool. This means that you might have to reduce or eliminate the hiperpool, or reduce the size of the virtual pool. If you make a connected buffer pool smaller, DB2 can usually contract the size of the corresponding LCV dynamically, making HSA storage available. However, DB2 cannot always do the dynamic LCV contraction; this is especially true if there is a hiperpool. In cases where DB2 cannot dynamically contract the LCV size, you can use the DB2 ALTER BUFFERPOOL command to either force a deallocation of the LCV or to force a contraction of the LCV as follows:
    1. Delete the hiperpool, if it exists.
    2. Take one of the following actions:
       a. Make the virtual pool very small (perhaps 50 pages or less). Making the virtual pool sufficiently small should let DB2 dynamically contract the LCV, or
       b. Delete the virtual pool to let DB2 disconnect from the group buffer pool. This frees the entire LCV associated with that member's connection to that group buffer pool.
    3. Redefine the virtual pool to be smaller than the original size. If a hiperpool originally existed, then you can probably restore the virtual pool back to its original size.
  - Consolidate your group buffer pool-dependent page sets into fewer buffer pools to reduce the number of group buffer pool connections.
  - Consult the documentation for the other software components that might be using a coupling facility cache or list structure with an associated LCV to determine whether it is possible to either delete the connection or to reduce the size of the LCV associated with the connection.

DSNB307I *csect-name* **GROUP BUFFER POOL** *gbpname* **WAS SUCCESSFULLY ALLOCATED BUT THE EXCLUSION LIST WAS NOT HONORED**

Explanation: DB2 successfully connected to the group buffer pool and allocated the group buffer pool in a coupling facility. However, the group buffer pool was allocated in a coupling facility containing a structure in the exclusion list.

System Programmer Response: If you require that the exclusion list be honored, you must ensure that there is sufficient space in the coupling facilities that are not in the exclusion list. IFCID 0250 provides information about which facilities were attempted.

DSNB308I *csect-name* **GROUP BUFFER POOL** *gbpname* **WAS SUCCESSFULLY ALLOCATED BUT THE ALLOCATED SIZE OF** *alloc_size* **IS LESS THAN THE REQUESTED SIZE OF** *req_size*

Explanation: DB2 successfully connected to the group buffer pool and allocated the group buffer pool in a coupling facility. However, the allocated size of the group buffer pool was less than the requested size in the MVS CFRM administrative policy because there is not enough space in the preference list facilities. Both *alloc_size* and *req_size* are in 4KB blocks.

System Programmer Response: IFCID 0250 provides information about which coupling facilities were used for attempted allocation.

DSNB309I *csect-name* **GROUP BUFFER POOL** *gbpname* **HAS BEEN DISCONNECTED WITH A REASON OF '***reason***'**

Explanation: DB2 disconnected from the named group buffer pool.

reason indicates one of the following values:

NORMAL DB2 disconnected the group buffer pool normally. MVS deletes the connection.

FAILURE DB2 disconnected the group buffer pool abnormally. MVS puts the connection into a 'failed-persistent' state. DB2 disconnects the GBP with a reason of FAILURE when some type of error has been detected, and castout processing cannot proceed. Usually the error involves a connectivity failure to either the coupling facility or DASD. This message is preceded by message DSNB303E, and probably a series of DSNB311I and DSNB312I messages.

If this message is issued because connectivity was lost to the group buffer pool, this message signifies that this DB2 member has completed its processing of the error.

System Programmer Response: See the system programmer response for message DSNB311I or DSNB312I.

DSNB310I *csect-name* **GROUP BUFFER POOL** *gbpname* **IS ALLOCATED IN A NONVOLATILE STRUCTURE**

Explanation: The coupling facility storage in which the group buffer pool is allocated was previously volatile, but is now nonvolatile. For availability reasons, we recommend that DB2 group buffer pools be allocated in nonvolatile coupling facility storage. When DB2 connects a group buffer pool, it requests that the backing coupling facility structure be allocated in nonvolatile storage. If the request for nonvolatile storage is not honored, DB2 issues message DSNB302I.

System Action: DB2 processing continues.

DSNB311I *csect-name* **DBNAME** *database* **SPACE NAME** *spacename* **HAS PAGES IN THE LOGICAL PAGE LIST**

Explanation: This message is issued after a loss of connectivity to a group buffer pool was detected. The message indicates that the named table space or index space has one or more pages in the logical page list (LPL) that need to be recovered. This message is issued after DB2 has completed its processing for the table space or index space; this is the earliest point at which you can recover LPL pages for that table space or index.

System Action: The pages in the LPL are not accessible until they have been recovered.

System Programmer Response: Issue the START DATABASE command with the named table space or index to recover the LPL pages. The START DATABASE command must be issued from a DB2 member that can connect to the group buffer pool. Alternatively, the RECOVER utility or the LOAD utility can be used to recover the LPL pages.

DSNB312I *csect-name* **DBNAME** *database* **SPACE NAME** *spacename* **PARTITION** *part-number* **HAS PAGES IN THE LOGICAL PAGE LIST**

Explanation: This message is issued after a loss of connectivity to a group buffer pool was detected. The message indicates that a partition of the named table space or index has one or more pages in the logical page list (LPL) that need to be recovered. This message is issued after DB2 has completed its processing for the partition; this is the earliest point at which you can recover the LPL pages for that partition.

System Action: The pages in the LPL are not accessible until they have been recovered.

System Programmer Response: Issue the START DATABASE command on the table space or index space partition to recover the LPL pages. The START DATABASE command must be issued from a DB2 member that can connect to the group buffer pool. Alternatively, the RECOVER utility or the LOAD utility can be used to recover the LPL pages.

DSNB313I *csect-name* **GROUP BUFFER POOL** *gpbname* **TO BE DISCONNECTED REASON=***reason* **LOSSCONN PERCENTAGE=***percentage*

Explanation: This DB2 member is disconnecting from group buffer pool *gpbname* because it has lost connectivity to the coupling facility in which the group buffer pool is allocated.

reason is one of the following:

NOSFMPOL MVS cannot determine the scope of the loss of connectivity because there is no active SFM policy with CONNFAIL(YES).

LOSSCONN MVS determined that the scope of the loss of connectivity was less than 100%.

NOXESEVL MVS started to try to determine the scope of the loss of connectivity, but some condition occurred which prevented MVS from being able to complete the evaluation. One example of such a condition would be that the SFM policy became inactive while MVS was trying to do the evaluation.

If *reason* is LOSSCONN, then *percentage* indicates the percentage of lost connectivity that was calculated by MVS. MVS evaluates the scope of the loss of connectivity in terms of SFM weights associated with the systems which have lost connectivity and which have active connectors to the coupling facility structure (if there are systems that do not have an active connector to the coupling facility structure, then those systems are not factored into the "percentage loss of connectivity" calculation).

If *reason* is not LOSSCONN, then *percentage* is not applicable (it should appear as zero).

System Action: The DB2 member disconnects the group buffer pool, putting its connection into a "failed-persistent" state.

If there are transactions that are in progress at the time of the connectivity failure, DB2 might need to add pages to the logical page list (LPL).

System Programmer Response: Use the START DATABASE command to recover the LPL pages. If DSNDB01 or DSNDB06 objects have LPL pages, you might need to recover these first, before proceeding with LPL recovery for other objects.

DSNB314I *csect-name* **DAMAGE ASSESSMENT TO BE TRIGGERED FOR GROUP BUFFER POOL** *gpbname* **REASON=***reason*

Explanation: DB2 is about to initiate the damage assessment function for group buffer pool *gpbname* because of a detected error in either the coupling facility in which the group buffer pool was allocated, or in the connectivity from the MVS systems to the coupling facility.

reason is one of the following:

100%LCON An error has occurred in a coupling facility or in the attachments of MVS systems to a coupling facility which has caused all DB2 members to lose connectivity to the named group buffer pool.

STRFAIL There was an error in the coupling facility in which the group buffer pool was allocated which caused a failure of the coupling facility structure.

CONERROR The named group buffer pool is currently allocated in a coupling facility, but DB2 cannot connect to the group buffer pool because the system on which it is running does not currently have connectivity, and MVS has indicated that currently no other member is actively connected and has connectivity.

DAP The named group buffer pool is in damage assessment pending (DAP) state.

System Action: DB2 triggers the damage assessment function to ensure that any changed pages that might have been cached in the affected group buffer pool get marked as "needing recovery" (the objects to which the pages belong are marked in GRECP state). This message should be immediately followed by a DSNB304I message indicating that the group buffer pool has been entered into damage assessment pending (DAP) state.

If there are transactions that are in progress at the time of the connectivity failure, DB2 might need to add pages to the logical page list (LPL).

There is one case where DB2 triggers damage assessment for a group buffer pool, but no DSNB314I message is issued. This case is where the group buffer pool was manually deleted (via MVS SETXCF FORCE commands) while all connections to the group buffer pool were failed-persistent (e.g. all DB2 members were down). In this case, the next DB2 member to connect to the group buffer pool will cause MVS to try to reallocate a new instance of the group buffer pool in some coupling facility in the CFRM policy preference list. If the allocation succeeds, then DB2, by doing a coupling facility structure version id comparison, will detect that the previous instance of the group buffer pool had been lost, and will trigger damage assessment. But you will not receive the DSNB314I message in this case, nor will you receive the DSNB304I or DSNB305I messages indicating that the group buffer pool has been put into damage assessment pending (DAP) state. You will only receive a series of DSNB322I and/or DSNB323I messages indicating those pagesets or partitions that have been put into GRECP state by the damage assessment process.

System Programmer Response: Use the START DATABASE command to recover the LPL pages and GRECP objects. If DSNDB01 or DSNDB06 objects are in GRECP state or have LPL pages, you might need to recover these first, before proceeding with GRECP or LPL recovery for other objects.

DSNB319A *csect-name* **THERE IS A SHORTAGE OF SPACE IN GROUP BUFFER POOL** *gbp-name*

Explanation: The amount of storage in the group buffer pool (GBP) coupling facility structure available for writing new pages is low. The GBP is 75 percent full with changed data. As the GBP fills with changed data, the castout thresholds are continuously reached, and the castout engines must continuously work to attempt to keep the number of changed pages in the GBP below the castout thresholds. Also, the more changed data the GBP contains, the less efficiently it operates. Completely running out of GBP storage can result in transaction delays and in pages being added to the logical page list (LPL).

This message stays on the MVS console and is highlighted.

System Action: DB2 processing continues.

This message might remain highlighted and might not be automatically deleted in a pre SP5.2.1-JES3 environment.

Operator Response: Contact the system programmer to fix the storage problem.

System Programmer Response:

You can relieve the GBP storage shortage by taking one or more of the following actions:

- Use the ALTER GROUPBUFFERPOOL command to lower the CLASST and GBPOOLT castout thresholds.
- Use the ALTER GROUPBUFFERPOOL command to lower the GBPCHKPT GBP checkpoint frequency.
- Use the MVS SETXCF START,REBUILD command to expand the GBP coupling facility structure. If you rebuild, you can use the ALTER GROUPBUFFERPOOL command to lower the RATIO so that a higher percentage of the GBP storage is given to data entries over directory entries.
- If you are running on MVS 5.2 or a subsequent release, you can use the MVS SETXCF START,ALTER command to expand the size of the GBP (the maximum size to which you can expand is determined by the SIZE parameter in the CFRM policy that was used to allocate the GBP).

If you don't do anything to relieve the storage shortage, message DSNB325A appears if the GBP reaches 90 percent full.

Message DSNB327I appears when the GBP storage shortage is relieved.

You can monitor the amount of GBP storage in use with the DISPLAY GBPOOL command and with the DB2 statistics trace. Monitor the castout activity to ensure that castouts are keeping up with the rate of GBP-write activity. You can use Performance trace classes 20 and 21 (specifically, IFCIDs 0261, 0262 and 0263) to do more detailed monitoring of the DB2 castout processing.

DSNB320I *csect-name* **- DBNAME** *database* **SPACE NAME** *spacename* **PARTITION** *part-number* **IN GROUP BUFFERPOOL** *gbpname* **IS IN GROUP BUFFERPOOL RECOVERY PENDING STATE**

Explanation: This message reports the group buffer pool recovery pending (GRECP) status of the named table space or index space partition.

Severity: 4 (warning)

System Action: The data in the named partition is not accessible.

User Response: Issue the -START DATABASE command on the partition to remove the GRECP status and make the data accessible again. You can also use the RECOVER or LOAD utility with the REPLACE option to clear the GRECP status.

DSNB321I *csect-name* **- DBNAME** *database* **SPACE NAME** *spacename* **IN GROUP BUFFERPOOL** *gbpname* **IS IN GROUP BUFFERPOOL RECOVERY PENDING STATE**

Explanation: This message reports the group buffer pool recovery pending (GRECP) status of the named table space or index space.

Severity: 4 (warning)

System Action: The table space or index space is not accessible.

User Response: Issue the -START DATABASE command on the table space or index space to remove the GRECP status and make the data accessible. You can also use the RECOVER or LOAD utility with the REPLACE option to clear the GRECP status.

DSNB322I *csect-name* **- TABLE SPACE OR INDEX SPACE WITH DBID X'***dbid***' PSID X'***psid***' PARTITION** *part-number* **IN GROUP BUFFERPOOL** *gbpname* **IS IN GROUP BUFFERPOOL RECOVERY PENDING STATE AND CANNOT BE AUTOMATICALLY RECOVERED**

Explanation: This message reports the group buffer pool recovery pending (GRECP) status of the table space or index space partition identified by the internal identifiers DBID and PSID. This message is issued instead of message DSNB320I when the name of the table space or index space is not available. The partition cannot be automatically recovered because there are retained physical locks (P-locks) on the partition.

Severity: 4 (warning)

System Action: The data in the identified partition is not accessible.

User Response: Issue the -DISPLAY DATABASE(*) SPACENAM(*) RESTRICT command to determine the table spaces or index spaces partition in GRECP status. First, start the failed DB2 members that hold retained P-locks on the partition.Issue the -START DATABASE command on the partition to remove the GRECP status and make the data accessible again. You can also use the RECOVER or LOAD utility with the REPLACE option to clear the GRECP status.

DSNB323I *csect-name* **- TABLE SPACE OR INDEX SPACE WITH DBID X'***dbid***' PSID X'***psid***' IN GROUP BUFFERPOOL** *gbpname* **IS IN GROUP BUFFERPOOL RECOVERY PENDING STATE AND CANNOT BE AUTOMATICALLY RECOVERED**

Explanation: This message reports the group buffer pool recovery pending (GRECP) status of the table space or index space identified by the internal identifiers DBID and PSID. This message is issued instead of message DSNB321I when the name of the table space or index space is not available. The table space or index space cannot be automatically recovered because there are retained physical locks (P-locks) on the space.

Severity: 4 (warning)

System Action: The table space or index space is not accessible.

User Response: Issue the -DISPLAY DATABASE(*) SPACENAM(*) RESTRICT command to determine the table spaces or index spaces in GRECP status. First, start the failed DB2 members that hold retained P-locks on the table space or index space.Issue the -START DATABASE command on the table space or index space to remove the GRECP status and make the data accessible again. You can also use the RECOVER or LOAD utility with the REPLACE option to clear the GRECP status.

DSNB325A *csect-name* **THERE IS A CRITICAL SHORTAGE OF SPACE IN GROUP BUFFER POOL** *gbpname*

Explanation: The amount of storage in the group buffer pool (GBP) coupling facility structure available for writing new pages is critically low. The GBP is 90 percent full with changed data. As the GBP fills with changed data, the castout thresholds are continuously reached, and the castout engines must continuously work to attempt to keep the number of changed pages in the GBP below the castout thresholds. In addition, the more the GBP is filled with changed data, the less efficient are the coupling facility storage management algorithms. Completely running out of GBP storage can result in transaction delays and in pages being added to the logical page list (LPL).

This message stays on the MVS console and is highlighted.

System Action: DB2 processing continues.

This message might remain highlighted and might not be automatically deleted in a pre-SP5.2.1-JES3 environment.

Operator Response: Contact the system programmer to fix the storage problem.

System Programmer Response: You can relieve the GBP storage shortage by taking one or more of the following actions:

- Use the ALTER GROUPBUFFERPOOL command to lower the CLASST and GBPOOLT castout thresholds.
- Use the ALTER GROUPBUFFERPOOL command to lower the GBPCHKPT GBP checkpoint frequency.
- Use the MVS SETXCF START,REBUILD command to expand the GBP coupling facility structure. If you rebuild, you can use the ALTER GROUPBUFFERPOOL command to lower the RATIO so that a higher percentage of the GBP storage is given to data entries over directory entries.
- If you are running on MVS 5.2 or a subsequent release, you can use the MVS SETXCF START,ALTER command to expand the size of the GBP (the maximum size to which you can expand is determined by the SIZE parameter in the CFRM policy that was used to allocate the GBP).

If you don't do anything to relieve the storage shortage, message DSNB228I appears if a write to the GBP fails due to a 'GBP full' condition. If DB2 detects a 'full' condition, it will suspend the transaction, initiate castout activity, and then retry the write to the GBP. If the GBP write still fails after several retry attempts, then DB2 adds the page to LPL.

Message DSNB327I appears when the GBP storage shortage is relieved.

You can monitor the amount of GBP storage in use with the DISPLAY GBPOOL command and with the DB2 statistics trace. Monitor the castout activity to ensure that castouts are

keeping up with the rate of GBP-write activity. You can use Performance trace classes 20 and 21 (specifically, IFCIDs 0261, 0262 and 0263) to do more detailed monitoring of the DB2 castout processing.

DSNB327I *csect-name* **GROUP BUFFER POOL** *gbp-name* **HAS ADEQUATE FREE SPACE**

Explanation: The group buffer pool (GBP) coupling facility structure has adequate space available for the writing of new pages to the GBP.

This message may be issued when either of the following occurs:

- Rebuilding of GBP reduces changed page count to 60% or less of GBP capacity.
- 'changed data.' entries decrease to 60% or lower when they were previously 75% GBP capacity or higher.

System Action: DB2 processing continues.

DSNB330E *csect-name* **GROUP BUFFER POOL** *gbpname* **CANNOT BE CONNECTED FOR REBUILD DB2 REASON CODE =** *reason1* **MVS IXLCONN REASON CODE =** *reason2*

Explanation: DB2 was not able to connect to the named group buffer pool for rebuild. *reason1* is the DB2 reason code. *reason2* is the MVS IXLCONN reason code. See *MVS/ESA Programming: Sysplex Services Reference* for an explanation of MVS IXLxxxx reason codes.

System Action: DB2 stops the rebuild.

Problem Determination: If the MVS IXLCONN reason code is xxxx0C08 (structure allocation failed because there was no suitable facility to allocate based on the preference list in the MVS CFRM administrative policy), or if the MVS IXLCONN reason code is xxxx084C (user does not have proper Security Access Facility (SAF) authorization), then IFCID 0250, if active, contains additional diagnostic information.

DSNB331I *csect-name* **REBUILD STARTED FOR GROUP BUFFER POOL** *gbpname* **REASON =** *reason*

Explanation: A rebuild has been initiated for the named group buffer pool. *reason* indicates the reason why the rebuild was initiated. *reason* can be one of the following:

OPERATOR The operator initiated a SETXCF command to initiate the rebuild.

LOSSCONN MVS detected a loss of connectivity to the group buffer pool.

This message is issued by each DB2 member participating in the rebuild.

System Action: The DB2 members that are actively connected to the named group buffer pool participate in the rebuild. DB2 accomplishes the group buffer pool rebuild processing in two phases:

1. Quiesce phase. Each member quiesces all local access to the group buffer pool.
2. Connect phase. Each member connects to the new structure. Each page set or partition castout owner that has connectivity to original structure is responsible for writing pages from the original structure to the new one. If there are not enough data entries in the new structure, the page set and partition owners cast those pages out to DASD instead. Each member issues message DSNB332I after it completes this activity. After all members have completed their castout owner rebuild work, the group buffer pool structure owner does the final sweep and checks to see if there are any changed pages still remaining in the original structure. If so, the structure owner reads the changed pages from the original structure and writes them to the new one. The structure owner issues message DSNB333I after it has completed the final sweep.

After all members have responded to MVS indicating that its connect phase processing is complete, MVS then notifies each member that the rebuild is complete. Each DB2 member issues message DSNB338I indicating that the rebuild has completed successfully.

If an error occurs during the rebuild, the rebuild is stopped. Each DB2 member issues message DSNB335I indicating the reason why the rebuild is stopping, followed by message DSNB339I indicating that the rebuild has not completed successfully. The operator can also stop rebuilds using the MVS SETXCF command.

DSNB332I *csect-name* **THIS MEMBER HAS COMPLETED CASTOUT OWNER REBUILD FOR GROUP BUFFER POOL** *gbpname* **PAGES CAST OUT FROM ORIGINAL STRUCTURE =** *value1* **PAGES WRITTEN TO NEW STRUCTURE =** *value2*

Explanation: This DB2 member has completed its part of the rebuild processing for the named group buffer pool for the page sets and partitions for which it is the castout owner.

value1 indicates the number of pages that this member has castout to DASD for the rebuild. If the new structure has a sufficient number of data entries, then *value1* should normally be zero because DB2 writes the changed pages from the original structure to the new structure. However, if the new structure does not have sufficient space, then *value1* may be greater than zero because DB2 responds to insufficient space in the new structure by casting the changed pages in the original structure to DASD instead of writing them to the new structure.

value2 indicates how many changed pages this member wrote to the new structure from the original as part of the rebuild process. If the new structure has sufficient space, then each DB2 that has connectivity to the original structure writes the changed pages for page sets and partitions for which it is the castout owner from the original structure to the new structure, and *value2* indicates the number of pages that the DB2 member wrote.

value1 and *value2* would be zero if this member has no page set or partition castout ownership responsibility.

This message is issued by each DB2 member that has connectivity to the original group buffer pool, and it is always be preceded by message DSNB331I.

System Action: If this DB2 member is not the group buffer pool structure owner, then its rebuild work is done, and it notifies MVS that it has completed its part of the rebuild and awaits later notification that all members have completed. If this member is the structure owner, then it proceeds to its final sweep processing (see DSNB333I).

Refer to "System Action" for message DSNB331I for an explanation of the group buffer pool rebuild processing.

DSNB333I *csect-name* **REBUILD FINAL SWEEP COMPLETED FOR GROUP BUFFER POOL** *gbpname* **PAGES WRITTEN TO NEW STRUCTURE =** *value1*

Explanation: DB2 has completed the final sweep for the rebuild of the named group buffer pool. A final sweep means that the DB2 member that is the group buffer pool structure owner ensures that all changed pages have either been cast out to DASD or have been written to the new structure after all the page set and partition owners have finished their work. If any changed pages are found in the original structure during the final sweep, then the structure owner writes them out to the new structure. *value1* should be zero in most cases for a manual rebuild. *value1* will probably be greater than zero in most cases where the rebuild was initiated because a DB2 lost connectivity to the group buffer pool.

This message is issued by the structure owner and is always preceded by message DSNB332I.

System Action: Immediately after issuing this message, the structure owner notifies MVS that the rebuild has completed, and MVS should soon begin notifying each participating member that the rebuild is complete.

Refer to "System Action" for message DSNB331I for an explanation of the group buffer pool rebuild processing.

DSNB335I *csect-name* **REBUILD STOPPED FOR GROUP BUFFER POOL** *gbpname* **REASON =** *reason1* **DB2 REASON CODE =** *reason2*

Explanation: A rebuild has been stopped for the named group buffer pool.

reason1 indicates why the rebuild was stopped:

OPERATOR	The operator initiated an MVS SETXCF command to stop the rebuild.
LOSSCONNNEW	One or more of the DB2 members lost connectivity to the new group buffer pool structure while the rebuild was in progress.
LOSSCONNOLD	One or more of the DB2 members lost connectivity to the original group buffer pool structure while the rebuild was in progress.
STRFAILNEW	The new group buffer pool structure failed while the rebuild was in progress.
STRFAILOLD	The original group buffer pool structure failed while the rebuild was in progress.
DB2REASON	DB2 decided to stop the rebuild. The reason code given in *reason2* indicates why DB2 stopped the rebuild.

If *reason1* indicates 'DB2REASON', then *reason2* specifies a DB2 reason code that indicates why DB2 stopped the rebuild. If *reason1* is not 'DB2REASON', then *reason2* is zero.

This message is normally preceded by message DSNB331I, which indicates that the rebuild was started and the reason why the rebuild was started. This message is issued by each DB2 member participating in the rebuild. This message is followed by message DSNB339I.

System Action: The new structure is discarded. If the original structure is still usable, then all members that still have connectivity to the original structure resume using it. Members that do not have connectivity to the original structure disconnect, and their connections become failed-persistent.

If the original structure is not usable, then DB2 initiates damage assessment processing for the group buffer pool.

System Programmer Response: If the rebuild stopped because of "DB2REASON," see the explanation for the reason code given.

DSNB338I *csect-name* **THE REBUILD FOR GROUP BUFFER POOL** *gbpname* **HAS COMPLETED SUCCESSFULLY**

Explanation: The rebuild for the named group buffer pool has successfully completed.

This message is preceded by message DSNB331I which indicates the reason why the rebuild was started. This message is issued by each DB2 member participating in the rebuild.

System Action: The original structure is discarded and all DB2s that are connected to the group buffer pool begin using the new structure.

DSNB339I *csect-name* **THE STOP OF THE REBUILD FOR GROUP BUFFER POOL** *gbpname* **HAS COMPLETED**

Explanation: The stop of the rebuild for the named group buffer pool has completed.

This message is preceded by message DSNB335I which indicates the reason why the rebuild was stopped. This message is issued by each DB2 member participating in the rebuild.

System Action: The new structure is discarded. If the original structure is still usable, then all members that still have connectivity to the original structure resume using it, and members that do not have connectivity to the original structure disconnect and their connection goes into a failed-persistent state.

If the original structure is not usable, then DB2 initiates damage assessment processing for the group buffer pool.

DSNB340E *csect-name* **UNEXPECTED ERROR DURING REBUILD FOR GROUP BUFFER POOL** *gbpname* **MVS** *service-name* **RETURN CODE =** *rc* **MVS** *service-name* **REASON CODE =** *reason*

Explanation: DB2 received an unexpected error from MVS during rebuild processing for the named group buffer pool.

service-name is one of the following:

IXLREBLD
IXLEERSP

rc is the return code from the MVS service and *reason* is the reason code.

System Action: DB2 stops the rebuild.

System Programmer Response: See *MVS/ESA Programming: Sysplex Services Reference* for an explanation of the return and reason code for the named MVS service.

DSNB350I *csect-name* **DBNAME** *database* **SPACE NAME** *spacename* **CANNOT BE AUTOMATICALLY RECOVERED. DB2 REASON CODE =** *reason*

Explanation: Following a group buffer pool failure, DB2 cannot automatically recover the named table space or index space. *reason* specifies a DB2 reason code that indicates why DB2 could not initiate the recovery.

Severity: 4 (warning)

System Action: The table space or index space remains in group buffer pool recovery pending (GRECP) status and is inaccessible.

User Response: Use the DB2 -START DATABASE command on the table space or index space to remove the GRECP status and make the data accessible. You can also use the RECOVER or LOAD utility with the REPLACE option to clear the GRECP status.

DSNB351I *csect-name* **DBNAME** *database* **SPACE NAME** *spacename* **PARTITION** *part#* **CANNOT BE AUTOMATICALLY RECOVERED. DB2 REASON CODE =** *reason*

Explanation: Following a group buffer pool failure, DB2 cannot automatically recover the named table space or index space partition. *reason* specifies a DB2 reason code that indicates why DB2 could not initiate the recovery.

Severity: 4 (warning)

System Action: The partition remains in group buffer pool recovery pending (GRECP) status and is inaccessible.

User Response: Use the DB2 -START DATABASE command on the partition to remove the GRECP status and make the data accessible. You can also use the RECOVER or LOAD utility with the REPLACE option to clear the GRECP status.

DSNB352I *csect-name* **AUTOMATIC RECOVERY CANNOT BE INITIATED FOR GROUP BUFFER POOL** *gbp-name* **REASON =** *reason*

Explanation: Following a failure of the named group buffer pool, DB2 is not able to initiate automatic recovery.

reason indicates the reason why automatic recovery was not initiated:

AUTORECNO The AUTOREC option is set to NO for the group buffer pool.

CONNRELEASE At least one actively connected DB2 member is not at the proper release to support automatic recovery.

Severity: 4 (warning)

System Action: The page sets and partitions that are in group buffer pool recovery pending (GRECP) status remain inaccessible.

User Response: Use the DB2 -START DATABASE command on the page sets and partitions to remove the GRECP status and make the data accessible. You can also use the RECOVER or LOAD utility with the REPLACE option to clear the GRECP status.

If *reason* is AUTORECNO and you want to enable automatic recovery for the group buffer pool, use the ALTER GROUPBUFFERPOOL command to set AUTOREC to YES for the group buffer pool.

If *reason* is CONNRELEASE, then you must ensure that all DB2 members in the group are running at the appropriate release. Automatic recovery is not supported unless all members are running Version 5 or a later release.

DSNB353I *csect-name* **ASYNCHRONOUS GRECP RECOVERY IN PROGRESS FOR GROUP BUFFER POOL** *bpoolname*

Explanation: Following a group buffer pool failure, DB2 triggers an automatic recovery process to attempt to recover GRECP page sets for the specified group buffer pool. This message is issued once by any DB2 member who is the page set castout owner on one of the objects being recovered.

System Action: Check for the DSNB354I message to verify the completion of the automatic recovery process.

DSNB354I *csect-name* **ASYNCHRONOUS GRECP RECOVERY HAS COMPLETED FOR GROUP BUFFER POOL** *bpoolname***.**

Explanation: DB2 has completed the GRECP recovery process for those GRECP page sets in the group buffer pool specified in the message. This message is issued once by any DB2 member who previously issued a DSNB353I message, who is the page set castout owner on one of the objects being recovered.

DSNB401I BUFFERPOOL NAME *bpname***, BUFFERPOOL ID** *bpid***, USE COUNT** *ucount*

Explanation: This message contains the display information that results from a DISPLAY BUFFERPOOL command. For each buffer pool, this message is the first of a set of messages that display information from the DISPLAY BUFFERPOOL command.

The statistics are:

bpname — The buffer pool external name (BP0, BP1,..., BP49, BP32K, BP32K1,..., BP32K9).

bpid — The buffer pool internal identifier (0-49, 80-89).

ucount — The number of open table spaces or index spaces that refer to this buffer pool. A zero use count means that the buffer pool is inactive.

This message is issued by the following CSECT: DSNB1DBP

System Action: Processing continues.

DSNB402I VIRTUAL BUFFERPOOL SIZE = *vpsize* **BUFFERS ALLOCATED =** *vpalc* **TO BE DELETED =** *vptbd* **IN-USE/UPDATED =** *vpcba*

Explanation: This message, displayed by the DISPLAY BUFFERPOOL command, describes the allocation status of a virtual buffer pool. This message is always preceded by message DSNB401I identifying the associated buffer pool.

The statistics are:

vpsize — The user-specified virtual buffer pool size

vpalc — Number of allocated buffers in an active virtual buffer pool

vptbd — Number of buffers to be deleted in an active virtual buffer pool because of pool contraction

vpcba — Number of currently active (that is, not stealable) buffers in the virtual buffer pool

This message is issued by the following CSECT: DSNB1DBP

System Action: Processing continues.

DSNB403I HIPERPOOL SIZE = *hpsize* **BUFFERS, CASTOUT =** *hpcast* **ALLOCATED =** *hpalc* **TO BE DELETED =** *hptbd* **BACKED BY ES =** *hpback*

Explanation: This message, displayed by the DISPLAY BUFFERPOOL command, describes the allocation status of a hiperpool. This message is always preceded by message DSNB401I identifying the associated buffer pool.

The variables are:

hpsize The user-specified hiperpool size.

hpcast The hiperpool's CASTOUT attribute (YES or NO).

hpalc Number of allocated buffers in an active hiperpool.

hptbd Number of buffers to be deleted in an active hiperpool because of pool contraction.

hpback Number of buffers backed by expanded storage. For a CASTOUT(YES) hiperpool, this number is higher than the actual number of backed buffers if expanded storage frames were stolen by the system and DB2 did not subsequently try to access the buffers.

This message is issued by the following CSECT: DSNB1DBP

DSNB404I THRESHOLDS — VP SEQUENTIAL = *vpseq* **HP SEQUENTIAL =** *hpseq* **DEFERRED WRITE =** *dwt* **VERTICAL DEFERRED WRT =** *dwv* **PARALLEL SEQUENTIAL =** *vppseqt* **ASSISTING PARALLEL SEQT =** *VPXPSEQT*

Explanation: This message is displayed by the DISPLAY BUFFERPOOL command to describe the user-modifiable thresholds for the buffer pool. This message is always preceded by message DSNB401I identifying the associated buffer pool.

The input threshold variables are:

vpseq Sequential steal threshold for the virtual pool, expressed as a percentage of the total virtual buffer pool size.

hpseq Sequential steal threshold for the hiperpool, expressed as a percentage of the total hiperpool size.

dwt Free buffer deferred write threshold for the virtual buffer pool, expressed as a percentage of the total virtual buffer pool size.

dwv Vertical deferred write threshold for the virtual buffer pool, expressed as a percentage of the total virtual buffer pool size.

vppseqt Sequential threshold for parallel query processing, expressed as a percentage of the virtual sequential steal threshold. When the threshold is set to 0, there is no parallel query processing support.

VPXPSEQT Assisting parallel sequential threshold, expressed as a percentage of the sequential threshold for parallel query processing. *VPXPSEQT* allows you to control how much buffer resource is used when this DB2 is assisting another member of the group in parallel processing. When the threshold is set to 0, this buffer pool will not be used to assist other data sharing members in processing a query. In a non-data-sharing environment, this value is ignored.

This message is issued by the following CSECT: DSNB1DBP

System Action: Processing continues.

DSNB405I HIPERSPACE NAMES - *hsn hsn hsn hsn*

Explanation: This message, displayed by the DISPLAY BUFFERPOOL command, lists the names of the hiperspaces allocated to a hiperpool. This message is always preceded by message DSNB401I identifying the associated buffer pool, and is displayed only if the hiperpool is active.

This message is issued by the following CSECT: DSNB1DBP

System Action: Processing continues.

DSNB408I NO DETAIL STATISTICS AVAILABLE FOR BUFFER POOL *bpname*

Explanation: This message is displayed by the DISPLAY BUFFERPOOL command with the DETAIL option specified. It indicates that no detail statistics are available for the requested buffer pool because the pool was not activated since DB2 startup.

This message is issued by the following CSECT: DSNB1DBP

System Action: Processing continues.

DSNB409I INCREMENTAL STATISTICS SINCE *basetime*

Explanation: This message is displayed by the DISPLAY BUFFERPOOL command with the DETAIL(INTERVAL) option specified. It indicates the start time of the interval for which the statistics were accumulated (that is, either the time of the previous incremental display or the time the buffer pool was first activated, if there was no previous incremental display).

This message is issued by the following CSECT: DSNB1DBP

System Action: Processing continues.

DSNB410I CUMULATIVE STATISTICS SINCE *basetime*

Explanation: This message is displayed by the DISPLAY BUFFERPOOL command with the DETAIL(*) option specified. It indicates the start time of the interval for which the statistics were accumulated (that is, the time the buffer pool was first activated).

This message is issued by the following CSECT: DSNB1DBP

System Action: Processing continues.

DSNB411I RANDOM GETPAGE = *rgp* **SYNC READ I/O (R) =** *srr* **SEQ. GETPAGE =** *sgp* **SYNC READ I/O (S) =** *srs* **DMTH HIT =** *dmt*

Explanation: This message is displayed by the DISPLAY BUFFERPOOL command with the DETAIL option specified. It lists the page read statistics for the buffer pool. This message is always preceded by message DSNB401I identifying the associated buffer pool.

The statistics are:

rgp Number of nonsequential GETPAGE requests

srr Number of synchronous read I/O operations for nonsequential GETPAGE requests

sgp Number of sequential GETPAGE requests

srs Number of synchronous read I/O operations for sequential GETPAGE requests

dmt Number of times data management threshold was hit

This messages is issued by the following CSECT: DSNB1DBP

System Action: Processing continues.

DSNB412I SEQUENTIAL PREFETCH - REQUESTS = *pft* **PREFETCH I/O =** *pio* **PAGES READ =** *pfp*

Explanation: This message is displayed by the DISPLAY BUFFERPOOL command with the DETAIL option specified. It lists the sequential prefetch statistics for the buffer pool. This message is always preceded by message DSNB401I identifying the associated buffer pool.

The statistics are:

pft Number of times sequential prefetch was requested

pio Number of sequential prefetch read I/O operations

pfp Number of pages read because of sequential prefetch

This message is issued by the following CSECT: DSNB1DBP

System Action: Processing continues.

DSNB413I LIST PREFETCH - REQUESTS = *pft* **PREFETCH I/O =** *pio* **PAGES READ =** *pfp*

Explanation: This message is displayed by the DISPLAY BUFFERPOOL command with the DETAIL option specified. It shows the list prefetch statistics for the buffer pool. This message is always preceded by message DSNB401I identifying the associated buffer pool.

The statistics are:

pft Number of times list prefetch was requested

pio Number of list prefetch read I/O operations

pfp Number of pages read because of list prefetch

This message is issued by the following CSECT: DSNB1DBP

System Action: Processing continues.

DSNB414I DYNAMIC PREFETCH - REQUESTS = *pft* **PREFETCH I/O =** *pio* **PAGES READ =** *pfp*

Explanation: This message is displayed by the DISPLAY BUFFERPOOL command with the DETAIL option specified. It lists the dynamic prefetch statistics for the buffer pool. This message is always preceded by message DSNB401I identifying the associated buffer pool.

The statistics are:

pft Number of times dynamic prefetch was requested

pio Number of dynamic prefetch read I/O operations

pfp Number of pages read because of dynamic prefetch

This message is issued by the following CSECT: DSNB1DBP

System Action: Processing continues.

DSNB415I PREFETCH DISABLED - NO BUFFER = *pfd* **NO READ ENGINE =** *ree*

Explanation: This message is displayed by the DISPLAY BUFFERPOOL command with the DETAIL option specified. It lists prefetch statistics for the buffer pool. This message is always preceded by message DSNB401I identifying the associated buffer pool.

The statistics are:

pfd Number of times prefetch was disabled (no buffer)

ree Number of times prefetch was disabled (no asynchronous read processor available)

This message is issued by the following CSECT: DSNB1DBP

System Action: Processing continues.

DSNB420I SYS PAGE UPDATES = *sws* **SYS PAGES WRITTEN =** *pws* **ASYNC WRITE I/O =** *wio* **SYNC WRITE I/O =** *imw*

Explanation: This message is displayed by the DISPLAY BUFFERPOOL command with the DETAIL option specified. It lists page write statistics for the buffer pool. This message is always preceded by message DSNB401I identifying the associated buffer pool.

The statistics are:

sws Number of system page updates

pws Number of system pages written

wio Number of asynchronous write I/O operations

imw Number of synchronous write I/O operations

This message is issued by the following CSECT: DSNB1DBP

System Action: Processing continues.

DSNB421I DWT HIT= *dwt* **VERTICAL DWT HIT=***vdw* **NO WRITE ENGINE=***wee*

Explanation: This message is displayed by the DISPLAY BUFFERPOOL command with the DETAIL option specified. It lists page-write statistics for the buffer pool. This message is always preceded by message DSNB401I identifying the associated buffer pool.

The statistics are:

dwt Number of times deferred write threshold was hit

vdw Number of times vertical deferred write threshold was hit

wee Number of times write engine (asynchronous write processor) was not available for I/O operations

This message is issued by the following CSECT: DSNB1DBP

System Action: Processing continues.

DSNB430I HIPERPOOL ACTIVITY (NOT USING ASYNCHRONOUS DATA MOVER FACILITY) — SYNC HP READS=*hrs* **SYNC HP WRITES=***hws* **ASYNC HP READS=***hra* **ASYNC HP WRITES=** *hwa* **READ FAILURES=** *hrf* **WRITE FAILURES=***hwf*

Explanation: This message is displayed by the DISPLAY BUFFERPOOL command with the DETAIL option specified. It lists statistics about the movement of pages between the virtual buffer pool and the hiperpool. This message is always

preceded by message DSNB401I identifying the associated buffer pool. The statistics listed are for pages moved without the use of the Asynchronous Data Mover Facility.

The statistics are:

hrs Number of pages moved from hiperpool to virtual pool synchronously (that is, in response to a page access request by an application)

hws Number of pages moved from virtual buffer pool to hiperpool synchronously (that is, in response to a page access request by an application)

hra Number of pages moved from hiperpool to virtual buffer pool asynchronously (that is, by a DB2 system process such as a sequential prefetch)

hwa Number of pages moved from virtual buffer pool to hiperpool asynchronously (that is, by a DB2 system process such as sequential prefetch)

hrf Number of attempts to read a page from a hiperpool, but the backing E-frame was stolen by the system

hwf Number of attempts to write a page to the hiperpool, but no backing E-frame could be allocated

This message is issued by the following CSECT: DSNB1DBP

System Action: Processing continues.

DSNB431I HIPERPOOL ACTIVITY (USING ASYNCHRONOUS DATA MOVER FACILITY) — HP READS = *ara* **HP WRITES =** *awa* **READ FAILURES =** *arf* **WRITE FAILURES =** *awf*

Explanation: This message is displayed by the DISPLAY BUFFERPOOL command with the DETAIL option specified. It lists statistics about the movement of pages between the virtual buffer pool and the hiperpool. The statistics listed are for pages moved asynchronously, (that is, by a DB2 system process such as sequential prefetch, using the Asynchronous Data Mover Facility.). This message is always preceded by message DSNB401I identifying the associated buffer pool.

The variables are:

ara Number of pages moved from hiperpool to virtual buffer pool

awa Number of pages moved from virtual buffer pool to hiperpool

arf Number of pages for which a read request failed

awf Number of pages for which a write request failed

This message is issued by the following CSECT: DSNB1DBP

System Action: Processing continues.

DSNB440I PARALLEL ACTIVITY — PARALLEL REQUEST = *tpa* **DEGRADED PARALLEL =** *dpa*

Explanation: This message is issued in response to the DISPLAY BUFFERPOOL command with DETAIL specified. It lists statistics about parallel activities. This message is always preceded by message DSNB401I identifying the associated buffer pool.

The variables are:

tpa Total number of negotiations with the buffer pool for getting the requested number of sequential prefetch streams

dpa Total number of times the negotiation resulted in the degraded mode of parallel operations

This message is issued by the following CSECT: DSNB1DBP

DSNB450I TABLESPACE= *dbname.tsname***, USE COUNT=***ucount***, GBP-DEP=***gbpind*

Explanation: This message might be displayed for an active buffer pool by the DISPLAY BUFFERPOOL command with the LIST option. It indicates that the specified table space is currently open and associated with the buffer pool. The preceding DSNB401I message identifies the associated buffer pool.

dbname Database space name

tsname Table space name

sh Shadow page set indication - '(S)' for shadow table space for REORG with SHRLEVEL REFERENCE or CHANGE, blank otherwise.

ucount The count of applications currently accessing the table space.

gbpind Whether the table space is group buffer pool (GBP) dependent; that is, whether there is inter-DB2 read/write interest in the table space:

- N The table space is not currently GBP-dependent. Therefore, DB2 does not need to use a group buffer pool for this table space.
- Y The table space is currently GBP-dependent. Therefore, DB2 needs to use a group buffer pool for this table space. If the table space is partitioned, Y means that at least one of the partitions is GBP-dependent.

This message is issued by the following CSECT: DSNB1DBP

System Action: Processing continues.

DSNB451I INDEXSPACE= *dbname.isname***, USE COUNT=***ucount***, GBP-DEP=***gbpind*

Explanation: This message might be displayed for an active buffer pool by the DISPLAY BUFFERPOOL command with the LIST option. It indicates that the specified table space is currently open and associated with the buffer pool. The preceding DSNB401I message identifies the associated buffer pool.

dbname Database name

isname Index space name

sh Shadow page set indication - '(S)' for shadow table space for REORG with SHRLEVEL REFERENCE or CHANGE, blank otherwise.

ucount The count of applications currently accessing the index space.

gbpind Whether the index space is group buffer pool (GBP) dependent; that is, whether there is inter-DB2 read/write interest in the index space:

N The index space is not currently GBP-dependent. Therefore, DB2 does not need to use a group buffer pool for this index space.

Y The index space is currently GBP-dependent. Therefore, DB2 needs to use a group buffer pool for this index space. If the index space is partitioned, Y means that at least one of the partitions is GBP-dependent.

This message is issued by the following CSECT: DSNB1DBP

System Action: Processing continues.

DSNB452I STATISTICS FOR DATASET *dsn* **—**

Explanation: This message might be displayed for an active buffer pool by the DISPLAY BUFFERPOOL command with the LSTATS option specified. It identifies the relative data set number within a table space or index space for the statistics displayed in one or more of the messages that follow this one. This message is always preceded by message DSNB401I identifying the associated buffer pool and DSNB450I or DSNB451I identifying the table space or index space.

This message is issued by the following CSECT: DSNB1DBP

System Action: Processing continues.

DSNB453I VP CACHED PAGES - CURRENT = *vcount* **MAX =** *mvcount* **CHANGED =** *ccount* **MAX =** *mccount*

Explanation: This message might be displayed for an active buffer pool by the DISPLAY BUFFERPOOL command with LSTATS specified. It lists the number of cached pages and the number of changed pages in the virtual buffer pool for a data set. The message is only issued if there are nonzero values to display. This message is always preceded by message DSNB401I identifying the associated buffer pool, DSNB450I or DSNB451I identifying the table space or index space, and DSNB452I identifying the data set.

The statistics are:

vcount Number of cached pages in VP for the data set (that is, the number of buffers that contain pages for the data set in the virtual buffer pool).

mvcount Maximum number of cached pages in VP for the data set since the last DISPLAY BUFFERPOOL command with the LSTATS option was issued.

ccount Number of changed pages in VP for the data set (that is, the number of buffers that were changed in the virtual buffer pool for the data set).

mccount Maximum number of changed pages in VP for the data set since the last DISPLAY BUFFERPOOL command with the LSTATS option was issued.

This message is issued by the following CSECT: DSNB1DBP

System Action: Processing continues.

DSNB454I HP CACHED PAGES — CURRENT = *hcount* **MAX =** *mhcount*

Explanation: This message might be displayed for an active buffer pool by the DISPLAY BUFFERPOOL command with LSTATS specified. It lists the number of cached pages and the number of changed pages in the hiperpool for a data set. The message is only issued if there are nonzero values to display. This message is always preceded by message DSNB401I identifying the associated buffer pool, DSNB450I or DSNB451I identifying the table space or index space, and DSNB452I identifying the data set.

The statistics are:

hcount Number of cached pages in HP for the data set (that is, the number of buffers that contain pages for the data set in the hiperpool).

mhcount Maximum number of cached pages in HP for the data set since the last DISPLAY BUFFERPOOL command with the LSTATS option was issued.

This message is issued by the following CSECT: DSNB1DBP

System Action: Processing continues.

DSNB455I SYNCHRONOUS I/O DELAYS — AVERAGE DELAY = *avd* **MAXIMUM DELAY =** *mxd* **TOTAL PAGES =** *tpg*

Explanation: This message might be displayed for an active buffer pool by the DISPLAY BUFFERPOOL command with the LSTATS option specified. It lists synchronous I/O delay statistics for a data set belonging to an open table space or index space associated with the buffer pool. The values listed are incremental since the last display for the data set. The message is only issued if there are nonzero values to display. This message is always preceded by message DSNB401I identifying the associated buffer pool, DSNB450I or DSNB451I identifying the table space or index space, and DSNB452I identifying the relative data set within the table space or index space.

The statistics are:

avd Average I/O delay in milliseconds for pages in the data set

mxd Maximum I/O delay in milliseconds for pages in the data set

tpg Total number of pages read or written for the data set

This message is issued by the following CSECT: DSNB1DBP

System Action: Processing continues.

DSNB456I ASYNCHRONOUS I/O DELAYS — AVERAGE DELAY = *avd* **MAXIMUM DELAY =** *mxd* **TOTAL PAGES =** *tpg* **TOTAL I/O COUNT =** *tio*

Explanation: This message might be displayed for an active buffer pool by the DISPLAY BUFFERPOOL command with the LSTATS option specified. It lists asynchronous I/O delay statistics for a data set belonging to an open table space or index space associated with the buffer pool. The values listed are incremental since the last display for the data set. The message is only issued if there are nonzero values to display. This message is always preceded by message DSNB401I identifying the associated buffer pool, DSNB450I or DSNB451I identifying the table space or index space, and DSNB452I

identifying the relative data set within the table space or index space.

The statistics are:

avd Average I/O delay in milliseconds for pages in the data set

mxd Maximum I/O delay in milliseconds for pages in the data set

tpg Total number of pages read or written for the data set

tio Total number of I/Os issued for the data set

This message is issued by the following CSECT: DSNB1DBP

System Action: Processing continues.

DSNB459I *csect-name* **OPEN FAILURE HAS OCCURRED FOR DATA SET** *dsn*

Explanation: This message might be displayed for an active buffer pool by the DISPLAY BUFFERPOOL command with the LIST option specified. It indicates that a previous attempt to access a data set (identified by its relative data set number within a table space or index space) failed due to an allocation or open error.

This message is always preceded by a DSNB401I message identifying the associated buffer pool and a DSNB450I or DSNB451I message identifying the table space or index space.

System Action: Processing continues.

DSNB499I DISPLAY TERMINATED DUE TO INSUFFICIENT MESSAGE SPACE

Explanation: The DISPLAY BUFFERPOOL or the DISPLAY GROUPBUFFERPOOL command was unable to obtain storage for additional messages. This should only happen for a particularly long display request, such as a detail display for a large number of buffer pools or group buffer pools.

This message is issued by the following CSECTs: DSNB1DBP, DSNB1DGB

System Action: The display is truncated.

System Programmer Response: Reissue the -DISPLAY BUFFERPOOL or the -DISPLAY GROUPBUFFERPOOL command, specifying a smaller number of buffer pools or group buffer pools.

DSNB501I *bpname* **IS NOT A VALID BUFFER POOL NAME**

Explanation: An invalid buffer pool name was specified on an ALTER BUFFERPOOL or DISPLAY BUFFERPOOL command. THE VALID NAMES ARE BP0, BP1,..., BP49, BP32K, BP32K1,...BP32K9.

This message was issued by the following CSECT: DSNB1CMD

System Action: The request is rejected.

System Programmer Response: Reissue the ALTER BUFFERPOOL or DISPLAY BUFFERPOOL command, specifying a valid buffer pool name.

DSNB502I VPSIZE FOR *bpname* **MUST BE BETWEEN** *llimit* **AND** *ulimit*

Explanation: An attempt was made to change a buffer pool's VPSIZE to an invalid value using the ALTER BUFFERPOOL command. VPSIZE is the number of buffers in the virtual buffer pool.

bpname Buffer pool name.

llimit Lower limit for buffer pool's VPSIZE. For BP0, the lower limit is 56. For all other buffer pools, the lower limit is 0.

ulimit Upper limits for buffer pool's VPSIZE. For 4KB page-size buffer pools, the upper limit is 400,000. For 32KB page-size buffer pools, the upper limit is 50,000.

This message is issued by the following CSECT: DSNB1CMD

System Action: The request is rejected.

System Programmer Response: Reissue the ALTER BUFFERPOOL command, specifying a legitimate VPSIZE value.

DSNB503I HPSIZE FOR *bpname* **MUST BE BETWEEN** *llimit* **AND** *ulimit*

Explanation: An attempt was made to change a buffer pool's HPSIZE to an invalid value using the ALTER BUFFERPOOL command. HPSIZE is the number of buffers in the hiperpool. The variables are:

bpname Buffer pool name.

llimit Lower limit for buffer pool's HPSIZE. The lower limit for all buffer pools is 0.

ulimit Upper limits for buffer pool's HPSIZE. For 4KB page-size buffer pools, the upper limit is 2,097,152. For 32KB page-size buffer pools, the upper limit is 262,144.

This message is issued by the following CSECT: DSNB1CMD

System Action: The request is rejected.

System Programmer Response: Reissue the ALTER BUFFERPOOL command, specifying a legitimate HPSIZE value.

DSNB504I VPSEQT FOR *bpname* **MUST BE BETWEEN 0 AND 100**

Explanation: An ALTER BUFFERPOOL command was issued to try to alter a buffer pool's VPSEQT attribute to an invalid value. VPSEQT is the virtual buffer pool sequential steal threshold. Valid values range from 0 to 100.

This message is issued by the following CSECT: DSNB1CMD

System Action: The request is rejected.

System Programmer Response: Reissue the ALTER BUFFERPOOL command, specifying a legitimate VPSEQT value.

DSNB505I HPSEQT FOR *bpname* MUST BE BETWEEN 0 AND 100

Explanation: An attempt was made to change a buffer pool's HPSEQT attribute to an invalid value using the ALTER BUFFERPOOL command. HPSEQT is the hiperpool sequential steal threshold. Valid values range from 0 to 100.

This message is issued by the following CSECT: DSNB1CMD

System Action: The request is rejected.

System Programmer Response: Reissue the ALTER BUFFERPOOL command, specifying a legitimate HPSEQT value.

DSNB506I DWQT FOR *bpname* MUST BE BETWEEN 0 AND 90

Explanation: An attempt was made to change a buffer pool's DWQT attribute value using the ALTER BUFFERPOOL command. DWQT is the free buffer deferred write threshold. Valid values range from 0 to 90.

This message is issued by the following CSECT: DSNB1CMD

System Action: The request is rejected.

System Programmer Response: Reissue the ALTER BUFFERPOOL command, specifying a legitimate DWQT value.

DSNB507I VDWQT FOR *bpname* MUST BE BETWEEN 0 AND 90

Explanation: An attempt was made to change a buffer pool's VDWQT attribute to an invalid value using the ALTER BUFFERPOOL command. VDWQT is the vertical deferred write threshold. Valid values range from 0 to 90.

This message is issued by the following CSECT: DSNB1CMD

System Action: The request is rejected.

System Programmer Response: Reissue the ALTER BUFFERPOOL command, specifying a legitimate VDWQT value.

DSNB508I THE TOTAL VPSIZE IS BEYOND THE MAXIMUM LIMIT

Explanation: An ALTER BUFFERPOOL command specified a VPSIZE value that would cause the sum of the VPSIZE value for all buffer pools to exceed 1.6GB.

This message is issued by the following CSECT: DSNB1ABP

System Action: The buffer pool's VPSIZE is not changed. Processing for other parameters, if requested, proceeds normally.

System Programmer Response: Rebalance VPSIZE for all buffer pools.

DSNB509I THE TOTAL HPSIZE IS BEYOND THE MAXIMUM LIMIT

Explanation: An ALTER BUFFERPOOL command specified an HPSIZE value that would cause the sum of the HPSIZE value for all buffer pools to exceed 8GB.

This message is issued by the following CSECT: DSNB1ABP

System Action: The buffer pool's HPSIZE is not changed. Processing for other parameters, if requested, proceeds normally.

System Programmer Response: Rebalance HPSIZE for all buffer pools.

DSNB510I NO ACTION REQUESTED

Explanation: An ALTER BUFFERPOOL command was issued, but no buffer pool attributes were specified.

This message is issued by the following CSECT: DSNB1CMD

System Action: The buffer pool's attributes are not changed.

System Programmer Response: Reissue the ALTER BUFFERPOOL command specifying one or more buffer pool attributes.

DSNB511I VDWQT CANNOT BE GREATER THAN DWQT

Explanation: An ALTER BUFFERPOOL command specified a DWQT and/or VDWQT value that would result in the buffer pool's VDWQT parameter being greater than its DWQT parameter.

This message is issued by the following CSECT: DSNB1ABP

System Action: The buffer pool's VDWQT or DWQT is not changed. Processing for other parameters, if requested, proceeds normally.

System Programmer Response: Rebalance DWQT and VDWQT for the buffer pool.

DSNB512I *integer* IS THE CURRENT VPSIZE FOR BUFFER POOL *bpname*

Explanation: An ALTER BUFFERPOOL command specified a VPSIZE equal to the buffer pool's current virtual buffer pool size.

This message is issued by the following CSECT: DSNB1ABP

System Action: The virtual buffer pool size is not changed. Processing for other parameters, if requested, proceeds normally.

DSNB513I *integer* IS THE CURRENT HPSIZE FOR BUFFER POOL *bpname*

Explanation: An ALTER BUFFERPOOL command specified an HPSIZE equal to the buffer pool's current hiperpool size.

This message is issued by the following CSECT: DSNB1ABP

System Action: The hiperpool size is not changed. Processing for other parameters, if requested, proceeds normally.

DSNB514I *integer* IS THE CURRENT VPSEQT FOR BUFFER POOL *bpname*

Explanation: An ALTER BUFFERPOOL command specified an VPSEQT equal to the current sequential steal threshold of the virtual buffer pool.

This message is issued by the following CSECT: DSNB1ABP

System Action: The hiperpool size is not changed. Processing for other parameters, if requested, proceeds normally.

DSNB515I *integer* **IS THE CURRENT HPSEQT FOR BUFFER POOL** *bpname*

Explanation: An ALTER BUFFERPOOL command specified an HPSEQT equal to the current sequential steal threshold of the hiperpool.

This message is issued by the following CSECT: DSNB1ABP

System Action: The sequential steal threshold of the hiperpool is not changed. Processing for other parameters, if requested, proceeds normally.

DSNB516I *integer* **IS THE CURRENT DWQT FOR BUFFER POOL** *bpname*

Explanation: An ALTER BUFFERPOOL command specified a DWQT equal to the current deferred write threshold of the buffer pool.

This message is issued by the following CSECT: DSNB1ABP

System Action: The deferred write threshold of the buffer pool is not changed. Processing for other parameters, if requested, proceeds normally.

DSNB517I *integer* **IS THE CURRENT VDWQT FOR BUFFER POOL** *bpname*

Explanation: An ALTER BUFFERPOOL command specified a VDWQT equal to the current vertical deferred write threshold of the buffer pool.

This message is issued by the following CSECT: DSNB1ABP

System Action: The vertical deferred write threshold of the buffer pool is not changed. Processing for other parameters, if requested, proceeds normally.

DSNB518I *value* **IS THE CURRENT CASTOUT ATTRIBUTE FOR HIPERPOOL** *bpname*

Explanation: An ALTER BUFFERPOOL command specified a CASTOUT attribute equal to the hiperpool's current CASTOUT attribute.

This message is issued by the following CSECT: DSNB1ABP

System Action: The hiperpool's CASTOUT attribute is not changed. Processing for other parameters, if requested, proceeds normally.

DSNB520I READY TO EXPLICITLY DELETE BUFFER POOL *bpname*

Explanation: This message is issued before draining an active buffer pool in response to an ALTER BUFFERPOOL command, which specified VPSIZE=0 against an active buffer pool.

This message is issued by the following CSECT: DSNB1ABP

System Action: After this message is issued, DB2 quiesces all current activities against this buffer pool. DB2 locks the table space exclusively and performs physical close for all open table spaces or index spaces that reference this pool. DB2 also prevents subsequent database access that references this pool. SQL applications get an SQLCODE -904 (resource not available) with reason code 00C200E0 to indicate that the requested virtual buffer pool size is not initialized. After the requested buffer pool is deleted, message DSNB521I is issued.

DSNB521I BUFFER POOL *bpname* **HAS BEEN EXPLICITLY DELETED**

Explanation: This message is issued after an active buffer pool is explicitly deleted with an ALTER BUFFERPOOL command. This message is always preceded by a corresponding DSNB520I message.

This message is issued by the following CSECT: DSNB1ABP

System Action: The virtual storage and hiperspaces associated with this buffer pool are released.

DSNB522I VPSIZE FOR *bpname* **HAS BEEN SET TO** *integer*

Explanation: This message is issued in response to an ALTER BUFFERPOOL command to indicate that the requested change to the VPSIZE parameter was accepted. For an active pool, the actual expansion, contraction, or deletion does not take place until after this message is issued.

This message is issued by the following CSECT: DSNB1ABP

System Action: Processing continues.

System Programmer Response: Issue the DISPLAY BUFFERPOOL command to determine the actual virtual storage usage for this pool.

DSNB523I HPSIZE FOR *bpname* **HAS BEEN SET TO** *integer*

Explanation: This message is issued in response to an ALTER BUFFERPOOL command to indicate that the requested change to the HPSIZE parameter was accepted. For an active hiperpool, the actual expansion, contraction, creation, or deletion does not take place until after this message is issued.

This message is issued by the following CSECT: DSNB1ABP

System Action: Processing continues.

System Programmer Response: Issue the DISPLAY BUFFERPOOL command to determine the actual hiperpool size for this pool.

DSNB524I VPSEQT FOR *bpname* **HAS BEEN SET TO** *integer*

Explanation: This message is issued in response to an ALTER BUFFERPOOL command. It indicates the successful modification of the sequential steal threshold of the virtual buffer pool.

This message is issued by the following CSECT: DSNB1ABP

DSNB525I HPSEQT FOR *bpname* **HAS BEEN SET TO** *integer*

Explanation: This message is issued in response to an ALTER BUFFERPOOL command. It indicates the successful modification of the sequential steal threshold of the hiperpool.

This message is issued by the following CSECT: DSNB1ABP

DSNB526I DWQT FOR *bpname* **HAS BEEN SET TO** *integer*

Explanation: This message is issued in response to an ALTER BUFFERPOOL command. It indicates the successful modification of the deferred write threshold of the buffer pool.

This message is issued by the following CSECT: DSNB1ABP

DSNB527I VDWQT FOR *bpname* **HAS BEEN SET TO** *integer*

Explanation: This message is issued in response to an ALTER BUFFERPOOL command. It indicates the successful modification of the vertical deferred write threshold of the buffer pool.

This message is issued by the following CSECT: DSNB1ABP

DSNB528I CASTOUT ATTRIBUTE FOR *bpname* **HAS BEEN SET TO** *value*

Explanation: This message is issued in response to an ALTER BUFFERPOOL command. It indicates that the requested change to the hiperpool's CASTOUT attribute was accepted. For an active pool, the actual rebuilding of the hiperpool with the new CASTOUT attribute does not take place until after this message is issued.

This message is issued by the following CSECT: DSNB1ABP

System Action: Processing continues.

System Programmer Response: Use the DISPLAY BUFFERPOOL command to determine the actual CASTOUT attribute for this pool.

DSNB529I VPPSEQT FOR *bpname* **HAS BEEN SET TO** *integer*

Explanation: This message is issued in response to the ALTER BUFFERPOOL command. It indicates the successful modification of the parallel sequential steal threshold of the virtual buffer pool.

This message is issued by the following CSECT: DSNB1ABP

DSNB530I *integer* **IS THE CURRENT VPPSEQT FOR BUFFER POOL** *bpname*

Explanation: An ALTER BUFFERPOOL command specified a VPPSEQT equal to the current parallel sequential steal threshold of the virtual buffer pool.

This message is issued by the following CSECT: DSNB1ABP

System Action: The parallel sequential steal threshold of the virtual buffer pool is not changed. Processing for other parameters, if requested, proceeds normally.

DSNB531I VPPSEQT FOR *bpname* **MUST BE BETWEEN 0 AND 100**

Explanation: An ALTER BUFFERPOOL command was issued to alter a buffer pool's VPPSEQT attribute to an invalid value. VPPSEQT is the parallel sequential steal threshold of the virtual buffer pool. Valid values range from 0 to 100.

This message is issued by the following CSECT: DSNB1ABP

System Action: The VPPSEQT value is not changed.

System Programmer Response: Change the VPPSEQT attribute to a valid value and reenter the command.

DSNB532I VPXPSEQT FOR *bpname* **HAS BEEN SET TO** *integer*

Explanation: This message is issued from DSNB1ABP csect in response to the ALTER BUFFERPOOL command. It indicates the successful modification of the assisting parallel sequential threshold of the virtual buffer pool.

DSNB533I *integer* **IS THE CURRENT VPXPSEQT FOR BUFFER POOL** *bpname*

Explanation: An ALTER BUFFERPOOL command specified a VPXPSEQT equal to the current assisting parallel sequential threshold of the virtual buffer pool. This message is issued from DSNB1ABP csect.

System Action: The assisting parallel sequential threshold of the virtual buffer pool is not changed. Processing for other parameters, if requested, proceeds normally.

DSNB534I VPXPSEQT FOR *bpname* **MUST BE BETWEEN 0 AND 100**

Explanation: An ALTER BUFFERPOOL command was issued to change a buffer pool's VPXPSEQT attribute to an invalid value. VPXPSEQT is the assisting parallel sequential threshold of the virtual buffer pool. Valid values range from 0 to 100. This message is issued from DSNB1ABP csect.

System Action: The VPXPSEQT value is not changed.

System Programmer Response: Change the VPXPSEQT attribute to a valid value and reenter the command.

DSNB540I *csect-name* **INSUFFICIENT LOCAL CACHE VECTOR STORAGE TO EXPAND VIRTUAL BUFFER POOL** *bpname* **TO SPECIFIED SIZE** *size1***. VIRTUAL BUFFER POOL SIZE IS NOW** *size2***.**

Explanation: The specified virtual buffer pool could not be expanded to the requested size (*size1*). The associated group buffer pool is connected, and the local cache vector could not be expanded to cover the requested virtual buffer pool size.

The local cache vector is a bit array which tracks whether the page in a given buffer was modified by another system (cross-invalidated). There must be one bit in the vector for each buffer in the virtual buffer pool and hiperpool. For more information on the local cache vector, see *MVS/ESA Programming: Sysplex Services Reference*.

System Action: DB2 downgrades the expansion request to the size that can be supported by the available local cache vector storage (*size2*).

System Programmer Response: Free local cache vector storage by contracting or deleting other buffer pools that are connected to a group buffer pool. Then reattempt the virtual pool expansion by reissuing the ALTER BUFFERPOOL command.

DSNB541I *csect-name* **INSUFFICIENT LOCAL CACHE VECTOR STORAGE TO CREATE/EXPAND HIPERPOOL** *bpname* **TO SPECIFIED SIZE** *size1* **HIPERPOOL SIZE IS NOW** *size2***.**

Explanation: The specified hiperpool could not be created or expanded to the requested size (*size1*). The associated group buffer pool is connected, and the local cache vector could not be expanded to cover the requested hiperpool size.

The local cache vector is a bit array which tracks whether the page in a given buffer was modified by another system (cross-invalidated). There must be one bit in the vector for each buffer in the virtual buffer pool and hiperpool. For more information on the local cache vector, see *MVS/ESA Programming: Sysplex Services Reference*.

System Action: DB2 downgrades the hiperpool size to the size that can be supported by the available local cache vector storage (*size2*).

System Programmer Response: Free local cache vector storage by contracting or deleting other buffer pools that are connected to a group buffer pool. Then reattempt the hiperpool expansion or creation by issuing the ALTER BUFFERPOOL command.

DSNB551I BSDS READ ERROR, RC= *integer***, RSN=***integer*

Explanation: This message is issued in response to a failure of a READ function on the bootstrap data set (BSDS). Users should check any previous error messages issued by MVS and DB2 against the corresponding BSDS. RC and RSN indicate an error return code and reason code from the BSDS function.

This message is issued by the following CSECT: DSNB1BSD

System Action: Processing continues.

Operator Response: Notify the system programmer.

System Programmer Response: Analyze the return and reason codes to determine what type of error occurred. Refer to message DSNJ107I for more information.

DSNB552I BSDS WRITE ERROR, RC= *integer***, RSN=** *integer*

Explanation: This message is issued in response to a failure of a WRITE function on the bootstrap data set (BSDS). Check any previous error messages issued by MVS and DB2 against the corresponding BSDS. RC and RSN indicate an error return code and reason code from the BSDS function.

This message is issued by the following CSECT: DSNB1BSD

System Action: Processing continues.

Operator Response: Notify the system programmer.

System Programmer Response: Analyze the return and reason codes to determine what type of error occurred. Refer to message DSNJ108I for more information.

DSNB553I BSDS INSERT ERROR, RC= *integer***, RSN=** *integer*

Explanation: This message is issued in response to a failure of an INSERT function on the bootstrap data set (BSDS). Check any previous error messages issued by MVS and DB2 against the corresponding BSDS. RC and RSN indicate an error return code and reason code from the BSDS function.

This message is issued by the following CSECT: DSNB1BSD

System Action: Processing continues.

Operator Response: Notify the system programmer.

System Programmer Response: Analyze the return and reason codes to determine what type of error occurred. For more information, refer to message DSNJ109I or other DSNJ messages related to BSDS.

DSNB601I BUFFER POOL *bpname* **FULL**

Explanation: A buffer is required to access a database page that is not currently contained within the virtual buffer pool. A buffer cannot be assigned because all buffers in the virtual buffer pool are in a nondisplaceable state. (Buffers are in a nondisplaceable state when they contain actively referenced pages or updated pages for which writes are pending.)

This message can occur if there is an overload of concurrent activity for the buffer pool size. The variable *bpname* is the buffer pool external name.

This message is issued by the following CSECT: DSNB1GWB

System Action: Reason code 00C200E9 and the buffer pool external name are recorded in the cursor table (CT), which is available in the SQL communication area (SQLCA) or messages. An SQLCODE -904 (resource not available) is returned to the user.

Operator Response: Notify the system programmer.

System Programmer Response: Do one of the following:

- Reduce concurrent activity by reducing the number of DB2 threads.
- Use the ALTER BUFFERPOOL command to increase the size of the virtual buffer pool.

DSNB602I UNABLE TO CREATE BUFFER POOL *bpname***. VIRTUAL BUFFER POOL SIZE IS ZERO**

Explanation: An attempt to create the buffer pool failed while opening a DB2 table space or index that specified its use. The virtual buffer pool size for *bpname* was zero. This indicates that the use of the pool is invalid.

This message is issued by the following CSECTs: DSNB1OPP, DSNB1OPS

System Action: Reason code 00C200E0 and the buffer pool external name are recorded in the cursor table (CT), which is available in the SQL communication area (SQLCA) or messages. An SQLCODE -904 (resource not available) is returned to the user.

Operator Response: Notify the system programmer.

System Programmer Response: Use the ALTER TABLESPACE or ALTER INDEX statement to modify affected table spaces or indexes to indicate a usable buffer pool. Use the DISPLAY BUFFERPOOL command to determine a usable buffer pool. If necessary, use the ALTER BUFFERPOOL command to activate the failing buffer pool by setting its VPSIZE to a nonzero value.

DSNB603I INSUFFICIENT VIRTUAL STORAGE TO CREATE/EXPAND VIRTUAL BUFFER POOL *bpname* **TO SPECIFIED SIZE** *integer***. VIRTUAL BUFFER POOL SIZE IS NOW** *integer***.**

Explanation: A virtual buffer pool could not be created or expanded to the requested size. Insufficient virtual storage exists within the *ssnm*DBM1 address space to build the virtual buffer pool. The virtual buffer pool size is set by the ALTER BUFFERPOOL command and can be queried by using the DISPLAY BUFFERPOOL command.

This message is issued by the following CSECTs: DSNB1ABP, DSNB1OPS

System Action: The virtual buffer pool is created or expanded to the size allowed by the available virtual storage. If

the virtual buffer pool cannot be created at all, and the creation request was triggered by a page set open by an application, then an SQLCODE -904 (resource not available) is returned to the user. Reason code 00C200E8 and the buffer pool external name are recorded in the cursor table (CT), which is available in the SQL communication area (SQLCA) or messages.

Operator Response: Notify the system programmer.

System Programmer Response: Analyze the virtual storage content of the *ssnm*DBM1 address space to determine further action. If appropriate, use the ALTER TABLESPACE or ALTER INDEX statement to use a different buffer pool. Otherwise, use ALTER BUFFERPOOL commands to balance virtual storage use for all buffer pools.

DSNB605I UNABLE TO CREATE VIRTUAL BUFFER POOL *bpname* TO SPECIFIED SIZE DURING STARTUP/RESTART. INSUFFICIENT VIRTUAL STORAGE

Explanation: An attempt to create the virtual buffer pool failed at the time that DB2 was performing its startup or restart processing. Insufficient virtual storage exists within the *ssnm*DBM1 address space for building the virtual buffer pool. The name of the buffer pool is *bpname*.

This message is issued by the following CSECT: DSNB1OPS

System Action: The buffer pool is not created. The table space or index open request, which triggered the attempt to create the buffer pool, fails. An SQLCODE -904 (resource not available) is returned to the user. Reason code 00C200E8 and the buffer pool external name are recorded in the cursor table (CT), which is available in the SQL communication area (SQLCA) or messages.

Operator Response: Notify the system programmer. This message remains on the console until the operator deletes it.

System Programmer Response: Analyze the virtual storage content of the DSNDBM1 *ssnm*DBM1 address space to determine further action. If appropriate, use ALTER BUFFERPOOL commands to balance virtual storage use for all buffer pools.

DSNB606I INSUFFICIENT VIRTUAL STORAGE TO CREATE/EXPAND HIPERPOOL *bpname* TO SPECIFIED SIZE *integer* HIPERPOOL SIZE IS NOW *integer*

Explanation: A hiperpool could not be created or expanded to the requested size. Insufficient virtual storage exists within the DSNDBMI address to build the buffer control structures for managing the hiperpool. The hiperpool size is set by the ALTER BUFFERPOOL command. Its size can be queried with the DISPLAY BUFFER command. Approximately 20MB of virtual storage is required to construct a 2GB hiperpool.

This message is issued by the following CSECT: DSNB1OPS

System Action: The hiperpool is created or expanded to the size allowed by the available virtual storage.

Operator Response: Notify the system programmer.

System Programmer Response: Analyze the virtual storage content of the DSNDBMI address space for more information. If necessary, rebalance buffer pool virtual storage use for all active buffer pools with the ALTER BUFFERPOOL command.

DSNB607I UNABLE TO CREATE HIPERPOOL *bpname* NO EXPANDED STORAGE ON THE SYSTEM

Explanation: DB2 is unable to create an ESO hiperspace to back the hiperpool because there is no expanded storage on the system.

This message is issued by the following CSECT: DSNB1OPS

System Action: The hiperpool is not created. However, the failure of the hiperpool creation does not have any impact on the creation of the corresponding virtual buffer pool.

Operator Response: Notify the system programmer.

System Programmer Response: Because there is no expanded storage on the system, set the hiperpool size to zero for all buffer pools.

DSNB608I UNABLE TO CREATE HIPERPOOL *bpname* RETURN CODE = *rr* REASON CODE = *cccc*

Explanation: DB2 is unable to create an ESO hiperspace to back the hiperpool because of an error returned from the MVS DSPSERV macro.

Variables *rr* and *cccc* identify the return and reason codes for the failure.

This message is issued by the following CSECT: DSNB1OPS

System Action: The hiperpool is not created. However, the failure of the hiperpool creation does not have any impact on the creation of the corresponding virtual buffer pool.

Operator Response: Notify the system programmer.

System Programmer Response: For more information about the failure, look up the identified return and reason codes in *MVS/ESA Programming: Authorized Assembler Services Reference, Volumes 1-4*.

DSNB609I VIRTUAL BUFFER POOL *bpname* CREATED USING DEFAULT SIZE *integer* DURING STARTUP/RESTART. VIRTUAL BUFFER POOL SIZE IS ZERO

Explanation: While activating a buffer pool during DB2 startup or restart processing, the virtual buffer pool size was zero. A zero value might be caused by an unusable bootstrap data set (BSDS) or by a DB2 abnormal termination after buffer pool size was altered to zero. The name of the buffer pool is *bpname* and the default buffer pool size is *integer*.

This message is issued by the following CSECT: DSNB1OPS

System Action: DB2 creates the virtual buffer pool using the startup restart default value. For 4KB/32KB page-type buffer pools, the default values are 1000 and 12, respectively.

Operator Response: Notify the system programmer. This message remains on the console until deleted by the operator.

System Programmer Response: Use the ALTER TABLESPACE or ALTER INDEX statement to modify the affected table spaces or indexes to indicate a usable buffer pool. To determine a usable buffer pool, use the DISPLAY BUFFERPOOL command. If necessary, use the ALTER BUFFERPOOL command to activate the failing buffer pool by setting the VPSIZE to a nonzero value.

DSNB610I UNABLE TO CREATE HIPERPOOL *bpname* **- ASYNCHRONOUS DATA MOVER FACILITY NOT INSTALLED**

Explanation: One of the following events occurred:

- DB2 was building a buffer pool in response to a table space open request and noted that the hiperpool size for the buffer pool was nonzero.
- An ALTER BUFFERPOOL command specified a nonzero hiperpool size for an active buffer pool.

However, the hiperpool could not be created since the Asynchronous Data Mover Facility was not installed on the system.

This message is issued by the following CSECT: DSNB1OPS

System Action: The hiperpool is not created. However, the absence of the hiperpool has no impact on the virtual buffer pool.

Operator Response: Notify the system programmer.

System Programmer Response: Since hiperpools cannot be created, set the hiperpool size for all buffer pools to zero.

DSNB611I HIPERPOOL *bpname* **DELETED — ASYNCHRONOUS DATA MOVER FACILITY IS INOPERATIVE**

Explanation: DB2 was trying to access data in an existing hiperpool and received a failure from the Asynchronous Data Mover Facility indicating that it was inoperative.

This message is issued by the following CSECT: DSNB1GHP

System Action: The hiperpool is deleted. However, the absence of the hiperpool has no impact on the virtual buffer pool.

Operator Response: Notify the system programmer. This message remains on the console until deleted by the operator.

System Programmer Response: Take appropriate action to restore the availability of the Asynchronous Data Mover Facility. Once the Asynchronous Data Mover Facility becomes available, use the ALTER BUFFERPOOL command to rebuild the hiperpool.

DSNB750I DISPLAY FOR GROUP BUFFER POOL *gbpname* **FOLLOWS**

Explanation: This message is issued in response to a a DISPLAY GROUPBUFFERPOOL command. It signals the beginning of a display for group buffer pool *gbpname* if the following are true:

- It meets the selection criteria on the command.
- The MVS CFRM administrative policy information for the group buffer pool is accessible.

If the CFRM policy information is unavailable, message DSNB751I signals the partial display of group buffer pool information.

The series of messages DSNB755I through DSNB759I provide information on the group buffer pool's allocation characteristics. Messages DSNB765I through DSNB769I provide information on DB2 connections to the group buffer pool, while DSNB770I through DSNB788I provide statistics on group buffer pool usage. Note that all message numbers in the range might not be used. Message DSNB790I ends the display.

DSNB751I MVS CFRM POLICY INFORMATION NOT AVAILABLE FOR GROUP BUFFER POOL *gbpname* **MVS IXCQUERY RETURN CODE =** *retcode* **MVS IXCQUERY REASON CODE =** *reason* **A PARTIAL DISPLAY FOLLOWS**

Explanation: DB2 could not retrieve group buffer pool policy information in response to a DISPLAY GROUPBUFFERPOOL command. Either the MVS query request (IXCQUERY) did not successfully complete, or the backing structure for the group buffer pool is not defined in the MVS CFRM administrative policy. To determine the exact reason, examine return code *retcode* and reason code *reason* returned by MVS on the query request. For an explanation of the IXCQUERY codes, see *MVS/ESA Programming: Sysplex Services Reference*. If the IXCQUERY request did not complete successfully, no CONNLIST information, even if requested, is provided.

System Action: Processing continues, but the information displayed is incomplete.

DSNB752I GROUP DETAIL STATISTICS ARE NOT AVAILABLE FOR THE GROUP BUFFER POOL BECAUSE A REBUILD IS IN PROGRESS

Explanation: Because a rebuild is in progress for the group buffer pool, DB2 cannot retrieve group buffer pool group (GDETAIL) statistics in response to a DISPLAY GROUPBUFFERPOOL command. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool.

System Action: Processing continues.

DSNB753I GROUP BUFFER POOL STRUCTURE OWNER INFORMATION NOT AVAILABLE IRLM NOTIFY RETURN CODE = *retcode* **IRLM NOTIFY REASON CODE =** *reason*

Explanation: DB2 could not retrieve group buffer pool structure owner information for message DSNB798I because the IRLM Notify request did not successfully complete. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool.

retcode Return code from IRLM on the Notify request

reason Reason code from IRLM on the Notify request

For an explanation of IRLM return and reason codes, see "IRLM Error Return and Reason Codes" on page 5-15.

System Action: Processing continues.

DSNB755I DB2 GROUP BUFFER POOL STATUS CONNECTED = *status1* **CURRENT DIRECTORY TO DATA RATIO =** *ratio1* **PENDING DIRECTORY TO DATA RATIO =** *ratio2*

Explanation: In response to a DISPLAY GROUPBUFFERPOOL command, this is the first of two messages displaying information about the status of the group buffer pool as it is known to DB2. This message is followed by DSNB756I. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool.

status1 Whether this DB2 is connected to the group buffer pool:

YES This DB2 is actively connected to the group buffer pool.

NO This DB2 is not actively connected to the group buffer pool.

ratio1 The ratio of directory entries to data pages, as specified for the current allocation of this group buffer pool. If the group buffer pool is not currently allocated, this field contains blanks.

ratio2 The desired ratio of directory entries to data pages to take effect at the next reallocation of the group buffer pool.

DSNB756I CLASS CASTOUT THRESHOLD = *threshold1* **% GROUP BUFFER POOL CASTOUT THRESHOLD =** *threshold2* **% GROUP BUFFER POOL CHECKPOINT INTERVAL =** *interval* **MINUTES RECOVERY STATUS =** *status1* **AUTOMATIC RECOVERY =** *auto-rec-parm*

Explanation: This is the second of two messages displaying information about the status of the group buffer pool as it is known to DB2. If DB2 was successful in getting MVS CFRM policy information for the group buffer pool, messages DSNB757I through DSNB759I immediately follow this message. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool.

threshold1 The threshold at which class castouts are to be initiated. It is expressed as a percentage of the group buffer pool size.

threshold2 The threshold at which castout is to be initiated at the group buffer pool level. It is expressed as a percentage of the group buffer pool size.

interval The time, in minutes, between successive initiations of group buffer pool checkpoint.

status1 The recovery status for the group buffer pool:

DAP Damage assessment pending. DB2 is in the process of doing damage assessment for the group buffer pool in response to a coupling facility structure failure. The group buffer pool is temporarily stopped internally by DB2 and is unavailable for use until the damage assessment process completes.

NORMAL There is no pending recovery action for this group buffer pool.

auto-rec-parm Automatic recovery parameter specification:

YES DB2 should automatically initiate recovery for the objects using this group buffer pool following a failure of the group buffer pool. This is the default.

NO DB2 should not initiate automatic group buffer pool recovery. If the group buffer pool fails, you must manually issue DB2 -START DATABASE commands to do the recovery.

DSNB757I MVS CFRM POLICY STATUS FOR *coupling facilityname* **=** *status2* **MAX SIZE INDICATED IN POLICY =** *psize* **KB ALLOCATED =** *status1*

Explanation: For a DISPLAY GROUPBUFFERPOOL command, this message gives the status for the structure associated with the group buffer pool. It is displayed only if DB2 was successful in querying the MVS CFRM administrative policy. It is immediately preceded by message DSNB756I, and if the structure is allocated, followed by messages DSNB758I and DSNB759I. A preceding DSNB750I message identifies the associated group buffer pool.

coupling facilityname
The backing coupling facility structure name for this group buffer pool, such as DSNCAT_GBP0.

status2
MVS global status of the backing coupling facility structure:

NORMAL Structure is defined in the current CFRM policy and has no current MVS restrictions.

CHNGP Change pending in the structure policy.

psize
The size (in kilobytes) of the coupling facility structure as indicated in the CFRM policy definition.

status1
Whether the backing coupling facility structure is currently allocated:

YES The coupling facility structure is allocated in a coupling facility.

NO The coupling facility structure is not allocated in any coupling facility.

DSNB758I ALLOCATED SIZE = *asize* **KB VOLATILITY STATUS =** *volstat* **REBUILD STATUS =** *rbldstat* **CFLEVEL =** *cflevel*

Explanation: This message is the first of two messages giving the allocation details for the group buffer pool on a DISPLAY GROUPBUFFERPOOL command. It is issued only if DB2 determines, by successfully querying the MVS CFRM policy, that the group buffer pool is allocated. It is immediately preceded by message DSNB757I. A preceding DSNB750I message identifies the associated group buffer pool.

asize The actual allocated group bufferpool structure size (in kilobytes).

volstat The volatility status of the backing group buffer pool structure for this group buffer pool:

VOLATILE The backing coupling facility structure is volatile.

NON-VOLATILE The backing coupling facility structure is non-volatile.

rbldstat Inidication of whether or not rebuild is in progress for the group buffer pool structure, and if so, which part of the rebuild process is happening:

NONE Rebuild is not in progress.

QUIESCE Rebuild is in progress and the rebuild is currently in the rebuild quiesce phase.

CONNECT — Rebuild is in progress and the rebuild is currently in the rebuild connect phase.

CLEANUP — The rebuild has completed, and the connected DB2 members are making final preparations to use the new group buffer pool structure.

STOPPING — The rebuild is stopping, and the connected DB2 members are making preparations to fall back to the original group buffer pool structure.

cflevel — The coupling facility level for the coupling facility in which this group buffer pool is allocated.

DSNB759I NUMBER OF DIRECTORY ENTRIES = *dir#* **NUMBER OF DATA PAGES =** *data#* **NUMBER OF CONNECTIONS =** *conn#*

Explanation: This message is the second of two messages giving the allocation details for the group buffer pool for a DISPLAY GROUPBUFFERPOOL command. It is issued only if DB2 determines, by successfully querying the MVS CFRM administrative policy, that the group buffer pool is allocated. It is immediately preceded by message DSNB758I. A preceding DSNB750I message identifies the associated group buffer pool.

dir# — Actual number of directory entries allocated for the coupling facility structure.

data# — Actual number of data pages allocated for the coupling facility structure.

conn# — The number of DB2 subsystems that are connected to the coupling facility structure. This includes both active connections and failed-persistent connections. The CONNLIST option of the DISPLAY GROUPBUFFERPOOL command gives details of the connection status.

DSNB765I NO CONNLIST REPORT IS GENERATED. THERE ARE NO CONNECTIONS TO THIS GROUP BUFFER POOL.

Explanation: DB2 displays this message in response to a DISPLAY GROUPBUFFERPOOL command with the CONNLIST option when there are currently no connection names to report for the group buffer pool. A preceding DSNB750I message identifies the associated group buffer pool.

DSNB766I THE CONNLIST REPORT FOLLOWS

Explanation: DB2 displays this message in response to a DISPLAY GROUPBUFFERPOOL command with the CONNLIST option to indicate the beginning of the CONNLIST display for this group buffer pool. A preceding DSNB750I message identifies the associated group buffer pool.

DSNB767I CONNECTION NAME = *conname***, CONNECTION STATUS =** *status* **CONNECTOR'S RELEASE =** *DB2 release*

Explanation: This message contains the display information that results from a DISPLAY GROUPBUFFERPOOL command with the CONLIST option. One DSNB767I message is issued for each defined connection to the group buffer pool. The associated group buffer pool is identified on a preceding DSNB750I message.

conname — Name of the connection. DB2 subsystems use the DB2 member name as the connection name.

status — Status of the connection.

A — Active.

F — Failed-Persistent.

D — Dually connected to both the original structure and the new structure during a rebuild.

DB2 release — The release of the connected DB2.

DSNB769I THE CONNLIST REPORT IS COMPLETE

Explanation: DB2 displays this message in response to a DISPLAY GROUPBUFFERPOOL command with the CONNLIST option to indicate the end of the CONNLIST display for this group buffer pool. A preceding DSNB750I message identifies the associated group buffer pool.

DSNB770I MEMBER DETAIL STATISTICS ARE NOT AVAILABLE FOR THE GROUP BUFFER POOL. THIS DB2 HAS NEVER BEEN CONNECTED TO THE GROUP BUFFER POOL.

Explanation: This message is issued in response to a DISPLAY GROUPBUFFERPOOL command with MDETAIL specified. MDETAIL statistics are not available for the requested group buffer pool because this DB2 has not connected to the group buffer pool since startup. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool.

System Action: Processing continues.

DSNB771I INCREMENTAL MEMBER DETAIL STATISTICS SINCE *basetime*

Explanation: This message is displayed in response to the DISPLAY GROUPBUFFERPOOL command with MDETAIL(INTERVAL) specified. It indicates the start time of the interval for which the statistics were accumulated. This is the time of the previous MDETAIL incremental display on this DB2 or the time DB2 first connected to the group buffer pool if there was no previous MDETAIL incremental display. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool.

System Action: Processing continues.

DSNB772I CUMULATIVE MEMBER DETAIL STATISTICS SINCE *basetime*

Explanation: This message is displayed in response to the DISPLAY GROUPBUFFERPOOL command with MDETAIL(*) specified. It indicates the start time of the interval for which the statistics were accumulated. This is the time this DB2 first connected to the group buffer pool. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool.

System Action: Processing continues.

DSNB773I MEMBER DETAIL STATISTICS SYNCHRONOUS READS DUE TO BUFFER INVALIDATION DATA RETURNED = *r1***DATA NOT RETURNED =** *r2*

Explanation: This is the first of eight messages containing local statistics, displayed as a result of the DISPLAY GROUPBUFFERPOOL command with the MDETAIL option. It lists some synchronous read statistics for the group buffer pool. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool. Messages DSNB774I, DSNB775I, DSNB789I, and DSNB776I through DSNB779I always follow this one.

The counter descriptions are listed below. In the descriptions, the term “synchronous” means that the coupling facility interaction is done under the DB2 user's execution unit.

r1 Synchronous coupling facility read requests issued because the virtual buffer or hiperpool buffer was marked “invalid.” Data is successfully returned from the group buffer pool.

r2 Synchronous coupling facility read requests issued because the virtual buffer or hiperpool buffer was marked “invalid.” Data is *not* returned from the group buffer pool.

DSNB774I DUE TO DATA PAGE NOT IN BUFFER POOL DATA RETURNED = *r3* **DATA NOT RETURNED =** *r4*

Explanation: This is the second of eight messages containing local statistics, displayed as a result of the DISPLAY GROUPBUFFERPOOL command with the MDETAIL option. It lists more local synchronous read statistics for the group buffer pool. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool. This message is always preceded by message DSNB773I and followed by messages DSNB775I, DSNB789I, and DSNB776I through DSNB779I.

The counter descriptions are listed below. In the descriptions, the term "synchronous" means that the coupling facility interaction is done under the DB2 user's execution unit.

r3 Synchronous coupling facility read requests issued because the required data was not in the virtual buffer pool or in the hiperpool buffer. Data is successfully returned from the group buffer pool.

r4 Synchronous coupling facility read requests issued because the required data was not in the virtual buffer pool or hiperpool buffer. Data is *not* returned from the group buffer pool.

DSNB775I PREFETCH READS DATA NOT RETURNED = *r5* **REGISTER PAGE LIST NOT AVAILABLE DATA RETURNED =** *r6*

Explanation: This is the third of eight messages containing local statistics, displayed as a result of the DISPLAY GROUPBUFFERPOOL command with the MDETAIL option. It lists some prefetch read statistics for the group buffer pool. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool.

r5 If the "register page list" (RPL) function is not in use, then this is the number of coupling facility read requests issued for prefetch where data is *not* returned from the group buffer pool.

If RPL is in use, then this is the number of pages that were not retrieved from the group buffer pool following the RPL request (these pages were retrieved from DASD). Note that if RPL is in use, then there are not any coupling facility interactions associated with this number; this number is incremented when the RPL feedback indicates that the page is not cached in the GBP, and so DB2 can avoid a coupling facility read request for the page and go directly to DASD.

r6 If RPL is not in use, then this is the number of coupling facility read requests issued for prefetch where data is returned from the group buffer pool.

If RPL is in use, then this number should be zero.

DSNB776I SYNCHRONOUS WRITES CHANGED PAGES = *w1* **CLEAN PAGES =** *w2*

Explanation: This is the fifth of eight messages containing local statistics, displayed as a result of the DISPLAY GROUPBUFFERPOOL command with the MDETAIL option. It lists some local write statistics for the group buffer pool. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool. This message is always preceded by messages DSNB773I through DSNB775I and DSNB789I and followed by messages DSNB777I through DSNB779I.

The counter descriptions are listed below. In the descriptions, the term "synchronous" means that the coupling facility interaction is done under the DB2 user's execution unit.

w1 Synchronous coupling facility write requests for changed pages

w2 Synchronous coupling facility write requests for clean pages

DSNB777I ASYNCHRONOUS WRITES CHANGED PAGES = *w3* **CLEAN PAGES =** *w4* **FAILED WRITES DUE TO LACK OF STORAGE =** *w5*

Explanation: This is the sixth of eight messages containing local statistics, displayed as a result of the DISPLAY GROUPBUFFERPOOL command with the MDETAIL option. It lists local write and cross-invalidation statistics for the group buffer pool. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool. This message is always preceded by messages DSNB773I through DSNB775I, DSNB789I, and DSNB776I and followed by messages DSNB778I and DSNB779I.

The counter descriptions are listed below. In the descriptions, the term "asynchronous" means that the coupling facility interaction is done under a DB2 system execution unit, such as with a prefetch.

w3 Asynchronous coupling facility write requests for changed pages

w4 Asynchronous coupling facility write requests for clean pages

w5 Coupling facility write requests that were not completed because of a lack of storage in the group buffer pool.

DSNB778I CASTOUT THRESHOLDS DETECTED FOR CLASSES = *t1* FOR GROUP BUFFER POOL = *t2* GBP CHECKPOINTS TRIGGERED = *k1* PARTICIPATION IN REBUILD = *k2*

Explanation: This is the seventh of ten messages containing local statistics, displayed as a result of the DISPLAY GROUPBUFFERPOOL command with the MDETAIL option. It lists local castout threshold statistics for the group buffer pool and also group buffer pool checkpoint and rebuild statistics. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool. This message is always preceded by messages DSNB773I through DSNB775I, DSNB789I, DSNB776I, and DSNB777I and followed by messages DSNB796I, DSNB779I, and DSNB797I.

Counters:

t1 Number of times the class castout threshold was detected

t2 Number of times the group buffer pool castout threshold was detected

k1 Number of group buffer pool checkpoints that were triggered.

k2 Number of times that this member participated in a rebuild of the group buffer pool structure.

DSNB779I ENGINES NOT AVAILABLE FOR CASTOUT = *e1* FOR WRITING = *e2*

Explanation: This is the ninth of ten messages containing local statistics, displayed as a result of the DISPLAY GROUPBUFFERPOOL command with the MDETAIL option. It lists miscellaneous local statistics for the group buffer pool. The associated group buffer pool is identified in a preceding DSNB750I or DSNB751I message. This message is always preceded by messages DSNB773I through DSNB775I, DSNB789I, DSNB776I through DSNB778I, and DSNB796I. It is followed by message DSNB797I.

Counters:

e1 Engine not available for castout

e2 Engine not available for coupling facility write

DSNB780I GROUP DETAIL STATISTICS ARE NOT AVAILABLE FOR THE GROUP BUFFER POOL. THIS DB2 IS NOT CURRENTLY CONNECTED TO THE GROUP BUFFER POOL.

Explanation: DB2 could not retrieve group buffer pool group (GDETAIL) statistics in response to a DISPLAY GROUPBUFFERPOOL command because this DB2 subsystem is not currently connected to the group buffer pool. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool.

System Action: Processing continues.

DSNB781I GROUP DETAIL STATISTICS ARE NOT AVAILABLE FOR THE GROUP BUFFER POOL. MVS IXLCACHE RETURN CODE = *retcode* MVS IXLCACHE REASON CODE = *reason*

Explanation: DB2 could not retrieve group buffer pool group (GDETAIL) statistics in response to a DISPLAY GROUPBUFFERPOOL command because the statistics request (IXLCACHE macro) did not successfully complete. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool.

retcode Return code from MVS on the statistics request

reason Reason code from MVS on the statistics request

For an explanation of IXLCACHE return and reason codes, see *MVS/ESA Programming: Sysplex Services Reference*.

System Action: Processing continues.

DSNB782I INCREMENTAL GROUP DETAIL STATISTICS SINCE *basetime*

Explanation: This message is displayed by the DISPLAY GROUPBUFFERPOOL command with GDETAIL(INTERVAL) specified. It indicates the start time of the interval for which the statistics were accumulated. This is the time of the previous GDETAIL incremental display from this DB2 or the time the group buffer pool was allocated or reallocated, if there was no previous GDETAIL incremental display.

System Action: Processing continues.

DSNB783I CUMULATIVE GROUP DETAIL STATISTICS SINCE *basetime*

Explanation: This message is displayed in response to the DISPLAY GROUPBUFFERPOOL command with GDETAIL(*) specified. It indicates the start time of the interval for which the statistics were accumulated. This is the time the group buffer pool was first allocated or reallocated.

System Action: Processing continues.

DSNB784I GROUP DETAIL STATISTICS READS DATA RETURNED = *r1*

Explanation: This is the first of five messages containing group statistics, displayed as a result of the DISPLAY GROUPBUFFERPOOL command with the GDETAIL option. It lists the successful reads for the group buffer pool. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool. This message is always followed by messages DSNB785I through DSNB788I.

r1 "Read hit" counter. Number of times that a page was returned on a coupling facility read request.

For information about the Group Detail Report, see *Data Sharing: Planning and Administration* .

DSNB785I DATA NOT RETURNED DIRECTORY ENTRY EXISTED = *r2* DIRECTORY ENTRY CREATED = *r3* DIRECTORY ENTRY NOT CREATED = *r4*, *r5*

Explanation: This is the second of five messages containing group statistics, displayed as a result of the DISPLAY GROUPBUFFERPOOL command with the GDETAIL option. It continues the read statistics for the group buffer pool. The associated group buffer pool is identified in a preceding DSNB750I or DSNB751I message. This message is always

preceded by message DSNB784I and followed by messages DSNB786I through DSNB788I.

All the "read counters" in this message represent cases where data was not returned on the coupling facility read request.

r2 "Read miss directory hit" counter. Number of times that a coupling facility read request specified a page for which a directory entry exists, but no data was cached for that page.

r3 "Read miss name assigned" counter. Number of times that a coupling facility read request specified a page for which a directory entry was created.

r4 "Read miss assignment suppressed" counter. Number of times that a coupling facility read request specified a page for which no directory entry exists and no directory entry is created.

r5 "Read miss cache full" counter. Number of times that a coupling facility read request specified a page for which no directory entry exists and no directory entry is created because of a lack of storage in the group buffer pool.

For information about the Group Detail Report, see *Data Sharing: Planning and Administration* .

DSNB786I WRITES CHANGED PAGES= *w1* CLEAN PAGES = *w2* FAILED DUE TO LACK OF STORAGE = *w3* CHANGED PAGES SNAPSHOT VALUE = *p1*

Explanation: This is the third of five messages containing group statistics, displayed as a result of the DISPLAY GROUPBUFFERPOOL command with the GDETAIL option. It is followed by messages DSNB787I and DSNB788I. It lists the statistics on writes to the group buffer pool and the total number of changed pages for the group buffer pool. The associated group buffer pool is identified in a preceding DSNB750I or DSNB751I message. This message is always preceded by messages DSNB784I and DSNB785I.

w1 "Changed page write hit" counter. Number of times a coupling facility write request for a changed page successfully completed.

w2 "Clean page write hit" counter. Number of times a coupling facility write request for a clean page completed successfully.

w3 "Write miss cache full" counter. Number of times a coupling facility write request was not completed because of a lack of storage in the group buffer pool.

p1 "Total changed" counter. Snapshot value of the current number of changed pages. The displayed value of this counter is not affected by whether this is an incremental or cumulative display.

For information about the Group Detail Report, see *Data Sharing: Planning and Administration* .

DSNB787I RECLAIMS FOR DIRECTORY ENTRIES = *d1* FOR DATA ENTRIES = *d2* CASTOUTS= *c1*

Explanation: This is the fourth of five messages containing group statistics, displayed as a result of the DISPLAY GROUPBUFFERPOOL command with the GDETAIL option. It is always preceded by messages DSNB784I through DSNB786I and followed by message DSNB788I. It lists the statistics on reclaims and castouts for the group buffer pool. The associated group buffer pool is identified in a preceding DSNB750I or DSNB751I message.

d1 "Directory entry reclaim" counter. Number of times a name assignment required that a directory entry be reclaimed by the coupling facility.

d2 "Data entry reclaim" counter. Number of times a name assignment required that a data page be reclaimed by the coupling facility.

c1 "Castout" counter. Number of castout operations performed.

For information about the Group Detail Report, see *Data Sharing: Planning and Administration* .

DSNB788I CROSS INVALIDATIONS DUE TO DIRECTORY RECLAIMS = *x1* DUE TO WRITES = *x2*

Explanation: This is the last of five messages containing group statistics, displayed as a result of the DISPLAY GROUPBUFFERPOOL command with the GDETAIL option. It lists the cross-invalidation (XI) statistics for the group buffer pool. The associated group buffer pool is identified in a preceding DSNB750I or DSNB751I message. This message is always preceded by messages DSNB784I through DSNB787I.

x1 "XI for directory reclaim" counter. Number of times a directory entry was reclaimed (stolen) and XI signals had to be sent (that is, the stolen directory entry had registered DB2 interest).

x2 "XI for write" counter. Number of times a coupling facility write request caused XI to one or more registered DB2s.

For information about the Group Detail Report, see *Data Sharing: Planning and Administration* .

DSNB789I REGISTER PAGE LIST = *r7* RETRIEVE CHANGED PAGES = *r8* RETRIEVE CLEAN PAGES = *r9* FAILED READS DUE TO LACK OF STORAGE = *r10*

Explanation: This is the fourth of eight messages containing local statistics, displayed as a result of the DISPLAY GROUPBUFFERPOOL command with the MDETAIL option. It lists more local read statistics for the group buffer pool. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool.

The counter descriptions are listed below.

r7 The number of requests to the coupling facility to register interest in a list of pages. DB2 does this when prefetch (sequential or list) is used when the following conditions are met:

- The DB2 member is running on a particular service level of MVS 5.2 or above
- The GBP is allocated in a coupling facility with CFLEVEL=2 or above.

r8 Coupling facility read requests done for prefetch to retrieve a page marked as "changed" in the group buffer pool as a result of feedback from the request to register a list of pages.

r9 Coupling facility read requests done for prefetch to retrieve a page marked as "clean" in the group buffer pool as a result of feedback from the request to register a list of pages.

r10 Coupling facility read requests in which a directory entry was *not* created because of a lack of storage in the group buffer pool.

DSNB790I DISPLAY FOR GROUP BUFFER POOL *gbpname* IS COMPLETE

Explanation: For a DISPLAY GROUPBUFFERPOOL command, this message signals the end of the display for group buffer pool *gbpname*.

DSNB791I THIS DB2 IS NOT CONNECTED TO *gbpname*

Explanation: This message is issued in response to a DISPLAY GROUPBUFFERPOOL command with TYPE(MCONN) and either one name or a list of names specified in the selection list. The DB2 on which the DISPLAY GROUPBUFFERPOOL command was issued is not currently connected to the specified group buffer pool. This message is issued once for each group buffer pool that does not match the "member connectivity" criterion.

System Action: The display is terminated for this group buffer pool. Command processing continues, if there are other group buffer pool names to process.

DSNB792I NO DB2 IN THE GROUP IS CONNECTED TO *gbpname*

Explanation: This message is issued in response to a DISPLAY GROUPBUFFERPOOL command with TYPE(GCONN) and either one name or a list of names specified in the selection list. No DB2 in the group is currently connected to the specified group buffer pool. This message is issued once for each group buffer pool that does not match the "group connectivity" criterion.

System Action: The display is terminated for this group buffer pool. Command processing continues, if there are other group buffer pool names to process.

DSNB794I THIS DB2 IS NOT CONNECTED TO ANY GROUP BUFFER POOL

Explanation: This message is issued in response to a DISPLAY GROUPBUFFERPOOL command with the TYPE(MCONN) option and an asterisk (*) specified as the selection list. This message is issued when DB2 determines that there are no group buffer pools having "member connectivity" from the DB2 on which the DISPLAY GROUPBUFFERPOOL command was issued.

System Action: Command processing is terminated.

DSNB795I NO DB2 IN THE GROUP IS CONNECTED TO ANY GROUP BUFFER POOL

Explanation: This message is issued in response to a DISPLAY GROUPBUFFERPOOL command with the TYPE(GCONN) option and an asterisk (*) specified as the selection list. When DB2 successfully determines (that is, no error is encountered during command processing) that there are no group buffer pools connected to any DB2 in the data sharing group.

System Action: Command processing is terminated.

DSNB796I CASTOUTS PAGES CAST OUT = *c1* UNLOCK CASTOUT = *c2* READ CASTOUT CLASS = *c3* READ CASTOUT STATISTICS = *c4* READ DIRECTORY INFO = *c5*

Explanation: This is the eighth of ten messages containing local statistics, displayed as a result of the DISPLAY GROUPBUFFERPOOL command with the MDETAIL option. It lists local castout statistics for the group buffer pool. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool. This message is always preceded by messages DSNB773I through DSNB775I, DSNB789I, DSNB776I through DSNB778I, and followed by messages DSNB779I and DSNB797I.

Counters:

c1 Number of pages cast out.

c2 Number of requests to unlock for castout.

c3 Number of read castout class requests.

c4 Number of read castout statistics requests.

c5 Number of read directory info requests. These requests are made during group buffer pool checkpoint.

DSNB797I OTHER INTERACTIONS REGISTER PAGE = *o1* UNREGISTER PAGE = *o2* DELETE NAME = *o3* READ STORAGE STATISTICS = *o4*

Explanation: This is the last of ten messages containing local statistics, displayed as a result of the DISPLAY GROUPBUFFERPOOL command with the MDETAIL option. It lists local castout statistics for the group buffer pool. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool. This message is always preceded by messages DSNB773I through DSNB775I, DSNB789I, DSNB776I through DSNB779I, and DSNB796I.

Counters:

o1 Number of requests to the coupling facility to register interest in a single page.

o2 Number of requests to the coupling facility to remove the registered interest in a single page.

o3 Number of requests to the coupling facility to delete the directory entries associated with a set of pages.

o4 Number of requests to the coupling facility to read the statistics counters associated with the structure. This request is issued on a timer interval basis by the GBP structure owner to detect when the GBPOOLT castout threshold is reached. It is also issued in a GDETAIL request on the DB2 DISPLAY GROUPBUFFERPOOL command.

DSNB798I LAST GROUP BUFFER POOL CHECKPOINT*timestamp* MINIMUM CLEAN-TO-DIRTY LRSN = *lrsn1* MINIMUM MEMBER RESTART/REDO LRSN = *lrsn2*, *member-name1* STRUCTURE OWNER = *member-name2*

Explanation: This message is displayed in response to the DISPLAY GROUPBUFFERPOOL command. It is issued only if DB2 determines, by successfully querying the MVS CFRM policy, that the group buffer pool is allocated. It is immediately preceded by message DSNB759I. A preceding DSNB750I message identifies the associated group buffer pool.

timestamp The date and time of the last group buffer pool checkpoint.

lrsn1 The recovery log record sequence number (LRSN) that was recorded by the last group buffer pool checkpoint that reflects the oldest changed page clean-to-dirty LRSN value at the time of the checkpoint. If the group buffer pool were to fail, *lrsn1* is used by DB2 as input to determine the starting points for the merged log scan to recover the page sets and partitions that are entered into group buffer pool recovery pending (GRECP) status. You can do more detailed monitoring of the group buffer pool checkpoint processing with IFCID 0261.

lrsn2 The minimum member-level write-pending (restart/redo) LRSN that was recorded by the last group buffer pool checkpoint. *member-name1* is the DB2 member associated with the minimum restart/redo LRSN. Group buffer pool checkpoint records a restart/redo LRSN for each member - *lrsn2* reflects only the single minimum value across all members. If the group buffer pool were to fail, DB2 uses each member's restart/redo LRSN in conjunction with *lrsn1* to determine the starting points for the merged log scan to recover the page sets and partitions that are entered into group buffer pool recovery pending (GRECP) status. You can do more detailed monitoring of the group buffer pool checkpoint processing with IFCID 0261.

member-name2 The member name of the group buffer pool structure owner. The structure owner's responsibilities include the following:

- Issue the group buffer pool checkpoint.
- Detect the GBPOOLT castout threshold and initiate castout if this threshold has been reached (by notifying the pageset or partition castout owners).
- Coordinate the damage assessment process in case the group buffer pool fails.
- Coordinate the rebuild process for the group buffer pool.

'UNKNOWN' is displayed if DB2 is not able to determine which member is the structure owner for the group buffer pool. This should only happen in an unexpected error situation. See the message accompanying that error.

System Action: Processing continues.

DSNB800I DIRECTORY ENTRY TO DATA PAGE RATIO SET TO *value* FOR *gbpname*. IT WILL TAKE EFFECT ON THE NEXT REALLOCATION.

Explanation: This message is issued in response to an ALTER GROUPBUFFERPOOL command that requests a change to the directory entry to the data page ratio for a group buffer pool. It is also issued for the first ALTER GROUPBUFFERPOOL command for a group buffer pool, even when no ratio value is specified on the command (in this case, the default ratio value is being used). The new ratio takes effect the next time the coupling facility cache structure is allocated.

The directory entry to data page ratio determines the number of directory entries and the number of data pages that are allocated in the coupling facility cache structure for the group buffer pool. If the coupling facility structure is not allocated, the first connect from any DB2 causes allocation of the structure and the new directory entry to data page ratio to take effect.

If the structure size can be determined from the MVS CFRM administrative policy, message DSNB801I is issued to indicate an estimate of the number of directory and data entries that are allocated based on the new ratio and the current size of the coupling facility structure. Otherwise, message DSNB812I is issued.

System Action: Processing continues.

System Programmer Response: Use the -DISPLAY GROUPBUFFERPOOL command to display the number of allocated directory and data entries.

DSNB801I MAX STRUCTURE SIZE INDICATED IN MVS CFRM POLICY = *size* KB ESTIMATED NUMBER OF DIRECTORY ENTRIES = *dir#* ESTIMATED NUMBER OF DATA PAGES = *data#*

Explanation: This message is issued in response to an ALTER GROUPBUFFERPOOL command after the directory entry to data page ratio is successfully updated. It is also issued for the first ALTER GROUPBUFFERPOOL command for a group buffer pool, even when no ratio value is specified on the command (in this case, the default ratio value is used). The group buffer pool is identified in message DSNB800I, which immediately precedes this message.

Because the actual ratio change does not take affect until the group buffer pool is reallocated, this message shows the estimated number of directory entries and data pages that are allocated based on the new ratio and the maximum size of the coupling facility structure, as indicated in the active CFRM policy definition. The actual number of entries that are allocated varies based on the amount of coupling facility storage that is available at the time the allocation is attempted, and on the amount of storage overhead necessary for the coupling facility control structures. Because DB2 cannot determine these variables, the estimated number of directory and data entries displayed in this message assumes that the entire storage allocation for the coupling facility cache structure will be used for directory and data entries, which is not the case.

To determine the actual number of directory and data entries that are allocated for this group buffer pool, you must cause the buffer pool to be reallocated or rebuilt, as described in *Data Sharing: Planning and Administration*, then issue a DISPLAY GROUPBUFFERPOOL command.

System Action: Processing continues.

DSNB803I RATIO IS TRUNCATED TO *value*

Explanation: The precision specified on the RATIO parameter on an ALTER GROUPBUFFERPOOL command was greater than allowed. For decimal numbers less than 25, any digits after the first decimal place are ignored: for example, 5.67 is treated as 5.6. For decimal numbers greater than or equal to 25, any digits after the decimal point are ignored: for example, 25.3 is treated as 25.

System Action: Processing continues.

DSNB804I CLASS CASTOUT THRESHOLD SET TO *value***% FOR** *gbpname*

Explanation: This message is issued in response to an ALTER GROUPBUFFERPOOL command that requests a change to the class castout threshold value for a group buffer pool. It is also issued for the first ALTER GROUPBUFFERPOOL command for a group buffer pool, even when no threshold value is specified on the command (in this case, the default class castout threshold value is being used).

System Action: Processing continues.

DSNB805I *value* **IS NOT A VALID PARAMETER FOR 'CLASST'**

Explanation: An illegal value was specified on the CLASST (class castout threshold) keyword on an ALTER GROUPBUFFERPOOL command. The CLASST value must be an integer between 0 and 90, inclusive.

System Action: The request is rejected.

System Programmer Response: Reissue the -ALTER GROUPBUFFERPOOL command, specifying an acceptable value for CLASST.

DSNB806I GROUP BUFFER POOL CASTOUT THRESHOLD SET TO *value***% FOR** *gbpname*

Explanation: This message is issued in response to an ALTER GROUPBUFFERPOOL command that successfully changes the group buffer pool castout threshold value for a group buffer pool. It is also issued for the first successful ALTER GROUPBUFFERPOOL command for a group buffer pool, even when no threshold value is specified on the command (in this case, the default group buffer pool castout threshold value is being used).

System Action: Processing continues.

DSNB807I *value* **IS NOT A VALID PARAMETER FOR 'GBPOOLT'**

Explanation: An ALTER GROUPBUFFERPOOL command was issued with an illegal value specified on the GBPOOLT (group buffer pool castout threshold) keyword. The GBPOOLT value must be an integer between 0 and 90, inclusive.

System Action: The request is rejected.

System Programmer Response: Reissue the -ALTER GROUPBUFFERPOOL command, specifying an acceptable value for GBPOOLT.

DSNB808I GROUP BUFFER POOL CHECKPOINT INTERVAL SET TO *value* **MINUTES FOR** *gbpname*

Explanation: This message is issued in response to an ALTER GROUPBUFFERPOOL command that successfully changes the group buffer pool checkpoint interval value for a group buffer pool. It is also issued for the first successful ALTER GROUPBUFFERPOOL command for a group buffer pool, even when no interval value is specified on the command (in this case, the default group buffer pool checkpoint interval value is being used).

System Action: Processing continues.

DSNB809I *value* **IS NOT A VALID PARAMETER FOR 'GBPCHKPT'**

Explanation: An ALTER GROUPBUFFERPOOL command was issued with an illegal value specified on the GBPCHKPT (group buffer pool checkpoint) keyword. The GBPCHKPT value must be an integer between 1 and 999999, inclusive.

System Action: The request is rejected.

System Programmer Response: Reissue the -ALTER GROUPBUFFERPOOL command, specifying an acceptable value for GBPCHKPT.

DSNB812I SIZE ESTIMATES ARE NOT AVAILABLE FOR THE GROUP BUFFER POOL MVS IXCQUERY RETURN CODE = *return code* **MVS IXCQUERY REASON CODE =** *reason code*

Explanation: The directory entries and data pages estimates for the group buffer pool, identified on the preceding DSNB800I message, could not be computed because IXCQUERY was unable to obtain the backing structure's size information from the MVS CFRM administrative policy definition. This can happen if an IXCQUERY processing error occurred, or if the structure was not defined in the CFRM policy. The backing structure for the group buffer pool must be defined in the CFRM policy before the group buffer pool can be allocated. The exact reason can be determined from the *return code* and the *reason code*. For an explanation of the IXCQUERY codes, see *MVS/ESA Programming: Sysplex Services Reference*.

System Action: The command completes successfully, but without giving the estimates.

DSNB813I *csect-name* **ALTER NOTIFICATION FAILED**

Explanation: An ALTER GROUPBUFFERPOOL command failed to propagate the request for castout threshold or checkpoint interval change to other DB2s in the data sharing group. This error is triggered by an error encountered by the IRLM notification process. As a result, different DB2s in the group might have different values for the castout threshold or checkpoint interval. The RATIO change does not use the notification process and is, therefore, not affected by such a failure.

System Action: Processing continues.

System Programmer Response: Reissue the -ALTER GROUPBUFFERPOOL command with the same parameters. If the problem persists, it indicates a deeper problem, such as inadequate space for the locking structures.

DSNB814I *csect-name* **NO CHANGES REQUESTED ON COMMAND**

Explanation: An ALTER GROUPBUFFERPOOL command without any parameters was issued for an existing group buffer pool. If an ALTER GROUPBUFFERPOOL command without any parameters is issued for a group buffer pool that does not yet exist, a group buffer pool definition with default parameters values is created.

System Action: The command is successful and processing continues.

DSNB890I *command-verb gbp-kwd* **COMMAND IS ONLY VALID FOR DATA SHARING**

Explanation: An attempt was made to issue a GROUPBUFFERPOOL command on a DB2 that was not initialized to participate in data sharing.

command-verb The name of the command attempted: ALTER, or DISPLAY

gbp-kwd The keyword GROUPBUFFERPOOL or GBPOOL

System Action: The command request is rejected.

DSNB891I *name* **IS NOT A VALID GROUP BUFFER POOL OR COUPLING FACILITY STRUCTURE NAME**

Explanation: An invalid name was specified on an ALTER GROUPBUFFERPOOL or DISPLAY GROUPBUFFERPOOL command.

name Either the DB2 group buffer pool name or the backing coupling structure name

You must either specify the DB2 group buffer pool name (*gpbname*) or the backing coupling facility structure name (*strname*). Acceptable values for *gbpname* are GBP0, GBP1, ... , GBP49, GBP32K, GBP32K1, ... , GBP32K9. The *strname* has the following format:

```
groupname_gbpname
```

The *groupname* is the DB2 data sharing group name. The underscore (_) is used as a delimiter between the *groupname* and the *gbpname*.

System Action: The request is rejected.

System Programmer Response: Reissue the command specifying a valid group buffer pool name.

DSNB892I *grpname* **IS NOT A VALID GROUP NAME FOR THIS DB2**

Explanation: The group name specified as part of the full coupling facility cache structure name on an ALTER GROUPBUFFERPOOL or DISPLAY GROUPBUFFERPOOL command is incorrect. On the commands, you can specify either the correct 16-byte coupling facility cache structure name or the DB2 group buffer pool name. The coupling facility cache structure name is a 16-character name specified as follows:

```
groupname_gbpname
```

The *gbpname* can be GBP0, GBP1, ..., GBP49 GBP32K, GBP32K1, ..., GBP32K9. The *groupname* is the DB2 data sharing group name. The underscore (_) is used as a delimiter between the *groupname* and the *gbpname*. The coupling facility cache structure names are left-justified with a blank as the rightmost padding character. DB2 adds the padding blanks if they are not specified on the command.

System Action: The request is rejected.

System Programmer Response: Reissue the command, specifying a valid group buffer pool name.

DSNC... Messages

There are two versions of the CICS attachment facility:

- The version shipped with DB2 requires CICS Version 3 Release 3 or an earlier release. This attachment facility issues DSNCxxx messages.
- The version shipped with CICS requires a CICS release later than Version 3 Release 3. This attachment facility issues DSN2xxx messages.

DSNC

Explanation: This is a CICS transaction abend/dump code, not a DB2 message. Refer to "Appendix A. CICS Transaction Abend/Dump Code" on page X-3 for a complete explanation.

DSNC001I CICS UR INDOUBT RESOLUTION IS INCOMPLETE FOR *ssid*

Explanation: CICS cannot resolve the disposition of the units of recovery that DB2 holds indoubt from the previous connection because CICS was cold started.

This message is issued by the following CSECT: DSNCEXT1

System Action: The CICS attachment facility continues the startup process.

Operator Response: Notify the CICS system programmer.

System Programmer Response: You must resolve the indoubt units of recovery manually by issuing the DB2 -DISPLAY THREAD and -RECOVER INDOUBT commands.

DSNC002I DSNCRCT *n* MODULE NOT FOUND

Explanation: The resource control table (RCT) with suffix *n* could not be loaded.

This message is issued by the following CSECT: DSNCSTRT

System Action: The CICS attachment facility initialization is terminated.

Operator Response: Reenter the start command with the correct suffix.

System Programmer Response: Ensure that the RCT is in the correct application program library and that it is concatenated to the JOBLIB, STEPLIB, or MVS LINK library.

DSNC003I THE ATTACHMENT FACILITY IS ALREADY ACTIVE

Explanation: The CICS attachment facility is already active and enabled to CICS.

This message is issued by the following CSECT: DSNCCOM1

System Action: The CICS attachment facility initialization is terminated.

Operator Response: Only one CICS attachment facility is permitted.

DSNC004I THE PLAN NAME IS NOT FOUND IN THE RCT

Explanation: This message is the response to a DSNC DISPLAY or DSNC DISCONNECT command. The plan specified in the command was not found in the resource control table (RCT).

This message is issued by the following CSECT: DSNCCOM1

System Action: The CICS attachment facility command is not processed.

Operator Response: Reenter the command with the correct plan name.

DSNC005I THE TRANSACTION NAME IS NOT FOUND IN THE RCT

Explanation: This message is the response to a DSNC DISPLAY or DSNC MODIFY command. The transaction specified in the command was not found in the resource control table (RCT).

This message is issued by the following CSECT: DSNCCOM1

System Action: The CICS attachment facility command is not processed.

Operator Response: Reenter the command with the correct transaction name.

DSNC006I THE *dest* DESTINATION ID IS INVALID

Explanation: This message is the response to a CICS attachment facility command. The destination ID *dest* specified in the command was not found in the CICS destination control table (DCT) or the resource control table (RCT).

This message is issued by the following CSECT: DSNCCOM1

System Action: The CICS attachment facility command is not processed.

Operator Response: Reenter the command with the correct destination ID.

DSNC007I THE COMMAND VERB IS MISSING OR INVALID

Explanation: The CICS attachment facility does not recognize the ACTION keyword on the entered command.

This message is issued by the following CSECT: DSNCCMDP

System Action: The command is not processed.

Operator Response: Reenter the command with the correct syntax.

DSNC008I KEYWORD IS MISSING OR INVALID

Explanation: A CICS attachment facility command contains an unknown positional keyword or a keyword is missing.

This message is issued by the following CSECT: DSNCCMDP

System Action: The command is not processed.

Operator Response: Reenter the command with the correct syntax.

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DSNC009I THE VALUE IN THE COMMAND IS INVALID

Explanation: The numeric value in the DSNC MODIFY command might be invalid. Otherwise, the error is caused by one of the following:

- The value in the command is greater than the value specified for the THRDM parameter in the resource control table (RCT).
- If the POOL RCT entry is being changed, the active thread count cannot be set to less than 3.

This message is issued by the following CSECT: DSNCCOM1

System Action: The command is not processed.

Operator Response: Reenter the command with a valid value.

System Programmer Response: If the number of threads required is more than the number allowed in the resource control table (RCT), specify a larger number of threads in the THRDM parameter and regenerate the table.

DSNC011I *tran* TRANSACTION ABENDED BECAUSE THREADS ARE UNAVAILABLE

Explanation: The transaction with CICS transaction ID *tran* was abnormally terminated because a thread connection to DB2 was not available for the transaction. This error message can occur when:

- TWAIT of the transaction entry in the resource control table is NO.
- TWAIT of the transaction entry is POOL, TWAIT in the pool entry is NO, and all threads in the POOL are active.

This message is issued by the following CSECT: DSNCEXT1

System Action: The indicated transaction is abended. No other action is taken by the CICS attachment facility

Operator Response: Notify the CICS system programmer.

System Programmer Response: Determine which of the following actions will correct the problem:

- If more threads are available with the current generation of the resource control table (RCT), tell the master terminal operator to make more threads active by using the DSNC MODIFY command.
- Regenerate the RCT and make more threads available to the transaction that failed. Stop and then restart the CICS attachment facility to make the new RCT active.

DSNC012I THE ATTACHMENT FACILITY STOP QUIESCE IS PROCEEDING

Explanation: A DSNC STOP command entered by the master terminal operator is being processed.

This message is issued by the following CSECT: DSNCCOM1

System Action: The CICS attachment facility releases the terminal entering the command and proceeds with the quiesce process.

Operator Response: If the quiesce is not completed within the required time period, you can enter a DB2 -STOP FORCE command.

DSNC013I DISPLAY REPORT FOLLOWS

Explanation: A CICS attachment facility display was requested and follows this message.

This message is issued by the following CSECT: DSNCCOM1

System Action: Processing continues.

DSNC014I STATISTICS REPORT FOR *rct-name* FOLLOWS

Explanation: A CICS attachment facility statistics display was requested and follows this message. The name of the resource control table (RCT) that is currently in use is *rct-name*.

The following information is displayed for each entry in the RCT:

TRAN	CICS transaction name.
PLAN	DB2 plan name.
CALLS	Total number of SQL statements in this connection.
AUTHS	Total number of new authorizations for sign-ons. Sign-on occurs only if the CICS transaction ID or DB2 authorization ID has changed.
W/P	Number of times all available threads for this entry were busy and the transaction had to wait or the thread request was diverted to the POOL.
HIGH	Maximum number of concurrent threads required by transactions associated with this entry at any time since the CICS attachment facility was started.
ABORTS	Total number of units of recovery that were rolled back.
COMMITS	One of the following two fields is incremented each time a DB2 transaction associated with this entry has an explicit or implicit (such as EOT) sync point.
1-PHASE	The total number of single phase commits for transactions associated with this entry.
2-PHASE	The total number of two-phase commits for transactions associated with this entry.

For a more detailed explanation of the fields in the statistics report, refer to "Controlling CICS Connections" in Section 4 (Volume 1) of *Administration Guide*.

This message is issued by the following CSECT: DSNCCOM1

System Action: Processing continues normally.

DSNC016I THE CONNECTION OF CICS TO *name* FAILED

Explanation: The CICS attachment facility is abnormally terminating because an error occurred while connecting with DB2.

This message is issued by the following CSECT: DSNCSTRT

System Action: The CICS attachment facility terminates with abend completion code X'04E' and one of the following reason codes: 00C30002, 00C30003, 00C30006, 00C30007, 00C30008, or 00C30009. If the initial identify fails because of an authorization error, DSNC042I is issued and no dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: Analyze the abend dumps associated with this message to determine the source of the error. Refer to the description of message DSNC042I.

DSNC017I ATTACHMENT OF A THREAD SUBTASK FAILED

Explanation: The CICS attachment facility continues processing but is unable to start as many thread subtasks as are allowed in a resource control table (RCT) entry.

This message is issued by the following CSECT: DSNCEXT2

System Action: The CICS attachment facility attempted to terminate all subtasks that are currently unused, but none could be terminated. If other subtasks are not active to process the current transaction, CICS is requested to abend the transaction.

Operator Response: Notify the system programmer.

System Programmer Response: The error might be caused by one of the following:

- There is a shortage of storage in the local storage queue area (LSQA).
- The maximum number of thread subtasks allowed was reached. The maximum is specified in the THRDMAX parameter of RCT. The DSNC DISPLAY STATISTICS command is useful in analyzing the current thread usage.

DSNC018I *name* **IS NOT ACTIVE**

Explanation: The DSNC STRT command cannot proceed because subsystem *name* is not active.

This message is issued by the following CSECT: DSNCSTRT

System Action: The DSNC STRT command processing ends without starting the CICS attachment facility.

Operator Response: Reenter the CICS attachment facility command after DB2 is started.

DSNC019I THE MODIFY COMMAND IS COMPLETE

Explanation: The DSNC MODIFY command completed successfully.

This message is issued by the following CSECT: DSNCCOM1

DSNC020I THE DISPLAY COMMAND IS COMPLETE

Explanation: The DSNC DISPLAY command completed successfully.

This message is issued by the following CSECT: DSNCCOM1

DSNC021I THE DISCONNECT COMMAND IS COMPLETE

Explanation: The DSNC DISCONNECT command completed successfully.

This message is issued by the following CSECT: DSNCCOM1

DSNC022I THE ATTACHMENT FACILITY STOP FORCE IS PROCEEDING

Explanation: A DSNC STOP FORCE command entered by the master terminal operator is being processed.

This message is issued by the following CSECT: DSNCCOM1

System Action: The CICS attachment facility releases the terminal entering the command and proceeds with the STOP FORCE processing.

DSNC023I THE ATTACHMENT FACILITY HAS CONNECTED TO *name* **USING** *rct-name*

Explanation: The DSNC STRT command successfully completed. Subsystem *name* is now available to CICS. The name of the resource control table (RCT) that was specified for this start of the CICS attachment facility is *rct-name*.

This message is issued by the following CSECTs: DSNCCOM1 DSNCEXT2

System Action: The DSNC STRT command completes processing. The CICS attachment facility is active.

DSNC024I *dest* **CANNOT BE LOCATED IN THE DCT**

Explanation: The destination shown in the message cannot be located in the CICS destination control table (DCT).

This message is issued by the following CSECT: DSNCCOM1

System Action: The CICS attachment facility startup process continues. The destination entry in the resource control table (RCT) is set to '*' for potential modification by the CICS attachment facility.

Operator Response: Notify the system programmer. Use the DSNC MODIFY command to set the error destination to the correct identification characters.

System Programmer Response: Correct either the RCT or the DCT to synchronize the error destinations.

DSNC025I THE ATTACHMENT FACILITY IS INACTIVE

Explanation: This is the final message issued by the CICS attachment facility to inform the resource control table error destinations that the CICS attachment facility completed the shutdown process.

This message is issued by the following CSECT: DSNCSTOP

System Action: The CICS attachment facility is terminated.

DSNC026I DSNCSTOP FAILED TO DISABLE THE *name* **RMI EXIT**

Explanation: The CICS attachment facility failed to disable the named resource manager interface (RMI) exit. Either the exit was in use at the time DSNCSTOP tried to disable it, or an abend occurred in the RMI exit code while the 'in use' flag was on. The CICS system must be stopped and restarted before the CICS attachment facility can be restarted.

This message is issued by the following CSECT: DSNCSTOP

System Action: The CICS attachment facility continues termination processing after dumping the CICS trace, the resource control table (RCT), and the connection control table (CCT).

Operator Response: Notify the CICS attachment facility system programmer. CICS must be stopped and restarted before restarting the CICS attachment facility.

System Programmer Response: This could be a problem in the CICS 'task-related user exit'. Analyze the trace and any dumps associated with this execution to determine the source of the error.

DSNC027I SHUTDOWN IS IN PROGRESS. *transaction* **COMMANDS MAY NOT BE ENTERED**

Explanation: The CICS attachment facility does not accept commands directed to DB2 during or after the termination of the CICS attachment facility.

This message is issued by the following CSECT: DSNCCOM1

System Action: The command is rejected.

User Response: Notify the CICS attachment facility system programmer.

DSNC028I USER IS NOT AUTHORIZED FOR *transaction* **COMMANDS**

Explanation: DB2 rejected the command request during the sign-on of the user. Therefore, the user is assumed to be unauthorized for the requested function in the command.

This message is issued by the following CSECT: DSNCCOM1

System Action: The command is rejected.

Operator Response: Notify the CICS attachment facility system programmer.

System Programmer Response: The authorization ID used is described in the generation procedures of the resource control table (RCT). If this user should be allowed access to the command, use the GRANT statement to grant authorization.

DSNC029I *transaction* **COMMAND FAILED, REASON CODE** *rc*

Explanation: The DB2 command, identified in the message as *transaction*, failed to return a response message indicating the action taken by the command. DB2 returned reason code *rc*.

This message is issued by the following CSECT: DSNCCOM1

System Action: The results of the command are unknown.

Operator Response: Notify the CICS attachment facility system programmer.

System Programmer Response: Check the master console for any messages indicating why the command failed. Refer to the explanation of the reason code returned by DB2 in “Section 4. DB2 Codes” on page 4-1.

DSNC030E AN ERROR HAS OCCURRED WRITING TO THE TRANSIENT DATA OUTPUT DESTINATION *destination*

Explanation: The CICS attachment facility encountered an error while writing to the indicated destination.

This message is issued by the following CSECT: DSNCMSG0

System Action: The CICS attachment facility continues operation.

Operator Response: Notify the system programmer. If the destination is one of the resource control table error destinations, use the CICS MODIFY command to change the destination code to another destination, if one is available.

System Programmer Response: Follow CICS procedures to correct the error. Refer to *CICS/ESA Problem Determination Guide* for additional information.

DSNC031I THE COMMAND IS INVALID. THE ATTACHMENT FACILITY IS INACTIVE

Explanation: STRT is the only valid command when the CICS attachment facility is inactive. No other commands to the CICS attachment facility are accepted.

This message is issued by the following CSECT: DSNCCOM1

System Action: The command is rejected.

DSNC032I *transaction* **COMMAND ALTERNATE DESTINATION OUTPUT COMPLETE**

Explanation: The DB2 command identified in the message as *transaction* is complete. The resulting output should be available at the requested device.

This message is issued by the following CSECT: DSNCCOM1

System Action: Processing continues normally.

DSNC033I TERMINAL *termid* **IS NOT SUPPORTED BY BMS OR IS INVALID**

Explanation: This message is issued in response to a CICS attachment facility or DB2 command that requested an alternate destination for the response. CICS basic mapping support (BMS) encountered an error while routing to the requested terminal named *termid*.

This message is issued by the following CSECT: DSNCMSG0

System Action: The output from the command might be suppressed.

Operator Response: Ensure that the terminal ID was correctly entered. Otherwise, notify the system programmer.

System Programmer Response: Verify that the terminal ID is valid. This message might occur if the destination device is not supported by BMS or if it does not exist in the CICS terminal control table. If *termid* is CSMT, this message might also follow message DSNC030E. The attachment facility unconditionally routes output to terminal CSMT following a transient data destination error.

DSNC034I INDOUBT RESOLUTION FOR *ur-id* **IS INCORRECT**

Explanation: CICS indicates recovery is required for the *ur-id*, but the unit of recovery is not indoubt to DB2.

This message is issued by the following CSECT: DSNCEXT1

System Action: The CICS attachment facility continues the startup process.

Operator Response: Notify the CICS system programmer.

System Programmer Response: CICS tried to recover a unit of recovery using an identifier that was not in the resolution request list from DB2. Use the DB2 -DISPLAY THREAD and -RECOVER INDOUBT commands to ensure that all indoubt units of recovery are resolved.

You must identify the reason for the inconsistency. A DB2 cold start, for example, might cause the problem.

DSNC035I INDOUBT RESOLUTION FOR *ur-id* IS INCOMPLETE

Explanation: CICS indicates recovery should not be required for the *ur-id*, but DB2 is indoubt.

This message is issued by the following CSECT: DSNCEXT1

System Action: The CICS attachment facility continues the startup process.

Operator Response: Notify the CICS system programmer.

System Programmer Response: CICS cannot recover a unit of recovery using an identifier that was in the resolution request list from DB2. Use the DB2 -DISPLAY THREAD and -RECOVER INDOUBT commands to ensure that all indoubt units of recovery are resolved.

You must identify the cause of the error. A CICS cold start could cause this problem.

DSNC036I INDOUBT RESOLUTION FOR *ur-id* IS INCONSISTENT

Explanation: CICS indicates recovery resolution for the *ur-id* should be ABORT (backout), but DB2 indicates the resolution should be COMMIT.

This error can be caused by a damaged CICS system journal file.

This message is issued by the following CSECT: DSNCEXT1

System Action: DB2 committed the unit of recovery. The CICS attachment facility continues the startup process.

Operator Response: Notify the CICS system programmer.

System Programmer Response: CICS and/or DB2 restart processes are not in synchronization. You must identify the cause of the error. Take appropriate action to return all resources to a consistent state.

DSNC037A *subsystem* IS NOT ACTIVE *transaction* IS WAITING

Explanation: The CICS attachment facility start transaction identified in the message is waiting for notification from the indicated DB2 subsystem that it is active. The start of the CICS attachment facility is complete after DB2 is started.

This message is issued by the following CSECT: DSNCSTRT

System Action: The CICS attachment facility waits to complete the start process.

Operator Response: Start the DB2 subsystem.

DSNC038I THE COMMAND IS INVALID WHILE WAITING FOR *subsystem name*

Explanation: The command entered cannot be processed while the CICS attachment facility is waiting for the DB2 subsystem to start. The name of the DB2 subsystem that is not yet operational is *subsystem name*.

This message is issued by the following CSECT: DSNCCOM1

System Action: The command is rejected.

DSNC039I THE ERROR DESTINATIONS ARE: *d1 d2 d3*

Explanation: This message is the response to the DSNC MODIFY DESTINATION command that lists the currently active message destinations known to the CICS attachment facility. Null entries that show as '****' can be modified so they identify actual destinations.

This message is issued by the following CSECT: DSNCCOM1

DSNC040I MODULE *name* COULD NOT BE FOUND

Explanation: During the CICS attachment facility initialization, an attempt was made to locate and load the named module, but it was not found in any of the libraries accessible to MVS through the MVS LOAD macro.

This message is issued by the following CSECT: DSNCSTRT

System Action: The CICS attachment facility initialization is terminated.

Operator Response: Notify the CICS attachment facility system programmer.

System Programmer Response: Check the CICS JOBLIB/STEPLIB libraries and ensure that DB2 libraries are made available.

DSNC041I NO ACTIVE THREADS

Explanation: A DSNC DISPLAY TRANSACTION or DSNC DISPLAY PLAN command was entered, but there were no active threads created. The CICS attachment facility might have identified and signed on the attached subtasks, but a create thread was not issued for any of the subtasks.

This message is issued by the following CSECT: DSNCCOM1

DSNC042I CONNECTION NOT AUTHORIZED TO *name*

Explanation: The attempt to connect to the named DB2 subsystem failed because the user was not authorized to access DB2. Authorization was denied by either RACF or a user-written connection exit.

This message is issued by the following CSECT: DSNCSTRT

System Action: The CICS attachment facility terminates.

Operator Response: Notify the system programmer.

System Programmer Response: The user specified on the CICS job was not authorized to connect to the named DB2 subsystem. Refer to Section 3 (Volume 1) of *Administration Guide* for information on how to authorize a user to access DB2.

DSNC043I DSNCSTOP ENCOUNTERED ERROR, RECOVERY ROUTINE started/completed

Explanation: A CICS abend occurred while disconnecting the CICS attachment facility from DB2 and deleting it from storage. This message might be issued twice. It is issued at the start of the abend recovery routine, which is indicated by 'started' in the message text. If the recovery routine is successful, the message is issued with 'completed' in the message text.

This message is issued by the following CSECT: DSNCSTOP

System Action: If the recovery routine is not successful, program DSNCSTOP terminates with a CICS transaction

dump. If the recovery routine is successful, the CICS attachment facility is terminated normally.

Operator Response: Notify the system programmer.

System Programmer Response: Analyze any abend dumps associated with this message to determine the cause of the failure.

DSNC044I DSNCRCT ENTRY HAS BEEN CORRUPTED OR OVERLAID

Explanation: The CICS attachment facility detected that a resource control table (RCT) entry was corrupted or overlaid since the CICS attachment facility was last started.

This message is issued by the following CSECT: DSNCEXT1

System Action: The CICS task is abended with reason code 00C30011. No other action is taken by the CICS attachment facility.

Operator Response: Notify the system programmer.

System Programmer Response: Analyze the abend dumps associated with this message to determine which CICS transaction and RCT entry was corrupted. Restart the CICS attachment facility to obtain a valid copy of the RCT.

DSNC045I RESOURCE MANAGER *rmi-name* IS UNKNOWN TO CICS ATTACH FACILITY

Explanation: The CICS attachment facility received a request from a resource manager interface (RMI) named *rmi-name*. This RMI is not known by the CICS attachment facility.

This message is issued by the following CSECT: DSNCEXT1

System Action: The CICS task is abended with a CICS transaction dump.

Operator Response: Notify the system programmer.

System Programmer Response: Analyze the CICS transaction dump to determine the source of the unknown resource manager interface (RMI) request.

Problem Determination: CICS dump information, such as the trace table and program storage, can aid in determining which module issued the request. The CICS EXEC interface block resource name field, EIBRSRCE, contains the name of the RMI.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNC046I RCT RELEASE LEVEL *nnnn* IS INCONSISTENT WITH CICS ATTACH RELEASE LEVEL *mmmm*

Explanation: The resource control table (RCT) release level *nnnn* does not match the CICS attachment facility release level *mmmm*.

This message is issued by the following CSECT: DSNCSTRT

Operator Response: Notify the system programmer.

System Programmer Response: Reassemble the RCT using the correct DB2 release level *mmmm* DSNCRCT macro.

DSNC047I TWA SIZE IS TOO SMALL FOR TRANSID *tran*

Explanation: The CICS TWASIZE defined for transaction *tran* is too small to support the CICS attachment facility command processor program (DSNCCOM1).

This message is issued by the following CSECT: DSNCEXT1

System Action: The CICS attachment facility abends this CICS task with a CICS transaction abend.

Operator Response: Notify the system programmer.

System Programmer Response: Redefine the command processor transaction to specify the correct TWASIZE.

DSNC048I UNABLE TO INTERPRET SQL CALL WHILE FORMATTING AN EDF DISPLAY TRAN *tran* TASK *task*

Explanation: The CICS attachment facility was unable to decipher storage associated with an SQL statement for CICS transaction *tran* and task id *task.* Either the SQL communications area (SQLCA) or the RDS input parameter list (RDI) storage could not be interpreted by the CICS attachment facility.

This message is issued by the following module: DSNCEXT1

System Action: A CICS transaction dump is taken of the storage in question.

Programmer Response: Ensure that CICS storage associated with this task was not altered or overlaid. Analyzing the storage in the CICS transaction dump might provide clues about the source of the problem.

Problem Determination: Analyze the CICS transaction dump of the storage in question. In this situation the information supplied by the Execution Diagnostic Facility (EDF) of CICS for SQL statements consists of:

- The EDF status: ABOUT TO EXECUTE or COMMAND EXECUTION COMPLETE
- The processing status: CALL TO RESOURCE MANAGER DSNCSQL
- The ARG values associated with this call to the CICS attachment facility resource manager

No other information is provided about the SQL statement.

DSNC049I CSD PROGRAM ATTRIBUTE '*attribute-name*' IS INCORRECT FOR ATTACHMENT PROGRAM '*program-name*'

Explanation: A CICS system definition file (CSD) PROGRAM definition attribute *attribute-name* value was incorrectly specified for the CICS attachment facility program *program-name*.

Message DSNC051I is also issued to specify which CICS attachment facility function is unavailable because of this CSD PROGRAM definition error.

This message is issued by the following module: DSNCEDON

Operator Response: Notify the system programmer.

System Programmer Response: Ensure that this CICS attachment facility program was defined correctly in the CICS CSD. Refer to Section 2 of *Installation Guide* for information about the correct PROGRAM attribute values.

DSNC050I MISSING CSD PROGRAM DEFINITION FOR ATTACHMENT FACILITY PROGRAM '*program-name***'.**

Explanation: A required CICS system definition file (CSD) PROGRAM definition was not found for CICS attachment facility program *program-name*.

Message DSNC051I is also issued to specify which CICS attachment facility function is unavailable because of this PROGRAM definition error.

This message is issued by the following module: DSNCEDON

Operator Response: Notify the system programmer.

System Programmer Response: Ensure that this CICS attachment facility program was defined correctly in the CICS CSD. Refer to Section 2 of *Installation Guide* for information about the correct PROGRAM attribute values.

DSNC051I '*function-name***' SUPPORT IS NOT AVAILABLE DUE TO ATTACHMENT FACILITY INITIALIZATION ERRORS**

Explanation: The function *function-name* is not available because of errors encountered during the initialization of the CICS attachment facility.

In addition to this message, the CICS attachment facility previously issued one or both of these messages during initialization: DSNC049I and DSNC050I.

This message is issued by the following module: DSNCEDON

Operator Response: Correct any error conditions indicated in messages DSNC049I and DSNC050I to allow the CICS attachment facility to initialize properly.

DSNC052I INSUFFICIENT STORAGE AVAILABLE TO START ATTACHMENT FACILITY

Explanation: During startup the CICS attachment facility was unable to allocate the required amount of storage. This message might be issued if an error occurs while the attachment facility is loading the data only load module, DSNCRCTx.

This message is issued by the following CSECTs: DSNCMSG0 DSNCSTRT

System Action: The CICS attachment facility is not initialized.

System Programmer Response: Allow a larger amount of dynamic storage on your CICS system. Alternatively, you can delete unused entries or lower THRDA and THRDM values in your RCT, which reduces the size of the storage that the attachment facility requires.

For a load error, check the MVS console log for any preceding messages to determine why the load failed. If there is not enough free REGION space to load the RCT, see the appropriate CICS documentation for information on tuning your CICS system.

DSNC053I INSUFFICIENT TWASIZE FOR DSNCCOM1. REQUIREMENT IS *twasize*

Explanation: The CICS attachment facility requires a TWASIZE of *twasize* on all transactions that execute DSNCCOM1. Either the TWASIZE that was specified is less than the requirement, or no TWASIZE was specified at all.

This message is issued by the following CSECT: DSNCCOM1

System Action: The attachment facility terminates.

System Programmer Response: Update either the CICS program control table (PCT) or the CICS resource definition online (RDO) transaction resource definition. Any transaction that executes program DSNCCOM1 should specify TWASIZE(*twasize*) on its transaction entry.

DSNC054I DYNAMIC PLAN PROGRAM LINK FAILED FOR TRANSACTION '*transaction***'. EIBRESP WAS '***eibresp***'.**

Explanation: The attachment facility was unable to link to the dynamic plan exit program specified in DSNCRCT. The reason code provided by CICS in the EIBRESP field of the EIB is given in this message.

This message is issued by the following CSECT: DSNCEXT1

System Action: The transaction is abended with a DSNC abend.

User Response: Look up the *eibresp* value in *CICS/ESA Application Programming Reference*. This value was returned from CICS after the attachment facility attempted to link to the dynamic plan exit. Take appropriate action based on the *eibresp*. For example, if *eibresp* was PGMIDERR, check your RCT entry for transaction *transaction* to ensure that the dynamic plan exit program name (PLNPGME or PLNPGMI) is the name of a valid program known to CICS.

DSNC055I SINGLE PHASE COMMIT FAILED FOR TRANSACTION '*transaction***'. EIBTASKN WAS '***task number***'.**

Explanation: CICS requested a single phase commit from DB2, but DB2 was unable to comply.

This message is issued by the following CSECT: DSNCEXT1

System Action: The transaction is abended with a DSNC abend.

User Response: Contact the IBM Support Center for assistance.

DSNC057I *csect-name* **CICS RELEASE** *release* **IS TOO HIGH FOR THIS ATTACHMENT FACILITY**

Explanation: The attachment facility that you are using requires CICS Version 3 Release 3 or an earlier release. You are using a CICS release later than CICS Version 3 Release 3. For this release of CICS, you must use the attachment facility shipped with CICS.

System Action: The attachment facility does not initialize.

User Response: Ensure that the CSD definition of the DSNC transaction specifies program DSN2COM1. If you are initializing the attachment facility using CICS program list table (PLT) processing, ensure that your CICS PLTPI table uses program DSN2COM0 to initialize the attach.

DSNC059I *csect-name* **CICS ATTACHMENT FACILITY MISMATCH WITH RESOURCE CONTROL TABLE** *rct-name*

Explanation: The wrong macro library was used to assemble DSNCRCT, the resource control table.

There are two versions of the CICS attachment facility. The version shipped with DB2 requires CICS Version 3 Release 3 or an earlier release; the one shipped with CICS requires a CICS release later than Version 3 Release 3. This message indicates that CICS is using the attachment facility shipped with DB2, but the RCT was assembled using the CICS macro libraries.

System Action: The CICS attachment facility initialization terminates.

User Response: Reassemble DSNCRCT using the DSNCRCT macro shipped in the DB2 macro libraries.

DSNC062I *csect-name* **RCT** *rct-name* **WAS LINK EDITED WITH OPTION RMODE=ANY, BUT IT NEEDS RMODE=24**

Explanation: The resource control table must reside below the 16 megabyte line of virtual storage, but it was link edited with option RMODE=ANY.

System Action: The CICS attachment facility initialization terminates.

User Response: Linkedit the resource control table with option RMODE(24).

DSNC065I *csect-name* **INVALID LENGTH. DATA NOT DISPLAYABLE.**

Explanation: The module running under the CICS Execution Diagnostic Facility (EDF) attempted to display an input or output variable that had an incorrect length indicator.

System Action: EDF processing continues, but the value of the variable is not displayed.

DSNC070I ROLLBACK FAILED FOR TRANSACTION *tran*

EIBRESP2 = X'*eibresp***'**

Explanation: The attachment facility was unable to issue a CICS ROLLBACK. The reason code provided by CICS in the EIBRESP2 field of the EIB is given in this message.

This message is issued by the following CSECT: DSNCEXT1

System Action: The transaction is abended with a DSNC abend.

User Response: Look up the *eibresp* value in CICS/ESA Application Programming Reference. This value was returned from CICS after the attachment facility attempted a ROLLBACK requested by the ROLBE=YES option.

DSNC700I DSNCSAMG *message-id* **HAS BEEN ISSUED**

Explanation: This message is issued only if the requested message was not found in the message directory (DSNCMSGT).

System Action: The system proceeds as though the requested message was issued.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to this manual for the message text.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNC901I UNRECOVERABLE IOERROR IN PROGRAM DSNCCOM1. THE ATTACHMENT FACILITY WILL SHUTDOWN.

Explanation: An attempt to retrieve data stored for program DSNCCOM1 failed when CICS returned an exceptional condition of IOERR (EIBRESP = X'11').

This message is issued by the following CSECT: DSNCCOM1

System Action: The DB2-CICS attachment facility is shutdown.

Operator Response: Notify the system programmer.

System Programmer Response: An IOERR occurs if an input or output error occurs during a RETRIEVE operation. Examine the CICS auxiliary trace records and the CICS system log to determine the cause of the IOERR.

DSNE... Messages

In the TSO attachment facility, the user can control whether message IDs are displayed. To see them, type PROFILE MSGID. To suppress them, type PROFILE NOMSGID.

Trace messages associated with the TSO attachment facility (including DSN and DB2I) are not listed in this manual. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

All DSN command processor trace messages have the same message number: DSNET20I.

DSNET20I

Explanation: This is one of many possible trace messages bearing this message number. Complete documentation of all of the TSO attachment facility trace messages bearing this message number is found in Section 9 of *Diagnosis Guide and Reference*.

DSNE004E PROBABLE SUBSYSTEM ERROR DETECTED IN CSECT csect-name, SUBSYSTEM FUNCTION service, RETCODE retcode, REASON CODE reason-code

Explanation: A subsystem error has occurred. The function identified in the message as 'service' is either an MVS or a DB2 service routine. The error was discovered in the 'csect-name' indicated in the message. Refer to the appropriate MVS publications for a description of the return and reason codes.

This message is issued by the following CSECTs:

DSNECP00	DSNECP10	DSNECP12	DSNECP13
DSNECP14	DSNECP16	DSNECP17	DSNECP18
DSNECP19	DSNECP20	DSNECP22	DSNECP23
DSNECP24	DSNECP25	DSNECP26	DSNECP29
DSNECP30	DSNECP31	DSNECP40	DSNECP41
DSNECP42	DSNECP44	DSNECP45	DSNECP46
DSNECP60	DSNECP61	DSNECP62	DSNECP66
DSNECP67	DSNECP68	DSNECP69	

System Action: This message is sometimes followed by an intentional system abend. In other instances, the DSN command processor will terminate the current subcommand and attempt to continue by issuing another DSN prompt.

User Response: Run the job again with a SYSUDUMP dump data set allocated and DSN tracing set to 123. Collect the DSN trace stream. If an abend occurs, collect the dump.

DSNE005A EXECUTION IS INTERRUPTED. ENTER C TO CANCEL, OR ANY OTHER REPLY TO RESUME THE subcmd SUBCOMMAND

Explanation: The Attention key was pressed. Entering a 'C' will cancel the DSN subcommand that is currently executing. If the user enters a question mark, message DSNE006A will appear. Any other reply will cause execution of the subcommand that was in progress to continue.

If the DSN prompt was issued just before the Attention key was pressed, 'subcmd' may be either 'DSN' or the previously invoked subcommand.

This message is issued by the following CSECT: DSNECP01

User Response: Enter a 'C' to cancel the DB2 subcommand currently executing. The DSN prompt will appear on the terminal. Enter anything else (except another attention) to resume execution.

DSNE006A C WILL TERMINATE THE SUBCOMMAND WITH UNCOMMITTED CHANGES BACKED OUT

Explanation: Enter a 'C' to terminate the subcommand. No uncommitted changes are made to the database. Any other reply causes subcommand execution to continue.

This message is issued by the following CSECT: DSNECP01

User Response: Enter a 'C' to terminate the subcommand. Control returns to DSN, and the DSN prompt appears on the terminal. This is a second-level help message associated with message DSNE005A.

DSNE008I REPLY WAS xxxxx, EXECUTION RESUMED

Explanation: Execution was suspended by a user ATTENTION and then was resumed, because the string specified in the message as 'xxxxx' was entered.

This message is issued by the following CSECT: DSNECP01

System Action: Control returns to the interrupted session.

DSNE009I REPLY WAS C, EXECUTION TERMINATED

Explanation: The response to message DSNE005A was a C. This caused the current subcommand to terminate.

This message is issued by the following CSECT: DSNECP01

System Action: The current subcommand is terminated. The DSN prompt appears on the terminal.

User Response: You can now enter another DSN subcommand.

DSNE010I SUBCOMMAND subcmd CANCELED BY ATTENTION

Explanation: The subcommand specified in the messages was canceled because the user pressed the attention key and then entered a 'C'.

This message is issued by the following CSECT: DSNECP01

System Action: The current subcommand is terminated. The DSN prompt appears on the terminal.

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User Response: A new subcommand can be entered.

DSNE011I DSN COMMAND CANCELED BY ATTENTION

Explanation: The user of the DSN command processor has pressed attention. Since this occurred before DSN was fully initialized, DSN terminates. If DSN had been fully initialized, it would have prompted the user to continue or cancel.

This message is issued by the following CSECT: DSNECP01

System Action: The DSN command processor terminates. Control returns to TSO or the calling CLIST.

User Response: Restart DSN.

DSNE100I ssid NOT OPERATIONAL, RETRY COUNT IS ZERO

Explanation: The subsystem (specified in the message as 'ssid') was not active, and no retries remain to be executed. No more connection attempts are made. The operator should be notified to start this specific subsystem, and the DSN command should be resubmitted. Issue the DSN command with the RETRY parameter set greater than zero.

This message is issued by the following CSECT: DSNECP12

System Action: Control returns to TSO.

User Response: Notify the operator to start the subsystem.

Operator Response: Start the subsystem with the 'ssid' specified in the message.

DSNE101I ssid NOT OPERATIONAL, WILL RETRY nnn MORE TIMES

Explanation: The requested DB2 subsystem 'ssid' was not started or is not available. Connection to it will be attempted 'nnn' more times. This message is issued every 30 seconds (and each time 'nnn' is decreased by 1) until the connection is made or 'nnn' is zero.

This message is issued by the following CSECT: DSNECP12

System Action: DSN repeats the connection attempt until the connection is made or until the retry count is decreased to zero.

User Response: Notify the operator start DB2.

DSNE102I YOU ARE NOT AUTHORIZED TO USE DB2 SUBSYSTEM ssid

Explanation: The authorization ID is not authorized to use subsystem 'ssid'.

This message is issued by the following CSECT: DSNECP12

System Action: Control returns to TSO.

User Response: Contact the system programmer, or system administrator to arrange for the required RACF or equivalent security system authorization.

DSNE103E MAIN STORAGE REQUEST FROM csect-id FAILED

Explanation: A request for main storage failed.

This message is issued by the following CSECTs:

DSNECP29	DSNECP42	DSNECP46
DSNECP41	DSNECP45	DSNECP66

System Action: The TSO attachment facility is ready for more input.

User Response: Increase the address space size. This can be done as part of the logging on process.

DSNE104E RETRY COUNT OF number NOT VALID, SET TO 120

Explanation: An invalid 'RETRY' parameter was entered on the DSN command. It has been set to 120. Valid retry counts are integer numbers from 0 to 120.

This message is issued by the following CSECT: DSNECP12

System Action: Retry count is modified, and DSN execution continues.

User Response: The next time you invoke DSN, use a RETRY count of 0 to 120.

DSNE105E SUBSYSTEM ssid NO LONGER OPERATIONAL

Explanation: The DB2 subsystem is down. It must be restarted before the user can continue.

This message is issued by the following CSECTs: DSNECP13, DSNECP66

System Action: Control returns to TSO attachment facility.

User Response: Before you can continue, DB2 must be restarted. You must also reissue the DSN command. ISPF users should restart their jobs.

DSNE106E PLAN plan-id NOT AUTHORIZED FOR SUBSYSTEM ssid AND AUTH-ID auth-id

Explanation: The requested combination of plan-id, subsystem-id, and user-id is not currently authorized.

This message is issued by the following CSECT: DSNECP13

System Action: The TSO attachment facility is ready for more input.

User Response: Notify the system programmer or system administrator to obtain proper authorization.

System Programmer Response: The system administrator for the DB2 subsystem can arrange the necessary authorization.

DSNE107E SUBSYSTEM RESOURCE NEEDED FOR PLAN plan-name, AUTH ID auth-id, AND SUBSYSTEM subsys IS NOT AVAILABLE

Explanation: The DB2 subsystem was unable to allocate a necessary resource for the requested combination of plan-id, user-id, and subsystem-id. This message is accompanied by DSNE108E. An attempt to establish connection with the DB2 subsystem has failed.

This message is issued by the following CSECT: DSNECP13

System Action: The TSO attachment facility is ready for more input.

User Response: Arrange to obtain the needed resource, and resubmit the subcommand. See the explanation for message DSNE108E, which accompanies this message.

DSNE108E FEEDBACK - REASON CODE reason-code TYPE= type RESOURCE NAME - 44 characters

Explanation: This message accompanies message DSNE107E or DSNE114E to explain the problem more clearly. RESOURCE NAME is the name of the unavailable resource. The reason code is in hexadecimal format.

This message is issued by the following CSECT: DSNECP13

System Action: The TSO attachment facility is ready for more input.

User Response: Arrange for the missing resource to be available, and resubmit your job.

Problem Determination: The reason the resource is unavailable is identified by a reason code. The reason codes that appear in this message are described in “Section 4. DB2 Codes” on page 4-1.

TYPE and RESOURCE NAME identify the resource that is currently unavailable. The TYPE code identifies the type, as well as the format and content, of the RESOURCE NAME. Refer to Table 3 in “Appendix B. Problem Determination” on page X-5 for an explanation of resource type codes.

DSNE109E NO INPUT TO BIND, SUBCOMMAND TERMINATED

Explanation: No LIBRARY parameter was specified on the BIND subcommand. No DBRMLIB was allocated.

This message is issued by the following CSECT: DSNECP29

System Action: The TSO attachment facility is ready for more input.

User Response: Specify the LIBRARY parameter, and resubmit the BIND subcommand. Alternatively, you could issue an ALLOCATE command for the DDNAME DBRMLIB and then resubmit the BIND subcommand as originally written.

DSNE110E ssid NOT VALID SUBSYSTEM ID, COMMAND TERMINATED

Explanation: There is no subsystem id with the name identified in the message as 'ssid'. The subsystem identifier you specify (or default to) on the DSN command must exist. This message is the result of specifying (or defaulting to) a nonexistent subsystem identifier. For information on the SYSTEM parameter of the DSN command, refer to *Command Reference*.

This message is issued by the following CSECT: DSNECP12

System Action: The DSN processor ends, and control returns to TSO.

User Response: Reissue the command with a valid SYSTEM parameter.

DSNE111E INSTALLATION EXIT REJECTED DSNAME data-set-name

Explanation: A local installation-supplied exit has rejected the data set name identified in the message as 'data-set-name'.

This message is issued by the following CSECTs:

DSNECP23 DSNECP29 DSNECP69

System Action: The TSO attachment facility is ready for more input.

User Response: Either correct the data set name specified, or arrange to authorize the original data set name. Resubmit the request.

DSNE112E userid STILL SIGNED ON TO SUBSYSTEM ssid

Explanation: An attempt was made to sign on to DB2 when the user was already signed on.

This message is issued by the following CSECT: DSNECP12

System Action: Control returns to TSO.

User Response: Log off and log on again.

DSNE113E NOT ABLE TO LINK TO MODULE modname IN DSNAME data-set-name

Explanation: A DB2 subsystem error occurred during an attempt to link to module 'modname' in data set 'data-set-name'.

This message is issued by the following CSECT: DSNECP16

System Action: The TSO attachment facility is ready for more input.

User Response: Check that the module exists and that its name is spelled correctly. Enter the correct module name.

DSNE114E THE COMBINATION OF PLAN planid, AUTH ID auth-id, AND SUBSYSTEM ssid IS NOT VALID

Explanation: The resource in message DSNE108E, which will follow this message, is not a valid resource name.

This message is issued by the following CSECT: DSNECP13

System Action: The TSO attachment facility is ready for more input.

User Response: Correct the invalid combination, and resubmit the subcommand. The problem is probably caused by a user spelling error. If it is not, check with the system administrator to determine the availability of the needed resource. Your program may need to be bound. See the explanation for message DSNE108 (which accompanies this one) for more information.

DSNE117E NOT ABLE TO LOCATE membername IN DSNAME data-set-name

Explanation: The 'data-set-name' specified does not contain the member the user wanted to run.

This message is issued by the following CSECT: DSNECP16

System Action: Control remains with the DSN command processor, and the DSN prompt appears on the terminal. The DSN command processor is ready for another command.

User Response: Correct the PROGRAM or LIBRARY parameter, and resubmit the subcommand.

DSNE118E invalid-command NOT VALID COMMAND

Explanation: The user entered an invalid command. A typing error may be responsible. You may be trying to run a command processor that is either not available on your system or that is not part of your current LNKLST or STEPLIB concatenation.

This message is issued by the following CSECT: DSNECP31

System Action: The TSO attachment facility is ready for more input.

User Response: Either correct the spelling error, or rearrange your library concatenation so that you can access the required command processor. Resubmit the command.

DSNE119E data-set-name NOT PARTITIONED DATA SET

Explanation: The user tried to allocate a sequential data set when a partitioned data set was required.

This message is issued by the following CSECTs:

DSNECP23 DSNECP29 DSNECP69

System Action: The TSO attachment facility is ready for more input.

User Response: Check the data-set-name. The data set you specified is sequential, but you specified a member name. Remove the member name, and resubmit the job.

DSNE120E data-set-name NOT SEQUENTIAL DATA SET

Explanation: The user tried to allocate a partitioned data set when a sequential data set was required.

This message is issued by the following CSECT: DSNECP69

System Action: The TSO attachment facility is ready for more input.

User Response: Check the data-set-name. The data set you specified is partitioned, but you did not specify a member name. Add a member name, and resubmit the job.

DSNE121E *csect-id* **NOT ABLE TO OPEN DATA SET**

Explanation: The DB2 subsystem was unable to open the requested data set.

This message is issued by the following CSECTs: DSNECP23, DSNECP69

System Action: The TSO attachment facility is ready for more input.

User Response: For information about why the data set could not be opened, read the explanations of the messages that accompany this message. Correct the condition, and resubmit the job.

DSNE122E DATA SET ORGANIZATION MUST BE EITHER SEQUENTIAL OR PARTITIONED. data-set-name IS NOT

Explanation: The DB2 subsystem was unable to open data set 'data-set-name', because it is not a sequential or partitioned data set.

This message is issued by the following CSECT: DSNECP69

System Action: The TSO attachment facility is ready for more input.

User Response: Correct the data-set-name, or change the data set organization. Resubmit the job.

DSNE123I *data-set-name* **NOT PARTITIONED DATA SET, IT IS IGNORED**

Explanation: The data-set-named in the message is required to be partitioned. It is not and, consequently, was ignored.

This message is issued by the following CSECT: DSNECP29

System Action: DSN will attempt to continue BIND processing.

User Response: Correct the subcommand, and resubmit it.

DSNE124E DATA SET *data-set-name***, MEMBER** *member-name* **IN USE, TRY LATER**

Explanation: The member contained in 'data-set-name' is currently in use. This message is normally issued when another user is updating the specified member.

This message is issued by the following CSECT: DSNECP69

System Action: The TSO attachment facility is ready for more input.

User Response: Wait until the member is available and reissue your DCLGEN request.

DSNE125E DATA SET *data-set-name* **IN USE, TRY LATER**

Explanation: The sequential data set 'data-set-name' is currently in use. This message is normally issued when another user is updating the specified data set.

This message is issued by the following CSECT: DSNECP69

System Action: The TSO attachment facility is ready for more input.

User Response: Wait until the data set is available and reissue your DCLGEN request.

DSNE126E THE DB2 OPERATOR IS STOPPING THE SUBSYSTEM. PLEASE END YOUR DSN SESSION

Explanation: The operator has requested that DB2 quiesce. The user should promptly finish the current task and terminate the DSN session so that this can take place. This message may be followed by message DSNE127I.

This message is issued by the following CSECT: DSNECP00

System Action: No new users will be permitted to initiate DB2 sessions. Current users will be permitted to work until they terminate their connections to DB2.

User Response: End your DSN session as soon as possible.

DSNE127I THE DB2 OPERATOR IS STOPPING THE SUBSYSTEM. DSN IS TERMINATING

Explanation: The operator has requested that DB2 terminate.

This message is issued by the following CSECT: DSNECP00

System Action: DB2 will shut down, interrupting user activities as necessary. DSN will terminate immediately and return the user to TSO.

User Response: Reinitiate your session when DB2 returns.

DSNE128I DB2 IS ABNORMALLY ENDING. DSN IS TERMINATING

Explanation: DB2 has encountered a problem from which it cannot recover.

This message is issued by the following CSECT: DSNECP00

System Action: DB2 is abending. DSN terminates immediately and returns the user to TSO.

User Response: Reinitiate your session when DB2 returns.

DSNE130I MAXIMUM NUMBER OF DB2 USERS REACHED. YOUR RETRY COUNT IS ZERO

Explanation: The number of concurrent connections to DB2 is restricted. The number is specified in the installation parameters in member DSN6SYSP. For TSO foreground, see parameter IDFORE. For background jobs, see parameter IDBACK. The DSN request has been denied, because the current number of DB2 connections in the system has reached the installation-specified limit.

This message is issued by the following CSECT: DSNECP12

System Action: Control returns to TSO.

User Response: Resubmit the DSN command when activity using DB2 has diminished. If still unsuccessful, see the system programmer about the installation parameters.

DSNE131I MAXIMUM NUMBER OF DB2 USERS REACHED. WILL RETRY nnn MORE TIMES

Explanation: The number of concurrent connections to DB2 is restricted. The number is specified in the installation parameters in member DSN6SYSP. For TSO foreground, see parameter IDFORE. For background jobs, see parameter IDBACK. The DSN request was denied because the current number of DB2 connections in the system reached the installation specified limit.

The DSN connection to DB2 is attempted 'nnn' more times. The number of retries is determined by the RETRY parameter on the DSN command. For more information, refer to *Command Reference*.

This message is issued every 30 seconds (and each time 'nnn' is decreased by 1) until the connection is made or until 'nnn' is decreased to zero.

This message is issued by the following CSECT: DSNECP12

System Action: DSN repeats the connection attempt until the connection is made or the retry count is decreased to 0.

User Response: If all retry attempts fail, resubmit the DSN command when DB2 activity diminishes. If still unsuccessful, see the system programmer about the installation parameters.

DSNE132I DB2 IS OPERATING IN RESTRICTED ACCESS MODE. MAINTENANCE PERSONNEL ONLY

Explanation: DB2 is not available for normal operation. It is only available to service personnel.

This message is issued by the following CSECT: DSNECP12.

System Action: Control returns to the caller. Your request was not processed. The DSN command processor was unable to connect to DB2.

User Response: Wait until DB2 is available for general use, then resubmit your request.

DSNE133E *csect-name* **RELEASE LEVELS NOT COMPATIBLE. DSN=***release_level***, DB2=***release_level*

Explanation: The DSN command processor, perhaps running under the control of DB2I, has detected a release level incompatibility between itself and DB2. The current *release_level* of the DSN command processor code and the DB2 subsystem load modules is indicated as a string of three numeric characters as follows:

- Version
- Release
- Modification level

System Action: The DSN command processor terminates.

User Response: Check that your method of invoking DSN or DB2I allocates the correct libraries for DSN. If you used JCL or a TSO logon procedure to execute DSN code, check your JOBLIB and STEPLIB allocations. If you used a CLIST to execute DSN, insure that you obtained the correct version of the DSN code.See your system programmer if you invoke DSN using procedures supplied by your system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: If you are unable to determine the problem, you can trace DSN execution through DB2I or the DSN command processor.

Problem Determination: Insure that coexistence is supported on both release levels (DSN and DB2). If coexistence is supported, insure that the lower level release has the correct SPE level code support that is required to coexist with the current higher level release.

For more information about coexistence and SPEs, refer to the program directory or preventative service planning (PSP) updates.

DSNE231A ONE NAME IS REQUIRED TO FREE A PLAN OR A PACKAGE

Explanation: The user has attempted to use the FREE PLAN or PACKAGE panel without specifying a plan or package name.

This message is issued by the following CSECTs: DSNEBP09, DSNEBP18

System Action: The TSO attachment facility is ready for more input.

User Response: Enter the name of a plan or package, or (*) to indicate 'all'.

DSNE232A CONNECTION NAME REQUIRES ENABLE/DISABLE OF CONNECTION TYPE

Explanation: The user indicated that specific connection names were to be specified for ENABLE or DISABLE, but the associated connection type field was not updated. The ENABLE or DISABLE of connection names requires the corresponding connection type to also be specified for ENABLE or DISABLE.

This message is issued by the following CSECT: DSNEBP13

System Action: The TSO attachment facility is ready for more input.

User Response: Enter Y (Yes) on the connection type for the associated connection names.

DSNE233A MEMBER NAME MUST NOT BE SPECIFIED MORE THAN ONCE

Explanation: The LIBRARY field containing the data set name, also contains a member name.

This message is issued by the following CSECTs: DSNEBP02, DSNEBP07

System Action: The TSO attachment facility is ready for more input.

User Response: The member name must be specified only once, and must be specified on the MEMBER field.

DSNE234A EITHER DBRM MEMBER OR INCLUDE PACKAGE LIST MUST BE SPECIFIED

Explanation: The BIND PLAN subcommand requires either a DBRM member name or a package list as input, neither was specified.

This message is issued by the following CSECT: DSNEBP02

System Action: The TSO attachment facility is ready for more input.

User Response: Enter a DBRM member name(s), or specify that a package list is to be included. Both options are also allowed.

DSNE235A *plan/package* **NAME IS A DUPLICATE OF PRIMARY** *plan/package* **NAME**

Explanation: In addition to the primary 'plan' or 'package' name specified on the REBIND or FREE subcommand panel, the user also specified that additional plans or packages were to be included in the list. The primary 'plan' or 'package' name was again specified to be included in the list.

This message is issued by the following CSECTs: DSNEBP04, DSNEBP15

System Action: The duplicate of the primary 'plan' or 'package' name is automatically deleted from the list to avoid errors during subcommand processing. The TSO attachment facility is ready for more input.

User Response: Complete the list of additional plans or packages.

DSNE236A SPECIFY A CONNECTION TYPE TO ENABLE OR DISABLE

Explanation: The user indicated that individual connection types were to be ENABLED or DISABLED, but no specific connection types were specified.

This message is issued by the following CSECT: DSNEBP13

System Action: The TSO attachment facility is ready for more input.

User Response: Enter Y (YES) for each individual connection type to ENABLE, or DISABLE.

DSNE237A SPECIFY ENABLE ALL OR SPECIFIC CONNECTION TYPES

Explanation: In addition to requesting that all connection types be enabled, the user also requested that specific connection types be enabled. The enable of all connection types includes the enable of specific connection types.

This message is issued by the following CSECT: DSNEBP13

System Action: The TSO attachment facility is ready for more input.

User Response: Specify specific connection types to be enabled, or specify that all connection types are to be enabled.

DSNE240A ISPF RETURNED AN UNEXPECTED CODE WHILE CLOSING A TABLE

Explanation: An ISPF error return code was encountered when attempting to perform a TBCLOSE for an ISPF table while processing the current subcommand panel.

This message is issued by the following CSECTs:

DSNEBC05 DSNEBC09 DSNEBC13

System Action: TSO processing for the current subcommand is terminated.

User Response: Notify the system programmer.

System Programmer Response: Verify that the ISPF table library allocated to the DSNETBLS DD statement has sufficient space or directory entries available. Also refer to the ISPF error log for additional diagnostic information.

DSNE241A INTERNAL PROCEDURE WAS PASSED AN INVALID NUMBER OF ARGUMENTS

Explanation: A TSO Interpreter error was encountered while executing a subroutine during the processing of the current subcommand.

This message is issued by the following CSECTs:

DSNEBC05 DSNEBC09 DSNEBC13

System Action: TSO processing for the current subcommand is terminated.

User Response: Notify the system programmer.

System Programmer Response: Notify the IBM support center that an error was encountered in the TSO SYSCALL instruction.

Problem Determination: The TSO SYSCALL instruction is not passing all the parameters to a subroutine defined within the CLIST.

DSNE242A ISPF RETURNED AN UNEXPECTED CODE WHILE SETTING SEARCH ARGUMENTS

Explanation: An ISPF table for the current function does not contain the expected column or table format.

This message is issued by the following CSECTs:

DSNEBC05 DSNEBC09 DSNEBC13

System Action: TSO processing for the current subcommand is terminated.

User Response: Notify the system programmer.

System Programmer Response: Delete the ISPF table in error. The table is recreated automatically during the next invocation of the DB2I function.

Problem Determination: The format of the ISPF table was changed since the last successful use of the table. Refer to the DB2I ISPF table library allocated to the DSNETBLS DD statement, and examine the ISPF error log for additional diagnostic information.

DSNE243A ISPF RETURNED AN UNEXPECTED CODE DURING A TABLE DISPLAY

Explanation: An ISPF error was encountered when attempting to display a DB2I table panel.

This message is issued by the following CSECTs:

DSNEBC05 DSNEBC09 DSNEBC13

System Action: TSO processing for the current subcommand is terminated.

User Response: Notify the system programmer.

System Programmer Response: Insure that the DB2I panel and panel library are established correctly. If the format of both is correct, then use ISPF option 7.2 to test the panel for additional errors.

Examine the ISPF error log for additional error information and determine the name of the panel to be displayed.

DSNE244A CANNOT SAVE CREATED TABLE, VERIFY SPACE IN TABLE LIBRARY

Explanation: An ISPF TBSAVE function returned with a condition code greater than zero.

This message is issued by the following CSECTs:

DSNEBC05 DSNEBC09 DSNEBC13

System Action: TSO processing for the current subcommand is terminated.

User Response: Notify the system programmer.

System Programmer Response: Verify that the ISPF table library allocated to the DSNETBLS DD statement has sufficient space and directory entries available. Also refer to the ISPF error log for additional diagnostic information.

DSNE245A ISPF RETURNED AN UNEXPECTED CODE WHILE ADDING A ROW TO A TABLE

Explanation: An ISPF TBADD function returned with a condition code greater than four.

This message is issued by the following CSECTs:

DSNEBC05 DSNEBC09 DSNEBC13

System Action: The TSO attachment facility is ready for more input.

User Response: Enter the DB2I CANCEL command, and notify the system programmer.

System Programmer Response: Verify that the user has enough memory to perform ISPF functions. Also refer to the ISPF error log for additional diagnostic information.

DSNE246A ISPF RETURNED AN UNEXPECTED CODE WHILE DELETING A ROW

Explanation: An ISPF TBDELETE function returned with a condition code greater than zero.

This message is issued by the following CSECTs:

DSNEBC05 DSNEBC09 DSNEBC13

System Action: TSO processing for the current subcommand is terminated.

User Response: Enter the DB2I CANCEL command, and notify the system programmer.

System Programmer Response: Verify that the user has enough memory to perform ISPF functions. Also refer to the ISPF error log for additional diagnostic information.

DSNE247A ISPF RETURNED AN UNEXPECTED CODE WHILE UPDATING A ROW

Explanation: An ISPF TBPUT function returned with a condition code greater than four.

This message is issued by the following CSECTs:

DSNEBC05 DSNEBC09 DSNEBC13

System Action: TSO processing for the current subcommand is terminated.

User Response: Enter the DB2I CANCEL command, and notify the system programmer.

System Programmer Response: Verify that the user has enough memory to perform ISPF functions. Recreate the user actions that lead to the failure. Also refer to the ISPF error log for additional diagnostic information.

DSNE248A COMMAND ENTERED CONTAINS INVALID CHARACTERS, RESPECIFY

Explanation: The command entered at the command line contains an invalid character, the command must be reentered.

This message is issued by the following CSECTs:

DSNEBP04 DSNEBP05 DSNEBP12 DSNEBP13
DSNEBP14 DSNEBP15 DSNEBP16 DSNEBP17

System Action: The TSO attachment facility is ready for more input.

User Response: Correct the invalid command entry.

DSNE250A PLEASE ENTER THE COMMAND AT THE LINE WITH THE PLAN/PACKAGE NAME

Explanation: SELECT or RESET commands must be entered on the line where the PLAN/PACKAGE name is shown. This line contains the name of the PLAN/PACKAGE, while the secondary line(s) do not.

This message is issued by the following CSECT: DSNEBP16

System Action: The line command is rejected. The TSO attachment facility is ready for more input.

User Response: Reenter the line command on the primary PLAN/PACKAGE line(s).

DSNE252A JCL WAS NOT CREATED, ERROR *errcode* WHILE DOING *function_name* FUNCTION

Explanation: Error code 'errcode' was received while doing a function 'function_name', the JCL was not created.

This message is issued by the following CSECTs: DSNEPC01, DSNETC01

Severity: 20

System Action: Refer to *ISPF Version 4 for MVS Dialog Management Guide* for the cause of this error.

User Response: Contact your systems programmer.

Problem Determination: Use the return code/function combination to find the causes for the problem in *ISPF Version 4 for MVS Dialog Management Guide* and correct the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 21.

DSNE283A THE , (COMMA) OPTION IS INCOMPATIBLE WITH THE *hostlang* LANGUAGE

Explanation: The user tried to select the 'hostlang' APPLICATION LANGUAGE and the comma option of the DECIMAL POINT field on the DB2I defaults panel. This combination is not supported.

This message is issued by the following CSECT: DSNEOP01

System Action: The defaults panel is displayed again.

User Response: Either change the APPLICATION LANGUAGE field or the DECIMAL POINT field. If you need the C (C/370 Compiler), then the DECIMAL POINT field must contain a decimal point (.).

DSNE288A YOU CANNOT SPECIFY (RUN)=YES WITH CICS OR IMS

Explanation: Application programs that make CICS or IMS calls cannot be run from the TSO environment. They can, however, be precompiled, bound, compiled, and linked under TSO. The user should specify N on the RUN panel when preparing a CICS or IMS application.

This message is issued by the following CSECT: DSNEPP01

System Action: The system is waiting for new input to the panel.

User Response: Change the RUN option to N.

DSNE291A ALL DB2 COMMANDS BEGIN WITH A DASH

Explanation: The user omitted the DB2 command recognition character that must precede all DB2 commands.

This message is issued by the following CSECT: DSNEKP01

System Action: The DB2 commands panel is displayed again so the user can resubmit the command.

User Response: Add the DB2 command recognition character, and reenter the command.

DSNE292I DATA SET *data-set-name* NOW CONTAINS YOUR JCL

Explanation: DB2I has just created some JCL for you. The JCL now resides in data set 'data-set-name'. You can now edit this data, if desired. The TSO SUBMIT command will start the job running in background.

This message is issued by the following CSECTs:

DSNEUC01 DSNEPC01 DSNETC01

System Action: The system is waiting for your next request.

User Response: You can start another DB2I job or leave the panel.

DSNE293A MEMBER NAME IS REQUIRED. YOUR PROGRAM MUST BE IN A PDS

Explanation: The user either has attempted to run a program that is not in a partitioned data set or has forgotten to specify a member name.

This message is issued by the following CSECT: DSNERC01

System Action: The RUN panel will be displayed so that the user can specify a member name and try the run again.

User Response: Specify a member name, and rerun the program.

DSNE294I SYSTEM RETCODE=*hex-code* USER OR DSN RETCODE=*decimal-code*

Explanation: A DB2I function has just completed. The return codes for that function are returned in this message. The variable 'hex-code' is a 3-digit hexadecimal number; the variable 'decimal-code' is a 3-digit decimal number. Refer to the appropriate MVS publication for explanations of the return codes.

This message is issued by the following CSECTs:

DSNEBC02 DSNEBC03 DSNEBC04 DSNEDC01
DSNEKC01 DSNERC01 DSNEUC01

System Action: DB2I is ready for another execution cycle unless other messages appeared indicating that DB2 is unavailable.

User Response: You may have to change input parameters to correct unsatisfactory completion codes.

DSNE295A YOU CANNOT DISPLAY AND RESTART A UTILITY AT THE SAME TIME

Explanation: You have set options on the DB2I Utilities panel that call for conflicting actions. You can either DISPLAY the status of a utility, or you can RESTART a utility, but you cannot do both.

This message is issued by the following CSECT: DSNEUP01

System Action: The system is waiting for new input to the panel.

User Response: Either change the RESTART option to NO, or select a different FUNCTION.

DSNE296A YOU CANNOT TERMINATE AND RESTART A UTILITY AT THE SAME TIME

Explanation: You have set conflicting options on the DB2I Utilities panel. You can either TERMINATE a utility, or you can RESTART a utility, but you cannot do both.

This message is issued by the following CSECT: DSNEUP01

System Action: The system is waiting for new input to the panel.

User Response: Either change the RESTART option to NO, or select a different FUNCTION.

DSNE297A ENTER DATA SET NAME: COPYDSN OR RCPYDSN1

Explanation: You have not specified a data set name for the COPY utility. A data set name for the local/current site (COPYDSN), and/or the recovery site (RCPYDSN1) is required.

This message is issued by the following CSECT: DSNEUP02

System Action: The system is waiting for new input to the panel.

User Response: Enter a data set name for COPYDSN, and/or RCPYDSN1.

DSNE298A ERROR DURING EDIT: CLIST *data set name*

Explanation: Errors were encountered while attempting to change the online book data set names in the DB2 CLIST member DSNEMC01. No data set names were changed.

System Action: The system is waiting for new input to the panel.

User Response: Ensure that the CLIST data set name is correct and contains the DSNEMC01 CLIST member to be changed. This CLIST data set must also be available to the TSO user ID in WRITE mode. This error will continue to be displayed on the panel until the error is resolved or the user exits the panel (END).

System Programmer Response: If you are unable to determine the problem, you can trace the DB2 CLIST execution while displaying this panel.

Problem Determination: Examine the CLIST trace output for any TSO/ISPF nonzero return codes encountered during CLIST execution.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNE340I INTERNAL ERROR – ILLEGAL TYPE IN MODULE *module-name*

Explanation: An internal DB2 problem has occurred. The named module has detected a nonexistent SQLTYPE.

This message is issued by the following CSECTs: DSNESM30, DSNESM32

User Response: Collect the SPUFI trace and ISPF log, and notify either the system programmer or the database administrator.

You may have to rerun the failing job after you have turned on trace. This will enable you to send trace messages to the ISPF log.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNE351A EDIT PROCESSING OPTION MUST BE Y (YES) OR N (NO)

Explanation: The user specified an edit option other than 'YES', 'NO', or the abbreviation 'Y' or 'N'. A valid user response determines whether SPUFI invokes the ISPF editor to allow the user to edit the input data set.

This message is issued by the following CSECT: DSNESP01

System Action: SPUFI will wait until the user enters a valid response.

User Response: Type in a 'Y' or an 'N', and press 'ENTER'.

DSNE352A EXECUTE PROCESSING OPTION MUST BE Y (YES) OR N (NO)

Explanation: The user specified an execute option other than 'YES', 'NO', or the abbreviation 'Y' or 'N'. A valid user response determines whether SPUFI executes the SQL statements in the user input data set.

This message is issued by the following CSECT: DSNESP01

System Action: SPUFI waits until the user enters a valid response.

User Response: Type in a 'Y' or an 'N', and press 'ENTER'.

DSNE353A BROWSE PROCESSING OPTION MUST BE Y (YES) OR N (NO)

Explanation: The user specified a browse option other than 'YES', 'NO', or the abbreviation 'Y' or 'N'. A valid user response determines whether SPUFI invokes ISPF BROWSE to allow the user to browse the output data set.

This message is issued by the following CSECT: DSNESP01

System Action: SPUFI will wait until the user enters a valid response.

User Response: Type in a 'Y' or an 'N', and press 'ENTER'.

DSNE354A AUTOCOMMIT PROCESSING OPTION MUST BE Y (YES) OR N (NO)

Explanation: The user specified an AUTOCOMMIT option other than 'YES', 'NO', or the abbreviation 'Y' or 'N'. A valid user response determines whether SPUFI automatically commits all the changes to the database subsystem. This was encountered as a result of executing the user's SQL statement(s). The commit is done at the end of the processing of an input data set, if it is requested and if there has been no SQL execution error.

This message is issued by the following CSECT: DSNESP01

System Action: SPUFI waits until the user enters a valid response.

User Response: Type in a 'Y' or an 'N', and press 'ENTER'.

DSNE355A CHANGE DEFAULTS PROCESSING OPTION MUST BE Y (YES) OR N (NO)

Explanation: The user specified a change-default option other than 'YES', 'NO', or the abbreviation 'Y' or 'N'. A valid user response determines whether SPUFI displays the current-session SPUFI defaults and allows the user to change the defaults.

This message is issued by the following CSECT: DSNESP01

System Action: SPUFI waits until the user enters a valid response.

User Response: Type in a 'Y' or an 'N', and press 'ENTER'.

DSNE359A OUTPUT DATA SET NAME REQUIRED FOR EXECUTE OR BROWSE

Explanation: The user did not specify the name of the output data set.

This message is issued by the following CSECT: DSNESP01

System Action: SPUFI waits until the user specifies an output data set.

User Response: Type in the correct entry, and press 'ENTER'.

DSNE360A THE OUTPUT DATA SET MUST RESIDE ON DASD

Explanation: The user has attempted to send the output of SPUFI to a SYSOUT data set. He must enter a generic device class that contains only DASD devices.

This message is issued by the following CSECT: DSNESP01

System Action: SPUFI waits until the user specifies a valid output device class.

User Response: Type in the correct entry, and press 'ENTER'.

DSNE361I SPUFI PROCESSING COMPLETE

Explanation: This informational message is displayed after SPUFI successfully created the output data set. If errors are encountered before the completion of output data set processing, or during the subsequent BROUSE OUTPUT option for this data set, this message is replaced by either SPUFI or TSO/ISPF error messages.

This message is issued by the following CSECT: DSNESM00

System Action: The system waits for the next user input.

User Response: At this point you can change the SPUFI panel variable settings to initiate a new SPUFI request, or you can exit SPUFI.

DSNE363A ONLY RR (REPEATABLE READ) OR CS (CURSOR STABILITY) ALLOWED

Explanation: The user has entered an invalid isolation level. This value must be either RR or CS. 'Isolation level' here refers to the degree to which the SPUFI user wants to isolate SQL execution from the effects of other concurrently executing DB2 applications.

If the repeatable read (RR) level is specified and the AUTOCOMMIT option is 'YES', other applications can modify the selected database values as soon as the SPUFI EXECUTE phase is completed and as soon as the automatic COMMIT (or ROLLBACK, if an error was encountered,) operation is performed. Therefore, it is possible that the retrieved data being browsed by the user has already been modified by another application.

If the RR level is specified and the AUTOCOMMIT option is 'NO', no other DB2 application executing concurrently can change any of the selected database values until the SPUFI user issues either a COMMIT or a ROLLBACK. Therefore, other applications might be in a normal wait state while the SPUFI user is browsing the output data set.

If the cursor stability (CS) level is specified, it does not make any difference whether the AUTOCOMMIT option is 'YES' or 'NO'. Other concurrently executing DB2 applications can change the selected database values as soon as the SELECT has completed.

This message is issued by the following CSECT: DSNESP02

System Action: SPUFI waits until the user specifies either 'RR' or 'CS'.

User Response: Type in the correct entry, and press 'ENTER'.

DSNE366A ONLY THE LISTED RECFM TYPES ARE ALLOWED

Explanation: The user has entered an invalid record format for the output data set.

This message is issued by the following CSECT: DSNESP02

System Action: The system waits until the user enters one of the allowed RECFM types.

User Response: Enter a RECFM of V, VB, VBA, F, FB, or FBA.

DSNE367A ACTION MUST BE C (COMMIT) OR R (ROLLBACK) OR D (DEFER)

Explanation: This message requests the user to make a commit action decision.

This message is issued by the following CSECT: DSNESP03

User Response: To commit all the changes made since the last commit point, enter a 'C'. To undo all the changes that have been made since the last commit point, enter an 'R'. To defer the decision, enter a blank.

DSNE368A YES OR NO MUST BE ENTERED FOR EACH PROCESSING OPTION

Explanation: One of the processing options was left blank or set to blank by the user.

This message is issued by the following CSECT: DSNESP01

User Response: Enter 'YES' or 'NO' for each processing option.

DSNE370A INPUT DATA SET COULD NOT BE OPENED

Explanation: The input data set could not be opened because of invalid data set attributes. The logical record length (LRECL) of the input data set must be 80K. The record format (RECFM) must be either F or FB. The input data set may be either sequential or partitioned.

This message is issued by the following CSECT: DSNESM55

User Response: Specify an input data set having valid attributes.

DSNE371A OUTPUT DATA SET COULD NOT BE OPENED

Explanation: The output data set could not be opened because of invalid data set attributes. The logical record length (LRECL) must be at least 80KB and less than 32KB. The record format (RECFM) must be F, FB, FBA, V, VB, or VBA. The output data set must be sequential.

This message is issued by the following CSECT: DSNESM55

User Response: Either specify an output data set having valid attributes, or enter correct attributes for this data set.

DSNE372A OUTPUT DATA SET MUST BE SEQUENTIAL

Explanation: The user has requested that a nonsequential output data set contain the output from execution of SQL statements.

This message is issued by the following CSECT: DSNESM55

User Response: Enter the data-set-name of a sequential data set for the output data set.

DSNE374A OUTPUT DATA SET MUST BE SEQUENTIAL

Explanation: The output data set is of unrecognized organization. It must be sequential.

This message is issued by the following CSECT: DSNESM55

System Action: Processing does not begin until the panel entries are correct and the user presses 'ENTER'.

User Response: The output data set must be sequential. Enter a sequential data-set-name (no member) in the output data set field.

DSNE375A ACCESS TO INPUT DATA SET NOT AUTHORIZED

Explanation: A local installation-supplied exit has rejected access to the input data set specified by the user.

This message is issued by the following CSECT: DSNESM55

User Response: Either specify the name of a data set for which authorization will be allowed, or arrange to authorize the original data-set-name. Resubmit the request.

DSNE376A ACCESS TO OUTPUT DATA SET NOT AUTHORIZED

Explanation: A local installation-supplied exit has rejected access to the output data set.

This message is issued by the following CSECT: DSNESM55

User Response: Either specify the name of a data set for which authorization will be allowed, or arrange to authorize the original data-set-name. Resubmit the request.

DSNE377A INPUT DATA SET RECFM MUST BE F OR FB WITH LRECL 79 OR 80

Explanation: The user specified an input data set that does not have the required attributes (F or FB with LRECL 79 or 80).

Note: If the input data set has an LRECL of 79, SPUFI assumes the data set was exported by QMF. Therefore, it is recommended that you should not use an LRECL of 79 for a data set that is not exported from QMF.

This message is issued by the following CSECT: DSNESM55

User Response: Correct the input data set attributes, and try again.

DSNE378A ASA CONTROL CHARACTER NOT ALLOWED ON INPUT DATA SET RECFM

Explanation: The user attempted to use an input data set containing forms control characters or machine control characters. These characters are not allowed on the input data set.

This message is issued by the following CSECT: DSNESM55

User Response: Remove the forms control characters or machine control characters from the input data set, and try again.

DSNE379A text from DYNALLOC

Explanation: An attempt to allocate a data set has failed. This message contains the secondary explanation for the failure.

This message is issued by the following CSECT: DSNESM55

User Response: Correct the condition, and resubmit the subcommand.

DSNE381A UNEXPECTED ALLOCATION RETURN CODE return-code, reason-code

Explanation: An unexpected return code from SVC 99 was received. The return code received is the DYNALLOC (SVC 99) return code. Refer to the appropriate MVS publication for explanations of the return and reason codes.

This message is issued by the following CSECT: DSNESM55

User Response: Correct the condition, and resubmit the subcommand.

DSNE383A INVALID OUTPUT DATA SET RECORD FORMAT. OPEN RETURN CODE rcode

Explanation: The data set format was invalid. Acceptable record formats are: F, FB, FBA, V, VB, or VBA.

This message is issued by the following CSECT: DSNESM55

User Response: Enter a valid value in the record format field.

DSNE384A UNEXPECTED DEALLOCATION RETURN CODE return-code, reason-code

Explanation: A deallocation request has returned an unexpected return and reason code.

This message is issued by the following CSECT: DSNESM55

User Response: Refer to the appropriate MVS publication for explanations of the return and reason codes.

DSNE385A ENTER MEMBER NAME. INPUT DATA SET IS PARTITIONED

Explanation: The input data set is partitioned, and the user did not enter the member name on the SPUFI main menu.

This message is issued by the following CSECT: DSNESM55

System Action: Processing does not begin until the panel entries are correct. If any of the processing options are changed, this message is ignored, and processing will proceed according to the new settings.

User Response: Enter the member name.

DSNE386A MEMBER member-name NOT PRESENT IN SPECIFIED INPUT DATA SET

Explanation: The named member is not in the input data set.

This message is issued by the following CSECT: DSNESM55

System Action: Processing does not begin until the panel entries are correct.

User Response: Enter a correct member name or a correct data-set-name.

DSNE387I DSNTIAR ERROR. RETURN CODE = return-code

Explanation: An internal DB2 error has occurred. DSNTIAR attempted to format a message to explain a nonzero SQL code, but the attempt failed.

This message is issued by the following CSECT: DSNESM40

User Response: Notify the system programmer.

System Programmer Response: Print the ISPF log, and collect a dump of the TSO address space. Refer to Section 3 of *Application Programming and SQL Guide* for failure analysis procedures.

DSNE388A INPUT DATA SET MUST BE SEQUENTIAL OR PARTITIONED

Explanation: The input data set organization is not recognized.

This message is issued by the following CSECT: DSNESM55

System Action: Processing does not begin until the panel entries are correct.

User Response: Enter a data-set-name with sequential or partitioned organization. It may be necessary to allocate a sequential or partitioned data set.

DSNE389A A MEMBER HAS BEEN SPECIFIED FOR A SEQUENTIAL DATA SET

Explanation: The user has specified a member as input to SPUFI. However, the input data set specified is sequential.

This message is issued by the following CSECT: DSNESM55

System Action: Processing does not begin until the panel entries are correct.

User Response: Enter the data-set-name without attempting to specify a member.

DSNE390A THE OUTPUT DATA SET ATTRIBUTES ARE INCONSISTENT

Explanation: This message indicates that the user made one of three possible errors in specifying block size and logical record length (LRECL):

- The user specified a record format (RECFM) of F, but the block size is not equal to the logical record length (LRECL)
- The user specified a record format (RECFM) of F, FB, or FBA, but block size is not evenly divisible by logical record length (LRECL).
- The user specified a record format (RECFM) of VB, but the block size is less than logical record length (LRECL) + 4. The user must allow 4 bytes for the block header.

This message is issued by the following CSECT: DSNESM55

User Response: Specify logical record length (LRECL) and block size appropriately on the DSNESP02 panel.

DSNE391I FREEMAIN ERROR IN MODULE module-name

Explanation: SPUFI encountered a FREEMAIN error in the specified module.

This message is issued by the following CSECT: DSNESM90

System Action: This message is logged in the ISPF log data set. No abend occurs.

User Response: Notify the system programmer or system administrator.

System Programmer Response: Print the ISPF log, and collect a dump of the TSO address space. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNE392I GETMAIN ERROR IN MODULE module-name

Explanation: SPUFI encountered a GETMAIN error in the specified module.

This message is issued by the following CSECT: DSNESM00

System Action: This message is logged in the ISPF log data set. User abend X'00C50003' is issued.

User Response: Notify the system programmer or system administrator.

System Programmer Response: Ensure that enough storage is allocated to the TSO user.

DSNE393I SPF VDELETE ERROR IN MODULE DSNESM90. ERROR CODE = flag

Explanation: An internal SPUFI error has occurred. CSECT DSNESM90 tried to delete an ISPF dialog variable that was not previously defined.

This message is issued by the following CSECT: DSNESM90

System Action: This message is logged in the ISPF log data set. No abend is issued. However, if the problem persists, notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Record the error code 'flag'. It has no user significance, but it can assist the IBM Support Center in resolving the problem.

DSNE395I UNEXPECTED RETURN CODE FROM SPF SERVICE

Explanation: A return code of 4 from ISPF DISPLAY or a return code of 8 from the ISPF editor was encountered.

This message is issued by the following CSECT: DSNESM00

System Action: The message is displayed on the SPUFI panel and logged in the ISPF log data set. No user abend is issued.

User Response: Notify the system programmer.

System Programmer Response: If a new release of ISPF is used, determine whether the above return codes are now assigned meaning by ISPF.

Problem Determination: This message may be issued if a previously unassigned (by ISPF) return code from the ISPF DISPLAY or EDIT function is encountered. If a new release of ISPF is used, determine whether the above return codes are now assigned meaning by ISPF.

DSNE396A YOU CANNOT SPECIFY DEFER WHEN LEAVING SPUFI

Explanation: You have attempted to leave SPUFI with outstanding database changes not yet committed or rolled back. You can't leave SPUFI unless a decision has been made to commit or rollback.

This message is issued by the following CSECT: DSNESM00

System Action: The system is waiting for new input to the panel.

User Response: Specify COMMIT or ROLLBACK.

DSNE415A *csect-name* **TYPE IS DATE**

Explanation: This is a SPUFI trace message. SPUFI has looked in the SQLTYPE field of the SQLDA and detected a data type of DATE.

DSNE416A *csect-name* **TYPE IS TIME**

Explanation: This is a SPUFI trace message. SPUFI has looked in the SQLTYPE field of the SQLDA and detected a data type of TIME.

DSNE417A *csect-name* **TYPE IS TIMESTAMP**

Explanation: This is a SPUFI trace message. SPUFI has looked in the SQLTYPE field of the SQLDA and detected a data type of TIMESTAMP.

DSNE457I *csect-name* **ARITHMETIC ERROR IN THE CURRENT ROW AND COLUMN**

Explanation: This is a SPUFI trace message. SPUFI has looked in the SQLDA and detected an arithmetic error. The indicator variable associated with this value contains -2.

DSNE601I SQL STATEMENTS ASSUMED TO BE BETWEEN COLUMNS nn AND nn

Explanation: This message indicates which record columns in the input data set are scanned for SQL statements. For data sets of type COBOL, columns 8 through 72 are scanned. For STANDARD data set types, if the LRECL is 79 then columns 1 through 71 are scanned, and if the LRECL is 80 then columns 1 through 72 are scanned.

This message is issued by the following CSECT: DSNESM41

System Action: This message is written to the SPUFI output data set along with other summary messages.

DSNE603E INPUT STATEMENT HAS UNBALANCED APOSTROPHES

Explanation: An opening apostrophe was detected in an input record, but the end of data set was reached before a closing apostrophe was encountered.

This message is issued by the following CSECT: DSNESM21

System Action: SPUFI processing stops. Correct the error, and start again.

User Response: A closing apostrophe was probably omitted from a literal value. Add the missing apostrophe, and execute the input file again.

DSNE604E THE SQL STATEMENT EXCEEDS THE MAXIMUM ALLOWED LENGTH

Explanation: This message indicates that the preceding SQL statement in the output data set exceeds the maximum length allowed. An SQL statement may span up to a maximum of 455 input records.

This message is issued by the following CSECT: DSNESM21

System Action: SPUFI processing stops. Correct the error, and start again.

User Response: Edit the SQL statement in question so that it resides on fewer input records.

DSNE605E THE INPUT DATA SET IS EMPTY

Explanation: The user has specified an input data set that does not contain any valid SQL statements.

This message is issued by the following CSECT: DSNESM21

System Action: SPUFI processing stops. Correct the error, and start again.

User Response: Edit SQL statements into the specified data set, or specify another input data set that contains valid SQL statements.

DSNE606E INVALID USE OF SEMI-COLON DETECTED

Explanation: A semicolon has been used improperly in an SQL input statement. Either two successive semicolons were encountered, or a series of blanks followed by a semicolon was detected. The proper use of the semicolon is to delimit the end of a valid SQL statement.

This message is issued by the following CSECT: DSNESM21

System Action: SPUFI processing stops. Correct the error, and start again.

User Response: Remove the extraneous semicolon from the input data set.

DSNE607E PREVIOUS INPUT RECORD HAS UNBALANCED SO/SI CHARACTERS

Explanation: A shift out (SO) character was detected in the previous input record with no corresponding shift in (SI) character in the record. The SO/SI characters delimit a DBCS string in the SPUFI input data set. SPUFI requires that SO/SI characters be paired within an input record.

This message is issued by the following CSECT: DSNESM21

System Action: SPUFI processing stops.

User Response: A closing SI character was probably omitted from a literal value. Add the missing SI character, and re-execute the input file.

DSNE609E INPUT STATEMENT HAS UNBALANCED QUOTES

Explanation: An opening quote (“) was detected in an input record, but a corresponding quote was not found at the end. Two sets of quotes are used to delimit a statement.

This message is issued by the following CSECT: DSNESM21

System Action: SPUFI processing stops.

User Response: A closing quote was probably omitted from a literal value. Add the missing quote, and execute the input file again.

DSNE610I NUMBER OF ROWS DISPLAYED IS nn

Explanation: Execution of an SQL SELECT statement causes one or more rows of data to be displayed. This message appears in the output data set following the returned data for a SELECT. It gives a count, 'nn', of the number of rows displayed.

This message is issued by the following CSECT: DSNESM40

System Action: Input data set processing is completed, and this message is included in the SPUFI output.

DSNE611I COLUMN HEADER FOR COLUMN NUMBER nn WAS TRUNCATED

Explanation: An SQL SELECT statement was executed, but the specified column name, identified by 'nn' in the message, was truncated. This truncation occurred either because the column name was longer than the remaining record width or because the name was longer than the user-specified maximum field length.

This message is issued by the following CSECT: DSNESM40

System Action: Input data set processing is completed, and this message is included in the SPUFI output.

User Response: If the truncation is caused by insufficient record width, use a larger LRECL for the output data set or specify fewer data columns to be returned on the SELECT statement.

If the truncation is caused by the user-specified maximum field length setting, use a larger value for this setting.

DSNE612I DATA FOR COLUMN HEADER name COLUMN NUMBER nn WAS TRUNCATED

Explanation: An SQL SELECT statement was executed, but data for the specified column name, identified by 'nn' in the message, was truncated. This truncation occurred either because the data was longer than the remaining record width or because the data was longer than the user-specified maximum field length.

This message is issued by the following CSECT: DSNESM40

System Action: Input data set processing is completed, and this message is included in the SPUFI output.

User Response: If the truncation is because of insufficient record width, use a larger LRECL for the output data set or specify fewer data columns be returned on the SELECT statement.

If the truncation is because of the user-specified maximum field length setting, use a larger value for this setting.

DSNE613I OUTPUT LRECL IS TOO SMALL TO DISPLAY THE FOLLOWING COLUMNS:

Explanation: An SQL SELECT statement was executed, but the logical record length of the output data set was not large enough to display the column names and data values of all returned columns. The columns specified following this message were not displayed because of insufficient remaining record width.

This message is issued by the following CSECT: DSNESM40

System Action: Input data set processing is completed, and this message is included in the SPUFI output.

User Response: This condition can be avoided by using a larger LRECL for the output data set or by specifying that fewer data columns be returned on the SELECT statement.

DSNE614I AUTOCOMMIT IS NO, NO CHANGES COMMITTED

Explanation: The user delayed committing or rolling back changes made during execution of the input file until later in the session. This is done by specifying an AUTOCOMMIT option of 'NO'.

This message is issued by the following CSECT: DSNESM40

System Action: Input data set processing is completed, and this message is included in the SPUFI output.

User Response: Commit or roll back these changes before ending the session.

DSNE615I NUMBER OF ROWS AFFECTED IS nn

Explanation: This message is written to the output data set following execution of an SQL UPDATE, INSERT, or DELETE statement. 'nn' in the message is a count of the number of rows that were modified as a result of executing the UPDATE, INSERT, or DELETE statement.

Note: In the case of a mass delete of a table in a segmented table space where DB2 does not access nor count the individual rows, this message will not be displayed.

This message is issued by the following CSECT: DSNESM40

System Action: Input data set processing is completed, and this message is included in the SPUFI output.

DSNE616I STATEMENT EXECUTION WAS SUCCESSFUL, SQLCODE IS number

Explanation: This message is written to the output data set following the successful execution of an SQL statement from the input data set. 'number' specifies the SQL return code for the statement. These return codes are listed in Section 2. SQL Return Codes.

This message is issued by the following CSECT: DSNESM40

System Action: Input data set processing is completed, and this message is included in the SPUFI output.

DSNE617I COMMIT PERFORMED, SQLCODE IS number

Explanation: When an input file is executed successfully and the user specified an AUTOCOMMIT option of 'YES', this message is written to the output data set to indicate the status of the COMMIT that was performed. 'number' specifies the SQL return code for the COMMIT. These return codes are listed in “Section 2. SQL Return Codes” on page 2-1.

This message is issued by the following CSECT: DSNESM40

System Action: Input data set processing is completed, and this message is included in the SPUFI output.

DSNE618I ROLLBACK PERFORMED, SQLCODE IS number

Explanation: When an error is encountered while executing a SPUFI input file, and the user specified an AUTOCOMMIT option of 'YES', this message will be written to the output data set to indicate the status of the ROLLBACK that was performed. 'number' specifies the SQL return code for the statement. These return codes are listed in “Section 2. SQL Return Codes” on page 2-1.

This message is issued by the following CSECT: DSNESM40

System Action: Input data set processing is completed, and this message is included in the SPUFI output.

DSNE620I NUMBER OF SQL STATEMENTS PROCESSED IS nn

Explanation: This message is written to the output data set after processing all SQL statements in the current input data set. The term 'nn' is a count of the number of SQL statements processed.

This message is issued by the following CSECT: DSNESM41

System Action: Input data set processing is completed, and this message is included in the SPUFI output.

DSNE621I NUMBER OF INPUT RECORDS READ IS nn

Explanation: This message is written to the output data set after processing all SQL statements in the current input data set. The term 'nn' is a count of the total number of records read from the input data set.

This message is issued by the following CSECT: DSNESM41

System Action: Input data set processing is completed, and this message is included in the SPUFI output.

DSNE622I NUMBER OF OUTPUT RECORDS WRITTEN IS nn

Explanation: This message is written to the output data set after processing all SQL statements in the current input data set. The term 'nn' is a count of the total number of records written to the output data set.

This message is issued by the following CSECT: DSNESM41

System Action: Input data set processing is completed, and this message is included in the SPUFI output.

DSNE623I SYNTAX ERROR AT RECORD xx, OFFSET xx

Explanation: A syntax error was detected in the SQL statement preceding this message in the output data set. 'xx' identifies the erroneous line number in the SQL statement, and 'yy' identifies the offset (in characters) of the error within that record.

This message is issued by the following CSECT: DSNESM40

System Action: Input data set processing is completed, and this message is included in the SPUFI output.

User Response: Correct the specified syntax error in the input data set, and execute the job again.

DSNE624I UNABLE TO LOAD ISPLINK MODULE. SPUFI PROCESSING TERMINATED

Explanation: During SPUFI initialization processing, an error was encountered attempting to LOAD the ISPF interface module, ISPLINK. This module could not be located in the LNKLST or STEPLIB library concatenation.

This message is issued by the following CSECT: DSNECP10

System Action: SPUFI processing is terminated.

User Response: Rearrange your library concatenation so that the ISPLINK module can be located. This module resides in the ISPF load library.

DSNE625I CONNECT TO LOCATION (location name) PERFORMED, SQLCODE IS number

Explanation: The SPUFI user has indicated that the SQL statements defined in the input file are to be processed by the server at the remote location specified in the CONNECT LOCATION field of the SPUFI panel.

This message appears in the output file and indicates that an SQL CONNECT request was issued by SPUFI to the specified location name. The 'number' specifies the SQL return code associated with the CONNECT request. These return codes are listed in “Section 2. SQL Return Codes” on page 2-1.

This message is issued by the following CSECT: DSNESM40

System Action: Subsequent processing of the SQL statements in the input file is based upon the successful completion

of the CONNECT request. If the request is unsuccessful, the SQL error number and all associated error messages are placed in the output file.

User Response: Respond as indicated by the SQL code returned.

DSNE626I MAXIMUM OUTPUT LINES FOR SELECT STATEMENT REACHED (number), PROCESSING FOR CURRENT SELECT STATEMENT TERMINATED

Explanation: The maximum number of output lines to be displayed for a SELECT statement was reached. Processing of the current SELECT statement is terminated. The maximum number to display is specified by the SPUFI user on the CURRENT SPUFI DEFAULTS panel.

This message appears in the SPUFI output file.

This message is issued by the following CSECT: DSNESM20

System Action: Processing of subsequent SQL statements in the input file continues.

User Response: If the number of lines displayed is insufficient, you can increase the maximum number of lines to be displayed for SELECT statements on the CURRENT SPUFI DEFAULTS panel and re-execute the SELECT statement.

DSNE800A NO DEFAULT VALUES WERE CHANGED. PRESS ENTER TO CONTINUE

Explanation: The user left panel DSNESP02 without changing it. This panel contains all the defaults that can be modified by the user.

This message is issued by the following CSECT: DSNESM00

System Action: This message is presented on the SPUFI panel DSNESP01. SPUFI waits for the next user input.

User Response: Press 'ENTER' if you want to continue.

DSNE803A INPUT FILE WAS NOT CHANGED. PRESS ENTER TO CONTINUE

Explanation: The user has exited from the ISPF editor without modifying the input data set.

This message is issued by the following CSECT: DSNESM00

System Action: The system waits for the next user input.

User Response: Press 'ENTER' if you want to continue. The SPUFI panel variable settings can be changed at this point.

DSNE804A TO CONTINUE, C (COMMIT) OR R (ROLLBACK) MUST BE SPECIFIED

Explanation: The user has specified the AUTOCOMMIT=NO option and now wants either to exit or to switch to another DB2 subsystem with outstanding work uncommitted on the current DB2 subsystem.

This message is issued by the following CSECT: DSNESM00

System Action: DB2 waits for the user to specify either the COMMIT (C) or the ROLLBACK (R) option.

User Response: Enter 'C' or 'R' to continue.

DSNE808A EDIT SESSION HAS COMPLETED. PRESS ENTER TO CONTINUE.

Explanation: The user has exited from the ISPF editor.

This message is issued by the following CSECT: DSNESM00

System Action: SPUFI waits form the next user input.

User Response: Press 'Enter' if you want to continue. Press 'END' if you want to terminate your SPUFI session. The SPUFI panel variable settings can be changed at this point.

DSNE901I EXECUTION COMPLETE

Explanation: Execution of a subcommand has successfully completed.

This message is issued by the following CSECT: DSNECP14

System Action: The TSO attachment facility is ready for more input.

DSNE903I WARNING, DECLARATION HAS SAME NAME AS TABLE table-name

Explanation: A DCLGEN subcommand has a 'STRUCTURE' parameter that is the same as the 'table name' specified in the message. The requested declaration has been created, but this could cause conflicts with internal names.

This message is issued by the following CSECTs: DSNECP61, DSNECP62

System Action: DCLGEN execution continues.

User Response: Choose a different 'STRUCTURE' parameter.

DSNE904I EXECUTION COMPLETE, MEMBER member-name REPLACED

Explanation: A DCLGEN subcommand executed successfully, replacing the 'member-name' specified in the message.

This message is issued by the following CSECT: DSNECP14

System Action: The TSO attachment facility is ready for more input.

DSNE905I EXECUTION COMPLETE, MEMBER member-name ADDED

Explanation: A DCLGEN subcommand executed successfully, adding the 'member-name' specified in the message to the data set specified in the DCLGEN subcommand.

This message is issued by the following CSECT: DSNECP14

System Action: The TSO attachment facility is ready for more input.

DSNE908E *csect-name* **INVALID USE OF** *parameter* **IN PARAMETER LIST OF KEYWORD** *keyword***.**

Explanation: An invalid parameter was specified in the parameter list of the specified keyword.

Severity: 8

System Action: Subcommand processing is terminated. The TSO attachment facility is ready for more input.

User Response: Correct the parameter list in error, and resubmit the job.

DSNE909E *csectname* **WARNING, DBCSSYMBOL KEYWORD IS INVALID WITH LANGUAGE** *language* **KEYWORD IGNORED**

Explanation: You specified the DBCSSYMBOL keyword in your DCLGEN invocation, but your LANGUAGE keyword value was not COB2. DBCSSYMBOL only applies to COB2 PICTURE clauses. DCLGEN will ignore this keyword.

System Action: DCLGEN processing continues.

User Response: In the future, do not specify the DBCSSYMBOL keyword unless the LANGUAGE keyword value is COB2.

DSNE910E *csectname* **WARNING, THE OWNER KEYWORD WAS SPECIFIED WITH A QUALIFIED TABLE NAME. OWNER KEYWORD IGNORED**

Explanation: You specified both the OWNER keyword and a qualified table name for the TABLE keyword in your DCLGEN invocation. The table qualifier will be used as the table owner, and the OWNER keyword will be ignored.

System Action: DCLGEN processing continues.

User Response: In the future, specify either a qualified table name for the TABLE keyword, or an unqualified table name for the TABLE keyword along with the OWNER keyword.

DSNE920E member-name ALREADY EXISTS, SPECIFY ACTION(REPLACE) TO REPLACE

Explanation: The DCLGEN user tried to overwrite an old declaration with a new one without specifying REPLACE on the 'ACTION' parameter.

This message is issued by the following CSECT: DSNECP69

System Action: The TSO attachment facility is ready for more input.

User Response: Change the 'ACTION' parameter to REPLACE (if that's actually what you want to do), and resubmit the command.

DSNE921E REQUIRED PARAMETER table-parameter IS MISSING

Explanation: Your DCLGEN subcommand was missing the required TABLE parameter.

This message is issued by the following CSECT: DSNECP24

System Action: Your DCLGEN subcommand was not processed. The DSN command processor issued a return code of 8. DSN is ready for more input.

User Response: Resubmit the DCLGEN subcommand with a TABLE parameter.

DSNE922E TABLE NAME QUALIFIER OF qualifier IS TOO LONG. CANNOT EXCEED 8 CHARACTERS IN LENGTH

Explanation: DCLGEN detected an invalid TABLE parameter. The table name qualifier (the left portion of the table name) was too long.

This message is issued by the following CSECT: DSNECP24

System Action: Your DCLGEN subcommand was not processed. The DSN command processor issued a return code of 8. DSN is ready for more input.

User Response: Resubmit the DCLGEN subcommand with a shorter table name qualifier.

DSNE923E CSECT *csect-name* **FOUND AN UNRECOGNIZED LANGUAGE** *unknown*

Explanation: This is a DCLGEN subsystem error, not a user error. The language parameter 'unknown' is not known to the subsystem.

This message is issued by the following CSECTs: DSNECP14, DSNECP60

System Action: The TSO attachment facility is ready for more input.

User Response: Report the problem to the system programmer.

System Programmer Response: Re-create the problem with DSN tracing turned on. Collect the trace stream in the DSNTRACE data set. Use the ABEND subcommand of the DSN command processor to collect a dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNE924E PARSE FAILED IN CSECT csect-name PARAMETER parm, FLAG flag

Explanation: This is a DB2 subsystem error, not a user error. The 'PARM' parameter was not correctly parsed. The flag specified was detected as an inappropriate value in a parse results field.

This message is issued by the following CSECT:

DSNECP21	DSNECP24	DSNECP26	DSNECP40
DSNECP41	DSNECP42	DSNECP44	DSNECP45
DSNECP46			

System Action: The TSO attachment facility is ready for more input.

User Response: Report the problem to the system programmer.

System Programmer Response: Re-create the problem with DSN tracing turned on. Collect the trace stream in the DSNTRACE data set. Use the ABEND subcommand of the DSN command processor to collect a dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNE925E BUFFER OVERFLOW IN CSECT csect-name WHILE WRITING string

Explanation: This is a DCLGEN subsystem error. CSECT 'csect-name' detected a buffer overflow condition while attempting to write 'string'.

This message is issued by the following CSECT: DSNECP67

System Action: The TSO attachment facility is ready for more input.

User Response: Notify the system programmer.

System Programmer Response: Re-create the problem with DSN tracing turned on. Collect the trace stream in the DSNTRACE data set. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNE926E COMMAND REJECTED, command NOT SUPPORTED UNDER subsystem

Explanation: The user entered a TSO TIME or TEST command. These are not supported by DSN or DB2I.

This message is issued by the following CSECT: DSNECP31

System Action: The user should leave DSN or DB2I, return to TSO, and retry the command. DSN can be run under TSO TEST. The TSO attachment facility is ready for more input.

User Response: Enter the DSN subcommand, or leave DSN to execute the requested command.

DSNE927E RUN SUBCOMMANDS REQUIRE (1)PROGRAM PARM OR (2)PLAN AND CP PARMS

Explanation: RUN subcommands may contain (1) the 'PROGRAM' parameter and, optionally, the 'PLAN' parameter or (2) the 'PLAN' and command processor ('CP') parameters. Combinations of (1) and (2) are not allowed.

This message is issued by the following CSECT: DSNECP26

System Action: The TSO attachment facility is ready for more input.

User Response: Correct the subcommand, and resubmit the job.

DSNE928E RUN SUBCOMMANDS CANNOT HAVE A PROGRAM PARM AND A CP PARM

Explanation: A RUN subcommand cannot contain both the 'PROGRAM' and command processor ('CP') parameters. The subcommand should be resubmitted with only one of the parameters.

This message is issued by the following CSECT: DSNECP26

System Action: The TSO attachment facility is ready for more input.

User Response: Correct the subcommand, and resubmit the job.

DSNE929E TABLE NAME LOCATION OF (location-name) IS TOO LONG. CANNOT EXCEED 16 CHARACTERS IN LENGTH.

Explanation: DCLGEN detected an invalid AT(location) keyword parameter. The specified location name is too long.

This message is issued by the following CSECT: DSNECP24

System Action: Your DCLGEN subcommand was not processed. The DSN command processor issues a return code of 8. The DSN is ready for more input.

User Response: Resubmit the DCLGEN subcommand specifying a location name that does not exceed 16 characters.

DSNE930E TABLE NAME OF table-name MUST BE QUALIFIED WHEN SPECIFIED WITH LOCATION OF location-name

Explanation: DCLGEN detected an invalid TABLE keyword parameter. You must specify a qualified table name with the AT (location) keyword.

This message is issued by the following CSECT: DSNECP24

System Action: Your DCLGEN subcommand was not processed. The DSN command processor issues a return code of 8. DSN is ready for more input.

User Response: Specify a qualified table name and resubmit the DCLGEN command.

DSNE931E *csect-name keyword-name (parameter_value)* **CONTAINS AN INVALID SYMBOL (symbol)**

Explanation: An invalid 'symbol' (symbol) was specified in the 'parameter_value' associated with the specified 'keyword-name'.

Severity: 8

System Action: Subcommand processing is terminated. The TSO attachment facility is ready for more input.

User Response: Correct the keyword 'parameter_value' in error, and resubmit the job.

DSNE932I WARNING, ONLY IBM SUPPLIED names SHOULD BEGIN WITH DSN

Explanation: The user has issued a BIND, REBIND, or FREE subcommand, using a name or id that begins with DSN.

This message is issued by the following CSECTs:

DSNECP40 DSNECP41 DSNECP42 DSNECP44
DSNECP45 DSNECP46

System Action: Processing continues.

User Response: In the future, do not use plan-names, collection-ids, or package -ids that begin with DSN. It would be a good idea to FREE the plan or package you just created and to BIND again with a new plan-name, collection-id, or package-id.

DSNE935I ... IS THE DCLGEN COMMAND THAT MADE THE FOLLOWING STATEMENTS

Explanation: This message is a part of normal DCLGEN output. It identifies the DCLGEN command that produced the declaration of which it is a part.

This message is issued by the following CSECT: DSNECP14

System Action: This message is included in the DCLGEN output.

DSNE936I THE NUMBER OF COLUMNS DESCRIBED BY THIS DECLARATION IS nnn

Explanation: This message is a part of normal DCLGEN output. It tells how many columns were in the table that was named in the DCLGEN command.

This message is issued by the following CSECT: DSNECP14

System Action: This message is included in the DCLGEN output.

DSNE937I COBOL DECLARATION FOR TABLE table-name

Explanation: This message is a part of normal DCLGEN output. It tells the name of the table for which the declaration was created.

This message is issued by the following CSECT: DSNECP61

System Action: This message is included in the DCLGEN output.

DSNE938I PLI DECLARATION FOR TABLE table-name

Explanation: This message is a part of normal DCLGEN output. It tells the name of the table for which the declaration was created.

This message is issued by the following CSECT: DSNECP62

System Action: This message is included in the DCLGEN output.

DSNE939E *csect-name* **THE COMBINATION ACQUIRE(ALLOCATE) AND RELEASE(COMMIT) IS NOT ALLOWED**

Explanation: The BIND or REBIND subcommand was submitted with conflicting parameters. You cannot specify ACQUIRE(ALLOCATE) and RELEASE(COMMIT) on the same subcommand.

System Action: The subcommand is terminated and the DSN command processor reissues the DSN prompt to allow another subcommand to be entered.

User Response: Enter the corrected subcommand. Refer to *Command Reference* for additional information about the BIND and REBIND subcommands.

DSNE940E DEFER(PREPARE) INVALID WITH NODEFER(PREPARE)

Explanation: The BIND or REBIND subcommand was submitted with conflicting parameters. You cannot specify DEFER(PREPARE) and NODEFER(PREPARE) on the same subcommand because these actions conflict.

This message is issued by the following CSECTs: DSNECP40, DSNECP41

System Action: The subcommand is terminated and the DSN command processor reissues the DSN prompt to allow another subcommand to be entered.

User Response: Enter the corrected subcommand. Refer to *Command Reference* for additional information regarding the BIND and REBIND subcommands.

DSNE941I DSNBIND IS A RESERVED PLAN NAME

Explanation: This message is generated when the plan name is 'DSNBIND' in a BIND statement.

This message is issued by the following CSECT: DSNECP40

System Action: Subcommand processing is terminated. The TSO attachment facility is ready for more input.

User Response: Change the plan-name and resubmit the job.

DSNE942E *csect-name* **REMOTE CONNECTION NAME** *(parameter_value)* **HAS INVALID FORMAT**

Explanation: The REMOTE connection name 'parameter_value' contains a < or > character in the starting or ending position of the parameter, but the parameter value is not bracketed by both characters. This message is also generated if the first character of the connection name is not an alphabetic character.

If the LU name format of the REMOTE keyword is to be used, the name must be specified as <LU_name>.

Severity: 8

System Action: Subcommand processing is terminated. DSN command processor reissues the DSN prompt to allow another subcommand to be entered.

User Response: Correct the keyword 'parameter_value' in error, and resubmit the job. Refer to *Command Reference* for additional information about the specification of connection names for the REMOTE keyword.

DSNE943E *csect-name* **REMOTE CONNECTION NAME** *(parameter_value)* **CANNOT EXCEED** *(length_value)* **CHARACTERS IN LENGTH**

Explanation: The REMOTE connection name 'parameter_value' specified is greater than the length 'length_value' permitted for the REMOTE keyword.

This message is issued if the REMOTE location name format exceeds 16 characters, or the LU name format (<LU name>) exceeds 10 characters in length.

Severity: 8

System Action: Subcommand processing is terminated. DSN command processor reissues the DSN prompt to allow another subcommand to be entered.

User Response: Correct the keyword 'parameter_value' in error and resubmit the job. Refer to *Command Reference* for additional information about the specification of connection names for the REMOTE keyword.

DSNE944I WARNING, BECAUSE YOUR TABLE OR COLUMN NAMES CONTAIN LOWER CASE OR NON-ALPHABETIC CHARACTERS, YOU WILL NEED TO USE THE SQL (NOT PL/I) INCLUDE STATEMENT TO INCLUDE DCLGEN OUTPUT INTO YOUR PROGRAM

Explanation: DCLGEN had to wrap your table or column name(s) in quotes so DB2 could process them. Quotes are not recognized by the PL/I compiler. To avoid compilation errors, use the SQL INCLUDE statement ('EXEC SQL INCLUDE membername') to merge the DCLGEN output with your source program.

Refer to Chapter 6 of *SQL Reference* for more information about the SQL INCLUDE statement.

This message is issued by the following CSECT: DSNECP60.

System Action: DCLGEN processing continues.

User Response: If you have not coded the SQL INCLUDE, do so before the next compile.

DSNE947I QUOTE PARAMETER IS ONLY VALID WITH COBOL. IT HAS BEEN CHANGED TO APOST

Explanation: You specified the DCLGEN QUOTE parameter and a non-COBOL language parameter. This combination is not valid. The QUOTE parameter was specified as either a parameter on the DCLGEN subcommand or a default set for your site at DB2 installation time.

The DCLGEN processor changed the QUOTE setting (for this run) to APOST.

This message is issued by the following CSECT: DSNECP24.

System Action: DCLGEN processing continues and should produce valid output.

User Response: If you used QUOTE on the DCLGEN command, you may want to change it to APOST before submitting it again.

DSNE948I *csect-id* **FURTHER** *subcommand* **PROCESSING WILL NOT BE ATTEMPTED**

Explanation: A DSN command processor subcommand (indicated in the message) has encountered an error which stopped DSN from processing this subcommand. The subcommand will not complete normally. This message is accompanied by other messages explaining the exact nature of the problem.

This message is issued by the following CSECT: DSNECP24

System Action: Subcommand processing terminates. The DSN prompt is reissued, indicating DSN is ready for another subcommand.

User Response: Read the accompanying messages for help in deciding what to do next.

DSNE949E COMMIT PROCESSING ABNORMAL TERMINATION, REASON CODE reason_code

Explanation: The DSN command processor has initiated a 'prepare to commit' request in DB2. The request is rejected when DB2 cannot commit the work performed

This message is issued by the following CSECT: DSNECP18

System Action: Commit processing is terminated.

User Response: Examine the reason code associated with this message, and respond as indicated before resubmitting the job.

Problem Determination: Reference the associated reason code to determine why the 'prepare to commit' was not successful.

DSNE950E DCLGEN DOES NOT SUPPORT THE lang LANGUAGE

Explanation: A DCLGEN user attempted to specify a LANGUAGE parameter, 'lang', that DCLGEN does not support.

This message is issued by the following CSECT: DSNECP24

System Action: DCLGEN processing terminates.

User Response: Correct the LANGUAGE parameter and resubmit the DCLGEN subcommand.

DSNE952I C DECLARATION FOR TABLE table-name

Explanation: This message is a part of normal DCLGEN output. It tells the name of the table for which the declaration was created.

This message is issued by CSECT DSNECP63.

System Action: This message is included in the DCGLEN output.

DSNE953I *csect-name* **PRECISION OF DECIMAL COLUMN** *colname* **EXCEEDS THE MAXIMUM PRECISION FOR THE** *lang* **LANGUAGE.**

Explanation: DCLGEN was building a COBOL or PL/I language declaration for a table when it encountered a decimal column with a precision greater than the precision supported by the language.

System Action: DCLGEN set the return code to 4 and processed the rest of the table.

User Response: This is a warning. Be aware that the declaration for column 'colname' causes a compiler error. You must edit the declaration before including it in an application program.

DSNE954I *csect-name* **USE OF THE DCLGEN COLSUFFIX(YES) OPTION WILL RESULT IN A MIXED FIELD NAME FOR COLUMN** *colname***. THE** *lang* **LANGUAGE DOES NOT SUPPORT MIXED FIELD NAMES.**

Explanation: The COLSUFFIX(YES) option and a double-byte NAMES prefix were specified in a DCLGEN invocation, but column *colname* contains single-byte characters. This combination would result in a generated field name with a mixture of double-byte and single-byte characters, but the *lang* language does not support mixed field names.

System Action: DCLGEN set the return code to 4 and generated the field name as requested.

User Response: This is a warning. Be aware that the declaration for column *colname* causes a compiler error. You must edit the declaration before including it in an application program.

DSNE955I *csect-name* **COLSUFFIX(YES) WAS SPECIFIED WITHOUT A NAMES PREFIX. COLUMN NAMES WILL BE USED FOR FIELD NAMES.**

Explanation: When COLSUFFIX(YES) is specified in a DCLGEN invocation, DCLGEN generates field names by concatenating the NAMES prefix with the column names. However, no NAMES prefix was specified.

System Action: DCLGEN set the return code to 4 and used the column names as field names.

User Response: This is a warning. Specify a NAMES prefix when you specify COLSUFFIX(YES).

DSNE956A A FIELD NAME PREFIX MUST BE SPECIFIED WHEN COLUMN SUFFIX VALUE IS YES.

Explanation: When YES is specified for the COLUMN SUFFIX field on the DCLGEN panel, DCLGEN generates field names by concatenating the value in the FIELD NAME PREFIX field with the column names. However, no value was specified for FIELD NAME PREFIX.

This message is issued by the following panel: DSNEDP01

System Action: The DCLGEN panel generated this error message.

User Response: Specify a FIELD NAME PREFIX value, or change the COLUMN SUFFIX value to NO.

DSNE960E PARAMETER STRING EXCEEDS ALLOWABLE LIMIT OF 100 (DECIMAL) CHARACTERS

Explanation: The PARMS option parameter-string of the RUN subcommand cannot exceed 100 (decimal) characters in length.

This message is issued by the following CSECT: DSNECP26

System Action: The TSO attachment facility is ready for more input.

User Response: Correct the PARMS option and resubmit the job.

DSNE964E *csect-name* **INVALID SYNTAX FOR** *keyword* **KEYWORD PARAMETER** *parameter*

Explanation: A parameter that does not follow DB2 naming conventions was specified for *keyword*.

System Action: Subcommand processing is terminated. The DSN command processor reissues the DSN prompt to allow you to enter another subcommand.

User Response: Correct the keyword parameter value in error, and resubmit the command. Refer to *Command Reference* for additional information about the specification of a package name and the REBIND/BIND PACKAGE/PLAN or FREE PACKAGE subcommand.

DSNE965E *parameter_value* **IS NOT A VALID** *keyword* **KEYWORD PARAMETER**

Explanation: The *parameter_value* is not a valid parameter value for the keyword.

This message is issued by the following CSECTs:

DSNECP50 DSNECP51 DSNECP54 DSNECP55

System Action: Subcommand processing terminates. The DSN command processor reissues the DSN prompt to allow you to enter another subcommand.

User Response: Enter the corrected subcommand. Refer to *Command Reference* for additional information about the parameter values supported on the keyword.

DSNE966E connection_type KEYWORD OMITTED FROM THE ENABLE|DISABLE DECLARATION

Explanation: The 'connection_type' keyword was not specified in either the ENABLE or DISABLE keywords and is required if connection-names are specified for the 'connection_type'.

This message is issued by the following CSECTs:

DSNECP40 DSNECP41 DSNECP44 DSNECP45

Severity: 8

System Action: Subcommand processing is terminated. DSN command processor reissues the DSN prompt to allow you to enter another subcommand.

User Response: Enter the corrected subcommand. Refer to *Command Reference* for additional information about the connection type parameter values supported on the ENABLE and DISABLE keywords.

DSNE967E keyword_name KEYWORD CANNOT BE SPECIFIED MORE THAN ONCE PER RUN

Explanation: Either the BIND PACKAGE MEMBER or LIBRARY keywords specified more than one parameter value. Only one member or library name is permitted.

This message is issued by the following CSECT: DSNECP44

Severity: 8

System Action: Subcommand processing is terminated. DSN command processor will reissue the DSN prompt to allow another subcommand to be entered.

User Response: Enter the corrected subcommand. Refer to *Command Reference* for additional information regarding the BIND PACKAGE and BIND PLAN subcommands.

DSNE969E *csect-name keyword1* **IS MUTUALLY EXCLUSIVE WITH** *keyword2*

Explanation: Both the PKLIST and NOPKLIST keywords, cannot be specified on one invocation of the REBIND PLAN subcommand. Both the ENABLE and DISABLE keywords cannot be specified on one invocation of the BIND/REBIND PLAN/PACKAGE subcommand.

Severity: 8

System Action: Subcommand processing is terminated. DSN command processor will reissue the DSN prompt to allow another subcommand to be entered.

User Response: Enter the corrected subcommand. Refer to *Command Reference* for additional information regarding the REBIND PLAN subcommand.

DSNE970E EITHER MEMBER OR PKLIST MUST BE SPECIFIED, BOTH ARE ALSO ALLOWED

Explanation: The BIND PLAN subcommand requires either the MEMBER or PKLIST keyword, and neither was specified. Either keyword or both may be specified.

Severity: 8

This message is issued by the following CSECT: DSNECP40

System Action: Subcommand processing is terminated. DSN command processor will reissue the DSN prompt to allow another subcommand to be entered.

User Response: Enter the corrected subcommand. Refer to *Command Reference* for additional information regarding the BIND PLAN subcommand.

DSNE971E EITHER MEMBER OR COPY BUT NOT BOTH MUST BE SPECIFIED

Explanation: The BIND PACKAGE subcommand requires either the MEMBER or COPY keyword; both are not allowed on the same subcommand invocation.

Severity: 8

This message is issued by the following CSECT: DSNECP44

System Action: Subcommand processing is terminated and the DSN command processor will reissue the DSN prompt to allow another subcommand to be entered.

User Response: Enter the corrected subcommand. Refer to *Command Reference* for additional information regarding the BIND PACKAGE subcommand.

DSNE974E *csect-name keyword1* **KEYWORD IS INVALID WITH** *keyword2* **KEYWORD.**

Explanation: The keyword2 should not be specified with keyword1.

System Action: Subcommand processing is terminated. The DSN command processor reissues the DSN prompt to allow another subcommand to be entered.

User Response: Modify one of the keywords on the command and resubmit the job. Refer to *Command Reference* for additional information about the BIND PACKAGE/PLAN subcommands.

DSNE975E *csect-name keyword* **KEYWORD IS ONLY VALID WHEN COPY KEYWORD IS PRESENT**

Explanation: A keyword was issued that may only be specified in conjunction with the COPY keyword.

keyword COPYVER or OPTIONS

Severity: 8

System Action: Subcommand processing is terminated. The DSN command processor will reissue the DSN prompt to allow another subcommand to be entered.

User Response: Enter the corrected subcommand. Refer to *Command Reference* for additional information regarding the BIND PACKAGE subcommand.

DSNE976E LIBRARY KEYWORD IS ONLY VALID WHEN MEMBER KEYWORD IS PRESENT

Explanation: The LIBRARY keyword may only be specified in conjunction with the MEMBER keyword.

This message is issued by the following CSECT: DSNECP44

Severity: 8

System Action: Subcommand processing is terminated. The DSN command processor will reissue the DSN prompt to allow another subcommand to be entered.

User Response: Enter the corrected subcommand. Refer to *Command Reference* for additional information regarding the BIND PACKAGE subcommand.

DSNE999 INVALID SQL RETURN CODE

Explanation: The number you selected is not a valid SQL return code.

This message is issued by panel: DSN4SRC

User Response: Check the number and enter it again.

DSNF... Messages

DSNF001I MESSAGE GENERATOR INITIALIZATION PARAMETERS NOT FOUND. DEFAULTS ASSUMED

Explanation: The message generator was unable to access the routing code initialization parameter defined by the DSN6SYSP macro. Default values defined by that macro are assumed.

This message is issued by the following CSECT: DSNFMGIN

System Action: Subsystem initialization continues.

Operator Response: Notify the system programmer.

System Programmer Response: It might be necessary to change the DSN6SYSP macro and replace the DSN6SYSP member of the DSNIPARM directory. Refer to Section 2 of *Installation Guide* for details of this process.

DSNF700I *csect-name message-id* **HAS BEEN ISSUED**

Explanation: An unsuccessful attempt has been made to issue the message 'message-id'. This message is issued only if the requested message could not be found in the DB2 message directory.

System Action: The system proceeds as though the requested message had been issued.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to this manual for actual message text. You need the message number ('message-id'). If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

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DSNH... Messages

Message Line Numbers

The line number *nnnn* in the following compiler messages is generated by assigning sequential numbers to the original source. The numbers are printed on the SQL precompiler source listing (if the SOURCE option is specified to the precompiler).

'COL *cc*' in the messages identifies the source column in which the condition was detected. This is usually the location of the column containing the first character of the associated source token. However, if the precompiler cannot determine this location, it is the beginning of the statement. Because the detected error might be similar to a valid, but different, construction, the SQL parsing might indicate the wrong location for the error.

Message Severity Codes

One of the characters I, W, E, S, or U is shown at the beginning of each precompiler message as an aid to the programmer. These characters indicate the severity level as follows:

I	0	Informational
W	4	Warning
E	8	Error
S	12	Severe error
U	16	Unrecoverable error

When unsupported non-DB2 statements are detected during SQL(ALL) precompilation, the return code will be forced to 4 if the return code was 8, and no host-related errors were detected. This is done so that the application can proceed with the compilation and link-edit steps. This allows the syntax checking to be delayed until bind. If a severity 8 precompiler error message is not a host-related error, the precompiler treats the error as a warning and place a W instead of an E in the precompiler output listing. In this instance, the precompiler also issues DSNH049I to indicate that the actual return code 8 from the precompiler was changed to 4.

The following precompiler messages with severity levels of 8 are not changed from errors to warnings when SQL(ALL) is in effect:

DSNH051I
DSNH080I
DSNH290I
DSNH291I
DSNH292I
DSNH312I
DSNH313I
DSNH314I
DSNH504I

Source Tokens in Messages

Tokens from your source program do not always appear in messages exactly as they appear in your program. For example, leading zeros are removed from integer tokens.

DSNH003I S *csectname* **FILE** *ddname* **PARAMETERS INCORRECT**

Explanation: The file *ddname* has invalid or incorrect parameters, such as logical record length.

Severity: 12 (severe error)

System Action: The precompiler is terminated.

User Response: Correct the data set or library parameters.

DSNH004I S *csectname type* **COULD NOT BE FOUND**

Explanation: The precompiler could not find the indicated type of statement in the application program source. This message is only issued for HOST(COBOL) and HOST(COB2). The *type* is DATA DIVISION, WORKING-STORAGE SECTION, or PROCEDURE DIVISION. This error can cause other errors.

Severity: 12 (severe error)

System Action: Processing continues. Additional errors might result.

User Response: Ensure that the host language statement in your application program is correct and that the statement is present within the proper margins.

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DSNH005I U *csectname* **FILE** *ddname* **NO MEMBER NAME SPECIFIED**

Explanation: The *ddname* must refer to a partitioned data set, and the member name must be specified in the allocation. This helps to prevent accidental erasure of the DBRM library.

Severity: 16 (unrecoverable error)

System Action: The precompiler is terminated.

User Response: Correct the JCL or TSO allocate command to specify a member name.

DSNH006I U *csectname* **FILE** *ddname* **COULD NOT BE OPENED**

Explanation: The file identified in the message is required, but it could not be opened.

Severity: 16 (unrecoverable error)

System Action: The precompiler is terminated.

User Response: Ensure that the file is present in your JCL.

System Programmer Response: Ensure that the SYSIN data is provided. Also ensure that SYSLIB is defined if the application program contains SQL INCLUDE statements.

DSNH007I E *csectname* **LINE** *nnnn* **COL** *cc* **ILLEGAL CHARACTER IGNORED: '***c***' ('***hh***'X)**

Explanation: The character identified in the message as *c* is not permitted. The hexadecimal representation for the character is *hh*.

Severity: 8 (error)

System Action: The character is ignored.

User Response: Correct the character. It might need to be within quotation marks or apostrophes.

DSNH008I S *csectname* **LINE** *nnnn* **COL** *cc* **NESTED INCLUDE NOT SUPPORTED**

Explanation: While processing an INCLUDE, another nested INCLUDE statement was encountered.

Severity: 12 (severe error)

System Action: The nested INCLUDE statement is ignored.

User Response: Remove the nested INCLUDE statements; they are not allowed in an included file. The DB2 precompiler permits only one level of INCLUDE statements.

DSNH009I S *csectname* **LINE** *nnnn* **COL** *cc* **MEMBER** *name* **COULD NOT BE INCLUDED**

Explanation: The identified member name was not found or could not be read.

Severity: 12 (severe error)

System Action: Processing continues without the data from that member.

User Response: Ensure that the member is in the library and that its name is spelled correctly. Check and correct any JCL errors. They are likely to cause other errors. Ensure that the data set and library parameters are correct.

DSNH010I S *csectname* **LINE** *nnnn* **COL** *cc* **UNTERMINATED STRING CONSTANT BEGINNING** *text*

Explanation: The constant identified in the message as '*text*' is not terminated properly.

Severity: 12 (severe error)

System Action: The string is treated as if it were terminated by the end of file.

User Response: Terminate the string constant. Check for and correct any missing or extra quotation marks and apostrophes. These errors are likely to cause others. Some statements were probably missed because of missing or extra string delimiters.

DSNH011I S *csectname* **LINE** *nnnn* **COL** *cc* **UNTERMINATED COMMENT**

Explanation: A comment is not terminated properly. This message is only issued for HOST(PLI) and HOST(C).

Severity: 12 (severe error)

System Action: The string is treated as if it were terminated by the end of file.

User Response: Ensure that the comment terminator is typed properly and that it is within the specified margins. This error is likely to cause others. Some statements were probably missed because of the missing comment terminator.

DSNH012I W *csectname* **LINE** *nnnn* **COL** *cc* **INVALID CONTINUATION**

Explanation: The continuation does not follow the host language rules.

Severity: 4 (warning)

System Action: Processing continues. Additional errors might result.

User Response: Follow the host language continuation rules and embedded SQL continuation rules. Check the margin option. This error is most common in assembler language in cases where a continuation begins before the continuation column (the continuation column is column 16 by default).

DSNH013I E *csectname* **LINE** *nnnn* **COL** *cc* **SQL STATEMENT FOUND OTHER THAN IN THE FIRST PROGRAM (OR MAIN PROGRAM)**

Explanation: This message is for VS COBOL II only. If any SQL statement is found in the source after the first program in a BATCH COMPILE or the end of the main program of a nested program, this message is issued.

Severity: 8 (error)

System Action: The precompiler is terminated.

User Response: Move up the SQL statement and corresponding host variable declaration to the main program or to the first program and resubmit the job.

DSNH014I S *csectname* **LINE** *nnnn* **COL** *cc* **SQL STATEMENT IS FOUND IN AN INAPPROPRIATE PLACE**

Explanation: If any SQL statement is found in the COBOL DECLARATIVES section, this message is issued.

Severity: 12 (severe error)

System Action: Processing continues. Additional errors might result.

User Response: Move the SQL statement out of the COBOL DECLARATIVES section and resubmit the job.

DSNH016I E *csectname* **LINE** *nnnn* **COL** *cc token* **REQUIRED**

Explanation: The required character or keyword identified as *token* is missing.

Severity: 8 (error)

System Action: The token is assumed to be present in order to continue checking the statement syntax.

User Response: Correct the SQL statement. Determine if you skipped either this keyword or another keyword earlier in the SQL statement. The assumed token is printed in the SYSTEM error message. This token might not be what you intended, even though it is the only symbol allowed in the clause at this point.

DSNH019I W *csectname* **OPTION: INVALID OPTION** *option*

Explanation: The identified option was requested, but it is not a precompiler option.

Severity: 4 (warning)

System Action: The option is ignored.

User Response: Check the valid precompiler options to determine if your spelling is correct for this option. This problem might cause additional errors if the APOST, APOSTSQL, COMMA, HOST, MARGINS, QUOTESQL, or TWOPASS option is needed but not specified. The other options are either defaults or affect only the listing. Correct the problem and run the precompile again.

DSNH021I W *csectname* **OPTION: SUBOPTION NOT PERMITTED WITH OPTION** *option*

Explanation: The identified option cannot have suboptions, but one or more were specified.

Severity: 4 (warning)

System Action: The suboptions are ignored.

User Response: None is required. However, you should remove the suboption.

DSNH022I W *csectname* **OPTION: UNMATCHED ')' TAKEN AS ','**

Explanation: An unmatched ending parenthesis was found before the end of the option string.

Severity: 4 (warning)

System Action: The parenthesis is assumed to be a comma.

User Response: Balance the parentheses.

DSNH023I W *csectname* **OPTION: SUBOPTION MISSING FOR OPTION** *option*

Explanation: The specified option requires a suboption, but one was not provided.

Severity: 4 (warning)

System Action: The option is ignored.

User Response: Provide a suboption or remove the option. This problem might cause additional errors if the HOST or MARGINS option is needed but not specified. The other options are either defaults or affect only the listing. Correct the problem and run the precompile again.

DSNH024I W *csectname* **OPTION: SUBOPTION** *suboption* **INVALID FOR OPTION** *option*

Explanation: The identified suboption is not allowed for the option specified.

Severity: 4 (warning)

System Action: The entire option is usually ignored.

User Response: Refer to the 'options used' list in the precompiler output listing to see if the option was used. Remove the suboption.

DSNH025I W *csectname* **OPTION: EXCESSIVE SUBOPTIONS FOR OPTION** *option*

Explanation: Too many suboptions were given for the identified option.

Severity: 4 (warning)

System Action: The excess suboptions are ignored.

User Response: Remove excess suboptions.

DSNH026I W *csectname* **OPTION: INVALID MARGINS FOR HOST LANGUAGE**

Explanation: The host language does not permit the specified margins.

Severity: 4 (warning)

System Action: The MARGINS option is ignored.

User Response: Ensure that the source statements are within the proper margins and that the margins are specified correctly. The margins for COBOL must be 8, 72. The margins for FORTRAN must be 1, 72.

DSNH027I W *csectname* **SUBOPTION** *suboption* **TOO LONG, TRUNCATED AFTER** *numofchar* **CHARS**

Explanation: The version ID is greater than *numofchar* bytes long. The maximum length for the version ID is 64 bytes.

Severity: 4 (warning)

System Action: The option is honored, but the version ID is truncated after 64 bytes.

User Response: Refer to the 'options used' list in the precompiler output to see what version ID was used.

DSNH028I W *csectname* **ATTACH SUBOPTION** *suboption* **NOT PERMITTED WITH HOST (FORTRAN) SPECIFIED.**

Explanation: The identified suboption for precompiler option ATTACH cannot take effect when the application is a FORTRAN application because the interface code for FORTRAN is always DSNHFT.

Severity: 4 (warning)

System Action: The option is ignored.

User Response: None is required. However, you can either code ATTACH(TSO) or specify no ATTACH precompiler option

DSNH029I E *csectname* **LINE** *nnnn* **COL** *cc* **INTO CLAUSE REQUIRED**

Explanation: SELECT statements embedded in an application program must have an INTO clause to denote where the results of the SELECT are to be placed. Dynamic SELECT statements do not permit the INTO clause.

Severity: 8 (error)

System Action: The statement is replaced by host language statements that, if executed, set an error code in the SQLCA.

User Response: Add the INTO clause to the SELECT statement, and precompile the application program again.

DSNH030I W *csectname* **LINE** *nnnn* **COL** *cc* **STATEMENT CONTAINS WRONG NUMBER OF 'INTO' VARIABLES**

Explanation: The number of variables specified in an INTO clause is not the same as the number of select-list elements (taking into account expansion of host structures and `'*'` or `'table.*'` select entries according to the declarations supplied).

Severity: 4 (warning)

System Action: Processing continues.

User Response: Ensure the included table declarations are correct. If the declarations are correct, this statement causes an error when the application program is bound. If the declarations are incorrect, you can proceed, but the declarations should be corrected. Otherwise, you need to correct the SQL statement and precompile again.

DSNH031I W *csectname* **LINE** *nnnn* **COL** *cc* **STATEMENT CREATES A COLUMN WITH NAME** *name1* **WHICH DOES NOT MATCH DECLARED NAME** *name2*

Explanation: The column name specified in a CREATE statement (*name1*) is not the same as the name of the corresponding column in the DECLARE TABLE statement (*name2*).

Severity: 4 (warning)

System Action: Processing continues.

User Response: Ensure that the DECLARE TABLE matches the CREATE TABLE. You can use the cross-reference and source listings to help find the two statements.

DSNH032I W *csectname* **LINE** *nnnn* **COL** *cc* **STATEMENT CREATES A COLUMN** *name* **WHOSE ATTRIBUTES DO NOT MATCH THE DECLARATION**

Explanation: The column *name* is specified in a CREATE statement with a different data type or length than was specified for the corresponding column in the DECLARE TABLE statement.

Severity: 4 (warning)

System Action: Processing continues.

User Response: Correct the DECLARE TABLE or CREATE TABLE statement. If the DECLARE TABLE statement is incorrect, some warnings might also be incorrect or might not be generated when needed. If the CREATE TABLE statement is incorrect, you must correct it.

DSNH033I W *csectname* **LINE** *nnnn* **COL** *cc* **STATEMENT CREATES MORE OR LESS COLUMNS THAN WERE DECLARED**

Explanation: The number of columns specified in a CREATE statement is different from the number of columns specified in the DECLARE TABLE statement.

Severity: 4 (warning)

System Action: Processing continues.

User Response: Ensure that the DECLARE TABLE matches the CREATE TABLE. If the DECLARE TABLE statement is incorrect, some warnings might also be incorrect or might not be generated when needed. If the CREATE TABLE statement is incorrect, you must correct it.

DSNH034I W *csectname* **LINE** *nnnn* **COL** *cc* **STATEMENT INSERTS MORE OR LESS VALUES THAN THE NUMBER OF COLUMNS DECLARED**

Explanation: The number of values specified in an INSERT statement is different from the number of columns specified in the DECLARE TABLE statement for the receiving table.

Severity: 4 (warning)

System Action: Processing continues.

User Response: Insert the correct number of values. If the DECLARE TABLE statement is incorrect, this warning might also be incorrect. If the INSERT statement is incorrect, you must correct it.

DSNH038I S *csectname* **LINE** *nnnn* **COL** *cc* **PROGRAM OR SUBPROGRAM CONTAINS MORE THAN 32767 SQL STATEMENTS**

Explanation: The number of SQL statements in an application program or a FORTRAN subprogram is greater than 32767.

Severity: 12 (severe error)

System Action: The precompiler terminates.

User Response: Divide the application program or subprogram into smaller programs or reduce the SQL statements in each program unit so that the maximum number of SQL statements is not exceeded.

DSNH041I W *csectname* **OPTION: MISSING HOST OPTION**

Explanation: The host language was not specified in the OPTION field.

Severity: 4 (warning)

System Action: HOST(COBOL) is assumed.

User Response: Specify the host language if it is not COBOL. It is probably best to specify the host language and remove all warnings.

DSNH042I W *csectname* **OPTION:** *option* **OPTION INVALID FOR HOST LANGUAGE**

Explanation: The option identified in the message is not valid. The QUOTE and COMMA options are not permitted with HOST(ASM), HOST(PLI), or HOST(C). The TWOPASS option is not permitted with HOST(COBOL).

Severity: 4 (warning)

System Action: The specified option is ignored.

User Response: Remove the invalid option, or correct the host specification.

DSNH049I W *csectname* **RETURN CODE IS FORCED TO 4 BECAUSE OPTION SQL(ALL) IS IN EFFECT, ORIGINAL RETURN CODE WAS** *nnn*

Explanation: One or more SQL-related error messages were detected by the precompiler, but because of option SQL(ALL), the return code is forced to 4 in order to let the application proceed with compilation.

The SQL syntax checking is deferred until bind time because the source might contain non-DB2 SQL syntax that the DB2 precompiler does not recognize and flags as an error. The DBRM produced by this precompilation cannot be bound successfully by DB2 if there are SQL syntax errors or non-DB2 SQL syntax.

The return code remains untouched if there are host-related syntax or semantic errors in the source.

Severity: 4 (warning)

System Action: Processing continues.

User Response: Ensure that the intention of this precompilation is for executing it in a non-DB2 system.

DSNH050I I *csectname* **WARNINGS HAVE BEEN SUPPRESSED DUE TO LACK OF TABLE DECLARATIONS**

Explanation: One or more warning messages were suppressed because no table declarations were found before the first SQL statement that referenced a table or column.

Severity: 0

System Action: Processing continues. Suppression is discontinued if a table declaration is found.

User Response: Insert (or INCLUDE) table declarations before they are referenced in order to permit table and column checking.

DSNH051I E *csectname* **LINE** *nnnn* **COL** *cc sqltype name* **PREVIOUSLY DECLARED OR REFERENCED**

Explanation: The variable *sqltype* is TABLE, CURSOR, or STATEMENT. The identifier *name* was already defined with the given *sqltype*. The definition might have occurred implicitly. For example, *name* might have been found in the FROM clause of a SELECT, causing it to be defined as a table.

Severity: 8 (error)

System Action: The name is installed in the symbol table as a duplicate.

User Response: Remove duplicate definitions, or correct the references. Avoid implicit definitions by inserting (or including) table declarations before they are referenced. Check the number of passes used. Use the cross-reference and source listings to help resolve this type of error.

DSNH052I E *csectname* **LINE** *nnnn* **COL** *cc* **COLUMN** *name* **IS ALREADY DEFINED IN TABLE** *table-name*

Explanation: The identified name is already defined as a column in the table named *table-name*. The definition might have occurred implicitly. For example, *table-name* might have been found in a select-list, causing *name* to be defined as a column within *table-name* if *table-name* was not declared as a host variable.

Severity: 8 (error)

System Action: The name is installed in the symbol table as a duplicate.

User Response: Remove duplicate definitions, or correct the references. Avoid implicit definitions by inserting (or including) table declarations before they are referenced.

DSNH053I W *csectname* **NO SQL STATEMENTS WERE FOUND**

Explanation: No SQL statements were found in the precompiler input file. An empty DBRM member was written.

Severity: 4 (warning)

System Action: Processing continues.

User Response: If you embedded SQL statements in your application program and none were found, make sure your column margins are properly defined for your application program.

DSNH060I E *csectname* **LINE** *nnnn* **COL** *cc* **INVALID** *type* **SPECIFICATION:** *spec*

Explanation: The *type* is either SCALE or LENGTH. The *spec* is the given SCALE or LENGTH specification in an SQL declaration. Length and scale specifications must be unsigned integers. The scale specification, where permitted, cannot exceed the length. The length specification cannot be 0.

Severity: 8 (error)

System Action: Processing continues.

User Response: Correct the length or scaling.

DSNH080I E *csectname* **LINE** *nnnn* **COL** *cc usage* **VARIABLE** *name* **IS NOT** *type* **TYPE**

Explanation: The *usage* is INDICATOR or STRING. The *type* is SMALLINT, VARCHAR, or CHARACTER. The data type of the variable *name* is not acceptable. All indicator variables must be small integers. PREPARE and EXECUTE strings must be variable character strings, except for FORTRAN, which requires character type.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Specify a host variable of the proper type.

DSNH081I W *csectname* **LINE** *nnnn* **COL** *cc* **STATEMENT DOES NOT CONFORM TO ANS SYNTAX STANDARD - REASON CODE** *ccc*

Explanation: When the precompiler option STDSQL(YES) is in effect, the SQL syntax is checked to see if it conforms to the ANSI/ISO SQL standard of 1992. Reason codes are:

000 Column function with DISTINCT as an arithmetic-operation operand does not conform to the ANSI/ISO SQL standard of 1992.

001 FOR UPDATE OF as part of a DECLARE CURSOR statement does not conform to the ANSI/ISO SQL standard of 1992.

Severity: 4 (warning)

System Action: Processing continues.

User Response: You have the option of changing or not changing the syntax to conform to the ANS syntax standard.

System Programmer Response: Check the SQL statement.

DSNH082I I *csectname* **LINE** *nnnn* **COL** *cc* **STATEMENT DOES NOT CONFORM TO IBM SQL SYNTAX OR SEMANTIC STANDARD - REASON CODE** *ccc*

Explanation: When the precompiler option SQL(ALL) is in effect, statements that do not conform to certain IBM SQL rules are flagged. The reason codes are:

000 An optional colon is not a feature of IBM SQL.

Severity: 0 (informational)

System Action: Processing continues.

User Response: Change the syntax of the statement to conform to the IBM SQL standard if portability is required. Not changing the syntax means that the program is less portable within the IBM SQL environment.

DSNH083I I *csectname* **LINE** *nnnn* **COL** *cc* **IBM SQL RESERVED WORD** *ibmkeywd* **SPECIFIED AS AN IDENTIFIER NAME**

Explanation: When the precompiler option SQL(ALL) is in effect, IBM SQL reserved words should not be used as identifier names. Using IBM SQL reserved words limits the portability of the statement.

Severity: 0 (informational)

System Action: Processing continues.

User Response: If possible, change the identifier name to a non-IBM SQL reserved word so that the statement conforms to the IBM SQL standard. Not changing the identifier name means that the program is less portable within the IBM SQL environment.

DSNH084I W *csectname* **LINE** *nnnn* **COL** *cc* **UNACCEPTABLE SQL STATEMENT**

Explanation: The referenced SQL statement is not allowed in this situation, but it will not cause an error. Depending on the option specified at precompile time, one of the following occurred.

- The BEGIN DECLARE SECTION(*), END DECLARE SECTION(*), and UPDATE STATISTICS statements are flagged as not compatible.

  * for C applications, BEGIN and END DECLARE SECTION are not flagged.

- Using the STDSQL(YES) precompiler option, the INCLUDE SQLCA statement is flagged as a warning.

Severity: 4 (warning)

System Action: The BEGIN DECLARE SECTION, END DECLARE SECTION, and INCLUDE SQLCA statements are ignored. The other statements are replaced by host language statements that will, if executed, set a warning code or SQLCODE -84 in the SQLCA.

User Response: Unless this application program is used in a portable manner, remove the statement.

DSNH085I W *csectname* **LINE** *nnnn* **COL** *cc* **UNACCEPTABLE SQL KEYWORD IGNORED:** *keyword*

Explanation: The SQL *keyword* is not allowed by DB2, but it does not cause an error. This message is printed as a warning to the programmer.

Severity: 4 (warning)

System Action: The keyword and its parameters are ignored.

User Response: Unless this application program is used with both SQL/DS and DB2, remove the keyword.

DSNH088I W *csectname* **LINE** *nnnn* **COL** *cc* **THIS STATEMENT WILL** *action* **AN ENTIRE TABLE**

Explanation: The *action* is either DELETE or UPDATE. The referenced SQL statement has no WHERE clause and will delete or update all rows of the specified table. This message is printed as a warning to the programmer.

Severity: 4 (warning)

System Action: Processing continues.

User Response: Be sure that you intend to delete or update all rows, or add a suitable WHERE clause.

DSNH090I S *csectname* **LINE** *nnnn* **COL** *cc* **HOST VARIABLE NOT PERMITTED HERE:** *name*

Explanation: Host variable references are not permitted in this type of SQL statement. The *name* is invalid.

Severity: 12 (severe error)

System Action: The statement is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Specify a literal or a column name rather than a host variable. The colon (:) indicates that the name that follows is a host variable. Remove it to specify a column name.

DSNH101I S *csectname* **THE STATEMENT IS TOO LONG OR TOO COMPLEX.**

Explanation: The statement cannot be executed because it exceeds the system limits for either length or complexity.

Severity: 16

System Action: The statement cannot be executed.

User Response: Break the statement into shorter or less complex SQL statements.

DSNH102I E *csectname* **LINE** *nnnn* **COL** *cc* **LITERAL STRING IS TOO LONG. STRING BEGINS** *string*

Explanation: The referenced character string literal (beginning with *string* in the message) is too long. Up to 254 characters or 124 graphic characters are permitted.

Two consecutive string delimiters are used to represent one string delimiter within the character string, but these count as 2 bytes when calculating the lengths of character string constants. For SET CURRENT PACKAGESET, up to 18 characters are allowed; for SET CURRENT SQLID, up to 8 characters are allowed; for SET CURRENT DEGREE, up to 3 characters are allowed.

Severity: 8 (error)

System Action: If the SQL statement containing the string is a declaration, it is discarded. If the SQL statement containing the string is executable, it is replaced by host language statements that, if executed, set an error code in the SQLCA.

User Response: Correct the string. If a shorter string is acceptable, reduce the length of the literal. If a long string is required, a host variable is required.

DSNH103I E *csectname* **LINE** *nnnn* **COL** *cc* **INVALID NUMERIC LITERAL** *token*

Explanation: The *token* was found. It begins with a digit, but it is not a valid integer, decimal, or float literal. Identifiers cannot begin with a digit except for the WHENEVER statement with HOST(FORTRAN), and the identifiers in COBOL.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Check the indicated token for validity. Use apostrophes or quotation marks if a character literal is desired. Remove the invalid characters if a number is desired.

DSNH104I E *csectname* **LINE** *nnnn* **COL** *cc* **ILLEGAL SYMBOL "***token***". SOME SYMBOLS THAT MIGHT BE LEGAL ARE:** *token-list*

Explanation: A syntax error was detected where the symbol "*token*" occurs in the SQL statement. The list of symbols that might be legal shows some alternate symbols that could possibly be correct at that point, if the preceding part of the statement is entirely correct.

However, the preceding part of the statement might be incorrect. For example, if an important keyword is omitted, DB2 detects the error later, and not always immediately after the point where the keyword should appear. The list of alternate symbols are only suggestions.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Correct the statement and precompile the program again.

DSNH105I E *csectname* **LINE** *nnnn* **COL** *cc***, INVALID STRING CONSTANTS**

Explanation: Incorrect graphic or mixed data literals were found on line *nnnn*, column *cc*.

Severity: 8 (error)

System Action: The literal is ignored and the SQL statement containing the problem is discarded.

User Response: Specify the correct format of literals.

System Programmer Response: Check for a quote, an apostrophe, shift-out (so) or shift-in (si) characters, G or N characters, or the number of characters within the literal.

DSNH107I E *csectname* **LINE** *nnnn* **COL** *cc* **NAME** *name* **IS TOO LONG; MAXIMUM IS size CHARACTERS**

Explanation: Names for the following cannot contain more than 64 characters:

- Version-id

Names for the following cannot contain more than 18 characters (20 including SQL escape characters, if present):

- SQL columns
- SQL tables
- SQL views
- SQL indexes
- SQL synonyms
- Collection-ids
- Check constraints

Names for the following cannot contain more than 16 characters:

- Location-name

The following cannot contain more than 8 characters:

- Authorization IDs
- INCLUDE member names
- Storage group names
- Buffer pool names
- Field procedure names
- Database names
- Table space names
- Application plans
- Database request modules (DBRMs)
- Referential constraint names specified in CREATE or ALTER TABLE statements.
- Package-id

Host variable names cannot contain more than 64 characters.

Volume serial numbers cannot contain more than 6 characters.

Severity: 8 (error)

System Action: If the SQL statement containing the problem is a declaration, it is discarded. If the SQL statement containing the problem is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Correct the name length.

DSNH109I E *csectname* **LINE** *nnnn* **COL** *cc type* **CLAUSE NOT PERMITTED**

Explanation: The *type* is INTO, ORDER BY, FOR UPDATE, or LARGE.

- Embedded SELECT statements cannot include ORDER BY, because the result cannot be more than a single row.
- Embedded SELECT statements cannot include FOR UPDATE OF, because position is not retained.
- SELECT clauses used in cursor declarations or subselects cannot have an INTO clause because the INTO is on the FETCH statement.
- CREATE VIEW statements cannot include any of the above clauses.
- The UNION operator is not allowed in an embedded SELECT.
- A CREATE TABLESPACE statement cannot specify LOCKPART without the NUMPARTS option.
- An ALTER TABLESPACE statement cannot specify LOCKPART for a non-partitioned table space.
- A table space with LOCKPART YES cannot be altered to LOCKSIZE TABLESPACE.
- A table space with LOCKSIZE TABLESPACE cannot be altered to LOCKPART YES.
- The LARGE clause without the NUMPARTS option is not allowed in a CREATE TABLESPACE statement.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Remove the clause. You might need to use a cursor to perform the processing. The ORDER and FOR UPDATE clauses are accepted on the DECLARE CURSOR statement. The INTO clause is accepted on the FETCH statement. The LARGE clause is accepted on a CREATE TABLESPACE statement with the NUMPARTS option.

DSNH110I E *csectname* **LINE** *nnnn* **COL** *cc* **INVALID HEX LITERAL BEGINNING** *string*

Explanation: The referenced hexadecimal literal contains one or more characters that are not valid hexadecimal numbers.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Correct the literal.

DSNH111W W *csectname* **LINE** *nnnn* **COL** *cc* **THE SUBPAGES OPTION IS NOT SUPPORTED FOR TYPE 2 INDEXES**

Explanation: You cannot use the SUBPAGES option for type 2 indexes.

Severity: 4 (warning)

System Action: The option is ignored; processing continues.

Programmer Response: Remove the SUBPAGES option to get rid of the warning.

DSNH113I E *csectname* **LINE** *nnnn* **COL** *cc* **INVALID CHARACTER FOUND IN** *string***, REASON CODE -** *nnn*

Explanation: The string contains an invalid character. It can be an SQL ordinary identifier name, a host variable name, or a DBCS comment.

For SBCS SQL ordinary identifiers, names of buffer pools, databases, plans and storage groups must contain only uppercase alphabetic or national characters and numerics when CHARSET is KATAKANA; the first character must be alphabetic or national.

The following reason codes apply to SBCS identifiers:

000 An invalid character was found in the SBCS identifier (including the case in which a DBCS identifier was used where only an SBCS identifier is allowed.)

The following reason codes apply to DBCS identifiers or comments:

101 An odd number of bytes exists between the shift-out and the shift-in character.

102 Either a shift-in or shift-out character is missing.

103 DBCS blanks X'4040' are not allowed.

104 There are no characters between the shift-out and the shift-in characters.

105 Shift-out cannot be the first byte of the DBCS character between the shift-out and the shift-in characters.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Correct the name.

DSNH115I E *csectname* **LINE** *nnnn* **COL** *cc* **ILLEGAL USE OF COMPARISON OPERATOR** *operator*

Explanation: The syntax is not correct for this type of comparison. A simple comparison such as `'>'` must not be followed by a list of items. The ANY and ALL comparisons must precede a subselect, rather than an expression or a list of items.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Correct the syntax. If necessary, refer to Chapter 3 of *SQL Reference* for the correct syntax.

DSNH117I E *csectname* **LINE** *nnnn* **COL** *cc* **STATEMENT INSERTS THE WRONG NUMBER OF VALUES**

Explanation: The number of entries in a value-list is not the same as the number of columns specified in an INSERT statement.

Severity: 8 (error)

System Action: Processing continues.

User Response: Correct the syntax. If necessary, refer to Chapter 6 of *SQL Reference* for the correct syntax.

DSNH120I E *csectname* **LINE** *nnnn* **COL** *cc* **FUNCTION USAGE NOT PERMITTED:** *fname*

Explanation: A WHERE clause or SET clause contains a column function, possibly as a result of a reference to a column that is derived from a column function in a view definition. A column function is allowed in a WHERE clause only if that clause appears within a subquery of a HAVING clause.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Correct the syntax. A subselect clause might be needed to produce the function result. If necessary, refer to Chapter 5 of *SQL Reference* for the correct syntax.

DSNH125I E *csectname* **LINE** *nnnn* **COL** *cc* **INVALID ORDER BY COLUMN NUMBER:** *number*

Explanation: The identified column number is either less than 1 or greater than the number of items in the select-list.

Severity: 8 (error)

System Action: The cursor declaration is discarded.

User Response: Correct the column number. If necessary, refer to Chapter 5 of *SQL Reference* for the correct syntax.

DSNH126I E *csectname* **LINE** *nnnn* **COL** *cc* **ORDER BY CANNOT BE USED WITH A FOR UPDATE OF CLAUSE**

Explanation: The ORDER BY clause makes the cursor incapable of being updated.

Severity: 8 (error)

System Action: The cursor declaration is discarded.

User Response: This is a DB2 restriction. You can have either an ordered cursor or a cursor that can be updated. You cannot specify both attributes for the same cursor. You might need to change your application logic.

DSNH129I E *csectname* **LINE** *nnnn* **COL** *cc* **TOO MANY TABLES SPECIFIED IN SQL STATEMENT**

Explanation: In a subselect, (including all subqueries), there can be no more than 15 references to table names.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Reduce the number of table references in each subselect. Each reference to a single table counts separately. The count only applies to table/view references in the FROM list. Each view is only counted one time. Refer to Chapter 5 of *SQL Reference* for the definition of a subselect.

DSNH130I E *csectname* **LINE** *nnnn* **COL** *cc* **THE ESCAPE CLAUSE '***x***' CONSISTS OF MORE THAN ONE CHARACTER**

Explanation: The literal *x* used in the ESCAPE clause is too long. Only one SBCS or one DBCS character is allowed.

Severity: 8 (error)

System Action: The corresponding SQL statement is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Correct the string. The literal string for the ESCAPE clause can only be one SBCS or DBCS character.

DSNH131I E *csectname* **LINE** *nnnn* **STATEMENT WITH LIKE PREDICATE HAS INCOMPATIBLE DATA TYPES**

Explanation: If the column name at the left of LIKE or NOT LIKE is a character type, the expression at the right must be a character type. If the column name is a graphic type, the expression at the right must be a graphic type.

Severity: 8 (error)

System Action: The statement is ignored.

User Response: Check the data type of every operand.

DSNH132I E *csectname* **LINE** *nnnn* **COL** *cc* **INVALID LIKE PREDICATE**

Explanation: The value following LIKE must be an alphanumeric host variable or literal, graphic host variable or literal, or special character literal.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Correct the syntax. If necessary, refer to Chapter 3 of *SQL Reference* for the correct syntax.

DSNH170I E *csectname* **LINE** *nnnn* **COL** *cc* **NUMBER OF ARGUMENTS SPECIFIED FOR** *function-name* **IS INVALID**

Explanation: An SQL statement specified the scalar function *function-name* with either too many or too few arguments.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Correct the function call. Refer to Chapter 4 of *SQL Reference* for information about the number of arguments required by the scalar function *function-name*.

DSNH171I E *csectname* **LINE** *nnnn* **COL** *cc* **THE DATA TYPE, LENGTH, OR VALUE OF ARGUMENT** *nn* **OF** *function-name* **IS INVALID**

Explanation: Either the data type, the length or the value of argument *nn* of scalar function *function-name* is incorrect.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Correct the argument. Refer to Chapter 4 of *SQL Reference* for rules for each argument of the scalar function *function-name*.

DSNH182I E *csectname* **LINE** *nnnn* **COL** *cc* **AN ARITHMETIC EXPRESSION WITH A DATETIME VALUE IS INVALID**

Explanation: The specified arithmetic expression contains an improperly used date/time value or labeled duration.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Correct the indicated expression. Refer to Chapter 3 of *SQL Reference* for the rules for date/time arithmetic.

DSNH184I E *csectname* **LINE** *nnnn* **COL** *cc* **AN ARITHMETIC EXPRESSION WITH A DATETIME VALUE CONTAINS A PARAMETER MARKER**

Explanation: The specified expression contains a parameter marker improperly used with a date/time value.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Correct the indicated expression. Refer to Chapter 3 of *SQL Reference* for information about date/time arithmetic.

DSNH198I E *csectname* **LINE** *nnnn* **COL** *cc* **EMPTY SQL STATEMENT IGNORED**

Explanation: The referenced SQL statement has no text between the EXEC SQL and the statement terminator.

Severity: 8 (error)

System Action: The statement is ignored.

User Response: Correct the statement, or remove it.

DSNH199I E *csectname* **LINE** *nnnn* **COL** *cc* **INVALID KEYWORD** *keyword***; VALID SYMBOLS ARE:** *token list*

Explanation: A syntax error was detected at the keyword specified in the message. As an aid to the programmer, a partial list of valid tokens is provided in the message. Only those tokens that fit are listed. The error might be earlier in the statement, but the syntax of the statement appears to be valid up to this point.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Check the SQL statement in the area of the indicated keyword. A colon or SQL delimiters might be missing. Correct the SQL statement.

DSNH203I W *csectname* **LINE** *nnnn* **COL** *cc* **STATEMENT REFERENCES COLUMN** *column name***, WHICH IS DECLARED IN MORE THAN ONE OF THE SPECIFIED TABLES**

Explanation: The column *column name* was referenced without sufficient qualification. Type checking cannot be done.

Severity: 4 (warning)

System Action: Processing continues.

User Response: If the table declares are correct and the column name is not unique, this creates an error in the BIND step. Correct the DECLARE TABLE statement, or use the correct table name to qualify the column name.

DSNH204I W *csectname* **LINE** *nnnn* **COL** *cc* **STATEMENT REFERENCES UNDECLARED TABLE** *table-name*

Explanation: The table definition was not provided. It is optional, but checking cannot be done without the table information. (BIND checks against the actual table during later processing.)

Severity: 4 (warning)

System Action: Processing continues.

DSNH205I W *csectname* **LINE** *nnnn* **COL** *cc* **COLUMN** *column-name* **WAS NOT DECLARED IN TABLE** *table-name*

Explanation: The column name *column-name* is not contained in the table declarations. The name specified in a DISTINCT function must reference a column of the table. The value expression of an ALL function must reference a column of the table.

Severity: 4 (warning)

System Action: Processing continues.

User Response: If the table declares are correct and the column name is not in the table, this creates an error in the BIND step. Correct the DECLARE TABLE statement or the column name.

DSNH206I W *csectname* **LINE** *nnnn* **COL** *cc* **STATEMENT REFERENCES COLUMN** *column name* **WHICH IS NOT DECLARED IN THE SPECIFIED TABLE(S)**

Explanation: The column *column name* is not contained in any TABLE declaration for the tables specified in the statement.

Severity: 4 (warning)

System Action: Processing continues.

User Response: If the table declares are correct and the column name is not in the tables, this creates an error in the BIND step. Correct the DECLARE TABLE statements or the column name.

System Programmer Response: Check the spelling of the column name. Ensure that all the tables needed were specified in the statement.

DSNH207I E *csectname* **LINE** *nnnn* **COL** *cc* **ILLEGAL ORDER BY SPECIFICATION**

Explanation: If the select expression involves a UNION operator, the ORDER BY list must use numeric constants rather than variables.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Correct the syntax. If necessary, refer to Chapter 5 of *SQL Reference* for the correct syntax.

DSNH251I E *csectname* **LINE** *nnnn* **COL** *cc* **TOKEN** *name* **IS NOT VALID**

Explanation: The location name cannot contain alphabetic extenders for national languages (that is, #, @, and $ in the United States).

Severity: 8 (error)

System Action: Processing continues.

User Response: Correct the content of the location name.

DSNH290I E *csectname* **LINE** *nnnn* **COL** *cc* **NO VALID 'END DECLARE SECTION' FOUND**

Explanation: The user's source program contains a BEGIN DECLARE SECTION, but no corresponding END DECLARE SECTION was found.

Severity: 8 (error)

System Action: Processing continues.

User Response: Check the application program and ensure that a valid END DECLARE SECTION statement is present.

DSNH291I E *csectname* **LINE** *nnnn* **COL** *cc* **NO VALID 'BEGIN DECLARE SECTION' FOUND**

Explanation: The user's source program contains an END DECLARE SECTION, but no corresponding BEGIN DECLARE SECTION was found.

Severity: 8 (error)

System Action: Processing continues.

User Response: Check the application program and ensure that a valid BEGIN DECLARE SECTION is present.

DSNH292I E *csectname* **LINE** *nnnn* **COL** *cc* **HOST NAME** *name* **IS TOO LONG; MAXIMUM IS** *size* **CHARACTERS**

Explanation: Fully qualified C host variable names cannot contain more than 255 characters.

Severity: 8 (error)

System Action: If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Reduce the length of names or the level of qualification of the host variable name in error.

DSNH303I W *csectname* **LINE** *nnnn* **COL** *cc* **STATEMENT SELECTS INCOMPATIBLE DATA TYPE INTO** *hostvar*

Explanation: The data type of host variable *hostvar* is not compatible with the apparent type of the corresponding select expression. One of them is numeric and the other is character, or one of them is character and the other is graphic. If the select expression is a column reference, the data type is obtained from its declaration.

Severity: 4 (warning)

System Action: Processing continues.

User Response: Ensure that the table definitions are current and that the host variable has the proper data type.

System Programmer Response: Ensure that the table definitions are current, and that the host variable has the proper data type.

DSNH310I W *csectname* **LINE** *nnnn* **COL** *cc language* **HOST VARIABLE** *name* **WAS DECLARED IN** *location*

Explanation: Host variable *name* should not be declared in this *location* of the source program. This message is issued only at reference time.

Severity: 4 (warning)

System Action: Processing continues.

User Response: If this host variable is used, the user assumes responsibility for possible exposure of incorrect output. Refer to Section 3 of *Application Programming and SQL Guide* to determine where host variables can be validly declared.

Declaring a COBOL host variable in the File Section might lead to incorrect output from SQL statements or abend 04E with RC=00E7000C.

DSNH312I E *csectname* **LINE** *nnnn* **COL** *cc* **UNDEFINED OR UNUSABLE HOST VARIABLE** *name*

Explanation: The *name* in the message is used in an SQL statement, but either no declaration was found in the application program so far, or the attributes are improper for this use. Declarations for host variables used in a DECLARE CURSOR statement must precede the SQL statement, regardless of the ONEPASS or TWOPASS option for the precompiler, or a parameter marker was expected in an EXECUTE IMMEDIATE statement. This message is issued only at reference time.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Check the declaration and the attributes of the named host variable. If you intended the name to refer to a column, the colon (:) should not be present. If you intended a literal, you need to enclose the value in string delimiters (apostrophes or quotation marks).

If you intended to use a host variable, only a subset of the possible variable declarations are valid for use as a DB2 host variable. The rules for host variables are listed in the application programming guides. Use the cross-reference listing and precompiler source listing to determine the source of the problem.

- If you use the STDSQL(YES) option for the precompilation, make sure that all of the host variable declarations are declared within BEGIN/END DECLARE SECTIONs.
- If the cross-reference listing does not contain the host variable name, the declaration is missing. If the source for a declaration is present, a missing terminator from a comment or from a string might cause this type of error. The margins could also cause this type of error.
- If the name is present, but the data type is not listed, the host variable is not usable; it does not follow the rules outlined for valid host variable definitions.
- If several definitions exist for the name, the first reference might occur before the definition. The use of the TWOPASS option helps by processing DECLARE statements before the other types of statements. However, host variable declarations and cursor declarations are processed in the same pass. The host variables referenced in cursor declarations must be defined before the cursor is defined in the application program.
- A parameter marker is expected rather than a host variable in an EXECUTE IMMEDIATE statement.
- The data type of a host variable passed in a CALL statement is not character or varying character.
- The length attribute of a character or varying character host variable passed in a CALL statement exceeds 254 characters.

DSNH313I E *csectname* **LINE** *nnnn* **COL** *cc* **INVALID TYPE OR LENGTH OF HOST VARIABLE '** *name* **'**

Explanation: The host variable *name* is used in an SQL statement, but either the type or the length is improper for this use.

Severity: 8 (error)

System Action: The corresponding SQL statement is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Check the declaration and the attributes of the named host variable. Refer to Section 3 of *Application Programming and SQL Guide* for the allowable host variable type and length.

DSNH314I E *csectname* **LINE** *nnnn* **COL** *cc* **REFERENCE TO HOST VARIABLE** *name* **IS AMBIGUOUS**

Explanation: The host variable *name* was defined more than once in this application program. The precompiler cannot distinguish which host variable definition should be used here. The following table indicates some possible combinations. DB2 supports only a single adjacent qualifier for a host variable name.

Case	Ref	Definition	Result	Suggested Change
1	a	x.a	Valid	None
2	x.a	x.a, y.a	Valid	None
3	a	x.a, y.a	DSNH314I	Reference x.a or y.a
4	a	x.a, a	Valid	None
5	x.a	q.x.a, v.x.a	DSNH314I	Variable name changes
6	a	a, a	DSNH314I	Variable name changes

Severity: 8 (error)

System Action: If the SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Make the host variable name unique or use qualification to indicate which host variable definition is to be used, as suggested in the above table.

DSNH315I I *csectname* **LINE** *nnnn* **COL** *cc token* **IS NOT PRECEDED WITH A COLON. A COLON MAY BE NEEDED**

Explanation: The use of a host variable name without a leading colon was detected.

Severity: 0 (informational)

System Action: Processing continues.

User Response: If the use of the name is for a host variable, then it is recommended that a colon be placed in front of the host variable name to conform to standard requirement. This optional colon support might be withdrawn in a future version.

DSNH401I W *csectname* **LINE** *nnnn* **COL** *cc* **STATEMENT SPECIFIES INCOMPATIBLE OPERANDS FOR COMPARISON OPERATOR** *name*

Explanation: The comparison operation *name* is used with a mixture of incompatible data type operands.

Severity: 4 (warning)

System Action: Processing continues.

User Response: Make both operands compatible character data types. Ensure that the table declaration is correct.

DSNH402I W *csectname* **LINE** *nnnn* **COL** *cc* **STATEMENT APPLIES** *name* **TO CHARACTER DATA**

Explanation: The numeric operation or function *name* is used with a non-numeric operand.

Severity: 4 (warning)

System Action: Processing continues.

User Response: Make the operand numeric or use a character function. Ensure that the table declaration is correct.

DSNH404I W *csectname* **LINE** *nnnn* **COL** *cc* **STATEMENT INSERTS OR UPDATES COLUMN** *name* **WITH VALUE THAT IS TOO LONG**

Explanation: An INSERT or UPDATE statement specifies a value that is longer than the maximum length string that can be stored in that column, according to the DECLARE TABLE statement.

Severity: 4 (warning)

System Action: Processing continues.

User Response: Ensure that the length is allowed and that the table declaration is correct.

DSNH405I E *csectname* **LINE** *nnnn* **COL** *cc* **LITERAL** *number* **IS OUT OF RANGE**

Explanation: The number is not in the proper range:

- +5.4E–79 to 7.2E+75 for floating-point
- $-(10^{31} -1)$ to $+(10^{31} -1)$ for packed decimal
- –2147483648 to 2147483647 for integers

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Correct the number.

DSNH408I W *csectname* **LINE** *nnnn* **COL** *cc* **STATEMENT INSERTS OR UPDATES COLUMN** *name* **WITH INCOMPATIBLE DATA TYPE**

Explanation: The data type of the value to be inserted into column *name* by an INSERT or UPDATE statement is incompatible with the declared data type of the column. Both must be numeric or both must be character.

Severity: 4 (warning)

System Action: Processing continues.

Programmer Response: Be sure that the table definitions are current, and that host variables and literals have the proper data types and are matched.

DSNH414I E *csectname* **LINE** *nnnn* **COL** *cc* **THE NUMERIC OR DATETIME COLUMN** *column-name* **IS SPECIFIED IN A LIKE PREDICATE**

Explanation: Column *column-name* with a numeric data type was specified in a LIKE predicate. Columns specified in a LIKE predicate must be character or graphic string columns.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Correct the statement.

DSNH504I E *csectname* **LINE** *nnnn* **COL** *cc* **CURSOR** *name* **WAS NOT DECLARED**

Explanation: Identifier *name* is used as a cursor, but was not declared. The declaration might have been discarded because of errors.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Correct or add the required cursor declaration.

DSNH506I E *csectname* **LINE** *nnnn* **COL** *cc* **DECLARE CURSOR FOR STATEMENT NAME MUST PRECEDE THE PREPARE STATEMENT FOR THAT STATEMENT NAME**

Explanation: This DECLARE *name* CURSOR statement is preceded by a PREPARE *name* statement. In DB2, declarations must precede action statements. This is not the same as in SQL/DS.

Severity: 8 (error)

System Action: The declaration is noted as being in error and discarded.

User Response: Move the DECLARE or PREPARE statement so that they are in the proper order, or specify the TWOPASS option if the host language is PLI, ASM, or C. The TWOPASS option has the precompiler check for declarations on the first pass and avoids this problem.

DSNH520I E *csectname* **THE OPEN STATEMENT FOR CURSOR cursor-name IS INVALID BECAUSE THE CURSOR WAS DEFINED BY AN ALLOCATE CURSOR STATEMENT**

Explanation: The cursor defined by an ALLOCATE CURSOR statement is open after successful completion of the statement. Attempting to OPEN an allocated cursor is an error.

Severity: 8 (error)

System Action: The statement cannot be executed.

User Response: An OPEN is not allowed or required for a cursor defined using the ALLOCATE CURSOR statement.

DSNH521I W *csectname* **THE statement FOR CURSOR cursor-name IS ASSUMED TO APPLY TO A DYNAMIC ALLOCATE CURSOR STATEMENT.**

Explanation: A FETCH or CLOSE for an undeclared cursor was issued. The cursor is assumed to be defined using a dynamic ALLOCATE CURSOR statement.

Severity: 4 (warning).

System Action: The cursor is assumed to be allocated dynamically.

User Response: Ensure that the cursor in the FETCH or CLOSE statement is dynamically allocated.

DSNH522I E *csectname* **DESCRIBE CURSOR cursor-name IS INVALID BECAUSE THE CURSOR WAS DEFINED BY A DECLARE CURSOR STATEMENT.**

Explanation: DESCRIBE CURSOR is allowed for cursors defined using the ALLOCATE CURSOR statement.

Severity: 8 (error).

System Action: The statement cannot be executed.

User Response: Remove the DESCRIBE CURSOR statement. Issue a DESCRIBE of the statement used to define the declared cursor.

DSNH557I E *csectname* **LINE** *nnnn* **COL** *cc* **INCONSISTENT GRANT/REVOKE KEYWORD** *keyword***; PERMITTED KEYWORDS ARE** *keyword list*

Explanation: The identified *keyword* is not permitted. The *keyword list* is a list of the keywords that are permitted in this context. The combination of privileges requested on a GRANT or REVOKE statement is not allowed. The authorities must all be of one type and consistent with the form of GRANT or REVOKE. REVOKE UPDATE(column list) is not allowed; only REVOKE UPDATE is permitted.

Severity: 8 (error)

System Action: The containing SQL statement is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Correct the syntax. If necessary, refer to Chapter 6 of *SQL Reference* for the correct syntax.

DSNH558I E *csectname* **LINE** *nnnn* **COL** *ccc* **INVALID CLAUSE OR COMBINATION OF CLAUSES ON A GRANT OR REVOKE**

Explanation: "PUBLIC AT ALL LOCATIONS" is invalid for non-table privilege GRANT or REVOKE statements. It is also invalid for table privilege GRANT or REVOKE statements that specify the ALTER or INDEX privilege.

Severity: 8 (error)

System Action: The statement cannot be executed.

User Response: Refer to Chapter 6 of *SQL Reference* for valid keywords for the GRANT or REVOKE statement.

DSNH580I E *csectname* **LINE** *nnnn* **COL** *cc* **THE RESULT-EXPRESSIONS OF A CASE EXPRESSION CANNOT ALL BE NULL**

Explanation: There is a CASE expression in the statement that has all the *result-expressions* (expressions following the THEN and ELSE keywords) coded with the keyword NULL.

Severity: 8 (error)

System Action: The statement was not processed.

Programmer Response: Change the CASE expression to include at least one *result-expression* with a keyword other than NULL.

DSNH582I E *csectname* **LINE** *nnnn* **COL** *cc* **THE SEARCH-CONDITION IN A SEARCHED-WHEN-CLAUSE CANNOT BE A QUANTIFIED PREDICATE, IN PREDICATE, OR AN EXISTS PREDICATE**

Explanation: The *search-condition* in a *searched-when-clause* specifies a quantified predicate, an IN predicate or an EXISTS predicate, but is not allowed.

Severity: 8 (error)

System Action: The statement was not processed.

Programmer Response: Correct the *search-condition*.

DSNH628I E *csectname* **LINE** *nnnn* **COL** *cc* **MUTUALLY EXCLUSIVE CLAUSES HAVE BEEN SPECIFIED.**

Explanation: Mutually exclusive clauses were specified as follows:

- A 'column-definition' contains both NOT NULL and DEFAULT NULL clauses.
- A 'column-definition' contains both FIELDPROC and DEFAULT clauses.
- A select-statement contains both the update-clause and the FOR FETCH ONLY clause.
- An ALTER TABLE statement contains both a DROP CONSTRAINT clause and either a DROP FOREIGN KEY clause or a DROP CHECK clause.
- A CREATE or ALTER TABLESPACE contains both the LOCKPART YES and LOCKSIZE TABLESPACE

Severity: 8 (error)

System Action: The statement was not executed.

Programmer Response: Specify one clause or the other, but not both.

DSNH630E E *csectname* **LINE** *nnnn* **COL** *cc* **THE WHERE NOT NULL SPECIFICATION IS INVALID FOR TYPE 1 INDEXES**

Explanation: Type 1 indexes cannot be created with the WHERE NOT NULL specification.

Severity: 8 (error)

System Action: The statement cannot be executed.

Programmer Response: Either the index must be created as a type 2 index, or the WHERE NOT NULL specification must not be used.

DSNH637I E *csectname* **LINE** *nnnn* **COL** *cc* **DUPLICATE** *keyword* **KEYWORD**

Explanation: The identified keyword was specified twice in the statement.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Remove the duplicate specification.

DSNH644I E *csectname* **INVALID VALUE SPECIFIED FOR KEYWORD** *keyword* **IN** *stmt-type* **STATEMENT**

Explanation: The value specified for the *keyword* parameter in the *stmt-type* SQL statement is not a permitted value.

Severity: 8 (error)

System Action: If the SQL statement containing the problem is a declaration, it is discarded. If the SQL statement containing the problem is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Correct the statement. Refer to Chapter 6 of *SQL Reference* for information about the allowable values for the *keyword* in the *stmt-type* statement.

DSNH684I E *csectname* **LINE** *nnnn* **COL** *cc* **LENGTH OF LITERAL LIST BEGINNING** *string* **IS TOO LONG**

Explanation: The length of the literal list beginning with *string*, excluding insignificant blanks and delimiting parenthesis, is greater than 254.

Severity: 8 (error)

System Action: The SQL statement cannot be executed.

System Programmer Response: Correct the SQL statement. Refer to Chapter 3 of *SQL Reference* for information about writing literal lists.

DSNH700I I *csectname* **THE FIPS STANDARD IS USED FOR FLAGGING**

Explanation: This message identifies the standard used for flagging during execution.

Severity: 0 (informational)

System Action: Processing continues.

DSNH701I I *csectname* **THE IBM SQL STANDARD IS USED FOR FLAGGING**

Explanation: This message identifies the standard used for flagging during execution.

Severity: 0 (informational)

System Action: Processing continues.

DSNH702I W *csectname* **LINE** *nnnn* **COL** *cc* **THE STATEMENT DEVIATES FROM THE SQL STANDARD AT THE TOKEN COMMENCING WITH THE TEXT** *text*

Explanation: A syntax deviation from the standard named in the earlier message (FIPS or IBM SQL) was found in the SQL statement.

Severity: 4

User Response: Check and correct the SQL statement.

DSNH703I W *csectname* **LINE** *nnnn* **COL** *cc***. A DATA DEFINITION STATEMENT IS NOT WITHIN A CREATE SCHEMA STATEMENT**

Explanation: The FIPS standard requires all data definition statements to be contained within a CREATE SCHEMA statement.

Severity: 4

User Response: Check and correct the SQL statement.

DSNH704I W *csectname* **LINE** *nnnn* **COL** *cc***. THERE IS A NONSTANDARD EMBEDDED COMMENT**

Explanation: A comment embedded within an SQL statement does not meet the requirements of the standard being flagged: The FIPS standard is being checked and the comment does not begin with at least two consecutive hyphens.

Severity: 4

User Response: Check and correct the SQL statement.

DSNH705I W *csectname* **LINE** *nnnn* **COL** *cc***. AN SQL SYNTAX DEVIATION OCCURRED. THE STATEMENT IS NOT COMPLETE**

Explanation: The SQL statement terminated before all required elements were found.

Severity: 4

User Response: Check and correct the SQL statement.

DSNH706I W *csectname* **LINE** *nnnn* **COL** *cc***. THE IDENTIFIER** *token* **IS GREATER THAN 18 CHARACTERS**

Explanation: Authorization identifier, table identifier, column name, correlation name, module name, cursor name, procedure name, or parameter name has a length of more than 18 characters.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH707I W *csectname* **LINE** *nnnn* **COL** *cc***. THE COLUMN** *column* **HAS AN INVALID LENGTH, PRECISION, OR SCALE ATTRIBUTE**

Explanation: One of the following conditions was not met:

- The length value should be greater than zero.
- The precision value should be greater than zero.
- The scale value should not be greater than precision.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH708I W *csectname* **LINE** *nnnn* **COL** *cc***. THE DATA TYPE OF** *token* **SHOULD BE EXACT NUMERIC WITH A SCALE OF ZERO**

Explanation: The data type of INDICATOR PARAMETER or INDICATOR VARIABLE should be exact numeric with a scale of zero.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH709I W *csectname* **LINE** *nnnn* **COL** *cc***. THE SET FUNCTION REFERENCES COLUMN column**

Explanation: One of the following conditions was not met:

- A column specification of a DISTINCT set function cannot reference a column derived from a set function specification.
- A column specification of an ALL set function cannot reference a column derived from a set function specification.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH710I W *csectname* **LINE** *nnnn* **COL** *cc***. A VALUE EXPRESSION CONTAINING** *column* **CANNOT INCLUDE OPERATORS**

Explanation: A value expression cannot include operators in an outer reference column specification.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH711I W *csectname* **LINE** *nnnn* **COL** *cc***. THE COLUMN SPECIFICATION IS MISSING OR INVALID FOR THE ALL SET FUNCTION** *function*

Explanation: The value expression of an ALL set function specification should include a column specification.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH712I W *csectname* **LINE** *nnnn* **COL** *cc* **THE COLUMN** *column* **IS NOT UNIQUE AND REQUIRES QUALIFICATION.**

Explanation: The identified column is duplicated within the current scope. Qualification must be given to uniquely identify the required column.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH713I W *csectname* **LINE** *nnnn* **COL** *cc***. A VALUE EXPRESSION MAY NOT CONTAIN A SET FUNCTION SPECIFICATION**

Explanation: The value expression of an ALL set function might not contain a set function specification.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH714I W *csectname* **LINE** *nnnn* **COL** *cc***. THE COLUMN** *column* **DOES NOT IDENTIFY A COLUMN OF A TABLE WITHIN THE CURRENT SCOPE**

Explanation: One of the following conditions was found:

- The table or correlation name used as a qualifier does not exist.
- The column name does not exist within the current scope or the scope of the qualifier.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH715I W *csectname* **LINE** *nnnn* **COL** *cc***. A SET FUNCTION THAT CONTAINS THE OUTER REFERENCED COLUMN** *column* **IS NOT IN THE SUBQUERY OF A HAVING CLAUSE**

Explanation: A set function specification must be contained in a subquery of a HAVING clause if it contains an outer referenced column specification.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH716I W *csectname* **LINE** *nnnn* **COL** *cc* **THE RESULT OF A SUM OR AVG FUNCTION CANNOT BE A CHARACTER STRING**

Explanation: The character string is not valid for the result of a SUM or AVG set function specification.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH717I W *csectname* **LINE** *nnnn* **COL** *cc***. THE OPERATOR** *operator* **IS INVALID IN THIS CONTEXT**

Explanation: One of the following conditions was not met:

- A value expression containing a distinct set function cannot include dyadic operators.
- The first character following a monadic operator cannot be a plus or minus sign.
- The value expression should not contain operators if primary is a character string.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH718I W *csectname* **LINE** *nnnn* **COL** *cc***. THE** *exptype* **EXPRESSION IS COMPARING INCOMPATIBLE DATA TYPES**

Explanation: The data types of one of the following (identified by *exptype*) do not match:

exptype	Meaning
COMPARISON	Comparison operators must match.
BETWEEN	The three value expressions must match.
IN	Value expression, subquery, and all value specifications must match.
QUANTIFIED	Value expression and subquery must match.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH719I W *csectname* **LINE** *nnnn* **COL** *cc***. THE OPERAND IN THE LIKE PREDICATE IS NOT A CHARACTER STRING**

Explanation: One of the following conditions was found:

- The data type of the column in a LIKE predicate is not a character string.
- The data type of the pattern in a LIKE predicate is not a character string.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH720I W *csectname* **LINE** *nnnn* **COL** *cc***. THE ESCAPE CHARACTER MUST BE A ONE-BYTE CHARACTER STRING**

Explanation: The escape character in a LIKE predicate must have the data type of character string with a length of 1.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH721I W *csectname* **LINE** *nnnn* **COL** *cc***. THE WHERE CLAUSE, GROUP BY CLAUSE, OR HAVING CLAUSE IS INVALID FOR THE GROUPED VIEW** *table***.**

Explanation: If the table identified in the FROM clause is a grouped view, then the table expression must not contain a WHERE clause, GROUP BY clause, or HAVING clause.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH722I W *csectname* **LINE** *nnnn* **COL** *cc***.** *name* **OCCURS MORE THAN ONCE IN A FROM CLAUSE**

Explanation: One of the following conditions was found:

- The table name occurs more than once in a FROM clause.
- The correlation name is identical to a table name or to another correlation name in a FROM clause.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH723I W *csectname* **LINE** *nnnn* **COL** *cc***. ONLY ONE TABLE REFERENCE IS ALLOWED IN THE FROM CLAUSE FOR A GROUPED VIEW**

Explanation: If the table identified by table name is a grouped view, then the FROM clause must contain exactly one table reference.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH724I W *csectname* **LINE** *nnnn* **COL** *cc***. A REFERENCE TO THE COLUMN** *column* **WHICH IS DERIVED FROM A SET FUNCTION IS INVALID IN A WHERE CLAUSE**

Explanation: A value expression directly contained in the search condition of a WHERE clause must not include a reference to a column derived from a set function specification.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH725I W *csectname* **LINE** *nnnn* **COL** *cc***. A WHERE CLAUSE MUST BE CONTAINED IN A HAVING CLAUSE WHEN A FUNCTION IS USED**

Explanation: If a value expression directly contained in the search condition is a set function specification, then the WHERE clause must be contained in a HAVING clause.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH726I W *csectname* **LINE** *nnnn* **COL** *cc***. THE COLUMN SPECIFICATION FOR** *column* **MUST BE AN OUTER REFERENCE**

Explanation: If a value expression directly contained in the search condition is a function, then the column specification in the function must be an outer reference.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH727I W *csectname* **LINE** *nnnn* **COL** *cc***. THE COLUMN** *column* **IS DUPLICATED WITHIN THE CURRENT SCOPE**

Explanation: The specified column is duplicated within the current scope.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH728I W *csectname* **LINE** *nnnn* **COL** *cc***. THE COLUMN SPECIFICATION FOR table SHOULD BE A GROUPING COLUMN OR SHOULD BE SPECIFIED WITHIN A SET FUNCTION**

Explanation: Each column specification contained in a subquery in the search condition of a HAVING clause must reference a grouping column or be specified within a set function specification.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH729I W *csectname* **LINE** *nnnn* **COL** *cc***. THE DEGREE OF TABLE** *table* **SHOULD BE 1 WHEN USING A RESULT SPECIFICATION OF ***

Explanation: The degree of the table expression must be 1 if the result specification '*' is specified in a subquery of any predicate other than an EXISTS predicate.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH730I W *csectname* **LINE** *nnnn* **COL** *cc***. THE SET FUNCTION IS NOT VALID FOR THE TABLE EXPRESSION BEGINNING WITH** *table*

Explanation: One of the following conditions was not met:

- If the table expression is a grouped view, the result specification of a subquery cannot contain a set function specification.
- If the table expression is a grouped view, the select list of a query specification cannot contain a function.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH731I W *csectname* **LINE** *nnnn* **COL** *cc***. THE COLUMN SPECIFICATION FOR** *column* **IS INVALID**

Explanation: One of the following conditions was not met:

- For a grouped table, the column specification must reference a grouping column or be specified within a set function specification.
- If it is not a grouped table, and the value expression includes a set function specification, then each column specification must be specified within a set function.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH732I W *csectname* **LINE** *nnnn* **COL** *cc***. DISTINCT IS SPECIFIED MORE THAN ONCE.**

Explanation: One of the following conditions has not been met:

- DISTINCT must not be specified more than once in a query specification, excluding any subquery of that query specification.
- DISTINCT must not be specified more than once in a subquery, excluding any subquery contained in that subquery.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH733I W *csectname* **LINE** *nnnn* **COL** *cc***. THE COMPARISON PREDICATE SUBQUERY CANNOT CONTAIN A GROUP BY OR HAVING CLAUSE**

Explanation: If a subquery is specified in a comparison predicate, then the table expression whose FROM clause identifies the named table must not contain a GROUP BY clause or a HAVING clause.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH734I W *csectname* **LINE** *nnnn* **COL** *cc***. THE COMPARISON PREDICATE SUBQUERY CANNOT IDENTIFY A GROUPED VIEW**

Explanation: If a subquery is specified in a comparison predicate, then the table expression whose FROM clause identifies the named table must not identify a grouped view.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH735I W *csectname* **LINE** *nnnn* **COL** *cc***. INVALID AUTHORIZATION IDENTIFIER** *authid*

Explanation: The authorization identifier prefixed to the table name is invalid.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH736I W *csectname* **LINE** *nnnn* **COL** *cc***. THE TABLE OR VIEW** *name* **ALREADY EXISTS**

Explanation: The table name or view name specified already exists in the catalog.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH737I W *csectname* **LINE** *nnnn* **COL** *cc***. THE COLUMN DEFINITION IS MISSING**

Explanation: At least one column definition should be specified for a CREATE TABLE.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH738I W *csectname* **LINE** *nnnn* **COL** *cc***. THE DATA TYPE** *type1* **OF THE TARGET IS NOT COMPATIBLE WITH THE DATA TYPE** *type2* **OF THE SOURCE**

Explanation: Data types should match between source and target in a FETCH and SELECT statement.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH739I W *csectname* **LINE** *nnnn* **COL** *cc***. YOU MUST SPECIFY A VIEW COLUMN LIST FOR** *table*

Explanation: If any two columns in the table specified by the query specification have the same column name, or if any column of that table is an unnamed column, then a view column list must be specified.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH740I *xxxxxx phase* **FINISHED, RC =** *retcode***, LISTING IN** *data-set*

Explanation: The DSNH INST phase completed with return code *retcode*. The *phase* is one of the following:

PLI Macro Pass
Precompiler
CICS Command Translator
Bind Package
Bind Plan
Compile/assembly
PLI
Prelink (unique to C/370 Compiler)
Link
Run

If the CLIST puts the listing into a data set, the name of the data set is shown as *data-set*. If the PRINT parameter is LEAVE, NONE, or TERM, the 'LISTING IN *data-set*' part of this message is omitted.

Refer to message DSNH756I for an explanation of the print data set names assigned during processing.

This message is issued by the following CLIST: DSNH

Severity: *retcode*

System Action: Processing continues as requested.

User Response: This phase is complete. If there are errors, other messages are produced. The next phase requested begins. The order of the phases is:

1. PLI Macro Pass
2. Precompiler
3. CICS Command Translator
4. Bind Package
5. Bind Plan
6. ASM, ASMH, C (C/370 Compiler), COBOL, COBOL2, FORTRAN, PLI
7. Prelink
8. Link
9. Run

DSNH741I *process1***(NO) IMPLIES THAT** *process2* **CANNOT BE RUN**

Explanation: An inconsistent processing set was specified. An earlier phase and a later phase were requested, but not the intermediate step needed to process data between them. For example, requesting the precompile and the link edit without the compile produces this error. Values for *process1* are PRECOMP, CICSXLAT, COMPILE, LINK, or BIND. Values for *process2* are COMPILE, LINK, or RUN.

This message is issued by the following CLIST: DSNH

Severity: 4 (warning)

System Action: *process2* is not performed, but other processing is done.

User Response: Specify a consistent combination of processing. Application program preparation needs to run all the steps to provide a correct application program. The process does allow beginning or ending steps to be run at a different time. See message DSNH740I for the required step order.

DSNH750I INVALID DATA SET: *clist-keyword clist-keyword-parameter*

Explanation: The data set name specified on the *clist-keyword-parameter* contains unbalanced parenthesis.

This message is issued by the following CLIST: DSNH

Severity: 8 (error)

System Action: The CLIST is terminated.

User Response: If a member name is to be associated with the specified data set, the member name must be enclosed in parentheses.

DSNH751I *clist* **ERROR IN** *parameter* **VALUE** *value*

Explanation: The specified CLIST keyword *parameter* does not have an acceptable value.

This message is issued by the following CLISTs: DSNH, DSNHC

Severity: 8 (error)

System Action: The CLIST processing is terminated.

User Response: Refer to the DSNH (TSO clist) section in *Command Reference* for a complete list of the supported CLIST parameters and their associated values. Correct the invalid parameter, and resubmit the job.

DSNH752I INPUT DATA SET NAME IS MISSING OR NONE

Explanation: The DSNH CLIST requires a value for the input data set name (INPUT). You cannot use an input data set name of NONE.

This message is issued by the following CLIST: DSNH

Severity: 0 (successful)

System Action: The CLIST prompts for a name, if prompting is allowed. If prompting is not allowed, for example in batch or when PROFILE NOPROMPT was entered, the CLIST terminates.

User Response: Specify an INPUT name. See message DSNH753I.

DSNH753I ENTER INPUT DATA SET NAME

Explanation: The CLIST is requesting the name of the input data set.

This message is issued by the following CLIST: DSNH

Severity: 0 (successful)

System Action: The system waits for user to enter data set name or for the CLIST to be terminated.

User Response: Enter the name of the data set. Do not specify the parameter or command, but just enter the name of the data set. The standard TSO prefixing will be done if the data set name is not entered within apostrophes.

DSNH754I *clist* **OUTNAME PARAMETER** *name* **MUST NOT CONTAIN SPECIAL CHARACTERS**

Explanation: The DSNH and DSNHC CLISTs, *clist*, use the OUTNAME parameter to build names for a number of data sets that are passed from phase to phase. These names are prefixed by an authorization ID or TSO prefix value and have a number of suffixes. For this reason, OUTNAME parameter *name* must not contain special characters. It can contain a period or national characters. It cannot have apostrophes to specify a single data set name.

This message is issued by the following CLIST: DSNH

Severity: 8 (error)

System Action: The CLIST is terminated.

User Response: Correct the input request. The default for this parameter is TEMP, which should be adequate for most usage.

DSNH755I OUTNAME PARAMETER *name* **MUST NOT BEGIN THE SAME AS INPUT** *input*

Explanation: The DSNH CLIST uses the OUTNAME parameter *name* to build a number of data sets that are passed from phase to phase. These data sets could conflict with the INPUT data set (*input*) if the names are the same, causing the INPUT data set to be overwritten. To avoid this problem, the names are not allowed to have the same initial characters.

This message is issued by the following CLIST: DSNH

Severity: 8 (error)

System Action: The CLIST is terminated.

User Response: Correct the input request. Specify a different OUTNAME. The default for OUTNAME is TEMP.

DSNH756I *clist* **PRINT PARAMETER** *name* **MUST NOT CONTAIN SPECIAL CHARACTERS**

Explanation: The DSNH and DSNHC CLISTs (*clist*) use the PRINT parameter to build names for data sets used for the print listings from various phases. These names are prefixed by an authorization ID or a TSO prefix value and have a number of suffixes. The PRINT parameter *name* can contain a period or national characters, but it cannot contain special characters. It cannot have apostrophes to specify a single data set name.

The data set names built using the PRINT(print) qualifier are the following:

print.CXLIST	CICS Command Translator
print.LINKLIST	Linkage Editor
print.LIST	Compiler or Assembler
print.PCLIST	DB2 Precompiler
print.SYSCPRT.LIST	C/370 Compiler
print.SYSOUT.PRELLIST	C/370 Prelink Utility

This message is issued by the following CLISTs: DSNH, DSNHC

Severity: 8 (error)

System Action: The CLIST terminates.

User Response: Correct the *name* specified with the PRINT parameter.

DSNH757I ERROR IN PLAN NAME LENGTH *value*

Explanation: The *value* is too long for a plan name. A plan name has a maximum of 8 characters.

This message is issued by the following CLIST: DSNH

Severity: 8 (error)

System Action: The CLIST is terminated.

User Response: Specify a plan name with 8 or fewer characters.

DSNH758I HOST(*host-language***) IS NOT PERMITTED WITH RUN(IMS) OR RUN(CICS)**

Explanation: There is no facility for connecting a FORTRAN program to either IMS or CICS.

This message is issued by the following CLIST: DSNH

Severity: 8 (error)

System Action: The CLIST terminates.

User Response: Use the specified language in the TSO or batch environment.

DSNH759I *clist* **TERMINATING,** *phase* **RC =** *retcode*

Explanation: The DSNH or DSNHC *clist* terminated at *phase* because the return code *retcode* was greater than or equal to the RCTERM parameter value.

The *phase* is one of the following:

ASM	ASMH
BIND Package	BIND Plan
	CICS Command Translator
COBOL	COB2
CLIST CHECKING	FORTRAN
PLI	C (C/370 Compiler)
Prelink	Link
PLI Macro Pass	Precompiler
Run	

This message is issued by the following CLISTs: DSNH, DSNHC

Severity: *retcode*

System Action: The CLIST terminates.

User Response: Determine the cause for the high return code. If the parameters include TERM(NONE) and direct the PRINT to a data set, you might need to search the print data sets for the listing of the error. Refer to message DSNH756I for an explanation of the print data set names assigned during processing.

Problem Determination: The location of the messages describing the prior errors depends upon the values of the TERM and PRINT parameters. The messages can be directed to the terminal, to preallocated data sets, or to data sets dynamically allocated during CLIST processing.

If TERM(NONE) PRINT(NONE) was specified, the messages are not available. Execute the CLIST again and specify a location for the error messages.

To find the documentation, note the immediately preceding DSNH740I message for the location of the listings. If the 'LISTING IN data-set' portion of the message is missing, specify a PRINT data set, SOURCE(YES) and XREF(YES), and execute the CLIST again. Use TERM(TERM) to direct error messages to your terminal. These listings and execution of the DSNH CLIST are required for problem diagnosis.

If the error is in the CLIST or the error location is CLIST CHECKING, use CONTROL(SYMLIST) to produce a detailed trace of the CLIST execution and provide the trace listing.

Check for DSNH751I messages that describe the error.

DSNH760I PRELINK OPTION INVALID WITH HOST LANGUAGE (*host-language***)**

Explanation: Invocation of the PRELINK step is not supported by *host-language*. This option is valid only with C language (C/370 compiler).

This message is issued by the following CLIST: DSNH

Severity: 8 (error)

System Action: The CLIST terminates.

User Response: Refer to the description of the DSNH PRELINK keyword option in *Command Reference* .

DSNH770I W *csectname* **LINE** *nnnn* **COL** *cc***. YOU MUST DECLARE COLUMN** *column* **AS NOT NULL**

Explanation: All columns identified as UNIQUE must be defined with the NOT NULL option.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH771I W *csectname* **LINE** *nnnn* **COL** *cc***. THE VIEWED TABLE** *table* **MUST BE UPDATEABLE**

Explanation: When the WITH CHECK OPTION is specified, then the viewed table must be updateable.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH772I W *csectname* **LINE** *nnnn* **COL** *cc***. INVALID NUMBER OF COLUMN NAMES**

Explanation: The number of column names in the view column list should be the same as the degree of the table specified by the query specification.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH773I W *csectname* **LINE** *nnnn* **COL** *cc***. YOU MUST DECLARE THE CURSOR** *cursor* **BEFORE USE**

Explanation: The cursor specified was not declared in a DECLARE CURSOR statement.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH774I W *csectname* **LINE** *nnnn* **COL** *cc***. THE CURSOR** *cursor* **IS ALREADY DECLARED**

Explanation: The cursor specified was already declared in a DECLARE CURSOR statement.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH775I W *csectname* **LINE** *nnnn* **COL** *cc***. ONLY '*' OR COLUMN NAMES ARE VALID IN THIS CONTEXT**

Explanation: When UNION is specified, the select list for the specification of the two table expressions identified by the query expression and query term should consist of '*' or column specifications.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH776I W *csectname* **LINE** *nnnn* **COL** *cc***. THE DESCRIPTIONS OF TABLES IDENTIFIED BY THE QUERY EXPRESSION BEGINNING WITH TABLE:** *table1* **AND THE QUERY TERM BEGINNING WITH TABLE:** *table2* **SHOULD BE IDENTICAL**

Explanation: When UNION is specified, the descriptions of the two tables should be identical, except for the column names.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH777I W *csectname* **LINE** *nnnn* **COL** *cc***. THE SORT SPECIFICATION** *number* **IS OUTSIDE THE DEGREE OF TABLE** *table*

Explanation: If the sort specification contains an unsigned integer, it should be greater than zero and not greater than the number of columns in the table.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH778I W *csectname* **LINE** *nnnn* **COL** *cc***. THE TABLE** *table* **IS A READ-ONLY TABLE**

Explanation: A DELETE, an INSERT, or an UPDATE statement was specified on a read-only table.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH779I W *csectname* **LINE** *nnnn* **COL** *cc***. THE TABLE** *table* **MUST NOT BE IDENTIFIED IN A FROM CLAUSE OF ANY SUBQUERY CONTAINED IN A SEARCH CONDITION**

Explanation: A table specified in a DELETE or an UPDATE statement cannot be used in a FROM clause of any subquery contained in its search condition.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH780I W *csectname* **LINE** *nnnn* **COL** *cc***. THE TABLE** *table1* **IS NOT THE FIRST TABLE** *table2* **SPECIFIED IN THE DECLARE CURSOR STATEMENT**

Explanation: The table specified in a DELETE or an UPDATE statement should be the first table specified in the FROM clause of the DECLARE CURSOR statement.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH781I W *csectname* **LINE** *nnnn* **COL** *cc***. THE NUMBER OF TARGET SPECIFICATIONS DO NOT MATCH THE DEGREE OF TABLE** *table*

Explanation: The number of target specifications in the FETCH statement do not match the degree of the table specified.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH782I W *csectname* **LINE** *nnnn* **COL** *cc***. THE TARGET TABLE** *table* **OF THE INSERT STATEMENT IS ALSO IN THE FROM CLAUSE OR IN A CONTAINED SUBQUERY**

Explanation: The named table must not be identified in a FROM clause of a query specification or of any subquery contained in the query specification.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH783I W *csectname* **LINE** *nnnn* **COL** *cc***. THE NUMBER OF COLUMNS SPECIFIED DOES NOT MATCH THE NUMBER OF VALUES SPECIFIED**

Explanation: In an INSERT statement, the number of columns specified does not match the number of values specified.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH784I W *csectname* **LINE** *nnnn* **COL** *cc***. THE NUMBER OF COLUMNS SPECIFIED DOES NOT MATCH THE DEGREE OF TABLE** *table* **IN THE QUERY SPECIFICATION**

Explanation: The number of columns specified in an INSERT statement does not match the degree of the table specified in the query specification.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH785I W *csectname* **LINE** *nnnn* **COL** *cc***. THERE IS A DATA TYPE OR LENGTH MISMATCH BETWEEN COLUMN** *column* **AND ITS INSERT OR UPDATE ITEM**

Explanation: One of the following conditions was not met:

- If the data type of the column name is character string, then the corresponding item in the INSERT or UPDATE statement should be character string with a length equal to or less than the length of the column name.
- If the data type of the column name is exact numeric, then the corresponding item in the INSERT or UPDATE statement should be exact numeric.
- If the data type of the column name is approximate numeric, then the corresponding item in the INSERT or UPDATE statement should be approximate numeric or exact numeric.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH786I W *csectname* **LINE** *nnnn* **COL** *cc***. YOU CANNOT USE A GROUP BY OR HAVING CLAUSE OR IDENTIFY A GROUPED VIEW IN THIS CONTEXT**

Explanation: The table identified in the FROM clause of the table expression in a SELECT statement should not include a GROUP BY or HAVING clause and should not identify a grouped view.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH787I W *csectname* **LINE** *nnnn* **COL** *cc***. THE NUMBER OF ELEMENTS SPECIFIED IN THE SELECT LIST SHOULD MATCH THE NUMBER IN THE TARGET LIST**

Explanation: In the SELECT statement, the number of elements specified in the select list should match the number of elements in the target list.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH788I W *csectname* **LINE** *nnnn* **COL** *cc***. THE SET FUNCTION** *function* **IS NOT ALLOWED IN AN UPDATE STATEMENT**

Explanation: A value expression in a SET clause of an UPDATE statement should not include a set function specification.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH789I W *csectname* **LINE** *nnnn* **COL** *cc***. YOU CANNOT SPECIFY NULL FOR NOT NULL COLUMN** *column*

Explanation: If NULL is specified in the SET clause of the UPDATE statement, then the corresponding column should allow nulls.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH790I W *csectname* **LINE** *nnnn* **COL** *cc***. THERE IS AN INVALID SQL TERMINATOR FOR THE HOST LANGUAGE**

Explanation: The SQL statement was not terminated by the correct construct for the host language being processed.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH791I W *csectname* **LINE** *nnnn* **COL** *cc***. YOU MUST DEFINE THE HOST VARIABLE** *identifier*

Explanation: The host variable named was either not defined within the program or defined outside the SQL declaration section.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH792I W *csectname* **LINE** *nnnn* **COL** *cc***. THE TABLE** *table* **WAS NOT FOUND IN THE CATALOG**

Explanation: The named table does not exist in the catalog.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH793I W *csectname* **LINE** *nnnn* **COL** *cc***. THERE IS AN INVALID IDENTIFIER FORMAT** *identifier* **FOR HOST LANGUAGE** *language*

Explanation: The format of the identifier name displayed does not meet the requirements of the host language.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH870I W *csectname* **THERE IS NOT ENOUGH MEMORY FOR THE FLAGGER; FLAGGING IS DISCONTINUED**

Explanation: The flagger could not allocate enough storage to load all required modules.

Severity: 4

System Action: Precompiling continues but flagger operation is discontinued.

User Response: Increase the region size in the JCL for the application. Allocate more storage for flagger operation.

DSNH871I W *csectname* **AN ERROR OCCURRED WHEN ATTEMPTING TO LOAD THE FLAGGER MODULE** *module***. FLAGGING IS DISCONTINUED**

Explanation: A flagger module was not found during flagger initialization.

Severity: 4

System Action: Precompiling continues but flagger operation is discontinued.

User Response: Refer to the message produced by the operating system for details of causes and proceed as instructed for that message.

DSNH872I W *csectname* **AN ERROR OCCURRED WHEN INITIALIZING THE FLAGGER. FLAGGING IS DISCONTINUED**

Explanation: An internal error occurred during flagger initialization.

Severity: 4

System Action: Precompiling continues but flagger operation is discontinued.

User Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNH873I W *csectname* **THE FLAGGER COULD NOT PROCESS THE SQL STATEMENT. FLAGGING IS DISCONTINUED**

Explanation: An SQL statement passed to the flagger caused an internal error within the flagger.

Severity: 4

System Action: Precompiling continues but flagger operation is discontinued.

User Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNH874I W *csectname* **AN ERROR OCCURRED WHEN TERMINATING THE FLAGGER**

Explanation: An internal error occurred during flagger termination.

Severity: 4

System Action: Precompiling continues but flagger operation is discontinued.

User Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNH875I W *csectname* **AN ERROR OCCURRED WHEN ATTACHING TO DB2, REASON CODE: X'***reason***'; FLAGGING CONTINUED AS SYNTAX ONLY**

Explanation: An error occurred while trying to connect or disconnect from the DB2 subsystem.

Severity: 4

System Action: Processing continues without semantics flagging.

User Response: Refer to the reason code returned in this message and perform corrective actions.

DSNH876I W *csectname* **AN ERROR SQLCODE** *sqlcode* **WAS RETURNED DURING FLAGGER ACCESS TO THE CATALOG OBJECT** *authid.table***. MODULE NAME:** *module* **ERROR REASON CODE: X'***reason***'; FLAGGING CONTINUES WITH SYNTAX CHECK ONLY**

Explanation: An error occurred during the execution of a flagger access to the DB2 catalog.

Severity: 4

System Action: Processing continues without semantics flagging.

User Response: Use the provided SQL return code, object type, and name to identify the problem. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNH877I W *csectname* **NOT ENOUGH MEMORY FOR FLAGGER OPERATION: RETURN CODE: return**

Explanation: Insufficient storage is available for flagger operation.

Severity: 4

System Action: Processing continues without flagging.

User Response: Check whether the storage allocation for the precompiler can be increased. Allocate more storage for flagger operation.

DSNH878I W *csectname* **ERROR RELEASING FLAGGER MEMORY; FLAGGING IS DISCONTINUED**

Explanation: An error occurred when a flagger module attempted to release storage back to the flagger pool.

Severity: 4

System Action: Processing continues without flagging.

User Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNH879I W *csectname* **ERROR RELEASING FLAGGER MEMORY; RETURN CODE** *return*

Explanation: An error occurred when a flagger module attempted to release storage back to the operating system.

Severity: 4

System Action: Processing continues without flagging.

User Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNH880I W *csectname* **AN ERROR WAS RETURNED DURING FLAGGER ACCESS TO THE DB2 CATALOG; REASON CODE: X'***reason***' RETURN CODE X'***return***'**

Explanation: An error occurred when a flagger module attempted to access the system catalog.

Severity: 4

System Action: Processing continues without flagging.

User Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNH901I S *csectname* **U LINE** *nnnn* **COL** *cc* **INTERNAL PRECOMPILER ERROR – REASON CODE** *ccc*

Explanation: An internal compiler consistency check failed. Reason codes are:

000 The message formatter was called with an unlisted internal message number.

001 The parser received a token code of 0 from the lexical scan. Lexical scan refers to a scan of words rather than syntax.

002 Error in storage suballocation control blocks.

- The error might have occurred because a DB2 SQL statement limitation was exceeded. The SQL statement might be referencing, creating, or declaring more columns than the DB2 defined maximum number allowed for an SQL statement. Another possibility is that too many host variables are being referenced in the SQL statement.

003 Error in a storage suballocation request.

- This error might have occurred because of storage constraints when building the DBRM entry for the SQL statement or because the SQL statement exceeds the DB2 maximum statement length.

004 Error in pointer structures.

005 On BIND or REBIND, a host variable was not found.

006 Unexpected value for parser option.

007 The internal limit was exceeded.

- A fully qualified name exceeds the maximum length of 255 characters.
- The size of a DBRM record exceeds 65536 bytes of storage.

008 Internal conversion error.

- An error occurred when converting a timestamp version-id.

Severity: 16 (unrecoverable error)

System Action: The precompiler is terminated immediately.

User Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A copy of the application program source and the printout is useful (specify SOURCE and XREF).

DSNH904I *csectname* **U STORAGE OVERFLOW**

Explanation: More storage is needed, but could not be obtained during precompiler/parser execution.

Severity: 16 (unrecoverable error)

System Action: The precompiler/parser is terminated immediately.

System Programmer Response: The storage required for the current statement could not be acquired or exceeds the maximum for a single request. If the region size is being used completely, check whether the region can be expanded. If it cannot be expanded, the SQL statement is too large to be processed.

DSNI... Messages

DSNI001I RESTART HAS BEEN DEFERRED REASON reason TYPE type NAME name

Explanation: Restart could not be performed for one or more pages of the resource identified by *type* and *name*. Those pages are placed in the logical page list (LPL) and restart for those pages is deferred. The reason code explains why restart was not performed.

Refer to Table 3 on page X-7 for an explanation of resource type codes.

This message is issued by the following CSECT: DSNIIMPD

System Action: DB2 restart continues. Pages for which restart activity was not performed are put into the LPL.

User Response: Correct the problem indicated by the reason code. Then use the START DATABASE command or the RECOVER utility to remove the pages from the LPL.

DSNI002I *csect-name* **UNABLE TO START OBJECT TYPE** *object-type* **OBJECT NAME** *object-name* **REASON** *reason* **TYPE** *type* **NAME** *name*

Explanation: The resource identified could not be started because it was unavailable. The resource could be a database, a table space, an index space, or a partition within a table space or an index space. The 'object-type' identifies the type. The 'object-name' identifies the name. If the DB2 catalog is unavailable, 'object-type' contains binary zeros and 'object-name' contains blanks.

The resource that was unavailable is identified by 'type' and 'name'. The 'type' code identifies the type of the resource as well as the format and content of the 'name'. For an explanation of resource type codes, see “Resource Types” on page X-7. The 'reason' contains the reason code explaining why the resource was unavailable.

System Action: The specified database, space, or partition is not started and remains in its current state. If there are other databases, spaces, or partitions to be started, they are processed normally.

User Response: Correct the resource unavailable problem and reissue the -START command.

DSNI003I *csect-name* **UNABLE TO STOP OBJECT TYPE** *object-type* **OBJECT NAME** *object-name* **REASON** *reason* **TYPE** *type* **NAME** *name*

Explanation: The identified object could not be stopped because a resource required to perform the stop was unavailable. The object could be a database, a table space, an index space, or a partition within a table space or an index space.

The 'object-type' identifies the type and 'object-name' identifies the name. If the DB2 catalog is unavailable, 'object-type' contains binary zeros and 'object-name' contains blanks.

The resource that was unavailable is identified by 'type' and 'name'. The 'type' code identifies the type of the resource as well as the format and content of the resource, 'name'. For an explanation of resource type codes, see “Resource Types” on page X-7. The 'reason' contains the reason code explaining why the resource was unavailable.

System Action: The specified database, space, or partition is not stopped and remains in the current state. If there are other databases, spaces, or partitions to be stopped, they are processed normally.

User Response: Correct the resource unavailable problem and reissue the -STOP command.

DSNI004I RESOURCE HAS BEEN STOPPED TYPE type NAME name

Explanation: The resource identified by TYPE and NAME could not be opened/closed, initialized, or was found to be in an inconsistent state. The resource has been 'stopped' by DB2. If an open error occurred during DB2 startup, restart processing for the resource was deferred.

TYPE and NAME identify the resource that has been stopped. The TYPE code identifies the type of the resource as well as the format and content of the resource, NAME.

For an explanation of resource type codes, see “Resource Types” on page X-7.

This message is issued by the following CSECTs: DSNISDBA, DSNIBWAC

System Action: The database, table space or index space is stopped by DB2.

User Response: Previous messages provide information to allow you to determine the cause of the problem and the method of correcting it. Refer to them, and correct the problem. Then restart the database, table space, or index space using the -START command; and invoke the application again.

DSNI005I *csect-name* **LPL OR GRECP RECOVERY CANNOT BE DONE FOR START DATABASE COMMAND-ID =** *command-id* **OBJECT TYPE** *object-type* **OBJECT NAME** *object-name* **REASON** *reason* **TYPE** *type* **NAME** *name*

Explanation: The resource identified could not be recovered during a START DATABASE command identified by the 'command-id' because of problems during LPL or GRECP recovery. The resource could be a table space, an index space, or a partition within a table space or an index space. The 'object-type' identifies the type. The 'object-name' identifies the name.

The resource that could not be recovered is identified by 'type' and 'name'. The 'type' code identifies the type of the resource as well as the format and content of the 'name'. The 'reason' contains the reason code explaining why the resource could not be recovered. For an explanation of resource type codes, see “Resource Types” on page X-7. The 'reason' contains the reason code explaining why the resource could not be recovered.

The 'command-id' is a decimal number that represents a START DATABASE command.

This message, in combination with message DSNI006I or DSNI022I, provides the LPL or GRECP recovery information for a START DB command identified by the 'command-id'.

System Action: The specified space, or partition is started but remains in a LPL/GRECP state. If there are other spaces or partitions to be recovered, they are processed normally.

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User Response: Correct the problem specified by the reason code and reissue the -START command.

DSNI006I csect-name ASYNCHRONOUS GRECP OR LPL RECOVERY IN PROGRESS FOR START DATABASE COMMAND-ID = command-id TYPE type NAME name

Explanation: This message is issued in response to a START DATABASE command when the object (table space or index space) identified by TYPE and NAME had group buffer pool recovery pending (GRECP) or logical page list (LPL) status, and recovery was triggered.

The 'command-id' is a decimal number that represents a START DATABASE command.

Refer to “Resource Types” on page X-7 for an explanation of resource type codes.

System Action: The object is started. Also, GRECP or LPL recovery is initiated. During LPL or GRECP recovery process, message DSNI022I might be issued periodically to indicate the recovery status. If the recovery completes successfully, message DSNI021I will appear at the end of recovery, otherwise message DSNI005I will indicate the error.

User Response: Wait for the DSNI021I or the DSNI005I message to be issued to the console. You can periodically issue a DISPLAY DATABASE RESTRICT command for the specified table space or index space to determine whether the GRECP or LPL exception state has been cleared.

DSNI007I *csect-name* **UNABLE TO START/RECOVER BECAUSE UNABLE TO DIRECT READ A LOG RECORD LOGRBA** *logrba*

Explanation: Unable to START (or RECOVER) because the necessary log records could not be accessed. Either an error occurred while attempting to allocate or open the log data set or an expected log record was not found on the log.

If the message is in response to a START command, issue the -DISPLAY command to determine which resource(s) was not started. If the message is in response to a RECOVER utility, the resource is the table space or index space that is the object of the RECOVER.

LOGRBA gives the log RBA of the log record that is unavailable.

System Action: The resource is not started (or recovered) and remains in the current state. If this is a START command, the resources are processed normally if there are other databases or spaces to be started and they do not involve reading the log.

User Response: Resubmit the utility, or reissue the START command, when the problem with the log has been resolved.

System Programmer Response: Run the print log map (DSNJU004) utility. This may be run with DB2 up or down. Find the data set that contains the requested RBA in the output of DSNJU004. If the required RBA is not in a listed data set, one of the following may have occurred:

- The data set was deleted from the bootstrap data set by a run of the change log inventory (DSNJU003) utility. In this case, rerun the utility to insert the missing data set name. DB2 must be down to run this utility.
- The bootstrap data set has been damaged. In this case, the BSDS must be restored from the dump that occurred with the most recent archive log data set. DSNJU003 must be run to supply changes that occurred during and after the last off-load operation. Changes may be determined from the operator's console listing.

If a listed log data set contains the required RBA, this message will be preceded by one or more error messages from the log manager (DSNJ). See these messages for appropriate action.

Problem Determination: Issue the -DISPLAY command to verify what got started.

DSNI008I DATABASE VALIDATION PROCEDURE name COULD NOT BE LOADED

Explanation: The database validation procedure identified by 'name' could not be loaded.

This message is issued by the following CSECT: DSNIENSR

User Response: Correct the name, and rerun the application.

DSNI009I *csect-name* **DATABASE EDIT PROCEDURE** *name* **COULD NOT BE LOADED**

Explanation: The database edit procedure identified by 'name' could not be loaded.

User Response: Correct the name, and rerun the application.

DSNI010I BROKEN PAGE ACCESSED TYPE type NAME name MODNAME csect-name CONN-ID id CORR-ID id LUW-ID id

Explanation: The page identified by TYPE and NAME could not be accessed, because it is marked as logically broken.

The TYPE and NAME identify the resource that is currently unavailable. The TYPE code identifies the type of the resource as well as the format and content of the resource NAME.

Type codes '00000301', '00000302', and '00000303' apply to this message. Refer to “Appendix B. Problem Determination” on page X-5 for a table showing all types and names.

'csect-name' has encountered the logically broken page. CONN-ID, CORR-ID, and LUW-ID identify the thread involved in the problem. If the LUW-ID is an '*', the thread originated at this site. Correlation IDs beginning with '0nn', where 'nn' is a number from 01 to 28, identify system agents.

This message is issued by the following CSECT: DSNIADBR

User Response: If the TYPE is '00000300', use NAME to determine if the page is in an index space or a table space. Use the REPAIR utility to fix the broken page. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNI011I PAGE TEMPORARILY UNAVAILABLE TYPE type NAME name MODNAME modname ERQUAL erqual

Explanation: The page identified by TYPE and NAME has been temporarily marked as logically broken to prevent access until it can be recovered.

The TYPE and NAME identify the resource that is currently unavailable. The TYPE code identifies the type of the resource as well as the format and content of the resource NAME. Refer to Table 3 on page X-7 for an explanation of resource type codes.

The module named modname has called a page checking routine, which discovered an error in the page.

The ERQUAL gives the trace id for the error in the page. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This message is issued by the following CSECT: DSNIBROK

System Action: Automatic recovery for the page has been scheduled. The current agent will abend with reason code '00C90105', and a dump will be taken. The page will be unavailable to this and other agents until the online recovery has completed successfully. Message DSNI010I will be issued, and a 'resource unavailable' condition will be returned to any agents that attempt to access the page. If the online recovery fails, the page will be marked as broken until it is repaired or recovered (see message DSNI012I).

User Response: Save the dump. Watch for message DSNB215I (indicating successful recovery of the page), or DSNI012I (indicating failure of recovery of the page).

DSNI012I PAGE LOGICALLY BROKEN TYPE type NAME name MODNAME modname ERQUAL erqual

Explanation: The page identified by TYPE and NAME is logically incorrect. Additional attempts to access the page will be denied.

The TYPE and NAME identify the resource that is currently unavailable. The TYPE code identifies the type of the resource as well as the format and content of the resource NAME. Refer to Table 3 on page X-7 for an explanation of resource type codes.

The module named 'modname' has called a page checking routine, which discovered an error in the page.

The ERQUAL gives the trace id for the error in the page. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem. An ERQUAL of X'0000' indicates that an abend occurred during online recovery or recover utility. The page has been marked as broken, and the recovery has failed.

This message is issued by the following CSECTs:

DSNIBHRE DSNIBROK DSNIDEFR DSNI1OP

System Action: The page is marked as logically broken, an 04E abend with reason code '00C90102' is issued, and a dump is taken. The page will be unavailable to this and other agents until it is repaired.

User Response: Save the dump for analysis by IBM Support Center. Copy the table space or index space to another data set for later analysis by IBM Support Center. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Operator Response: Notify the system programmer.

System Programmer Response: See the Explanation section of this message.

DSNI013I *csect-name* **POTENTIALLY INCONSISTENT DATA REASON** *reason* **ERQUAL** *erqual* **TYPE** *type* **NAME** *name* **CONN-ID** *id* **CORR-ID** *id* **LUW-ID** *id*

Explanation: This message identifies a page with potentially inconsistent data. This message is issued for each page involved in the current data manager operation. The 'csect-name' in the message identifies the CSECT that issued the message.

The 'erqual' in the message identifies the specific abend in the CSECT that caused this message to be issued. This information and the reason code are used by IBM Support Center to identify the cause of the problem.

'name' and 'type' identify the page and its type. The TYPE code identifies the type, as well as the format and content, of the NAME. Refer to "Appendix B. Problem Determination" on page X-5 for a table showing all types and names.

CONN-ID, CORR-ID, and LUW-ID together identify the thread involved in the problem. If the LUW-ID is an '*', the thread originated at this site. Correlation IDs beginning with '0nn' where 'nn' is a number from 01 to 28, identify system agents.

For further information, see the Explanation section for the abend reason code specified in this message.

System Action: The job is abended shortly after this message appears.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run. Save this output for use in problem determination.

System Programmer Response: See the Problem Determination section for the specific abend reason code.

Problem Determination: See the System Programmer Response section of the abend reason code specified in this message.

DSNI014I *csect-name* **DATA IN USE DURING ABEND REASON 00C90101 ERQUAL** *erqual* **TYPE** *type* **NAME** *name* **CONN-ID** *id* **CORR-ID** *id* **LUW-ID** *id*

Explanation: This message identifies a page that was in use at the time an abend condition occurred with reason code 00C90101. This message is issued for each page involved in the current operation.

ERQUAL identifies the specific abend in the CSECT that caused this message to be issued. This information and the reason code are used by IBM Support Center to identify the cause of the problem.

NAME and TYPE identify the page and its type. The TYPE code identifies the type, as well as the format and content, of the NAME. Refer to Table 3 in "Appendix B. Problem Determination" on page X-5 for an explanation of resource type codes.

CONN-ID, CORR-ID, and LUW-ID together identify the agent involved in the problem. If the LUW-ID is an '*', the thread originated at this site. Correlation IDs beginning with '0nn' where 'nn' is a number from 01 to 28, identify system agents.

System Action: The job abends with reason code 00C90101 after this message appears.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run for the period of time spanning the failure. Save this output for use in problem determination.

System Programmer Response: See abend reason code 00C90101 for more information.

Problem Determination: In general, the data in these pages is fine. However, if problems are reported that repeatedly involve the same pages or if the same pages are reported by other abends, you might want to analyze the set of pages involved.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNI015I OBJECT name IS ALREADY STARTED FOR RW ACCESS. THE OBJECT WILL REMAIN STARTED FOR RW ACCESS

Explanation: The -START DATABASE command with the ACCESS(FORCE) keyword was entered, but the object specified was already started for read/write access.

This message is issued by the following CSECT: DSNILSTS

DSNI016I RESOURCE TYPE type NAME name MUST FIRST BE STOPPED BEFORE IT CAN BE STARTED IN A DIFFERENT ACCESS MODE

Explanation: When issuing the -START DATABASE command on the ROSHARE OWNER system, the object to be started must first be stopped before changing access modes. For example, if a table space in a database defined as ROSHARE OWNER is started for RW access, before it can be started for RO access it must be stopped via the -STOP DATABASE command. It can then be started for RO access via the -START DATABASE command.

This message is issued by the following CSECT: DSNILSTS

Severity: 8 (error)

System Action: The -START DATABASE command is not allowed to proceed.

User Response: Issue a -STOP DATABASE command to stop the object before attempting to start it.

DSNI017I RESOURCE TYPE type NAME name IS INCONSISTENT DUE TO ONE OR MORE PENDING STATES

Explanation: There are two possible reasons for this message:

1. The header page of a table space, index, or partition belonging to a database defined as ROSHARE OWNER could not be marked as consistent during the processing of the STOP DATABASE command because one or more of the following was true:
   - The table space, index, or partition is in recovery pending status.
   - The table space, index, or partition is in check pending status.
   - The table space, index, or partition has pages in the logical page list (LPL).
   - The table space, index, or partition status has a utility in progress (UTUT status on the output from a DISPLAY DATABASE command).
   - The table space, index, or partition has a utility in progress that allows read-only access (UTRO on the output from a a DISPLAY DATABASE command).
   - An I/O error range exists.
2. A retained lock is held on the table space, index, or partition. The retained lock could be signifying a pending status.

If the STOP DATABASE command was issued without specifying the SPACENAM parameter, then one or more of the conditions stated above is true for one or more table spaces, indexes, or partitions in the specified database.

This message is issued by the following CSECT: DSNILSTS

Severity: 4 (warning)

System Action: For case 1, if the STOP DATABASE command was specified with the SPACENAM parameter, the table space, index, or partition is stopped. DB2 does not allow access to an inconsistent table space, index, or partition by any ROSHARE READ system.

For case 2, no access to an inconsistent table space, index, or partition is allowed until the retained lock is released by the failed system at completion of its restart.

User Response: Issue a DISPLAY DATABASE command to display the status of the object in question. Resolve the pending states and then reissue the STOP DATABASE command to ensure that the consistency indicator is reset.

DSNI018I UNABLE TO GET LOCK FOR RESOURCE TYPE type NAME name. WILL RETRY TO GET LOCK.

Explanation: The resource identified by 'type' and 'name' could not be locked because of lock contention. The lock request is made again for this resource.

The 'type' and 'name' identify the resource trying to get a lock. The 'type' code identifies the type of resource as well as the format and content of the resource 'name'.

Refer to Table 3 in “Appendix B. Problem Determination” on page X-5 for an explanation of resource type codes.

This message is issued by the following CSECT: DSNISTPS

Severity: 0 (informational)

System Action: The lock request is made again for the specified resource.

DSNI019I THE STOP COMMAND FOR OBJECT name WAS OVERRIDDEN BY A START FORCE. THE STOP COMMAND IS IGNORED.

Explanation: The object identified by 'name' was not stopped because a START FORCE command on this object was subsequently issued and processed.

This message is informational only.

This message is issued by the following CSECT: DSNISTPS

Severity: 0 (informational)

System Action: The object is not stopped.

DSNI020I *csect-name* **UNABLE TO DRAIN RESOURCE TYPE** *type* **NAME** *name***. WILL RETRY DRAINING THE RESOURCE.**

Explanation: The resource identified by 'type' and 'name' could not be drained. The 'type' code identifies the type of resource as well as the format and content of the resource 'name'. The drain request is made again for this resource.

Refer to Table 3 in "Appendix B. Problem Determination" on page X-5 for an explanation of resource type codes.

System Action: The drain request is made again for the specified resource.

DSNI021I *csect-name* **GRECP OR LPL RECOVERY FOR START DATABASE COMMAND-ID =** *command-id* **TYPE** *type* **NAME** *name* **HAS COMPLETED SUCCESSFULLY.**

Explanation: The group buffer pool recovery pending (GRECP) or logical page list (LPL) exception state of the table space or index space identified by TYPE and NAME has been cleared.

The 'command-id' is a decimal number that represents a START DATABASE command.

Refer to "Resource Types" on page X-7 for an explanation of resource type codes.

This message is always preceded by the DSNI006I message, which indicates the beginning of the LPL or GRECP recovery for the object.

System Action: The identified table space or index space is started normally.

DSNI022I *csect-name* **LPL** *or* **GRECP RECOVERY LOG APPLY FOR START DATABASE COMMAND-ID =** *command-id* **AT LOGPOINT** *xxx* **TO LOGPOINT** *yyy*

Explanation: This message periodically shows the progress of the LPL or GRECP recovery of a START DATABASE command.

The 'command-id' is a decimal number that represents a START DATABASE command.

The 'xxx' is the LOGPOINT of the log record currently being processed. The 'yyy' is the LOGPOINT of the last log record that will be applied in this recovery. The value of logpoint is RBA in a non-data sharing environment and LRSN in a data sharing environment.

This message, in combination with message DSNI006I, DSNI005I or DSNI021I, provides the LPL or GRECP recovery information for a START DATABASE command identified by the 'command-id'.

System Action: The LOGAPPLY phase continues normally.

DSNJ... Messages

DSNJ001I *csect-name* **CURRENT COPY** *n* **ACTIVE LOG DATA SET IS DSNAME=..., STARTRBA=..., ENDRBA=...**

Explanation: This message is generated for one of two reasons:

1. When the log manager is initialized, it sends this informational message to identify the current active log data sets (copy-1 and, if dual logging is used, copy-2).
2. When the current active log data set is full, DB2 will switch to the next available active log data set. This message identifies the next available active log data set which will be used for logging.

The value specified by the STARTRBA=value keyword is the RBA of the first byte of log data in the named data set. The value specified by the ENDRBA=value keyword is the RBA of the last possible byte in the data set. These values may later be needed for a conditional restart.

System Programmer Response: None required. However, if recovery is required, information from this message may be required as input to the change log inventory (DSNJU003) utility.

DSNJ002I **FULL ACTIVE LOG DATA SET DSNAME=..., STARTRBA=..., ENDRBA=...**

Explanation: This message is sent at the time the log manager fills an active log data set and switches to a new empty data set. The message shows the name and log RBA range of the full data set.

This message is issued by the following CSECT: DSNJW307

System Programmer Response: None required. However, if recovery is required information from this message may be required as input to the change log inventory (DSNJU003) utility.

DSNJ003I **csect-name FULL ARCHIVE LOG VOLUME DSNAME=..., STARTRBA=..., ENDRBA=..., STARTxxxx=..., ENDxxxx=..., UNIT=..., COPYnVOL=..., VOLSPAN=..., CATLG=...**

Explanation: Offloading for the specified archive log data set was successfully completed for the given volume. If the data set spans multiple tape volumes, this message is generated for each tape volume. 'xxxx' is replaced by either TIME or LRSN.

System Action: An archive log data set has been created, and the archive log data set inventory in the bootstrap data set (BSDS) has been updated with the information in the message:

DSNAME	The name of the archive log data set.
STARTRBA	The starting RBA contained in the volume.
ENDRBA	The ending RBA contained in the volume.
STARTLRSN	The starting LRSN contained in the volume for data sharing systems.
ENDLRSN	The ending LRSN contained in the volume for data sharing systems.
STARTTIME	The starting store-clock value of the log records in the volume for non-data sharing systems.
ENDTIME	The ending store-clock value of the log records in the volume for non-data sharing systems.
UNIT	The device unit to which the data set was allocated.
COPYnVOL	The name of the volume. This message keyword is displayed as COPY1VOL if this is the copy-1 archive log data set, and as COPY2VOL if this is the copy-2 archive log data set.
VOLSPAN	An indicator to denote one of four conditions: • If '00', the data set is entirely contained on the volume specified by 'COPYnVOL'. • If '01', this is the first entry of a multivolume data set. • If '11', this is the middle entry of a multivolume data set. • If '10', this is the last entry of a multivolume data set.
CATLG	An indicator to denote one of two conditions: • If 'NO', the archive log data set is uncataloged. • If 'YES', the archive log data set is cataloged.

The BSDS is automatically updated with the information contained in this message; however, if recovery is required, information from this message may be required as input to the change log inventory (DSNJU003) utility.

DSNJ004I **ACTIVE LOG COPY n INACTIVE, LOG IN SINGLE MODE, ENDRBA=...**

Explanation: This message is sent when the dual active logging option is selected and copy 'n' becomes inactive. A log copy becomes inactive when the next active log data set is not ready when required. ENDRBA is the last byte of log data written on copy 'n'. This is usually caused by a delay in offload.

This message is issued by the following CSECT: DSNJW307

System Action: The log is switched to single mode until the next data set for copy 'n' is ready for logging.

If DB2 is shut down or abends while in single mode with the ZPARM option still set for dual active data sets, the previous state of the active log data sets determines what happens when DB2 is started, as follows:

- If fewer than two data sets are available (not flagged as STOPPED) for each set of active logs, DB2 startup terminates and message DSNJ112E is issued.
- If an active log data set is in NOTREUSABLE state, DB2 can be started in single logging mode, but dual mode takes effect when the other active log data set becomes available after offloading.

Operator Response: Execute an MVS *Display System Requests* command (D R,L for example) to ensure that there are no outstanding requests that are related to the log off-load process. Take the necessary action to satisfy any requests, and permit off-load to continue.

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System Programmer Response: If the switch to single mode was caused by the lack of a resource required for off-load, the necessary resource should be made available to allow off-load to complete and thus permit dual logging to proceed. If recovery is required, information from this message might be required as input to the change log inventory (DSNJU003) utility.

DSNJ005I ACTIVE LOG COPY n IS ACTIVE, LOG IN DUAL MODE, STARTRBA=...

Explanation: This message is sent when copy 'n' of the log becomes active after previously being flagged as inactive. STARTRBA is the RBA of the first byte of log data written on copy 'n' after it was activated.

This message is issued by the following CSECT: DSNJW307

System Programmer Response: None required. However, if recovery is required, information from this message may be required as input to the change log inventory (DSNJU003) utility.

DSNJ006I ALLOCATION FOR NEW ARCHIVE LOG DATA SET HAS BEEN CANCELLED BY OPERATOR.

Explanation: This message is sent if the operator answers 'N' to the WTOR message DSNJ008E.

This message is issued by the following CSECT: DSNJDS01

System Action: If the allocation is for copy 1 archive log data set, off-load terminates processing until the next time it is activated. If copy 1 has already been allocated and this request is for copy 2, off-load switches to single off-load mode for this data set only.

DSNJ007I *csect-name* **OPERATOR CANCELED MOUNT OF ARCHIVE VOL SER=** *volser*

Explanation: If the operator answers 'N' to the WTOR message DSNJ009I, this message is issued. The variable 'volser' is the volume serial of an archive log volume required for the read request.

System Action: The read request for the archive log volume fails. If the request was issued with the COND=YES parameter, return code 12 and reason code 00D1032B are returned to the requester. Otherwise, DB2 abends with reason code 00D1032B.

DSNJ008E nn OF mm ACTIVE LOGS ARE FULL. ssname NEEDS ARCHIVE SCRATCH. REPLY Y WHEN DEVICE READY OR N TO CANCEL.

Explanation: The installation has requested a WTOR before archive log data set allocation. DB2 needs a scratch volume for offloading an active log data set. 'ssname' is the name of the DB2 subsystem. 'nn' is the number of full active log data sets. 'mm' is the total number of active log data sets.

This message is issued by the following CSECT: DSNJDS01

System Action: The off-load task waits for the operator's reply.

Operator Response: The operator has three options:

- Get a scratch volume ready, make sure there is an available unit for the volume, and reply 'Y'. DB2 then continues with the off-load.
- Determine from the number of active log data sets available whether the off-load can be delayed until the next time an active log data set becomes full. If the process can be delayed, then reply 'N'.

  This response has two possible effects.

  – If dual archive logging is in effect and this allocation is for a copy 1 archive data set, the 'N' response delays the off-load process until the next active log data set becomes full.

  – However, if the copy 1 archive data set has already been allocated and this request is for copy 2, the 'N' response causes the off-load to switch to single archive mode (the switch is for this data set only).
- Defer giving a response. This causes off-load to wait before processing. However, because off-load is a separate service task, the wait does not affect DB2 performance.

If offloading to DASD, an error has occurred attempting to allocate an archive log data set. Reply 'Y' to receive the error messages.

DSNJ009E ssname NEEDS VOL SER=nnnnnn. REPLY Y TO CONTINUE OR N TO CANCEL

Explanation: The installation requested WTOR before archive log data set allocation. DB2 needs the specified archive volume for a read operation. The subsystem name is 'ssname'.

This message is issued by the following CSECTs: DSNJDS01, DSNJDS06

System Action: The archive log read service task waits for the operator's reply. This wait affects the agent for which the log read was issued and any other agents that might be waiting on the log read service task queue.

Operator Response: Locate the requested volume, ensure that a device is available, and reply 'Y'. DB2 continues with dynamic allocation and then begins reading the log.

If dual archiving is in effect, a response of 'N' causes archive read to reissue the message for the copy 'Z' copy 2 archive VOLSER with the same RBA range. A response of 'N' to this second WTOR, or to the initial WTOR for single archiving, causes the archive read service task to fail with unpredictable results.

DSNJ010I *csect-name* **INVALID RESPONSE. WTOR WILL BE REPEATED.**

Explanation: A WTOR was issued during archive data set allocation. The user did not respond correctly to the message. Either 'Y' or 'N' must be entered.

System Action: The original WTOR is repeated.

Operator Response: Reply as indicated in the repeated message.

DSNJ011I CONDITIONAL RESTART RECORD rrr CREATED AT .... WAS FOUND. REPLY Y TO USE, N TO CANCEL

Explanation: When the log manager was initialized, a conditional restart control record was found in the bootstrap data set. Both the record identifier (a 4 byte hexadecimal number) and the creation time stamp (yy.ddd hh:mm) are displayed to help identify the conditional restart record which will be used. If you want a conditional restart using that record, reply 'Y' to the message. Otherwise, reply 'N' and notify the system programmer.

System Action: If 'Y' is the response, DB2 is started conditionally, using the record found. If 'N' is the response, DB2 startup is terminated.

Operator Response: If a DB2 conditional restart is to be done and if the date and time displayed are correct, then reply 'Y' to the outstanding message. If you are not sure, then contact the system programmer.

System Programmer Response: If a normal restart of DB2 has failed and you have created a conditional restart control record with the change log inventory (DSNJU003) utility, check whether the time and date in the message agree with when you created that record. If they do, reply 'Y' to the outstanding WTOR. If they do not, reply 'N' and investigate the discrepancy.

DSNJ012I ERROR *ccc* READING RBA *rrr* IN DATA SET *ddd* CONNECTION-ID=*xxxxxxxx*, CORRELATION-ID=*yyyyyyyyyyy*

Explanation: While scanning log records read into a buffer, the log manager detected a logical error with reason code 'ccc'. 'rrr' is the log RBA of the segment in the buffer at which the error was detected. 'ddd' is the name of the active or archive log data set from which the record was read. If 'ddd' is blank, the data was read from an active log output buffer.

The connection and correlation IDs identify the user or application that encountered the problem. Messages that have the same connection ID and correlation ID relate to the same user. Correlation IDs beginning with '0nn' where 'nn' is a number from 01 to 28, identify system agents.

Refer to Section 4 (Volume 1) of *Administration Guide* for information about recovery from log failures.

This message is issued by the following CSECTs:

DSNJR005 DSNJOFF1 DSNJOFF4 DSNJW009

System Action: The application program that invoked the log manager is terminated with reason code 'ccc'. However, information in this message may be useful in diagnosing the abend that will follow.

DSNJ013I TERMINAL ERROR *ccc* IN BUFFER *rrr* BEFORE ACTIVE LOG WRITE

Explanation: A scan of the log output buffer just prior to writing the buffer detected an inconsistency in the log data. 'ccc' is the abend reason code associated with the SDUMP that is produced. 'rrr' is the log RBA at which the error was detected.

This message is issued by the following CSECT: DSNJW107

System Action: DB2 will terminate with a dump, and will not write the damaged buffer to either COPY 1 or COPY 2 active log data set.

Operator Response: Notify the system programmer. Start DB2 after it terminates.

System Programmer Response: Because the damaged buffer has not been written to a log data set, DB2 may be restarted. No corrective action is required.

Problem Determination: In the DB2 formatted block section of the dump, locate the chain of LBCE blocks. Those are log buffer control elements, and each LBCE controls one 4KB log output buffer. LBCEBUFF, at offset X'20' in the LBCE, points to the buffer, which is always on a 4KB boundary. The log RBA of the first byte of the buffer is in a 6-byte field at offset X'FF2' in the buffer itself. The layout of the buffer is described by the DSNDLCID mapping macro. The header of each record within the buffer is described by the DSNDLRH mapping macro. Locate the buffer that contains the log RBA from the message and find the damage by referring to the description of the reason code later in this book.

DSNJ014I TERMINAL ERROR *ccc* IN BUFFER *rrr* AFTER ACTIVE LOG WRITE.

Explanation: A scan of the log output buffer, after writing to the COPY 1 active log data set and before writing to COPY 2, detected an inconsistency in the log data. 'ccc' is the abend reason code associated with the SDUMP that is produced. 'rrr' is the log RBA at which the error was detected.

This message is issued by the following CSECT: DSNJW107

System Action: DB2 will terminate with a dump, and will not write the damaged buffer to the COPY 2 data set.

Operator Response: Notify the system programmer.

System Programmer Response: The block containing the indicated log RBA may be damaged. The buffer was found to be in error at the completion of the write to the COPY 1 data set of the active log.

If dual active logs are being used, use print log map (DSNJU004) to list the active log data sets for both copies of the active log. Find the COPY 2 data set with the corresponding RBA, and copy that data set (using access method services REPRO) to the COPY 1 data set. Start DB2.

If only a single active log is used, contact the IBM support center for assistance. An attempt to start DB2 may succeed if the damage to the buffer occurred after completion of the write to DASD.

Problem Determination: In the DB2 formatted block section of the dump, locate the chain of LBCE blocks. Those are log buffer control elements, and each LBCE controls one 4KB log output buffer. LBCEBUFF, at offset X'20' in the LBCE points to the buffer, which is always on a 4KB boundary. The log RBA of the first byte of the buffer is in a 6-byte field at offset X'FF2' in the buffer itself. The layout of the buffer is described by the DSNDLCID mapping macro. The header of each record within the buffer is described by the DSNDLRH mapping macro. Locate the buffer that contains the log RBA from the message and find the damage by referring to the description of the reason code later in this book.

DSNJ015I CSRONLY PROHIBITS LOG ALTERATIONS. RECORD *rrr* CREATED .... REPLY Y TO USE, N TO CANCEL.

Explanation: During DB2 startup, the log manager found an inactive conditional restart control record in the bootstrap data set. Because this control record indicates CSRONLY, no log data sets will be modified. If log truncation was specified, it will be simulated. Only the first phase of restart (current status rebuild) will be performed. The hexadecimal identifier (rrr) and creation timestamp (yy.ddd hh:mm) identify the record found.

This message is issued by the following CSECT: DSNJS001

System Action: A 'Y' reply will continue the conditional restart. A 'N' reply will terminate DB2 startup.

Operator Response: To continue this CSRONLY processing, reply 'Y' to this message. If you are not sure, contact the system programmer.

System Programmer Response: The conditional restart control record will not be deactivated at the end of the CSRONLY processing. To deactivate this record, either cancel this record or create a new record. Refer to Section 4 (Volume 1) of *Administration Guide* for more information.

DSNJ020I *csect-name* RECEIVED REPLY OF N TO *msg-num*. SUBSYSTEM STARTUP IS TERMINATED.

Explanation: The operator chose to terminate DB2 startup by answering 'N' to 'msg-num'.

System Action: DB2 will not restart.

Operator Response: To restart DB2, follow the 'operator response' of 'msg-num'.

DSNJ030I RBA RANGE *startrba* TO *endrba* NOT AVAILABLE IN ACTIVE LOG DATA SETS

Explanation: Previous errors have made the active log data set(s) that contain the relative byte address (RBA) range reported in the message unavailable to DB2. The status of these log(s) is STOPPED in the bootstrap data set (BSDS).

This message is issued by the following CSECT: DSNJW106

System Action: DB2 terminates with a dump.

Operator Response: Notify the system programmer.

System Programmer Response: The log RBA range must be available for DB2 to be recoverable. Correct previous errors and restore the active log data set(s) that contain the RBA range reported in the message.

- If the log data set(s) are recoverable, the active log data set inventory in the BSDS must be modified to reset the STOPPED status. Use the print log map (DSNJU004) utility to obtain a copy of the BSDS log inventory. Next, use the change log inventory (DSNJU003) utility to delete the active log data sets marked STOPPED (use the DELETE statement), and then add them again (use the NEWLOG statement). The starting and ending RBA for each active log data set must be specified on the NEWLOG statement when the log(s) are added back to the BSDS using the DSNJU003 utility.
- If the log data set(s) are not recoverable, it is necessary to conditionally restart DB2. See Section 4 (Volume 1) of *Administration Guide* for additional information on conditional restart and recovering from log failures.

Problem Determination: Examine previous messages to determine the reason the active log data set(s) are unavailable to DB2.

DSNJ050I LOAD MODULE DSNJL003 DOES NOT HAVE RMODE(24) ATTRIBUTE

Explanation: The named load module was not link edited with the required RMODE(24) attribute.

This message is issued by the following CSECT: DSNJS001

System Action: DB2 startup is terminated.

Operator Response: Notify the system programmer of the failure.

System Programmer Response: Verify that all installation and maintenance activities against this module were executed using SMP. Verify that the JCLIN for SMP includes the correct RMODE control statement, and that the Linkage Editor provided with the Data Facility Product (DFP) for the version of MVS being used was invoked by SMP for the link edits. Correct the procedure or JCL which caused the error and rerun the necessary SMP jobs.

Problem Determination: The MVS service aid AMBLIST provides Linkage Editor module attributes in the summary section of the LISTLOAD function output.

DSNJ070I *csect-name* ARCHIVE LOG DSN PREFIX NOT IN PROPER FORMAT TO RECEIVE TIMESTAMP DATA. TIMESTAMPING OF *dsnname* BYPASSED

Explanation: By way of a ZPARM parameter, the user has specified that the date and time of creation of an archive log data set be included as part of the archive log data set name (DSN). To accomplish this, the DB2 subsystem requires that the length of the archive log data set name prefix not exceed
19 characters if using the standard DATE format (YYDDD), or
17 characters if using the extended DATE format (YYYYDDD).
If the prefix requirement is not met, this message is issued just prior to the allocation of the archive log data set specified in the message.

System Action: The archive log data set will be allocated using the archive log prefix. However, the archive log DSN will not contain the date and time as the user requested.

Operator Response: Notify the system programmer.

System Programmer Response: The ZPARM parameters for the log archive function must be changed. Specifically, the TSTAMP and ARCPFXn fields are not consistent with one another. For details concerning the course of action required to
eliminate this problem, refer to Section 2 of *Installation Guide*,
under the DSNTIPH panel and DSN6ARVP macro subtopics.

System Action: The archive log data set will be allocated using the archive log prefix. However, the archive log DSN will not contain the date and time as the user requested.

DSNJ072E ARCHIVE LOG DATA SET *dsname* HAS BEEN ALLOCATED TO NON-TAPE DEVICE AND CATALOGED. ZPARM CATALOG OPTION OF 'NO' HAS BEEN OVERRIDDEN.

Explanation: By way of an archive log DSNZPARM parameter, the user specified that all archive log data sets should be uncataloged (CATLG=NO). However, DB2 requires that all archive log data sets allocated to nontape devices must be cataloged. The archive log data set specified by 'dsname' has

been allocated to a nontape device, and has thus been cataloged. The user's DSNZPARM CATLG setting of 'NO' has been overridden.

This message is issued by the following CSECT: DSNJDS04

System Action: The archive log data set has been allocated to a nontape device, and has been cataloged. The DSNZPARM CATLG=NO setting has been overridden. The BSDS reflects that the data set has been cataloged.

Operator Response: Notify the system programmer.

System Programmer Response: The DSNZPARM parameters for the log archive function must be changed. Specifically, the ARCHCTLG and ARCHDEVT fields are not consistent with one another. For details concerning the course of action required to eliminate this problem, refer to Section 2 of *Installation Guide* under the DSNTIPA panel and DSN6ARVP macro subtopics.

DSNJ073I LOG ARCHIVE UNIT ALLOCATION FAILURE DETECTED, RETURN CODE=nnnn. ALLOCATION OR OFF-LOAD OF ARCHIVE LOG DATA SET MAY FAIL.

Explanation: While building the SVC99 text entries to dynamically allocate a new archive log data set, a unit allocation failure was detected. The reason code, indicated by 'nnnn' in the message, further clarifies the problem as follows:

4 (X'04') The device type (unit name) on which the archive log data set is to be allocated is specified by the user in the DB2 system parameters. This device type (unit name) could not be found in the MVS eligible device table (EDT).

8 (X'08') The device type (unit name) on which the archive log data set is to be allocated is specified by the user in the DB2 system parameters. This device type (unit name) could not be found in the MVS eligible device table (EDT).

16 (X'10') Nonfetch protected storage could not be obtained by an MVS service to build a list of devices.

32 (X'20') DB2 was able to obtain a list of devices corresponding to the device type (unit name) specified in ZPARMs. However, it was determined by DB2 that this list contained a mixture of tape and nontape devices.

36 (X'24') Nonfetch protected storage could not be obtained by DB2 to build a parameter list for an MVS service.

40 (X'28') The device type (unit name) specified by the user in ZPARMs is valid. However, no devices are currently associated with the given device type (unit name).

44 (X'2C') The device type (unit name) specified by the user in ZPARMs is valid. However, no DASD volumes are available with a volume use attribute of 'storage'.

This message is issued by the following CSECT: DSNJDS01

System Action: This message is issued by DB2 after the SVC99 text entries are built, but prior to the allocation of the new archive log data set. As a result of the error, the dynamic allocation of the archive log data set will be attempted using standard default values. The standard default values are generally acceptable; however, the allocation may fail or the subsequent off-load may produce undesirable processing results. For example:

- A return code of 4 or 44 (X'2C') will foretell an allocation error (DSNJ103I) when the SVC99 is issued for the archive data set.
- Off-load processing to tape may fail. DB2 uses a volume count of 20 when allocating to tape, and uses the standard MVS volume count default of 5 volumes when writing to nontape devices. In the case of most of the above errors, it would be impossible for the DB2 subsystem to determine the device type on which the data set is to be allocated. Therefore, the standard MVS default is assumed for the volume count. If the data set is successfully allocated to a tape device, and the volume of data is such that more than five volumes will be used for the archive data set, the off-load processing will receive an MVS ABEND 837-08 with message IEC028I when attempting to write to the sixth tape volume.
- Off-load processing to a direct access device may fail. When allocating a new archive log data set on a direct access device, the DB2 subsystem will use a unit count to facilitate multivolume archive data sets. With most of the above errors, it may be impossible for the DB2 subsystem to correctly determine the type of device on which the data set is to be allocated. Therefore, the standard default (1) is assumed for the unit count. If the data set is successfully allocated to a direct access device, and during the off-load processing it becomes necessary to extend the data set to another device, the off-load processing will receive an MVS B37 (out of space) ABEND, and the archive log data set will be deallocated.

Operator Response: Notify the system programmer.

System Programmer Response: The required action is based on the return code indicated in the message.

4 (X'04') The most likely cause is an incorrect specification in the archive log ZPARMs (DSNTIPA panel). Correct the DEVICE TYPE field. If the DEVICE TYPE field from the archive log ZPARMs appears to be correct, check the EDT to ensure that the esoteric or generic unit name specified in the ZPARMs is actually in the EDT. Subsequent off-load processing will archive the log data which could not be previously archived due to the allocation failure (DSNJ103I).

16 (X'10') or 36 (X'24')
This is usually a temporary problem. If the allocation of the archive log data set is successful, no action is required to correct this situation. If this is a recurring problem, then sufficient page space is not available, and the region size for the DB2 data systems services may have to be increased, or standard MVS diagnostic procedures may have to be used to correct the problem.

32 (X'20') or 40 (X'28')
To correct this situation, change the archive log DEVICE TYPE ZPARM to use a device type (unit name) which contains homogenous devices, or modify the device list associated with the device

type (unit name) via a system generation to supply a list of homogenous devices.

44 (X'2C')
To correct this situation, issue an MVS mount command to change the volume use attribute of a mounted 'private' volume to 'storage'. If this is a recurring problem, a system generation may be required to add permanently resident volumes with a volume use attribute of 'storage' to the esoteric or generic unit, or ZPARMs may have to be changed to use a different esoteric or generic unit name for the DEVICE TYPE (on the DSNTIPA installation panel).

DSNJ097E *csect-name* **LOG TRUNCATION BY ENDLRSN IS ONLY VALID IN DATA SHARING.**

Explanation: ENDLRSN was specified in the active conditional restart control record but this DB2 is not a member of a data sharing group.

System Action: DB2 startup is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Run the Change Log Inventory (DSNJU003) utility with the CRESTART CANCEL parameters to cancel the conditional restart control record. Restart DB2.

DSNJ098E *csect-name* **CRCR ENDLRSN OF** *rrr* **IS** *xxx* **THAN ANY KNOWN LRSN, NO TRUNCATION WILL OCCUR**

Explanation: Truncation cannot take place because the CRCR ENDLRSN is not in the range of LRSN values known to either the active or archive logs. *rrr* is the end LRSN specified in the active record. *xxx* is replaced by either HIGHER or LOWER. If HIGHER is the case, the CRCR ENDLRSN is higher than the LRSN of the last record written to the log data sets. LOWER means the CRCR ENDLRSN is lower than the starting LRSN of the oldest archive data set.

System Action: DB2 startup is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Confirm that the ENDLRSN value specified in the Conditional Restart control record is correct. If it is not correct, run the Change Log Inventory (DSNJU003) utility with the CRESTART CANCEL parameters to cancel the conditional restart. If log truncation is desired, run the the DSNJU003 utility with the correct ENDLRSN. Restart DB2.

DSNJ099I LOG RECORDING TO COMMENCE WITH STARTRBA=...

Explanation: This message is generated when the log manager is initialized during DB2 startup. The value specified by the STARTRBA=value keyword is the RBA of the next byte of log data to be recorded in the DB2 active log data set(s). This information may later be needed for a conditional restart.

This message is preceded by one DSNJ001I message (if single logging) or two DSNJ001I messages (if dual logging).

This message is issued by the following CSECT: DSNJW007

System Programmer Response: None required. However, if recovery is required, information from this message may be required as input to the change log inventory (DSNJU003) utility.

DSNJ100I *csect-name* **ERROR OPENING BSDSn DSNAME=..., ERROR STATUS=***eeii*

Explanation: Log manager initialization or the -RECOVER BSDS command could not open the specified bootstrap data set (BSDS). BSDSn matches the ddname in the log startup JCL of the data set that cannot be opened. The value of 'n' is 1 or 2. Refer to Section 4 (Volume 1) of *Administration Guide* for information about recovery from BSDS or log failures.

System Action: When this error occurs at initialization time, DB2 startup must be terminated, because the log data sets cannot be determined and allocated without the BSDS. When this error occurs during -RECOVER BSDS processing, the command is terminated, and the system continues in single BSDS mode.

Operator Response: Notify the system programmer.

System Programmer Response: Recover the BSDS that cannot be opened. Normally, if dual BSDSs are being used, recovery consists of making a copy of the remaining good BSDS.

Problem Determination: The 'error status' contains the VSAM open return code in 'ee', and the VSAM open reason code in 'ii'. Refer to *DFSMS/MVS: Macro Instructions for Data Sets* for a list of the VSAM open return codes and reason codes, and the steps required to take corrective action.

DSNJ101E *csect-name* **CRCRERBA OF** *rrr* **IS** *xxx* **THAN ANY KNOWN RBA, BUT COLD START WAS NOT SPECIFIED**

Explanation: Truncation cannot take place because the CRCR end RBA is not in the range of RBA values known to either the active or archive logs. 'rrr' is the end RBA specified in the active record. 'xxx' is replaced by either HIGHER or LOWER. If HIGHER is the case, the CRCRERBA is higher than the end RBA of the most recent active log data set. LOWER means the CRCRERBA is lower than the starting RBA of the oldest archive data set.

System Action: DB2 startup is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Most likely, the archive log data set that contained the requested RBA has been deleted from the bootstrap data set (BSDS) by the change log inventory (DSNJU003) utility. Locate the output from an old Print Map run, and identify the data set that contains the missing RBA. If the data set has not been reused, run the DSNJU003 utility to add this data set back into the inventory of log data sets. Restart DB2.

DSNJ102I LOG RBA CONTENT OF LOG DATA SET DSNAME=..., STARTRBA=..., ENDRBA=..., DOES NOT AGREE WITH BSDS INFORMATION

Explanation: The log RBA range shown in the BSDS for the specified data set does not agree with the content of the data set. This message indicates that the change log inventory (DSNJU003) utility was used incorrectly or that a down-level volume is being used.

This message is issued by the following CSECT: DSNJW009

System Action: DB2 startup processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Use the print log map (DSNJU004) and change log inventory (DSNJU003) utilities to make the BSDS consistent with the log data sets.

DSNJ103I *csect-name* **LOG ALLOCATION ERROR DSNAME=***dsname***, ERROR STATUS=***eeeeiiii***, SMS REASON CODE=***ssssssss*

Explanation: The log manager encountered an error while attempting to allocate the active or archive log data set indicated by the DSNAME=keyword. The STATUS=keyword indicates the error reason code returned by MVS dynamic allocation (SVC99).

This message might be preceded by message DSNJ073I.

System Action: Subsequent log manager actions are based upon the type of data set involved.

For active log data sets, if the error is encountered during log manager initialization, DB2 startup is terminated. If two copies of the active log data sets are defined, this message appears only once.

For archive log data sets, if two copies of the archive log data sets are defined, processing continues on the remaining archive log data set.

Operator Response: Notify the system programmer.

System Programmer Response: The error status portion of this message contains a 2-byte error code (S99ERROR) followed by the 2-byte information code (S99INFO) from the SVC99 request block. If the S99ERROR code indicates an SMS allocation error (97XX), then 'ssssssss' contains additional SMS reason code information obtained from S99ERSN. Refer to *MVS/ESA SPL: Application Development Guide* for a description of these codes.

For active log data sets, if the problem occurred during DB2 initialization, you can resolve the problem by either:

- Resolving the error associated with the active log data set as indicated by STATUS=keyword
- Using AMS, providing another copy of the active log data set
- Updating the BSDS with the change log inventory (DSNJU003) utility
- Restarting DB2.

For archive log data sets:

- If the problem occurred during allocation with the intent to write the data set, no immediate action is required. However, failure to resolve the SVC99 error (indicated by the STATUS value in the message) might eventually cause the available space in the active log to be exhausted (DSNJ111E), since all future off-loads might fail due to the same error.
- If the problem occurred during allocation with the intent to read the data set, determine the problem, and use the DSNJU003 utility DELETE function to delete the archive log data set from the BSDS archive log inventory. Then use the NEWLOG function to add the data set back into the archive log inventory, pointing to the correct volume and device.

If additional information is required about recovery from log failures, refer to Section 4 (Volume 1) of *Administration Guide*.

This message can also be issued as the result of a possible user error. If the STATUS=keyword displays a value of '17080000', then the site might have one or more active log data sets defined in the BSDS, but not allocated on DASD. To correct the situation, print the contents of the current active log data set inventory using the print log map (DSNJU004) utility, and then do *one* of the following:

- For each active log data set listed in the BSDS, but not actually allocated on DASD, allocate the active log data set using access method services. The access method services command syntax for active log data sets can be found in the DSNTIJIN installation job stream.
- Use the DSNJU003 utility DELETE statement to delete the errant active log data set name, and the NEWLOG statement to add the correct name to the active log data set inventory. The name specified on the NEWLOG statement must be the same as the name of the actual DB2 active log data set allocated on DASD.

DSNJ104I *csect-name* **RECEIVED ERROR STATUS** *nnn* **FROM** *macro-name* **FOR DSNAME** *dsname*

Explanation: The log manager encountered an error while issuing macro 'macro-name'. Error status is the return code from the specified macro.

- For an OPEN of a VSAM data set, the return code in the error field of the access method services control block is included in this message as the error status value. Refer to the appropriate VSAM publication for a definition of these values.
- If the OPEN was for a non-VSAM data set, the error status is zero.
- For MMSRV errors, error status contains the error information returned by media manager services. If an MMSRV CATUPDT failure occurs attempting to truncate an active log data set, the log data set will be unavailable to DB2 and the status of the log data set will be flagged as 'STOPPED' in the BSDS.
- For VSAM OPEN and MMSRV errors, this message is preceded by an IEC161I message that defines the error that occurred.
- For a PROTECT of an archive log data set, the return code is from DADSM PROTECT. Refer to the appropriate MVS publication for a description of the MMSRV return codes.
- For a CLOSE of an archive log data set, the return code is the TCB completion code for an abend received during CLOSE processing. This abend is normally preceded by an IEC210I or IEC212I message that defines the error.

Refer to Section 4 (Volume 1) of *Administration Guide* for information about recovery from log failures.

System Action: If this condition is encountered during log manager initialization, DB2 startup is terminated. If the error occurs later and the data set is needed either for offload or for input operations, log manager processing continues. If a second copy of the data is available, the log manager attempts to allocate and open the second data set.

If the data set is needed as an active log data set, the log manager attempts to retry the failing request. If the retry fails, the DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If the error occurred during initialization, the installation must either correct the problem so that the data set is available or provide another copy of the data set and change the BSDSs to point to the new data set.

If the error occurred during DB2 processing, the return code should be reviewed and the appropriate action taken to correct the problem so that the data set can be used at a later time or the data set entry can be removed from the BSDS via the change log inventory (DSNJU003) utility.

If the error was received from PROTECT, there may be a problem with the PASSWORD data set. You should refer to the appropriate DADSM publication to determine the cause of the problem. When the problem has been corrected, you should ensure the archive log data sets receiving the error are added to the PASSWORD data set. If these archive log data sets are not added to the PASSWORD data set, archive read will fail when attempting to OPEN these data sets.

DSNJ105I *csect-name* **LOG WRITE ERROR DSNAME=..., LOGRBA=..., ERROR STATUS=***ccccffss*

Explanation: The log manager encountered a write error in the specified active log data set. If 'csect-name' is DSNJW107, the error occurred writing the log buffers to an active log data set. If 'csect-name' is DSNWJ207, the error occurred while preformatting the next control area before writing log data into it.

Error status contains the error information returned by media manager in the form 'ccccffss', where 'cccc' is a 2-byte return code that describes the error, 'ff' is a 1-byte code that defines the functional routine that detected the error, and 'ss' is the 1-byte status code that defines a general category of error. Refer to the appropriate MVS publication for a description of the MMCALL return codes.

If the dual active logging option is selected, the log manager switches to the next data set for this copy. If the next data set is not ready, the log manager temporarily enters single logging mode and allocates a replacement data set for the one that encountered the error. Dual logging is resumed as soon as possible.

If single active logging option is selected and the next data set is not ready, the log manager waits for that data set to be available. In this case, log writing is inhibited until the replacement is ready for output.

System Action: See the Explanation section of this message.

Operator Response: Notify the system programmer.

System Programmer Response: See the Explanation section of this message.

DSNJ106I LOG READ ERROR DSNAME=..., LOGRBA=..., ERROR STATUS=ccccffss

Explanation: The log manager encountered an error while reading an active log data set. The 'error status' contains the error information returned by the media manager in the form 'ccccffss', where 'cccc' is a 2-byte return code that describes the error, 'ff' is a 1-byte code that defines the functional routine that detected the error, and 'ss' is the 1-byte status code that defines a general category of error.

This message is issued by the following CSECT: DSNJR007

System Action: If another log data set contains the data, the log manager attempts to read the data from the alternate source. If an alternate source is not available, the log manager returns a read error return code to the program requesting the log data.

Operator Response: Notify the system programmer.

System Programmer Response: If the site is using dual logging, the requested RBA was probably retrieved from the corresponding dual active log data set, and no immediate response is necessary. However, if this error occurs frequently, or if the site is using single logging, immediate attention may be required.

Since this condition might indicate an error detected by the media manager, refer to *DFSMS/MVS: Diagnosis Reference for DFSMSdfp* for a description of media manager return codes. Take corrective action based on these codes.

It might be necessary to replace the bad data set with a new data set containing the log data, and to update the BSDSs to reflect the new data set using the change log inventory (DSNJU003) NEWLOG operation.

For additional information about recovery from log failures, rerer to Section 4 (Volume 1) of *Administration Guide*

This message can also be issued as the result of a possible user error. If the data set name associated with the DSNAME=keyword is missing, and the STATUS=keyword displays a value of '00180408' or '00100408', then the site is using dual logging, but only one set of active log data sets are defined in the BSDS. To resolve this condition, do *one* of the following:

- Define a second set of active log data sets using access method services (if they are not defined already), and update the BSDS log inventory using the DSNJU003 NEWLOG operation.
- Reset the log parameters ZPARM to indicate single logging. To do this, set the TWOACTV parameter in the DSN6LOGP ZPARMs to NO.

DSNJ107I READ ERROR ON BSDS DSNAME=... ERROR STATUS=...

Explanation: The log manager encountered an error while reading the specified bootstrap data set. Error Status contains the VSAM return and feedback codes. It is a 2-byte field with the first byte containing the hexadecimal return code and the second containing the hexadecimal feedback code. Refer to the appropriate MVS publication for a description of VSAM return and reason codes.

Refer to Section 4 (Volume 1) of *Administration Guide* for information about recovery from BSDS or log failures.

This message is issued by the following CSECT: DSNJB006

System Action: If dual BSDSs are available, the log manager attempts to read from the other BSDS. If read from the second BSDS fails or if there is only one BSDS, an error code is returned to the log request that caused access to the BSDS.

If read error is detected during start-up, DB2 initialization process is terminated to prevent users from operating in a cripple mode. User should take action to correct the problem.

Operator Response: Notify the system programmer.

System Programmer Response: It may be necessary to replace or repair the BSDS, depending on what conditions resulted from the read error. To replace a BSDS, first delete the bad BSDS, and then define the new BSDS with the same

name and attributes. If a new name is used for the new BSDS, change the log startup JCL to specify the new BSDS name.

DSNJ108I WRITE ERROR ON BSDS DSNAME=... ERROR STATUS=...

Explanation: The log manager encountered an error while writing to the specified bootstrap data set. Error Status contains the VSAM return and feedback codes. It is a 2-byte field with the first containing the hexadecimal return code and the second containing the hexadecimal feedback code. Refer to the appropriate VSAM publication for a description of VSAM return and reason codes.

This message is issued by the following CSECT: DSNJB006

System Action: If dual BSDSs are available, the log manager enters single BSDS mode using the remaining good BSDS. Otherwise, an error code is returned to the log request that caused access to the BSDS.

Operator Response: Notify the system programmer.

System Programmer Response: If dual BSDS mode is being used, execute an offline access method services job to rename the error BSDS and define a new BSDS with the same name. Then enter the log manager -RECOVER BSDS command to reestablish dual BSDS mode.

If dual BSDS mode is not being used, the DB2 subsystem must be shut down, and the BSDS must be recovered from a backup copy. To recover the BSDS, use the change log inventory (DSNJU003) utility.

DSNJ109I OUT OF SPACE IN BSDS DSNAME=...

Explanation: There is no more space in the specified bootstrap data set. The operation that encountered the out-of-space condition did not complete properly.

This message is issued by the following CSECT: DSNJB006

System Action: If dual BSDSs are available, the log manager enters single BSDS mode using the remaining good BSDS. Otherwise, an error code is returned to the log request that caused access to the BSDS.

Operator Response: Notify the system programmer.

System Programmer Response: If dual BSDS mode is being used, execute an offline access method services job to rename the full BSDS and define a new, larger BSDS with the same name. Enter the DB2 -RECOVER BSDS command to reestablish dual BSDS mode.

If dual BSDS mode is not being used, the DB2 subsystem must be shut down and the BSDS recovered offline. In this case, execute the same access method services job mentioned above to rename the full data set and define a larger data set. Next, execute an access method services REPRO job to copy the full BSDS into the new BSDS.

DSNJ110E LAST COPYn ACTIVE LOG DATA SET IS nnn PERCENT FULL

Explanation: This message is issued when the last available active log data set is 5% full, and is reissued after each additional 5% of the data set space is filled.

This message is issued by the following CSECT: DSNJW107

System Action: Each time the message is issued, the off-load processing is retried. If the situation is not corrected, the active log data space fills to capacity, message DSNJ111E is issued, and the DB2 online processing halts.

Operator Response: To clear this condition, steps must be taken to complete other waiting off-load tasks. Once an active log data set is made available (reusable) by completing the off-load process for it, the DB2 logging activity can continue.

Execute an MVS *Display System Requests* command (D R,L
for example) to determine the outstanding requests related to
the log off-load process. Take the necessary action to satisfy
any requests, and permit off-load to continue. If off-load fails to
complete normally or cannot be initiated, notify the system pro-
grammer.

System Programmer Response: Either correct the problem that is causing the off-load process to fail, or add more active log data sets. Note that the latter action requires DB2 to be down and the change log inventory (DSNJU003) utility to be run.

Possible causes for the shortage of active log data space are:

- Excessive logging. For example, too many users have requested logs at the same time or too many utilities have specified LOG(YES).
- Delayed or slow off-loading. For example, failure to mount archive volumes, incorrect replies to off-load messages, or slow device speeds.
- Excessive use of the -ARCHIVE LOG command. Each invocation of the -ARCHIVE LOG command causes the DB2 subsystem to switch to a new active log data set and to initiate an off-load of the active log. Although the -ARCHIVE LOG command will not be processed when only one active log data set remains in a copy of the active log (see DSNJ319I), excessive use of the command could have consumed all space in the active log except the current active log data sets.
- Off-loads failed. See Operator Response.
- Insufficient active log space. See Operator Response.
- Offload task no longer functioning. Issue the -ARCHIVE LOG CANCEL OFFLOAD command to abnormally terminate and restart the offload process.

DSNJ111E OUT OF SPACE IN ACTIVE LOG DATA SETS

Explanation: Due to delays in off-load processing, all available space in all active log data sets has been exhausted. DB2 recovery logging cannot continue.

This message is issued by the following CSECT: DSNJW307

System Action: The DB2 log manager waits for an available data set.

Operator Response: Execute an MVS *Display System*
Requests command (D R,L for example) to ensure that there
are no outstanding requests that are related to the log off-load
process. Take the necessary action to satisfy any requests,
and permit off-load to continue.

System Programmer Response: If the delay was caused by the lack of a resource required for off-load, the necessary resource must be made available to allow off-load to complete and thus permit logging to proceed. For additional information on recovery from this condition, refer to the discussion on DB2 system resource failures and active log failures in Section 4 (Volume 1) of *Administration Guide*.

DSNJ112E *csect-name* **INSUFFICIENT ACTIVE LOG DATA SETS DEFINED IN BSDS**

Explanation: There are not enough active log data sets defined in the BSDS to start DB2. This condition usually exists for one of the following reasons.

- Fewer than two data sets are defined for one of the active log copy sets.
- DSN6LOGP specified TWOACTV=YES in DB2 initialization parameters, but data sets for two copies of active log are not defined in BSDS.
- Fewer than two data sets are available (not flagged as STOPPED) for one of the active log copy sets.

System Action: DB2 startup is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Use the change log inventory (DSNJU003) utility to make the number of active log data sets defined in the BSDS consistent with the parameters specified on DSN6LOGP. Log data sets that are flagged as 'STOPPED' will not be reused by DB2. These data sets must be recovered (either redefined or recovered from the other copy of the log) and the log data sets must be deleted and re-added to the BSDS (using DSNJU003) with the appropriate RBA's, to clear the STOPPED status. Restart DB2.

DSNJ113E RBA log-rba X NOT IN ANY ACTIVE OR ARCHIVE LOG DATA SET. CONNECTION-ID=aaaaaaaa, CORRELATION-ID=aaaaaaaa

Explanation: The log manager has been requested to read the log record starting at this relative byte address (RBA). However, this log record cannot be found in any active or archive log data set. The connection and correlation IDs identify the user or application that encountered the problem. Correlation IDs beginning with '0nn' where 'nn' is a number from 01 to 28, identify system agents. Refer to Section 4 (Volume 1) of *Administration Guide* for information about recovery from log failures.

This message is issued by the following CSECT: DSNJR003

System Action: Depending upon what log record is being read and why, the log manager may abend with a reason code of '00D1032A'.

Operator Response: Copy the RBA value, and notify the system programmer.

System Programmer Response: Probable user error. Most likely, the archive log data set that contained the requested RBA has been deleted from the bootstrap data set (BSDS) by the change log inventory (DSNJU003) utility. Locate the output from an old print log map run, and identify the data set that contains the missing RBA. If the data set has not been reused, run the DSNJU003 utility to add this data set back into the inventory of log data sets. Restart DB2.

DSNJ114I ERROR ON ARCHIVE DATA SET, OFFLOAD CONTINUING WITH ONLY ONE ARCHIVE DATA SET BEING GENERATED

Explanation: An error occurred while accessing one of the archive data sets being created by off-load. Because the dual archive option is specified, off-load is continuing with the other archive data set. For the RBA range being off-loaded, there is only one copy of archive instead of the usual two copies.

This message is issued by the following CSECTs: DSNJOFF1, DSNJOFF4

System Action: Off-load produces a single archive data set.

System Programmer Response: A second copy of this archive log data set can be made, and the BSDS(s) can be updated with the change log inventory (DSNJU003) utility.

DSNJ115I OFFLOAD FAILED, COULD NOT ALLOCATE AN ARCHIVE DATA SET

Explanation: Off-load could not allocate an archive log data set. The off-load was not performed. This message is usually preceded by message DSNJ103I.

This message is issued by the following CSECT: DSNJOFF1

System Action: Off-load will be tried at a later time.

Operator Response: Notify the system programmer.

System Programmer Response: Review the error status information of message DSNJ103I. Correct the condition that caused the data set allocation to fail so that, on retry, the off-load can take place.

DSNJ116I ERROR ATTEMPTING TO ADD ARCHIVE ENTRY TO BSDS

Explanation: Off-load could not add an archive entry to the BSDS. The off-load is considered incomplete. The active log data set is not marked as reusable for new log data. This message is preceded by message DSNJ107I, DSNJ108I, or DSNJ109I.

This message is issued by the following CSECT: DSNJOFF3

System Action: Off-load will be retried at a later time.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to the specific preceding message for action.

DSNJ117I INITIALIZATION ERROR READING BSDS DSNAME=....., ERROR STATUS=...

Explanation: The log manager encountered an error during initialization reading from the specified bootstrap data set. Error status contains the VSAM return and feedback codes. It is a two byte field with the first containing the hexadecimal return code and the second byte containing the hexadecimal feedback code. Refer to the appropriate VSAM publication for a description of VSAM return and reason codes.

This message is issued by the following CSECT: DSNJB005

System Action: DB2 startup is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the cause of the read error using the VSAM error status information provided. Restart DB2.

DSNJ118I LOG INITIALIZATION RECEIVED RETURN CODE nnn FROM xxxxxxxx MACRO

Explanation: Log manager initialization received a bad return code from the named macro.

This message is issued by the following CSECT: DSNJS001

System Action: DB2 initialization is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the problem from the documentation on the named macro and return code. Then take appropriate steps, and restart the DB2 subsystem.

DSNJ119I BOOTSTRAP ACCESS INITIALIZATION PROCESSING FAILED

Explanation: During log manager initialization, the bootstrap data set access function was unable to complete its initialization process. Refer to Section 4 (Volume 1) of *Administration Guide* for information about recovery from BSDS or log failures.

This message is issued by the following CSECT: DSNJS001

System Action: DB2 startup is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: One or more error messages describing the specific error have preceded this message. Refer to the specific message(s) for error analysis and the appropriate action to take.

DSNJ120I DUAL BSDS DATA SETS HAVE UNEQUAL TIMESTAMPS, BSDS1 SYSTEM=..., UTILITY=..., BSDS2 SYSTEM=..., UTILITY=...

Explanation: When the log manager was initialized, the time stamps of the dual bootstrap data sets (BSDS) did not agree. The time stamps from the system and from the change log inventory (DSNJU003) utility are shown for each BSDS. The time stamps have the format yy.ddd hh:mm:ss.th.

This message is issued by the following CSECT: DSNJB005

System Action: DB2 startup is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Run the print log map (DSNJU004) utility against each BSDS. From the output, determine which data set is obsolete, delete it, define a replacement for it, and copy the remaining BSDS to the replacement.

If output from the print log map (DSNJU004) utility for both data sets is similar, delete the data set with the oldest time stamp, and copy the data set with the most recent time stamp.

DSNJ121I LOG MANAGER ENCOUNTERED AN ERROR READING THE JFCB. DDNAME=*nnnnnnnn*

Explanation: During log manager initialization (if dual BSDS data sets are specified), the job file control block (JFCB) in MVS is read to obtain the data set names associated with DDNAME BSDS1 and BSDS2. This error is caused by a missing DD statement.

This message is issued by the following CSECT: DSNJB006

System Action: DB2 is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Ensure that a DD statement exists in the DB2 startup procedure for DDNAME BSDS1. If dual BSDS data sets are used, ensure that a DD statement also exists in the DB2 startup procedure for DDNAME BSDS2.

DSNJ122I DUAL BSDS DATA SETS ARE OUT OF SYNCHRONIZATION

Explanation: During log manager initialization, the dual BSDS data sets were found to differ in content.

This message is issued by the following CSECT: DSNJB005

System Action: DB2 startup is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Run the print log map (DSNJU004) utility against each BSDS to determine which data set was last used as copy 1. Delete the copy 2 data set, define a replacement for the deleted data set, and copy the remaining BSDS to the replacement.

DSNJ123I CHANGE LOG INVENTORY FAILURE DETECTED

Explanation: During log manager initialization, the BSDS data set was found to have been incompletely processed by the change log inventory (DSNJU003) utility.

This message is issued by the following CSECT: DSNJB005

System Action: DB2 startup is terminated.

System Programmer Response: Run the print log map (DSNJU004) utility to determine what operation against the BSDS did not complete. Run the change log inventory (DSNJU003) utility against the BSDS(s) to allow any unfinished processing to be completed.

DSNJ124I OFFLOAD OF ACTIVE LOG SUSPENDED FROM RBA *xxxxxx* TO RBA *xxxxxx* DUE TO I/O ERROR

Explanation: During off-load, an unrecoverable I/O error was encountered on an active log data set. The data set experiencing the error is marked unusable, and no further logging is done to that data set.

This message is issued by the following CSECT: DSNJOFF4

System Action: Active log data sets continue to be offloaded as they become full.

Operator Response: Notify the system programmer to allow recovery actions to be initiated.

System Programmer Response: Recover the data manually from the data set, copy it to an archive data set, run the change log inventory (DSNJU003) utility to make the new archive data set available to the DB2, and remove the error-prone active log data set from DB2 by using the change log inventory utility.

DSNJ125I ERROR DUMPING BSDS, OFFLOAD CONTINUING WITHOUT PRODUCING THE BSDS DUMP

Explanation: An error occurred while dumping the BSDS data set during the off-load process. The data set is not produced, but the off-load process continues. The volume containing the off-loaded data set does not contain a BSDS for recovery use.

This message is issued by the following CSECT: DSNJOFF3

System Action: The system continues the off-load process without producing a dump of the bootstrap data set.

DSNJ126I BSDS ERROR FORCED SINGLE BSDS MODE

Explanation: The log manager encountered an I/O error or a VSAM logical error on a bootstrap data set. This message is preceded by message DSNJ107I or DSNJ108I.

This message is issued by the following CSECT: DSNJB001

System Action: The log manager enters single BSDS mode using the remaining BSDS.

Operator Response: Notify the system programmer.

System Programmer Response: Execute an offline access method services job to rename the error BSDS and define a new BSDS with the same name. Then enter the log manager -RECOVER BSDS command to reestablish dual BSDS mode.

DSNJ127I SYSTEM TIMESTAMP FOR BSDS=...

Explanation: When the log manager is initialized, the system time stamp for the bootstrap data sets (BSDS) is displayed. The time stamp is of the format yy.ddd hh:mm:ss.th. This time stamp should be close to the last time at which this subsystem was stopped. If not, then it may indicate a restart is being attempted with the wrong BSDS.

This message is issued by the following CSECT: DSNJB005

System Action: DB2 startup continues.

Operator Response: If the time displayed does not appear to be close to the time this subsystem was last stopped, contact the system programmer.

System Programmer Response: If you cannot explain the apparent time discrepancy, cancel the subsystem. From the startup procedure for the subsystem services address space, determine the data set names of the bootstrap data sets and run the print log map (DSNJU004) utility. Check whether the active and archive log data sets all belong to this subsystem. If not, then change the startup procedure for the subsystem services address space to use the correct bootstrap data sets.

DSNJ128I LOG OFF-LOAD TASK FAILED FOR ACTIVE LOG *nnnnn*

Explanation: The off-load task abended while attempting to offload the relative byte address (RBA) range in active log data set `'nnnnn'`.

This message is issued by the following CSECT: DSNJOFF6

System Action: The off-load task terminates and the archive data sets allocated to the off-load task are deallocated and deleted. The status of the active log data sets involved in the failed off-load processing remains set to `'not reusable'`.

The log off-load task will be reinitiated by one of several events. The most common are:

- All the available space in the current active log data set has been used (normal case).
- A DSNJ110E message is issued.
- The master address space is started, but data in the active log has not been archived.
- An I/O error occurs on the active log, which will force the system to truncate and off-load the active log data set, and switch to a new active log data set.

Operator Response: This message is the result of an off-load failure, and will be preceded by one or more DB2 messages (for example, DSNJ073I) and/or MVS ABEND messages (for example, IEC030I, IEC031I, IEC032I). If DB2 is operating with restricted active log resources (see message DSNJ110E), quiesce the system to restrict logging activity until the ABEND or the DSNJ110E condition can be resolved. Notify the system programmer.

System Programmer Response: This message is the result of an off-load failure, and will be preceded by one or more DB2 messages (for example, DSNJ073I) and/or MVS ABEND messages (for example, IEC030I, IEC031I IEC032I). Investigate and correct the cause of the ABEND before the off-load is attempted again by DB2.

Problem Determination: This message is the result of an off-load ABEND and will be preceded by one or more DB2 messages and/or MVS ABEND messages. See the documentation for the associated DB2 and/or MVS messages to formulate a course of corrective action. Use the print log map (DSNJU004) utility to print the BSDS (both copies if running in dual mode), and then use the DSNJU004 output to determine the current status of the active and archive log data sets.

This message can be generated for a variety of reasons. However, the most likely are:

- Archive log data set allocation errors. Refer to the text for message DSNJ103I for corrective action.
- The size of the archive log data set is too small to contain the active log data set(s) during off-load processing. All secondary space allocations have been used. This condition is normally accompanied by MVS ABEND message IEC030I.
- All available space on the DASD volume(s) to which the archive data set is being written has been exhausted. This condition is normally accompanied by MVS ABEND message IEC032I.
- The primary space allocation for the archive log data set (as specified in ZPARMs) is too large to allocate to any available online DASD device. This condition is normally accompanied by MVS ABEND message IEC032I.

DSNJ129I END OF *log-rba eol-rba* **X COULD NOT BE FOUND IN ANY ACTIVE LOG DATA SET HIGHEST RBA FOUND WAS** *hi-rba* **X**

Explanation: The log manager has been requested to find `'eol-rba'`, the log record which has been recorded in the bootstrap data set (BSDS) as the highest RBA written. This RBA cannot be found in any active log data set. The highest RBA which could be found in any active data set was `'hi-rba'`.

This message is issued by the following CSECT: DSNJW009

System Action: DB2 startup processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Most likely, the active log data set containing the requested RBA has been deleted from the BSDS by the change log inventory (DSNJU003) utility. If the data set has not been reused, run DSNJU003 to add this data set back into the BSDS. Restart DB2.

If the data set is not available, a conditional restart must be performed to either truncate the log prior to the RBA value of the missing data set, or to cold start at a higher RBA value. Refer to Section 4 (Volume 1) of *Administration Guide* for more information.

DSNJ130I ICF CATALOG NAME IN BSDS DOES NOT AGREE WITH DSNZPARM. BSDS CATALOG NAME=*name*, DSNZPARM CATALOG NAME=*name*

Explanation: The ICF catalog name defined in DSNZPARM does not agree with the name contained in the bootstrap data set (BSDS).

This message is issued by the following CSECT: DSNJB005

System Action: DB2 startup is abended.

User Response: Notify the system programmer.

Operator Response: If you attempt to start the DB2 subsystem, you will receive this same message and abnormal termination will result until the problem is resolved.

System Programmer Response: Change the ICF catalog name in the BSDS to agree with the name defined in DSNZPARM during DB2 initialization. To change the ICF catalog name in the BSDS, use the BSDS change log inventory (DSNJU003) utility with the NEWCAT control statement.

Problem Determination: During log manager initialization, the ICF catalog name defined in DSNZPARM is compared to the catalog name in the BSDS to ensure that the catalog name used by the log manager during DB2 processing is correct. These names were found not to be the same.

DSNJ139I LOG OFFLOAD TASK ENDED

Explanation: Processing of the active log off-load ended.

This message is issued by the following CSECT: DSNJOFF1

System Action: This message is written to the MVS console.

Operator Response: This message does not guarantee that the off-load completed without errors. Check the console log and task messages to review the execution of the off-load task to determine whether any abnormal events occurred during the off-load.

DSNJ140I *csect-name* INVALID BSDS RELEASE LEVEL ACTIVE=*xxxxxx* ARCHIVE=*yyyyyy* DSN=*zzzzzz*

Explanation: At initialization time DB2 detected that the BSDS log records are not at the proper release level for this release of DB2. 'xxxxxx' contains the release level for the ACTIVE log records and 'yyyyyy' contains the release level for the ARCHIVE log records. 'zzzzzz' contains the data set name for the BSDS encountering the error.

System Action: DB2 startup will be terminated.

Operator Response: Notify the system programmer so operating procedures can be changed.

System Programmer Response: Run the appropriate conversion program (DSNJMIG0 or DSNJFAL0) to convert the BSDS data set to a compatible release level.

DSNJ150E LOG CAPTURE EXIT ABEND, EXIT DEACTIVATED

Explanation: An abnormal program interrupt was detected while executing in the installation-supplied log capture exit code (i.e. entry point DSNJW117 in load module DSNJL004). As a result of the abend, the log capture exit will no longer be active; log data will no longer be available for Exit capture/processing.

This message can only occur when an installation-supplied log capture exit (entry DSNJW117) is active for this instance of DB2.

This message is issued by the following CSECT: DSNJW008

System Action: The log capture exit (entry point DSNJW117) is terminated. No further calls will be attempted for this DB2 instance. A full dump is provided for diagnostic purposes.

User Response: See “System Programmer Response” below.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the cause of the DSNJL004 load module (DSNJW117 entry point) abend and take corrective action.

Note: A correctly-functioning copy of load module DSNJL004/entry DSNJW117 must be available in order to start DB2. If the problem which caused the above abend cannot be corrected, ensure that the default DSNJW117 entry (load module DSNJL004 - supplied with the DB2 release) is available during the next DB2 subsystem start.

DSNJ151I *csect-name* IN READING RBA *rrr*, A NONZERO REASON CODE WAS RETURNED. CONNECTION-ID = *xxxx*, CORRELATION-ID = *yyyyyy*, REASON-CODE = *ccc*

Explanation: DB2 could not successfully complete the read of RBA 'rrr' due to reason code 'ccc'. The user or application that encountered the error is identified by the connection and correlation ID. Messages that have the same connection ID and correlation ID relate to the same application. Correlation IDs beginning with '0nn', where 'nn' is a number from 01 to 28, identify system agents.

System Action: DB2 attempts to recover from the error.

System Programmer Response: If DB2 was able to recover from the error and successfully complete the application, no further action is required. If the application abnormally terminated or DB2 could not recover successfully, this message is followed by one or more messages. Refer to the information in this message and the subsequent messages to determine the appropriate corrective action. For information about recovery from log failures, refer to Section 4 (Volume 1) of *Administration Guide* .

DSNJ152I *csect-name* ERROR ENCOUNTERED WHEN ATTEMPTING TO BUILD ARCHIVE LOG VOLUME LIST. CONNECTION-ID=*xxxx*, CORRELATION-ID=*yyyyyy*, REASON-CODE=*ccc*

Explanation: An error occurred while attempting to create the Archive Log Volumes report. An RBA range could not be successfully mapped into one or more archive data sets due to reason code 'ccc'. The user or application that encountered the error is identified by the connection and correlation ID. This message might be preceded by one or more related error messages. Messages that have the same connection ID and correlation ID relate to the same user. Correlation IDs beginning with '0nn', where 'nn' is a number from 01 to 28, identify system agents.

This failure could be caused by one or more missing archive log data sets, or a system error (for example, an I/O error reading BSDS).

The Archive Log Volumes report (see message DSNJ330) is not produced. In addition, no premounting of tapes is possible.

System Action: The user or application continues execution. The physical read process for the user or application continues until the job completes normally or terminates abnormally. The job can terminate abnormally if the error is encountered again when the data set is physically required for the read process.

System Programmer Response: If the user or application completes successfully, no further action is necessary. If the user or application does not complete successfully, refer to the messages related to the actual failure to determine the appropriate corrective actions. For information about recovery from log failures, refer to Section 4 (Volume 1) of *Administration Guide*.

DSNJ200I *csect-name xxxxxxxx* **UTILITY PROCESSING COMPLETED SUCCESSFULLY**

Explanation: The control section 'csect-name' successfully completed the 'xxxxxxxx' utility.

System Action: DB2 writes this message to the SYSPRINT data set, not to a console.

DSNJ201I *csect-name xxxxxxxx* **UTILITY PROCESSING WAS UNSUCCESSFUL**

Explanation: The control section 'csect-name' was unable to successfully complete processing of 'xxxxxxxx' utility.

System Action: The current utility is terminated. DB2 writes this message to the SYSPRINT data set, not to a console.

User Response: Review other messages produced by the utility to determine the appropriate action to be taken.

DSNJ202I *csect-name* **INSUFFICIENT VIRTUAL STORAGE AVAILABLE TO CONTINUE WITH UTILITY**

Explanation: A GETMAIN macro instruction has failed, because virtual storage is unavailable for the job-step.

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Rerun the utility after providing a larger virtual storage allocation for the job-step.

DSNJ203I xxxxxxxx OPERATION IS INVALID

Explanation: The user entered a utility control statement operation of 'xxxxxxxx' that is invalid.

This message is issued by the following CSECT: DSNJU001

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Correct the control statement, and rerun the utility.

DSNJ204I xxxxxxxx PARAMETER IS INVALID

Explanation: The user specified a utility control statement parameter of 'xxxxxxxx' that is invalid.

This message is issued by the following CSECT: DSNJU001

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Correct the control statement, and rerun the utility.

DSNJ205I xxxxxxxx PARAMETER HAS NO ARGUMENT

Explanation: 'xxxxxxxx' contains the name of a parameter that requires an argument.

This message is issued by the following CSECT: DSNJU001

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Specify an argument for the identified parameter and then rerun the utility.

DSNJ206I xxxxxxxx PARAMETER REQUIRES NO ARGUMENT

Explanation: 'xxxxxxxx' contains the name of the parameter that has been incorrectly followed by an = symbol.

This message is issued by the following CSECT: DSNJU001

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Correct the control statement, and rerun the utility.

DSNJ207I *csect-name* **PARAMETERS INCONSISTENT WITH SPECIFIED OPERATION**

Explanation: The user has specified utility control statement parameters that are inconsistent with the specified utility operation.

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Correct the control statement, and rerun the utility.

DSNJ209I ENDRBA VALUE MUST BE GREATER THAN STARTRBA VALUE

Explanation: The 'STARTRBA' and 'ENDRBA' parameters specify an RBA range. Hence, the ENDRBA value must be greater than the STARTRBA value.

This message is issued by the following CSECT: DSNJU103

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Correct the control statement, and rerun the utility.

DSNJ208E *csect name* **MEMBER** *member name* **WAS NOT FOUND IN THE BSDS SPECIFIED IN THE GROUP DD STATEMENT.**

Explanation: You are running the print log map (DSNJU004) utility. No member record exists for this member in the bootstrap data set (BSDS) specified in the GROUP DD statement.

System Action: The log map for this member is not printed. If the records for other members are requested and are found in the BSDS specified in the GROUP DD statement, they are printed.

User Response: Use the DISPLAY GROUP command to verify that the member name is a valid name and that the member has successfully joined the group. Also verify that the BSDS specified in the GROUP DD statement is correct. If the member name and the BSDS name are correct, then the most likely causes of this message are:

- The 'missing member' never joined the group because it was never started.
- The member whose BSDS you specified in the GROUP DD statement was down when the missing member joined the group and has not been restarted.

To gather the information from the missing member, you can rerun the utility, using the BSDS DDNAME option to point to the missing member's BSDS. To avoid this problem in the future, make sure the BSDS named in the GROUP statement is from a recently started member.

DSNJ210I OLD ICF CATALOG NAME=oldname, NEW CATALOG NAME=newname

Explanation: Change log inventory (DSNJU003) utility processing for the NEWCAT control statement has completed successfully.

oldname Either:

- The name of the prior ICF catalog or
- 'NULL' if no prior name existed.

newname The name of the ICF catalog defined by the VSAMCAT keyword.

This message is issued by the following CSECT: DSNJU003

DSNJ211I UNEXPECTED END OF DATA ON SYSIN DATA SET

Explanation: Additional control statements were expected but could not be found.

This message is issued by the following CSECTs: DSNJU001, DSNJU003

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Correct the control statement(s), and rerun the utility.

DSNJ212I *csect-name* **ERROR RETURNED FROM BSDS READ, RPLERRCD=***yy***, DDNAME=***xxxxxxxx*

Explanation: A VSAM GET was issued that resulted in a nonzero return code. 'yy' contains the error code returned by VSAM. 'xxxxxxxx' contains the ddname of the BSDS encountering the error.

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: The action taken is dictated by the return code. The BSDS may have to be recovered by use of a backup copy.

DSNJ213I *csect-name* **ERROR RETURNED FROM BSDS WRITE, RPLERRCD=***yy***, DDNAME=***xxxxxxxx*

Explanation: A VSAM PUT was issued that resulted in a nonzero return code. 'yy' contains the error code returned by VSAM. 'xxxxxxxx' contains the ddname of the BSDS encountering the error.

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: The action to be taken is dictated by the return code. The BSDS may have to be recovered by use of a backup copy.

DSNJ214I SPECIFIED DSNAME ALREADY EXISTS IN BSDS, DDNAME=xxxxxxxx

Explanation: The user attempted a NEWLOG operation with a data set name that already exists in the BSDS. An entry is never made in a BSDS if the specified DSNAME currently exists in either the active or archive records of that BSDS. 'xxxxxxxx' contains the ddname of the subject BSDS.

This message is issued by the following CSECT: DSNJU103

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Either correct the control statement and rerun the utility, or delete the existing DSNAME from the BSDS and rerun the utility.

DSNJ215I *csect-name* **SVC 99 INFORMATION REQUEST FOR DD NAME '***ddname***' FAILED. RC=** *rc***, RSN=** *rsncd***, AND INFO CODE** *infocode***.**

Explanation: The Print Log Map utility requested information from the MVS Dynamic Allocation facility about the DD name shown in the message, but the system was unable to provide the information. The return code, reason code, and information code were returned by the system's SVC 99 facility. See *MVS/ESA Programming: Authorized Assembler Services Guide* for an explanation of these codes.

System Action: If the information request was for the SYSIN DD statement, the Print Log Map utility assumes the control statement was not provided and attempts to continue the request using the SYSUT1 DD statement to locate the BSDS to be mapped.

If the information request was for the DD name of a BSDS, attempts to get information about BSDS data sets is terminated. If information about any BSDS data sets was previously

acquired, the maps of those BSDS data sets are printed. Otherwise, the utility terminates.

System Programmer Response: Use the MVS manual (or the equivalent manual for the level of MVS on your system) to help you in problem determination.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5 : 4, 32.

DSNJ216I BSDS ACTIVE LOG DATA SET RECORD IS FULL, DDNAME=xxxxxxxx

Explanation: The maximum number of active log data sets is fixed. No further entries can be inserted after the maximum has been reached. 'xxxxxxxx' contains the ddname of the subject BSDS.

This message is issued by the following CSECT: DSNJU103

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Run the print log map utility to determine the current status of the BSDS. Subsequent actions can then be formulated, depending upon the status of the BSDS.

DSNJ217I SPECIFIED DSNAME DOES NOT EXIST IN BSDS, DDNAME=xxxxxxxx

Explanation: The DELETE operation specifies a DSNAME that cannot be found in the BSDS. 'xxxxxxxx' contains the ddname of the subject BSDS.

This message is issued by the following CSECT: DSNJU203

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Correct the control statement, and rerun the utility.

DSNJ218I SPECIFIED VOLUME DOES NOT EXIST IN BSDS, DDNAME=xxxxxxxx

Explanation: The DELETE operation specifies a COPY1VOL or COPY2VOL argument that cannot be found in the BSDS. 'xxxxxxxx' contains the ddname of the subject BSDS.

This message is issued by the following CSECT: DSNJU203

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Correct the control statement, and rerun the utility.

DSNJ219I *csect-name* **OPEN ERROR, DDNAME=***xxxxxxxx*

Explanation: An error occurred when the CSECT 'csect-name' tried to open a data set named 'xxxxxxxx'.

This error can be caused by a number of different conditions. The most probable conditions are:

1. The ddname of the SYSPRINT, SYSIN, or SYSUT1 data set was not specified in the user's job control language (JCL).
2. The DB2 subsystem is currently executing.
3. The bootstrap data set (BSDS) was allocated by another job with a disposition (DISP) that conflicts with the DISP specified in the user's JCL.
4. The data set associated with 'xxxxxxxx' is already open, possibly due to an earlier system abend.
5. The user is not authorized to access the data set associated with 'xxxxxxxx'
6. Insufficient virtual storage is available to perform the OPEN command.
7. The catalog indicates that the data set associated with 'xxxxxxxx' has an invalid physical record size.

System Action: The current utility is terminated.

DB2 writes this message to the SYSPRINT data set, not to a console.

User Response: The user's action depends on the condition that caused the OPEN error. The following is a list of appropriate actions corresponding to the conditions listed in the explanation:

1. Provide the missing DD statements, and then rerun the utility. Refer to *Utility Guide and Reference* for details about the required DD statements.
2. Wait until the DB2 subsystem is inactive before running the utility again because the log utility cannot execute while the DB2 subsystem is active.
3. Correct the disposition conflict and then rerun the utility.
4. Submit an access method services (IDCAMS) VERIFY job against the data set associated with 'xxxxxxxx'. Rerun the log utility job.
5. In the case of an authorization failure, a separate message is usually generated from the authorization facility (RACF, for example). Investigate the authorization messages and obtain the proper authorization before running the utility again.
6. Insufficient virtual storage is usually accompanied by a separate error from the MVS operating system. Increase the REGION size on the JCL job step and rerun the utility.
7. Contact the system programmer.

DSNJ220I BSDS IN CREATE MODE. NO DATA TO MAP, DDNAME=nnnnnnnn

Explanation: The print log map utility found the BSDS to be in create mode, so it cannot contain data to map. 'xxxxxxxx' contains the ddname of the data set.

This message is issued by the following CSECT: DSNJU004

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Correct the JCL so that a nonnull data set can be processed.

DSNJ221I PREVIOUS ERROR CAUSED xxxxxxxx OPERATION TO BE BYPASSED

Explanation: DB2 encountered errors while processing a utility. These errors subsequently caused 'xxxxxxxx' to be bypassed.

This message is a warning only and is displayed after messages that specify the error or errors that caused the utility operation to abend. Note that the error or errors may not be associated with the current 'xxxxxxxx' operation; rather, under log utility processing, a significant error in any operation causes the control statements for this and any subsequent operations to be checked for syntax only. BSDS updates do not occur for any operation specified in this message.

This message is issued by the following CSECT: DSNJU003

System Action: The log utility continues to process. However, for this and all subsequent operations, the bootstrap data set (BSDS) is not updated and the utility only checks the syntax of the control statements.

DB2 writes this message to the SYSPRINT data set, not to a console.

User Response: Consult the previous messages and correct any errors that caused this message to be generated. Resubmit the log utility job for all operations that have been bypassed.

DSNJ222I INVALID SPECIFICATION OF xxxx PARAMETER ARGUMENT

Explanation: You specified the parameter 'xxxx'. This parameter is not valid for the argument.

This message is issued by the following CSECTs:

DSNJU103 DSNJU003 DSNJU403 DSNJU503

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Correct the parameter argument on the control statement, and rerun the utility.

DSNJ223I xxxx PARAMETER ARGUMENT EXCEEDS MAXIMUM ALLOWABLE LENGTH

Explanation: The argument value of the parameter named 'xxxx' exceeds the maximum length allowed.

This message is issued by the following CSECT: DSNJU001

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Correct the parameter argument on the control statement, and rerun the utility.

DSNJ224I xxxx PARAMETER APPEARS TOO OFTEN

Explanation: The parameter named 'xxxx' was specified more than once on the same control statement.

This message is issued by the following CSECT: DSNJU001

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Remove the redundant parameter, and rerun the utility.

DSNJ225I xxxx OPERATION SUCCESSFULLY COMPLETED

Explanation: The change log inventory (DSNJU003) utility operation named 'xxxx' completed successfully.

This message is issued by the following CSECT: DSNJU003

System Action: This message is written to the SYSPRINT data set, not to a console.

DSNJ226I SPECIFIED VOLUME ALREADY EXISTS IN BSDS, DDNAME=xxxxxxx

Explanation: The specified volume currently exists in the archive log records of the BSDS. 'xxxxxxxx' specifies the ddname of the subject BSDS.

This message is issued by the following CSECT: DSNJU103

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Either correct the parameter argument on the control statement, or delete the specified volume and rerun the utility.

DSNJ227I NO SPACE AVAILABLE IN BSDS FOR ADDITIONAL ARCHIVE VOLUME ENTRIES, DDNAME=xxxxxxxx

Explanation: The maximum number of archive volumes has been exceeded, and no more space is available for volume entries in the copy specified.

This message is issued by the following CSECT: DSNJU103

System Action: The current utility is terminated.

User Response: Delete some of the archive entries in the specified copy number, and rerun the utility.

DSNJ228I *csect-name* **LOG DEALLOCATION ERROR DSNAME=***dsname***, ERROR STATUS=***eeeeiiii***, SMS REASON CODE=***ssssssss***

Explanation: The log manager encountered an error while trying to dynamically deallocate the data set. Error status is the error reason code returned by MVS dynamic allocation.

System Action: Log manager processing continues.

Operator Response: Notify the system programmer.

System Programmer Response: The error status portion of this message contains the 2-byte error code (S99ERROR) followed by the 2-byte information code (S99INFO) from the SVC request block. If the S99ERROR code indicates an SMS deallocation error (97XX), then 'ssssssss' contains additional SMS reason code information obtained from S99ERSN. Refer to the

MVS/ESA SPL: Application Development Guide for a description of these codes.

DSNJ229I *csect-name* **OPEN FAILED FOR SYSIN**

Explanation: An error occurred when the DB2 Print Log Map utility tried to open the SYSIN data set.

Possible causes are:

1. The DD name of the SYSIN data set was not specified in the user's job control language (JCL).
2. Insufficient virtual storage is available to perform the OPEN command.
3. The characteristics of the SYSIN data set are different from those expected by the print log map (DSNJU004) utility.

System Action: DSNJU004 attempts to continue processing without an input control statement. DB2 writes this message to the SYSPRINT data set, not to the system console.

User Response: Take one of the following actions based on the cause of the error.

1. Provide the missing DD statement and rerun the utility. Refer to *Utility Guide and Reference* for details about the required DD statements.
2. Insufficient virtual storage is usually accompanied by a separate error message from the MVS operating system. Increase the REGION size on the JCL job step and rerun the utility.
3. Check that the SYSIN data set is a fixed record format (blocked or unblocked) with an LRECL of 80. You might need to contact the system programmer for help if this is a JES data set.

DSNJ230I LOG OFFLOAD SUBCOMPONENT INITIALIZATION PROCESSING FAILED

Explanation: During log manager initialization, the off-load function was unable to complete its initialization process.

This message is issued by the following CSECT: DSNJS001

System Action: DB2 startup is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: One or more error messages describing the specific error preceded this message. Refer to the specific message(s) for error analysis and the appropriate actions to take.

DSNJ231I LOG COMMAND INITIALIZATION PROCESSING FAILED

Explanation: During log manager initialization, the log command function was unable to complete its initialization process.

This message is issued by the following CSECT: DSNJS001

System Action: DB2 startup is terminated.

Operator Response: The rest of subsystem termination will direct the actions you should take.

System Programmer Response: One or more error messages describing the specific error preceded this message. Refer to the specific message(s) for error analysis and the appropriate action to take.

This message will be of interest to the IBM support center when the problem is described.

DSNJ232I OUTPUT DATA SET CONTROL INITIALIZATION PROCESSING FAILED

Explanation: During log manager initialization, the output data set control function was unable to complete its initialization process.

This message is issued by the following CSECT: DSNJS001

System Action: DB2 startup is terminated.

System Programmer Response: One or more error messages describing the specific error preceded this message. Refer to the specific message for error analysis and the appropriate action to take.

This message will be of interest to the IBM support center when the problem is described.

DSNJ233I ARCHIVE LOG READ INITIALIZATION PROCESSING FAILED

Explanation: During log manager initialization, the archive log read function was unable to complete its initialization process.

This message is issued by the following CSECT: DSNJS001

System Action: DB2 startup is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: One or more error messages describing the specific error preceded this message. Refer to the specific message(s) for error analysis and the appropriate action to take.

DSNJ234I ARCHIVE LOG COMMAND QUIESCE INITIALIZATION PROCESSING FAILED

Explanation: During log manager initialization, the quiesce function which supports the -ARCHIVE LOG MODE(QUIESCE) command processing was unable to complete its initialization process.

This message is issued by the following CSECT: DSNJS001

System Action: DB2 startup is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: One or more error messages describing the specific error preceded this message. Refer to the specific message(s) for error analysis and the appropriate action to take.

DSNJ235I OUTPUT BUFFER WRITER INITIALIZATION PROCESSING FAILED

Explanation: During log manager initialization, the output buffer writer function was unable to complete its initialization process.

This message is issued by the following CSECT: DSNJS001

System Action: DB2 startup is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: One or more error messages describing the specific error preceded this message. Refer to the specific message(s) for error analysis and the appropriate action to take.

DSNJ236I BOOTSTRAP ACCESS TERMINATION PROCESSING FAILED

Explanation: During log manager termination, the bootstrap data set access function was unable to complete its termination process.

This message is issued by the following CSECT: DSNJT001

System Action: Log manager shutdown continues to the next step.

Operator Response: Notify the system programmer.

System Programmer Response: One or more error messages describing the specific error preceded this message. Refer to the specific message(s) for error analysis and the appropriate action to take.

DSNJ237I *csect-name* **INVALID CONTROL STATEMENT. THE FIRST WORD MUST BE 'MEMBER'.**

Explanation: The print log map (DSNJU004) utility read an invalid control statement from the SYSIN data set.

System Action: DSNJU004 ignores the control statement and attempts to continue processing by looking for a SYSUT1 DD statement to describe the BSDS that is to be printed.

User Response: Refer to *Utility Guide and Reference* for information on creating a print log map (DSNJU004) utility control statement. Correct or remove the control statement and rerun the job.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5 : 32.

DSNJ238I LOG OFFLOAD TERMINATION PROCESSING FAILED

Explanation: During log manager termination, the off-load function was unable to complete its termination process.

This message is issued by the following CSECT: DSNJT001

System Action: Log manager shutdown continues to the next step.

Operator Response: Notify the system programmer.

System Programmer Response: One or more error messages describing the specific error preceded this message. Refer to the specific message(s) for error analysis and the appropriate action to take.

DSNJ239I LOG COMMAND TERMINATION PROCESSING FAILED

Explanation: During log manager termination, the log command function was unable to complete its termination process.

This message is issued by the following CSECT: DSNJT001

System Action: Log manager shutdown continues to the next step.

Operator Response: Notify the system programmer.

System Programmer Response: One or more error messages describing the specific error preceded this message. Refer to the specific message(s) for error analysis and the appropriate action to take.

DSNJ240I OUTPUT DATA SET CONTROL TERMINATION PROCESSING FAILED

Explanation: During log manager termination, the output data set control function was unable to complete its termination process.

This message is issued by the following CSECT: DSNJT001

System Action: The log manager shutdown continues to the next step.

Operator Response: Notify the system programmer.

System Programmer Response: One or more error messages describing the specific error preceded this message. Refer to the specific message(s) for error analysis and the appropriate action to take.

DSNJ241I ARCHIVE LOG READ TERMINATION PROCESSING FAILED

Explanation: During log manager termination, the archive log read function was unable to complete its termination process.

This message is issued by the following CSECT: DSNJT001

System Action: Log manager shutdown continues to the next step.

Operator Response: Notify the system programmer.

System Programmer Response: One or more error messages describing the specific error preceded this message. Refer to the specific message(s) for error analysis and the appropriate action to take.

DSNJ242I ARCHIVE LOG COMMAND QUIESCE TERMINATION PROCESSING FAILED

Explanation: During log manager termination, the quiesce function which supports the -ARCHIVE LOG MODE(QUIESCE) command processing was unable to complete its termination process.

This message is issued by the following CSECT: DSNJT001

System Action: Log manager shutdown continues to the next step.

Operator Response: Notify the system programmer.

System Programmer Response: One or more error messages describing the specific error preceded this message. Refer to the specific message(s) for error analysis and the appropriate action to take.

DSNJ243I OUTPUT BUFFER WRITER TERMINATION PROCESSING FAILED

Explanation: During log manager termination, the output buffer writer function was unable to complete its termination process.

This message is issued by the following CSECT: DSNJT001

System Action: Log manager shutdown continues to the next step.

Operator Response: Notify the system programmer.

System Programmer Response: One or more error messages describing the specific error preceded this message.

Refer to the specific message(s) for error analysis and the appropriate action to take.

DSNJ244I LOG TERMINATION RECEIVED RETURN CODE nnn FROM xxxxxxxx MACRO

Explanation: Log manager termination was passed a bad return code from the named macro.

This message is issued by the following CSECT: DSNJT001

System Action: Log manager termination processing continues.

Operator Response: Record the return code and macro-name, and notify the system programmer.

System Programmer Response: This message is associated with a failure in the named macro. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNJ245I CONDITIONAL RESTART RECORD INDICATES TRUNCATION AT *xxx rrr*. REPLY *Y* TO CONTINUE, *N* TO CANCEL

Explanation: The conditional restart control record in use indicates that the DB2 log should be truncated at the specified RBA or LRSN. *xxx* is replaced by either RBA or LRSN, and *rrr* is the value specified in the current record.

This message is issued by the following CSECT: DSNJW306

System Action: If *Y*, DB2 startup continues. If *N*, DB2 startup is terminated.

Operator Response: Reply *N* if the truncation is going to occur at an undesirable point. Notify system programmer. Reply *Y* to continue the restart.

System Programmer Response: Rerun the change log inventory (DSNJU003) utility to modify the conditional restart record.

DSNJ246I CONDITIONAL RESTART RECORD INDICATES COLD START AT RBA rrr. REPLY Y TO CONTINUE, N TO CANCEL

Explanation: The conditional restart control record in use indicates that DB2 is to be cold started and that logging is to be begin at the specified RBA.

This message is issued by the following CSECT: DSNJW306

System Action: If 'Y', DB2 startup continues. If 'N', DB2 startup is terminated.

Operator Response: Reply 'N' if the truncation is going to occur at an undesirable point. Notify the system programmer. Reply 'Y' to continue the cold start.

System Programmer Response: Rerun the change log inventory (DSNJU003) utility to modify the conditional restart record.

DSNJ247E *csect-name* I/O ERROR DURING PROCESSING OF *rrr* RC = *rc*, REASON = *reason*

Explanation: The I/O error occurred at record 'rrr'. 'rc' indicates the return code received from the I/O operation. 'reason' indicates the reason code received from the I/O operation.

If a return code '4' was received, this indicates that the log manager detected a problem. If a return code '8' was received, this indicates a VSAM error.

System Action: DB2 startup terminates.

Operator Response: Notify the system programmer.

System Programmer Response: For a return code of '4', if you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem. For a return code of '8', execute an offline access method services job to determine the cause of the VSAM error.

DSNJ248I ARCHIVE LOG READ DEALLOCATION INITIALIZATION PROCESSING FAILED

Explanation: During log initialization, the archive log read deallocation process was unable to complete its initialization.

This message is issued by the following CSECT: DSNJS001

System Action: DB2 startup is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: One or more error messages describing the specific error precede this message. Refer to these messages for error analysis and the appropriate action to take.

DSNJ249I ARCHIVE LOG READ SCHEDULER INITIALIZATION PROCESSING FAILED

Explanation: During log initialization, the archive log read scheduling process was unable to complete its initialization.

This message is issued by the following CSECT: DSNJS001

System Action: DB2 startup is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: One or more error messages describing the specific error precede this message. Refer to these messages for error analysis and the appropriate action to take.

DSNJ250E *csect-name* DATA SHARING REQUIRES ALL ACTIVE LOG DATA SETS TO BE DEFINED WITH SHAREOPTIONS(2 3) OR HIGHER.

Explanation: DB2 detected an active log data set defined with share options that do not permit recovery operations in a data sharing environment. This message is followed by message DSNJ251E, which identifies the specific active log data set.

All active log data sets for a DB2 data sharing member must be defined with a minimum of SHAREOPTIONS(2 3) for successful DB2 initialization. See the description of message DSNJ251E for more details.

System Action: The DB2 subsystem detecting this condition is terminated.

DSNJ251E *csect-name* **DATA SET** *dsname* **FAILS TO MEET THE MINIMUM REQUIRED SHAREOPTIONS FOR DATA SHARING.**

Explanation: The share options defined for the data set named in the message are too low to permit the data set to participate in a DB2 data sharing group. All active log data sets must be defined with SHAREOPTIONS(2 3) or higher in order to participate in a data sharing group.

System Action: The DB2 subsystem detecting this error is terminated.

System Programmer Response: Using IDCAMS LISTCAT or TSO LISTCAT, display the share options of all of the active log data sets of all of the members in the data sharing group. For any active log data set that is defined with less than SHAREOPTIONS(2 3), use IDCAMS ALTER or TSO ALTER to alter the data set definitions to SHAREOPTIONS(2 3) or higher.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 11.

DSNJ301I *csect-name* **ERROR** *action* **ONLINE BOOTSTRAP DATA SET**

Explanation: During command processing for the -RECOVER BSDS command or the -ARCHIVE LOG command, an error occurred while performing an operation on the Bootstrap Data Set. The type of operation is specified in the 'action' keyword in the message text:

- **ACCESSING** Unable to OPEN the BSDS.
- **READING** Unable to read a required record from the BSDS.
- **UPDATING** Unable to write a required record to the BSDS.
- **RESTORING DUAL** The contents of the stable BSDS was successfully copied to the replacement BSDS; however, the DB2 subsystem was unable to successfully restore dual BSDS operation.

System Action: If this message was received during processing of the -RECOVER BSDS command, then the DB2 subsystem will continue in single BSDS mode. If this message was received during processing of the -ARCHIVE LOG command, the archive log history record in the BSDS will not be updated to reflect the occurrence of an -ARCHIVE LOG command; logging and the off-load processing will continue.

Operator Response: Inform the system programmer of the type of error that occurred, and whether the error occurred while processing a -RECOVER BSDS command or an -ARCHIVE LOG command.

System Programmer Response: If this message was received during processing of the -RECOVER BSDS command, then recovery action must be performed on the bootstrap data set before reentering the command. If this message was received during processing of the -ARCHIVE LOG command, no action is necessary.

DSNJ302I ALLOCATION ERROR ON REPLACEMENT BSDS DSNAME=... ERROR STATUS=...

Explanation: The RECOVER BSDS command encountered an error while trying to dynamically allocate the specified data set. DSNAME is the data set name. Error Status is the error code and information code returned by MVS dynamic allocation.

This message is issued by the following CSECT: DSNJC004

System Action: Processing of the command is terminated. The system continues in single BSDS mode.

Operator Response: Determine the cause of the error from the error status contained in the message, and correct the condition. Then reenter the -RECOVER BSDS command.

System Programmer Response: The error status portion of this message contains the 2-byte error code (S99ERROR) followed by the 2-byte information code (S99INFO) from the SVC request block. Refer to the appropriate MVS publication for a description of these codes.

DSNJ303I WRITE ERROR ON REPLACEMENT BSDS DSNAME=... ERROR STATUS=...

Explanation: The -RECOVER BSDS command encountered an error while attempting to write to the specified bootstrap data set. Error Status contains the VSAM return and feedback codes. It is a 2-byte field with the first containing the hexadecimal return code and the second containing the hexadecimal feedback code.

This message is issued by the following CSECT: DSNJC002

System Action: Processing of the command is terminated. The system continues in single BSDS mode.

Operator Response: Notify the system programmer.

System Programmer Response: Execute an offline access method services job to delete or rename the replacement BSDS and define a new BSDS with the same name. Reenter the log manager -RECOVER BSDS command to reestablish dual BSDS mode.

DSNJ304I ERROR CLOSING REPLACEMENT BSDS DSNAME=... ERROR STATUS=...

Explanation: The -RECOVER BSDS command encountered an error while attempting to close the specified bootstrap data set. Error Status contains the VSAM return and feedback codes. It is a 2-byte field with the first containing the hexadecimal return code and the second containing the hexadecimal feedback code.

This message is issued by the following CSECT: DSNJC004

System Action: Processing of the command is terminated. The system continues in single BSDS mode.

Operator Response: Notify the system programmer.

System Programmer Response: Execute an offline access method services job to delete or rename the replacement BSDS and define a new BSDS with the same name. Reenter the log manager -RECOVER BSDS command to reestablish dual BSDS mode.

DSNJ305I REPLACEMENT BSDS NOT EMPTY DSNAME=...

Explanation: The -RECOVER BSDS command was issued, but the replacement bootstrap data set was not empty; that is, it contained data.

This message is issued by the following CSECT: DSNJC004

System Action: Processing of the command is terminated. DB2 continues in single BSDS mode.

Operator Response: Notify the system programmer.

System Programmer Response: Execute an offline access method services job to delete or rename the error BSDS and define a new BSDS with the same name. Reenter the log manager -RECOVER BSDS command to reestablish dual BSDS mode.

DSNJ306I DUAL BSDS MODE ALREADY ESTABLISHED

Explanation: The -RECOVER BSDS command was issued, but DB2 was already in dual BSDS mode.

This message is issued by the following CSECT: DSNJC002

System Action: The command is ignored.

DSNJ307I LOG INITIALIZED IN SINGLE BSDS MODE

Explanation: The -RECOVER BSDS command was issued, but the system was initialized in single BSDS mode.

This message is issued by the following CSECT: DSNJC002

System Action: Processing of the command is terminated. The system continues in single BSDS mode.

DSNJ310I (A)SYNCHRONOUS ARCHIVE LOG COMMAND QUIESCE PROCESSING STARTED FOR MAXIMUM OF xxx SECONDS

Explanation: An -ARCHIVE LOG command with the MODE(QUIESCE) option has been accepted by the DB2 subsystem. The quiesce processing has commenced.

This message is issued by the following CSECT: DSNJC005

System Action: The DB2 subsystem will attempt to stop all updates to DB2 resources within the time period specified in the message. Users/jobs operating on the DB2 subsystem will be allowed to reach a point of consistency (commit point) before being blocked from further update activity. Jobs and users will be suspended until they are released by DB2 following the initiation of the off-load processing. If the DB2 subsystem can effectively block all users from performing updates before the maximum specified time, then the off-load will be initiated immediately, and normal processing will be resumed.

The message will display either the word SYNCHRONOUS or ASYNCHRONOUS, to inform the user of the type of quiesce processing which has been used.

- If the word SYNCHRONOUS is displayed, then the invoker used the WAIT(YES) option. This means that quiesce processing will be synchronous to the user; that is, the user can enter additional DB2 commands, but the commands will not be processed by the DB2 command processor until the quiesce processing has ended.
- If the word ASYNCHRONOUS is displayed, then the invoker used the WAIT(NO) option, or did not specify the WAIT option. This means that quiesce processing will be asynchronous to the user; that is, control will be returned to the invoker as soon as the quiesce task has been started. Thus, the DB2 command processor will accept - and process - any new DB2 commands while the quiesce task is running.

This message will be followed by message DSNJ311I or DSNJ317I.

Operator Response: No operator response is necessary. However, it can be expected that users and jobs using DB2 resources will be suspended (queued) by DB2 through the duration of the specified time interval, or until the DB2 subsystem can be certain that all update activity has been effectively blocked. At some point, this message will be followed by the DSNJ311I message or DSNJ317I message.

DSNJ311I *csect-name* **ASYNCHRONOUS LOG ARCHIVE (OFFLOAD) TASK INITIATED**

Explanation: A user-initiated -ARCHIVE LOG command has been accepted by the DB2 subsystem. An asynchronous task to archive (off-load) the active log data set has been started.

System Action: The current active log data set(s) will be truncated and switched to the next available active log data set(s), and an asynchronous off-load task will be initiated to archive the Active log data set(s).

The term ASYNCHRONOUS is used to indicate that control will be returned to the invoker as soon as the off-load task has been started. Thus, the DB2 command processor will accept — and process — any DB2 commands while the off-load task is running.

This message is followed by message DSNJ312I if the MODE(QUIESCE) option was used with the -ARCHIVE LOG command.

Operator Response: The operator should respond per normal operational procedures when the off-load task begins.

DSNJ312I ARCHIVE LOG QUIESCE ENDED. UPDATE ACTIVITY AGAINST DB2 RESOURCES IS NOW RESUMED.

Explanation: An -ARCHIVE LOG command with the MODE(QUIESCE) option was processed by the DB2 subsystem. As part of the MODE(QUIESCE) processing, an attempt was made to stop all new update activity against DB2 resources. This message signals the end of the quiesce processing, and the resumption of normal DB2 activity for all users and jobs which were blocked during the quiesce period.

This message follows message DSNJ311I or DSNJ317I.

This message is issued by the following CSECT: DSNJC007

System Action: The DB2 subsystem has now resumed all normal DB2 activity for all users and jobs that were blocked during the quiesce period.

DSNJ313I PARAMETER SPECIFIED ON THE keyword KEYWORD (value) IS NOT IN THE RANGE OF ALLOWABLE VALUES

Explanation: This message was generated by an error occurring in the -ARCHIVE LOG command with the MODE(QUIESCE) option or in the -SET ARCHIVE command. One of the command keywords specified a value that was outside of the range of allowed values.

This message is issued by the following CSECTs: DSNJC005 DSNJC009

System Action: Processing for the -ARCHIVE LOG command or -SET ARCHIVE command is terminated. This message is followed by message DSN9023I.

Operator Response: Refer to *Command Reference* for the correct syntax of the command. Correct the command syntax and reenter the command.

DSNJ314I xxxx KEYWORD REQUIRES yyyy KEYWORD TO ALSO BE SPECIFIED ON THE COMMAND

Explanation: A command was entered which specified the 'xxxx' keyword. However, use of the 'xxxx' keyword requires that the 'yyyy' keyword also be used.

This message is issued by the following CSECT: DSNJC005

System Action: Command processing terminates for the -ARCHIVE LOG or -RECOVER BSDS command. This message is followed by message DSN9023I.

Operator Response: Refer to the *Command Reference* for the correct syntax of the command. Correct the command syntax, and reenter the command.

DSNJ315I -STOP DB2 MODE(FORCE) IN PROGRESS

Explanation: An attempt was made to issue an -ARCHIVE LOG command when a -STOP DB2 MODE(FORCE) command was already in progress.

This message is issued by the following CSECT: DSNJC005

System Action: Command processing terminates for the -ARCHIVE LOG command. The -STOP DB2 MODE(FORCE) processing continues.

DSNJ316I SYSTEM QUIESCE ALREADY IN PROGRESS

Explanation: An attempt was made to issue an -ARCHIVE LOG command with the MODE(QUIESCE) option when a system quiesce was already in progress. The system quiesce could be the result of processing by another -ARCHIVE LOG MODE(QUIESCE) command, or by a -STOP DB2 MODE(QUIESCE) command.

This message is issued by the following CSECT: DSNJC005

System Action: Command processing will terminate. The system quiesce currently in progress will continue.

DSNJ317I ARCHIVE LOG QUIESCE PERIOD EXPIRED. NUMBER OF OUTSTANDING UR'S = xxxx. ARCHIVE LOG PROCESSING WILL BE TERMINATED, AND UPDATE ACTIVITY AGAINST DB2 RESOURCES WILL BE RESUMED. HH:MM:SS

Explanation: An -ARCHIVE LOG MODE(QUIESCE) command was processed by the DB2 subsystem; however, the DB2 subsystem was not able to quiesce all update activity in the user-specified quiesce time interval.

This message is issued by the following CSECT: DSNJC007

System Action: This message is informational only. The DB2 subsystem determined that 'xxxx' units of recovery (URs) did not reach a point of consistency during the quiesce period, and therefore could not be stopped from continuing their associated update processing.

Consequently, the -ARCHIVE LOG processing will be terminated. The current active log data set(s) will not be truncated, and will not be switched to the next available active log data set(s). The log archive (off-load) task will not be created. All jobs and users suspended during the quiesce will be resumed, and normal update activity against DB2 resources will be commenced.

This message will be followed by the DSNJ312I message.

Operator Response: Contact the system programmer.

System Programmer Response: A determination must be made whether the outstanding (nonquiesced) URs represent significant work.

Each user on the system has a unit of recovery if they are modifying DB2 resources. URs are also created by the DB2 subsystem itself for internal processing. Since the purpose of the MODE(QUIESCE) option is to have all URs reach a point of consistency (commit point) before the active log data set is truncated and off-loaded, determine all outstanding nonqueued jobs and users by using -DISPLAY THREAD and the MVS 'D A,L' operator command.

It should be noted that URs may be outstanding due to lock contention between a user or job which holds a resource (and has reached a point of consistency), and a user or job which wants a lock (and therefore cannot reach a point of consistency).

Before resubmitting the -ARCHIVE LOG command with the MODE(QUIESCE) option, either:

- Wait until the threads have been deallocated.
- Wait until the DB2 subsystem is less busy.
- Force the offending thread(s) to terminate.
- Use the TIME option to dynamically override and extend the maximum quiesce time period specified in ZPARMS.
- Or, if having all URs reach a point of consistency in the active log is no longer critical, issue the -ARCHIVE LOG command without the MODE(QUIESCE) option.

Important: If the decision is made to use the -ARCHIVE LOG command without the MODE(QUIESCE) option, the active log data set(s) will be truncated without regard to quiescing activity on the DB2 subsystem. If the resulting archive log data set is used for recovery, it is possible that some URs may be found to be In-flight, In-Abort, In-Commit, or In-doubt during DB2 initialization.

If expiration of the quiesce period before all URs reach a consistent point are a chronic problem, an adjustment to ZPARMs may have to be made. The quiesce period is controlled by the 'Maximum Quiesce Period' ZPARM. Refer to the discussion about the Archive Log Parameters (DSNTIPA) panel in Section 2 of *Installation Guide*.

DSNJ318I *csect-name* **ARCHIVE LOG COMMAND ALREADY IN PROGRESS**

Explanation: An attempt was made to issue an ARCHIVE LOG command when an ARCHIVE LOG command was already in progress. In data sharing, the ARCHIVE LOG command currently in progress could be initiated by another member.

Operator Response: If the conflicting command satisfies your archival request, do not reissue the command. Otherwise, wait for the conflicting command to complete and then reissue the -ARCHIVE LOG command.

DSNJ319I *csect name* **CURRENT ACTIVE LOG DATA SET IS THE LAST AVAILABLE ACTIVE LOG DATA SET. ARCHIVE LOG PROCESSING WILL BE TERMINATED.**

Explanation: The -ARCHIVE LOG command was rejected because the current active log is the last available active log data set. To process the command when these conditions exist would cause the DB2 subsystem to exhaust its available active log resources and immediately halt processing.

System Action: Processing for the command is terminated. If the situation is not corrected, the DB2 subsystem will issue the DSNJ110E message (if it has not already done so) as the available active log data space reaches critically low levels. Ultimately, message DSNJ111E will be issued when the available active log data space is exhausted, and the DB2 online processing will halt until active log space is made available.

User Response: Notify the operator or system programmer.

Operator Response: To clear this condition, steps must be taken to complete other waiting off-load tasks. Once another active log is made available (re-usable) by completing the off-load process for it, the command processing for the current active log can proceed.

Execute an MVS *Display System Requests* command (D R,L
for example) to determine the outstanding requests related to
the log off-load process. Take the necessary action to satisfy
any requests, and permit off-load to continue. If off-load fails to
complete normally, or cannot be initiated, notify the systems
programmer.

System Programmer Response: Either correct the problem that is causing the off-load process to fail, or add more active log data sets. Note that the latter action requires DB2 to be down and the change log inventory (DSNJU003) utility to be run.

Possible causes for the shortage of active log data space are:

- Excessive logging. For example, too many users requesting logs at the same time, or too many utilities specifying LOG (YES).
- Delayed or slow off-loading. For example, failure to mount archive volumes, incorrect replies to off-load messages, or slow device speeds.
- Excessive use of the -ARCHIVE LOG command. Each invocation of the command causes the DB2 subsystem to switch to a new active log data set. Excessive use could consume the available active log data space if the resulting off-loads were not processed in a timely manner.
- Off-loads(s) failed (see Operator Response).
- Insufficient active log space (see Operator Response).

DSNJ320I *csect-name* **UNABLE TO PROCESS LOG TRUNCATION REQUEST DUE TO SUBSYSTEM COMPONENT** *action* **FAILURE**

Explanation: While processing an -ARCHIVE LOG command, an internal request was made of the log buffer output routine to force-write the log buffers and to truncate and switch the active log to the next available active log data set(s). The request failed during the processing of the 'action' specified in the message.

System Action: Processing for the command is terminated.

User Response: Notify the system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: This error is an internal error detected by the DB2 subsystem. The error may be caused by an unrelated ABEND in the Log Buffer Writer component (DSNJWxxx), by a -STOP DB2 MODE(FORCE) command, or by abnormal subsystem termination. Refer to messages and ABENDS which precede this message.

DSNJ321I UNABLE TO CONTINUE ARCHIVE LOG QUIESCE DUE TO INTERNAL SUBSYSTEM ERROR. ARCHIVE LOG PROCESSING WILL BE TERMINATED, AND UPDATE ACTIVITY AGAINST DB2 RESOURCES WILL BE RESUMED.

Explanation: An -ARCHIVE LOG command with the MODE(QUIESCE) option was processed by the DB2 subsystem. As part of the MODE(QUIESCE) processing, an attempt was made to stop all new update activity against DB2 resources. During the internal subsystem interaction between the log manager and the recovery manager, an internal interface error was detected by the recovery manager.

This message is issued by the following CSECT: DSNJC007

System Action: The -ARCHIVE LOG MODE(QUIESCE) processing is terminated. This message will be followed by message DSNJ312I after all users and jobs quiesced by the MODE(QUIESCE) processing are resumed.

User Response: Notify the system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: This error is an internal error detected by the DB2 subsystem. Retry the -ARCHIVE LOG MODE(QUIESCE) command. If the error persists, the active log data sets may be switched using the -ARCHIVE LOG command without the MODE(QUIESCE) option.

DSNJ322I DISPLAY ARCHIVE REPORT FOLLOWS—

Explanation: This message is always generated as the title for the -DISPLAY ARCHIVE command report output. It precedes the other messages generated by this command.

The series of messages DSNJ323I through DSNJ329I provide the formatted report for -DISPLAY ARCHIVE.

DSNJ323I COUNT TIME

Explanation: The column headings for the list of parameter specifications generated by the -DISPLAY ARCHIVE command are displayed. The message number is not included in this message.

DSNJ324I (TAPE UNITS) (MIN,SEC)

Explanation: The format of the COUNT and TIME parameter specifications displayed by the -DISPLAY ARCHIVE command are shown. The message number is not included in this message.

DSNJ325I name count time

Explanation: This message, in combination with messages DSNJ323I and DSNJ324I, provides the parameter information that is a part of the -DISPLAY ARCHIVE report.

name Identifies the count and time values in the message line.

DSNZPARM Values specified during DB2 installation.

CURRENT Current values in the DB2 system.

count The value for COUNT as specified in name.

time The value for TIME as specified in name.

The message number is not included in this message.

DSNJ326I

Explanation: This message separates messages DSNJ325I and DSNJ327I that are generated by the -DISPLAY ARCHIVE command. The message number is not included in this message.

DSNJ327I ADDR STATUS CORR-ID VOLSER DATASET_NAME

Explanation: This message displays the column headings for the DISPLAY ARCHIVE report.

The message number is not included in this message.

DSNJ328I tapeaddr status corr-id vname dsname

Explanation: This message, in combination with message DSNJ327I, provides the tape unit information that is part of the -DISPLAY ARCHIVE report.

tapeaddr The physical tape address of the tape unit allocated to read archive log.

status Status of tape address:

BUSY Tape address is actively processing an archive log data set.

PREM Tape address is active and allocated for premount.

AVAIL Tape unit is inactive and waiting for work.

corr-id The correlation id associated with the user of the tape being processed. If the status is PREM or AVAIL, this column might contain '*****', indicating no current user is associated with this tape.

vname The name of the tape volume that is mounted on the tape address.

dsname The data set on the tape volume that is being processed (BUSY and PREM) or was last processed (AVAIL).

The message number is not included in this message.

DSNJ329I END OF DISPLAY ARCHIVE REPORT

Explanation: This message follows messages DSNJ322I through DSNJ328I and indicates that the -DISPLAY ARCHIVE report was generated successfully. The message number is not included in this message.

DSNJ330I ARCHIVE LOG VOLUMES REQUIRED FOR CONNECTION ID conn-id CORRELATION ID corr-id

Explanation: This message is the title for the ARCHIVE LOG VOLUMES report output. The ARCHIVE LOG VOLUMES report lists the archive log volumes needed by the correlation ID for that connection ID. This message is generated automatically by the archive read process at the first archive log tape mount for corr-id. This message precedes the other messages generated by this action.

This message, in combination with messages DSNJ331I and DSNJ332I, provides the formatted report for the ARCHIVE LOG VOLUMES requested.

conn-id An identifier representing the 'connection name' used to establish the thread.

corr-id An identifier associated with a specified thread. In TSO, it is either the authorization ID or the job name.

DSNJ331I avolume, avolume, avolume, avolume ...

Explanation: This message provides the tape volume information for the Archive Log Volumes report output.

avolume The name of the archive log volume required for this correlation ID. An 'avolume' prefixed with an '*' signifies that the data on the archive log volume is also mapped by an active log data set. As such, the 'avolume' **might not** be required for the read process, since the data is read from the active log, if possible.

DSNJ332I END OF ARCHIVE LOG VOLUMES REPORT

Explanation: This message follows messages DSNJ330I and DSNJ331I and indicates that the ARCHIVE LOG VOLUMES report was generated successfully. The message number is not included in this message.

DSNJ334I PARAMETER SPECIFIED ON THE keyword KEYWORD (VALUE) CONTAINS INVALID CHARACTERS

Explanation: A -SET ARCHIVE command was processed by the DB2 subsystem. One of the command keywords specified a value that contains an invalid character.

This message is issued by the following CSECT: DSNJC009

System Action: Processing for the -SET ARCHIVE command is terminated. This message is followed by the DSN9023I message.

Operator Response: Refer to *Command Reference* for the syntax of the command. Correct the syntax and reenter the command.

DSNJ335I INVALID KEYWORDS COMBINATION IN SET ARCHIVE COMMAND

Explanation: This command requires that keyword COUNT or keyword TIME be specified. If both are omitted, the keyword DEFAULT must be specified. It is invalid to specify keyword DEFAULT when either the COUNT keyword or TIME keyword is specified.

This message is issued by the following CSECT: DSNJC009

System Action: Processing for the -SET ARCHIVE command is terminated. This message is followed by the DSN9023I message.

Operator Response: Refer to *Command Reference* for the syntax of the command. Correct the syntax and reenter the command.

DSNJ336I UNABLE TO ALLOCATE TAPE UNIT FOR conn-id corr-id, x ALLOCATED, y ALLOWED.

Explanation: An attempt to allocate a tape unit for connection ID 'conn-id' failed. The current maximum tape unit specified is 'y', but only 'x' are physically available.

This message is issued by the following CSECT: DSNJR206

System Action: The 'conn-id corr-id' process is queued until either an allocated tape unit becomes free or more tape units are varied online and made available to the DB2 archive read task.

Operator Response: This situation rectifies itself over time as currently allocated tape units become available. To improve throughput, vary additional tape units online and make them available to DB2. Note that a queue rescan is not attempted until the -SET ARC READ COUNT command is issued or when an allocated tape dismounts.

DSNJ337I SET ARCHIVE COMMAND COMPLETED COUNT(count) TIME(minute,second)

Explanation: This message indicates that the -SET ARCHIVE command processed successfully and displays the current values for COUNT and TIME.

count The value for the COUNT parameter

minute The 'minute' value for the TIME parameter

second The 'second' value for the TIME parameter

DSNJ338I NO TAPE ARCHIVE READING ACTIVITY

Explanation: This message indicates that there is no current archive tape reading activity to report.

The message number is not included in this message.

DSNJ340I *csect-name* **COMMAND KEYWORD** *xxx* **IS ONLY VALID FOR DATA SHARING**

Explanation: An attempt was made to issue a DB2 command with KEYWORD *xxx* on a DB2 that was not initialized to participate in data sharing.

System Action: The command request is rejected.

DSNJ350I *csect-name* **(A)SYNCHRONOUS ARCHIVE LOG COMMAND QUIESCE PROCESSING STARTED IN DATA SHARING**

Explanation: The DB2 subsystem of a data sharing group accepted an ARCHIVE LOG command with the MODE(QUIESCE) option.

Each active DB2 member in the data sharing group performs the quiesce operation. The member originating the quiesce issues message DSNJ350I; all other members issue DSNJ310I as they start quiescing.

DSNJ351I *csect-name* **MEMBER** *member name* **STATUS=***member status*

Explanation: This message appears in response to MODE(QUIESCE) being specified with the ARCHIVE LOG command. It is one of a list of elements that display archive related status of the indicated member of the data sharing group. These member status messages are preceeded by the message DSNJ359I and are followed by DSNJ361I.

member name identifies the member of the data sharing group.

member status indicates archive related status of the named member. It appears as one of the following:.

ABNORMALLY TERMINATING
: The named member was undergoing abnormal subsystem termination at the time ARCHIVE LOG processing was active for the data sharing group. ARCHIVE LOG command processing for the remainder of the data sharing group terminates unsuccessfully.

ARCHIVE ALREADY ACTIVE
: ARCHIVE LOG command processing was running at the named member at the time a succeeding ARCHIVE LOG command was issued. The succeeding ARCHIVE LOG command terminates unsuccessfully for the remaining members of the data sharing group.

CANCELED
: ARCHIVE LOG command processing for the named member was canceled due to a problem encountered elsewhere in the data sharing group. The quiesce operation is interrupted and terminated and update activity against DB2 resources is resumed before command processing is terminated for the member.

COMMUNICATIONS FAILURE
: A communications failure occurred between the named member and one or more other members in the data sharing group. The quiesce operation is interrupted and update activity against DB2 resources is resumed before command processing is terminated for the member. ARCHIVE LOG command processing for the remainder of the data sharing group terminates unsuccessfully.

FAILED
: The named member was inactive at the time the ARCHIVE LOG command was issued. Termination of the DB2 subsystem for this member was abnormal. This status, if displayed for any member, will cause ARCHIVE LOG command processing for the entire data sharing group to terminate unsuccessfully.

NOT AVAILABLE
: Archive command status for the named member could not be determined. This condition typically occurs when the named member fails to respond during ARCHIVE LOG command processing and is usually accompanied by message DSNJ353I and/or message DSNJ355I.

QUIESCED
: The named member was active at the time the ARCHIVE LOG command was issued. Update activity against DB2 resources had successfully quiesced for that member (no active URs) in response to specifying MODE(QUIESCE).

QUIESCED/OFFLOADING
: The named member was active at the time the ARCHIVE LOG command was issued. Update activity against DB2 resources had successfully quiesced for that member (no active URs) in response to specifying MODE(QUIESCE). The active log at the time was truncated and an offload process was initiated after all members in the data sharing group had reached a quiesce point.

STOPPED
: The named member was inactive at the time the ARCHIVE LOG command was issued. Termination of the DB2 subsystem for this member was normal with no incomplete URs outstanding. Log truncation and offload processing are scheduled to be performed automatically the next time the named member is started. When the member is started, it is important to ensure that archive processing occurs automatically. Certain error conditions might require entering an ARCHIVE LOG command via the operator console to cause log truncation and offload processing to be performed. This member status is accompanied by warning message DSNJ362A.

TIME EXCEEDED
: The named member could not quiesce its update activity within the allotted period of time. The incomplete quiesce operation is interrupted and update activity is resumed before command processing is terminated for the member. ARCHIVE LOG command processing for the remainder of the data sharing group is unsuccessfully terminated.

DSNJ352W *csect-name* **MEMBERS WERE NOT OFFLOADED**

Explanation: DB2 issues this message during processing of an ARCHIVE LOG command with the MODE(QUIESCE) option. One or more quiesced members were not available to receive the archive request. DSNJ351I messages follow to display the quiesced members.

At the next start up of the quiesced member, DB2 switches (truncates) the current active log and initiates the archive task.

DSNJ353I *csect-name* **DSNJ353I MEMBER** *member name* **NOT RESPONDING.**

Explanation: This message is displayed when a response is needed but not received within an expected period of time during ARCHIVE LOG MODE(QUIESCE) command processing. This can occur as a result of abnormal subsystem termination under the named member or, possibly from communications problems among members of the data sharing group.

Operator Response: Examine the console log of the named member for operator information messages that might relate to the problem.

DSNJ354I *csect-name* **DSNJ354I ARCHIVE LOG: ALL ACTIVE MEMBER(S) STARTED OFFLOAD TASKS**

Explanation: This message is displayed when MODE(QUIESCE) is specified with the ARCHIVE LOG command, after all active members in the data sharing group have successfully quiesced their update activity within the allotted time period. For each active member in the data sharing group, the active log is truncated and switched, and an offload task is initiated to begin the offload process. Log truncation, switch and offload processing for stopped (and quiesced) members is performed the next time they are started.

DSNJ355I *csect-name* **ARCHIVE LOG: ONE OR MORE ACTIVE MEMBERS FAILED TO RESPOND OR START OFFLOAD TASKS**

Explanation: This message is displayed when MODE(QUIESCE) is specified with the ARCHIVE LOG command, and one or more active members could not successfully quiesce their update activity in the time allotted. Subsystem activity already quiesced is resumed, and ARCHIVE LOG command processing terminates unsuccessfully for all active members in the data sharing group. Message DSNJ353I might also appear with this message.

Operator Response: See the list of DSNJ351I member status messages following message DSNJ359I to determine the reason for the archive command failure.

DSNJ356I *csect-name* **COMMUNICATIONS FAILURE TERMINATED COMMAND**

Explanation: This message appears as a result of the failure of a communications request by one or more members of the data sharing group. This message is likely to be accompanied by DSN7xxx or other error messages and/or an SVC dump.

System Action: ARCHIVE LOG command processing terminates unsuccessfully for all members in the group.

DSNJ357E SYSTEM QUIESCE FAILED

Explanation: This message indicates the unsuccessful outcome of an ARCHIVE LOG MODE(QUIESCE) command. This message indicates that one or more members were unable to quiesce their update activity in the time allowed. It is usually accompanied by one or more related messages (e.g., DSNJ355I), and a list of member status messages indicating the reason for the failure.

Operator Response: Refer to messages DSNJ359I, DSNJ351I and DSNJ361I to determine archive related status of members in the data sharing group.

DSNJ359I MEMBER RESPONSES

Explanation: This message marks the beginning of a list of one or more DSNJ351I member status messages and precedes the first status message in the list.

DSNJ361I *csect-name* **END OF MEMBER RESPONSES LIST**

Explanation: This message marks the end of a list of one or more DSNJ351I member status messages and follows the last status message in the list.

DSNJ362E *csect-name* **WARNING: LOGS OF** *nn* **STOPPED OR FAILED MEMBERS NOT OFFLOADED.**

Explanation: This message is displayed when either MODE(QUIESCE) or SCOPE(GROUP) is specified with the ARCHIVE LOG command, and one or more members of the data sharing group either stopped or failed and were not available to receive the archive request. Active log truncation, log switch and offload processing for these inactive members is scheduled to be performed the next time those members are started.

Operator Response: Verify that log switch and offload processing does automatically occur when the inactive members are started. Certain error conditions might require the ARCHIVE LOG command to be individually issued for a member if ARCHIVE LOG processing does not occur automatically. Refer to messages DSNJ359I, DSNJ351I, and DSNJ361I to identify the inactive members.

DSNJ401I *csect-name rrrr* **RECORD NOT FOUND**

Explanation: An attempt was made to read the 'rrrr' record from the BSDS. In so doing, the read routine (DSNJU01B) could not find the record.

System Action: Utility processing continues. This message is written to the SYSPRINT data set, not to a console.

DSNJ402I UNABLE TO LOCATE aaaa TBLSPACE NAME IN SYSTEM CATALOG OR DIRECTORY DATABASES

Explanation: The table space name specified on the TBLSPACE parameter of the change log inventory (DSNJU003) utility SYSTEMDB statement could not be found in any DB2 subsystem catalog or directory database. The table space name in error is named in the 'aaaa' message keyword.

This message is issued by the following CSECT: DSNJU403

System Action: All subsequent DSNJU003 utility statements are bypassed, and DSNJU003 processing is terminated with a return code of 4. The DB2 SYSTEMDB record is not updated.

This message is written to the SYSPRINT data set, not to a console.

User Response: Correct the table space name specified on the TBLSPACE parameter, and resubmit the change log inventory (DSNJU003) utility job.

DSNJ403I CAPACITY OF BSDS SYSTEMDB RECORD EXCEEDED

Explanation: The BSDS SYSTEMDB record contains VSAM passwords for data sets in the DB2 catalog and directory, and has a maximum capacity of 168 entries. This message is issued when the number of eligible DB2 catalog and directory data sets exceeds the maximum capacity of the BSDS SYSTEMDB record. This is an internal error.

This message is issued by the following CSECT: DSNJU403

System Action: All subsequent change log inventory (DSNJU003) utility statements are bypassed, and DSNJU003 processing is terminated with a return code of 4. The DB2 SYSTEMDB record is not updated.

This message is written to the SYSPRINT data set, not to a console.

User Response: Notify the systems programmer.

DSNJ404E keyword NOT ALLOWED FOR operation OPERATION

Explanation: An invalid keyword was used during the operation named 'operation'.

This message is issued by the following CSECT: DSNJU503

System Action: The current utility processing is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Correct the control statement and rerun the utility.

DSNJ405E keyword1 KEYWORD MUTUALLY EXCLUSIVE WITH keyword2 KEYWORD

Explanation: 'keyword1' and 'keyword2' are mutually exclusive and cannot appear on the same control statement.

This message is issued by the following CSECT: DSNJU503

System Action: The current utility processing is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Determine the extraneous keyword and remove it from the control statement. Rerun the utility.

DSNJ406E EITHER keyword1 KEYWORD OR keyword2 KEYWORD MUST BE SPECIFIED

Explanation: A required keyword was not used on the control statement. Use either 'keyword1' or 'keyword2' with the attempted control statement type.

This message is issued by the following CSECT: DSNJU503

System Action: The current utility processing is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Correct the control statement and rerun the utility.

DSNJ407E *csect-name* **NO VALID CHECKPOINT RBA FOUND**

Explanation: After completing its search through the resource manager status table and the checkpoint queue, no valid checkpoint RBA was found within the specified range.

System Action: The current utility processing is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: The last 100 checkpoints are recorded in the BSDS, including the log STARTRBA and log ENDRBA of the checkpoint range. When either STARTRBA or ENDRBA are specified, the change log inventory (DSNJU003) utility attempts to locate a valid checkpoint in the range. In this case, DSNJU003 was unsuccessful in finding a valid checkpoint.

Do one of the following, as appropriate:

- If no checkpoint exists in the STARTRBA/ENDRBA range, set STARTRBA=ENDRBA and cold start DB2.
- If the ENDRBA is less than all recorded checkpoints or the STARTRBA is higher than all recorded checkpoints, then use DSN1LOGP to locate a valid checkpoint. Use DSN1LOGP SUMMARY(ONLY) option to find a valid checkpoint. Message DSN1153I is issued if any complete checkpoint is found. DSN1153I identifies the log RBA of the checkpoint. Update the CHKPTRBA parameter using the log RBA identified in DSN1153I and resubmit DSNJU003.

DSNJ408I *csect-name* **CHECKPOINT RBA FOUND, RBA =** *rba*, **TIME =** *time*

Explanation: After completing its search through the resource manager status table and the checkpoint queue, 'rba' was the most recent checkpoint RBA in the specified range and 'time' was the time of the checkpoint.

System Action: Utility processing continues.

DSNJ409I UNABLE TO WRITE ACTIVE LOG RECORD TO THE BSDS DATASET. DDNAME=xxxxxx

Explanation: A program encountered an I/O error when attempting to write a BSDS active log record to the BSDS data set. 'xxxxxx' is the DDNAME of the BSDS data set being accessed.

This message is issued by the following CSECTs: DSNJMIG0, DSNJFAL0

System Action: The program will terminate.

Operator Response: Notify the system programmer.

System Programmer Response: One or more error messages describing the specific error preceded this message. This error is considered unrecoverable and will leave the BSDS data set in an uncertain state. It will be necessary to either: recreate the data set using access method service routines and then use change log inventory (DSNJU003) to make the active and archive log data set(s) known to the BSDS, or recover the BSDS using a backup copy.

DSNJ410E *csect-name* **I/O ERROR DURING** *nnn* **PROCESSING OF** *yyy* **RECORD**

Explanation: An I/O error occurred during a READ or WRITE of a record. 'nnn' is either READ or WRITE, depending on the operation. 'yyy' specifies the Conditional Restart control record, checkpoint queue record, archive log command history record, or resource manager status table.

System Action: The current utility processing is terminated. This message is written to the SYSPRINT data set, not to a console, and will be accompanied by message DSNJ212E or DSNJ213E.

User Response: Determine the cause of the I/O error based upon the error status information provided in messages DSNJ212E or DSNJ213E.

DSNJ411I *csect-name* **CRESTART** *nnnn* **FOR CRCRID =** *yyyy*, **DDNAME =** *ddname*

Explanation: A CRESTART request has just completed. 'nnnn' is either CREATE or CANCEL. 'yyyy' is the restart control record hexadecimal identifier and 'ddname' is the BSDS data set (SYSUT1 or SYSUT2) associated with the request.

System Action: Current utility processing continues. This message is written to the SYSPRINT data set, not to a console.

User Response: Note the record identifier for future reference.

DSNJ412E *csect-name* **RESTART CONTROL RECORD NOT FOUND IN BSDS**

Explanation: The CRESTART CANCEL keyword was specified but the conditional restart control record does not exist in the BSDS data set.

System Action: Current utility processing is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: CREATE the conditional restart control record prior to attempting the CANCEL function.

DSNJ413E *csect-name* **INVALID LOG RANGE SCOPE OR CHECKPOINT SPECIFIED**

Explanation: The values specified thru the STARTRBA, ENDRBA, and CHKPTRBA keywords are invalid.

System Action: Current utility processing is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Ensure that the log range values are correct and correspond to the other log range values either specified or defaulted. A valid log range is where STARTRBA is less than or equal to CHKPTRBA, and CHKPTRBA is less than ENDRBA. The STARTRBA most be less than or equal to the ENDRBA.

DSNJ414I *csect-name* **COLD START WILL RESULT FROM THIS RESTART CONTROL RECORD. FORWARD AND BACKOUT SET TO NO.**

Explanation: STARTRBA and ENDRBA are equal. A cold start will result if this restart control record is used during DB2 restart. No forward or backout processing will be performed.

System Action: CRESTART processing continues.

User Response: No additional actions are required if a cold start of the system is desired. If a cold start is not desired, reissue the CRESTART and either CANCEL the current restart control record, or CREATE a new restart control record.

DSNJ415E *csect-name* **ENDRBA =** *rba* **IS INVALID, MUST BE A MULTIPLE OF 4K**

Explanation: The specified ENDRBA at 'rba' is not a multiple of 4KB.

System Action: CRESTART processing is terminated.

User Response: Correct the ENDRBA value on the CRESTART statement and rerun the utility.

DSNJ416I WARNING - BSDS UTILITY TIMESTAMP MISMATCH DETECTED. PROCESSING CONTINUES.

Explanation: As a result of a change log inventory (DSNJU003) update, it was discovered that the SYSUT1 BSDS and SYSUT2 BSDS timestamps are unequal. Being unequal indicates the possibility of a BSDS mismatch.

This message is issued by the following CSECT: DSNJU003

System Action: Current utility processing continues.

User Response: Run the print log map (DSNJU004) utility against the SYSUT1 BSDS and SYSUT2 BSDS. Determine if each BSDS is current. If each BSDS is current, this warning can be ignored. If either BSDS is not current, delete the obsolete data set and define a replacement data set, then copy the current BSDS into the replacement data set.

DSNJ417I REQUIRED *xxxxxxxx* PARAMETER FOR *yyyyyyyy* OPERATION IS MISSING

Explanation: A required parameter 'xxxxxxxx' for a Log utility operation was missing from the Log utility control statement. The attempted operation is 'yyyyyyyy'.

This message is issued by the following CSECT: DSNJU003

System Action: The Log utility 'yyyyyyyy' operation does not perform its function. All subsequent Log utility control statements are processed. A nonzero return code is issued by the utility.

DB2 writes this message to the SYSPRINT data set, not to a console.

User Response: Add the missing parameter to the control statements associated with the specified operation and rerun the utility.

DSNJ418I WARNING - A NOTREUSEABLE ACTIVE LOG DATA SET WAS DELETED FROM BSDS LOG INVENTORY, STARTRBA=...,ENDRBA=...

Explanation: The data set name specified on the DSNAME parameter of the change log inventory (DSNJU003) utility DELETE statement was a NOTREUSABLE active log.

This message is issued by the following CSECT: DSNJU203

System Action: DSNJU003 processing continues, it will terminate with a return code of 4. This message is written to the SYSPRINT data set, not to a console.

User Response: No additional actions are required if a deletion of a NOTREUSABLE active log was desired. If this was not desired, recreate the deleted log by using the NEWLOG statement with the RBA values specified in the warning message.

DSNJ419I UNABLE TO WRITE ARCHIVE LOG RECORD TO THE BSDS DATASET. DDNAME=*xxxxxx*

Explanation: A program encountered an I/O error when attempting to write a BSDS archive record to the BSDS data set. 'xxxxxx' is the DDNAME of the BSDS data set being accessed.

This message is issued by the following CSECTs: DSNJMIG0, DSNJFAL0

System Action: The program will terminate.

Operator Response: Notify the system programmer.

System Programmer Response: One or more error messages describing the specific error preceded this message. This error is considered unrecoverable and will leave the BSDS data set in an uncertain state. It will be necessary to either: recreate the data set using access method service routines and then use change log inventory (DSNJU003) utility to make the active and archive log data set(s) known to the BSDS, or recover the BSDS using a backup copy.

DSNJ420I UNABLE TO WRITE BCR1 RECORD TO BSDS DATASET. DDNAME=*xxxxxx*

Explanation: A program encountered an I/O error when attempting to write the BSDS control record to the BSDS data set. 'xxxxxx' is the DDNAME of the BSDS data set being accessed.

This message is issued by the following CSECTs:

DSNJMIG0 DSNJFAL0

Operator Response: Notify the system programmer.

System Programmer Response: One or more error messages describing the specific error preceded this message. Refer to the specific message(s) for error analysis and the appropriate action to take.

DSNJ421I THE BSDS IS NOT AT THE PROPER RELEASE LEVEL. DDNAME=*xxxxx*

Explanation: This message is issued when a program attempting to access The BSDS data set is not at a compatible release level. This can be one of the following:

- The program accessing the BSDS data set is at a NEW release level and the BSDS is at the old level.
- The program accessing the BSDS data set is at an OLD release level and the BSDS is at the NEW level.
- The program encountered an UNKNOWN release level on the BSDS data set.

This message is issued by the following CSECTs:

DSNJU004 DSNJU003 DSNJMIG0 DSNJFAL0

System Action: The program will terminate with no action taken.

System Programmer Response: If the program that encountered the error was one of the BSDS conversion programs (DSNJMIG0 or DSNJFAL0) an unrecoverable error was found on the BSDS data set and it must be recreated. If the error was encountered running some other utility program (i.e., change log inventory or print log map), one of the following actions may be taken:

- Run a version of the program that is compatible with the release level of the BSDS.
- Run the appropriate formatting program (DSNJMIG0 or DSNJFAL0) to convert the BSDS data set to a release level compatible with the running program. If this was successful, rerun the original program.

DSNJ422I LOG RECORDS HAVE ALREADY BEEN FORMATTED - THIS UTILITY WILL TERMINATE

Explanation: This message will occur when one of the BSDS formatting programs detects the BSDS had already been reformatted or was already at the desired format level.

This message is issued by the following CSECTs: DSNJMIG0, DSNJFAL0

System Action: The program will terminate without any action being taken.

System Programmer Response: If the appropriate BSDS formatting program was being run, no further action is necessary.

DSNJ423I ACTIVE LOG MAY NOT HAVE BEEN ARCHIVED. DSN=*xxxxxx*

Explanation: The program was attempting to convert an old BSDS data set with more than 31 active log data sets to the new format. The program will drop the oldest active log data set(s) to get to the new maximum (31) limit. When dropping one of the old active log data sets from the BSDS, it was found to have been flagged as NOT REUSABLE (i.e., this data set MAY NOT have been archived). 'xxxxxx' will contain the data set name of the active log in question.

This message is issued by the following CSECTs: DSNJMIG0, DSNJFAL0

System Action: The program will remove this active log data set from the BSDS and continue.

System Programmer Response: Check to see if this data set had been archived. The active log data set was not deleted on disk but removed only from the BSDS data set, so it may still be archived, if needed. Use access method service routines to copy the VSAM active log data set to a sequential archive log data set.

DSNJ424I *csect-name* INVALID CONTROL STATEMENT. THE SECOND WORD MUST BE 'DDNAME' OR '*' OR MUST START WITH A PARENTHESIS.

Explanation: The control statement is invalid.

System Action: The control statement is ignored. DB2 uses the SYSUT1 DD statement to locate the BSDS to be mapped. If the SYSUT1 DD statement is not available, the utility terminates.

User Response: Refer to *Utility Guide and Reference* for information on creating a print log map (DSNJU004) utility control statement. Correct or remove the control statement and rerun the job.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 32.

DSNJ425I INVALID *xxxxxx* VALUE/FORMAT FOR *yyyyyyyy* PARAMETER (YYYYDDDHHMMSST)

Explanation: 'xxxxxx' is the field in the 'yyyyyyyy' parameter that contains an incorrect value or incorrect format.

This message is issued by the following CSECT: DSNJU103

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Correct the control statement and rerun the utility.

DSNJ426I ENDTIME VALUE CANNOT BE LESS THAN STARTIME VALUE

Explanation: The 'STARTIME' and 'ENDTIME' parameters specify a time range. Hence, the ENDTIME value must be equal to or greater than STARTIME value.

This message is issued by the following CSECT: DSNJU103

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Correct the control statement and rerun the utility.

DSNJ427I CHECKPOINT RECORD ADDED TO QUEUE

Explanation: The checkpoint record specified has been added to the checkpoint queue.

This message is issued by the following CSECT: DSNJU603

System Action: The BSDS checkpoint queue is modified as stated. This message is written to the SYSPRINT data set, not to a console.

DSNJ428I CHECKPOINT RECORD DELETED FROM QUEUE, STARTRBA=*startrba*, ENDRBA=*endrba*

Explanation: The checkpoint record specified has been deleted from the Checkpoint Queue. 'startrba' and 'endrba' was the RBA range indicated in the deleted checkpoint record.

This message is issued by the following CSECT: DSNJU603

System Action: The BSDS checkpoint queue is modified as stated. This message is written to the SYSPRINT data set, not to a console.

DSNJ429I RBA RANGE CONFLICTS WITH EXISTING CHECKPOINT RECORD RBA RANGE

Explanation: The specified RBA range for the new checkpoint record either exists or overlaps an existing RBA range in the checkpoint queue.

This message is issued by the following CSECT: DSNJU603

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Run the print log map (DSNJU004) utility against the SYSUT1 BSDS and SYSUT2 BSDS. Determine the correct RBA range and correct the STARTRBA and ENDRBA parameters and rerun the utility.

DSNJ430I SPECIFIED ENTRY CANNOT BE ADDED WITHOUT OVERLAYING EXISTING LOWEST ENTRY

Explanation: The specified RBA range for the new checkpoint record is less than the existing lowest entry. The checkpoint queue is currently full and cannot add the new entry without overlaying the lowest entry.

This message is issued by the following CSECT: DSNJU603

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Run the print log map (DSNJU004) utility against the SYSUT1 BSDS and SYSUT2 BSDS. Determine the lowest existing entry and either change the STARTRBA and ENDRBA parameters or delete the existing lowest entry and add the new low checkpoint entry and rerun the utility.

DSNJ431I STARTRBA SPECIFIED NOT FOUND IN CHECKPOINT QUEUE

Explanation: The specified STARTRBA could not be located in the checkpoint queue.

This message is issued by the following CSECT: DSNJU603

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Run the print log map (DSNJU004) utility against the SYSUT1 BSDS and SYSUT2 BSDS. Determine the correct STARTRBA value and correct the STARTRBA parameter and rerun the utility.

DSNJ432I THE OFFLRBA VALUE MUST END WITH 'FFF'

Explanation: The OFFLRBA value is invalid. It must end with 'FFF'.

This message is issued by the following CSECT: DSNJU005

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Correct the control statement and rerun the utility.

DSNJ433I *csect-name* **INVALID CONTROL STATEMENT. A MEMBER LIST MUST CONTAIN AT LEAST ONE MEMBER NAME.**

Explanation: The control statement is invalid. The member list is either empty or in the wrong format.

System Action: The control statement is ignored. DB2 uses the SYSUT1 DD statement to locate the BSDS to be mapped. If the SYSUT1 DD statement is not available, the utility terminates.

User Response: Refer to *Utility Guide and Reference* for information on creating a print log map (DSNJU004) utility control statement. Correct or remove the control statement and rerun the job.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 32.

DSNJ434I *csect-name* **SYSIN MUST CONTAIN AT LEAST ONE RECORD.**

Explanation: A SYSIN DD statement was provided, but the data set was null, or the JCL statement "//SYSIN DD *" was immediately followed by the statement "/*".

System Action: The error is ignored. DB2 uses the DD SYSUT1 statement to locate the BSDS to be mapped. If the SYSUT1 DD statement is not available, the utility terminates.

User Response: Refer to *Utility Guide and Reference* for information on creating a print log map (DSNJU004) utility control statement. Correct or remove the control statement and rerun the job.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 32.

DSNJ435I *csect-name* **THE MEMBER LIST OF A CONTROL STATEMENT MUST BE TERMINATED WITH A PARENTHESIS.**

Explanation: The control statement contained the correct format for starting a list of members, but the terminating parenthesis was not found.

System Action: The control statement is accepted with an assumed parenthesis after the last member name recognized, and processing continues.

User Response: Refer to *Utility Guide and Reference* for information on creating a print log map (DSNJU004) utility control statement. Correct or remove the control statement and rerun the job.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 32.

DSNJ436I *csect* **THE DD STATEMENT FOR** *ddname* **IS MISSING.**

Explanation: The print log map (DSNJU004) utility requested information about the identified *ddname* from the MVS Dynamic Allocation facility, but the DD statement was not found in the job.

System Action: The job is terminated.

User Response: Refer to *Utility Guide and Reference* for information on required JCL statements. Correct the JCL and rerun the job.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 32.

DSNJ437I *csect-name* **UNABLE TO ALLOCATE BSDS** *dsname***. SVC 99 RTN CODE** *rc***, RSN CODE** *rsncd***, INFO** *infocd***.**

Explanation: The print log map (DSNJU004) utility attempted to allocate a BSDS data set using the MVS Dynamic Allocation facility, but the system was unable to complete the allocation. The return code, reason code, and information code were returned by the system's SVC 99 facility. See *MVS/ESA Programming: Authorized Assembler Services Guide* for an explanation of these codes.

System Action: The processing of the BSDS named in the message is terminated. If this is the last (or only) BSDS to be processed by this job, the job is terminated.

User Response: Refer to *Utility Guide and Reference* for information on required JCL statements. Correct the JCL and rerun the job.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Utility Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 32.

DSNJ438I *csect-name* **THE** *xxx* **VALUE MUST END WITH** *'yyy'*

Explanation: The STARTRBA or ENDRBA value specified on the NEWLOG statement is invalid. *'xxx'* is either STARTRBA or ENDRBA, depending on which parameter is invalid. If *'xxx'* equals STARTRBA, then *'yyy'* equals *'000'* and if *'xxx'* equals ENDRBA, then *'yyy'* equals *'FFF'*.

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Correct the control statement and rerun the utility.

DSNJ700I *csect_name* **ERROR ATTEMPTING TO ACCESS BSDS FOR PEER MEMBER ID=** *member-id***, MEMBER NAME=** *member-name***, REASON-CODE=** *reason-code***.**

Explanation: DB2 issues this message to identify the peer member ID, and if known, the peer member name associated with listed DB2 reason code.

System Action: An execution unit issues this message and then, if this was an unconditional request, writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates.

Operator Response: Collect all relevant diagnostic materials, including SYS1.LOGREC, SVC dump, and console output of peer and host.

System Programmer Response: Review the explanation for the associated DB2 reason code for further action.

DSNJ701E *csect-name* **MEMBER NAME (***membername***) IN BSDS DOES NOT MATCH MEMBER NAME (***membername***) IN DB2 SYSTEM PARAMETERS** *dsnzparm*

Explanation: During startup, DB2 detected that the member name listed in its bootstrap data set (BSDS) does not match the member name in the DB2 system parameters load module.

Operator Response: Notify the system programmer.

System Programmer Response: Restore the BSDS or specify a different system parameters load module on the START DB2 command.

DSNJ702E *csect_name* **GENERIC LU NAME** *lu-name* **IN BSDS DOES NOT MATCH THE GENERIC LU NAME** *lu-name* **ASSOCIATED WITH THE DATA SHARING GROUP.**

Explanation: DB2 issues this message during startup when it detects that the generic LU name in the bootstrap data set (BSDS) does not match the generic LU name in the shared communications area (SCA) structure.

System Action: DB2 startup continues.

Operator Response: Notify the system programmer.

System Programmer Response: Depending on the accuracy of the BSDS value, take one of the following actions:

- BSDS value is correct: DB2 startup will automatically replace the generic LU name in the SCA with the correct value. The BSDS for each member of this DB2 data sharing group must specify this same value for generic LU name. If any member specifies a different value for generic LU name, use the change log inventory utility (DSNJU003) to change the generic LU name, as described in *Utility Guide and Reference*.
- BSDS value is not correct: DB2 startup will replace the generic LU name in the SCA. The SCA value will be incorrect when startup is complete. Take the following actions to correct this situation:
  - Stop this DB2 subsystem.
  - Use the change log inventory utility (DSNJU003) to change the generic LU name of this member, as described in *Utility Guide and Reference*.
  - Issue START DB2 for this member. START DB2 will correct the generic LU name contained in the SCA.

DSNJ703E *csect-name* **GROUP NAME (***groupname***) IN BSDS DOES NOT MATCH GROUP NAME (***groupname***) IN DB2 SYSTEM PARAMETERS** *dsnzparm*

Explanation: During startup, DB2 detected that the group name listed in its bootstrap data set (BSDS) does not match the group name in the DB2 system parameters load module.

Operator Response: Notify the system programmer.

System Programmer Response: Restore the BSDS or specify a different system parameters load module on the START DB2 command.

DSNJ704I *csect-name* **NEW MEMBER(***member-name***) START-UP NOT ALLOWED WHEN GROUP-RESTART IS REQUIRED FOR GROUP(***group-name***).**

Explanation: One of the following occurred:

- A new member *member-name* tried to start when a group restart of data sharing group *group-name* is required.
- A member other than the originating member of a data sharing group attempted to start the new DB2 data sharing group. The originating member of a group is either an existing DB2 subsystem which formed the data sharing group or a new DB2 subsystem which was installed to form the group.

System Action: The DB2 subsystem stops.

Operator Response: Start a previously active member of this group. When the required group restart is completed, start the new member again.

If this is the very first startup of the group, you must start the originating member first before starting any other member.

DSNJ705I *csect-name* **THE DB2 SYSTEM PARAMETERS SPECIFY DATA SHARING, BUT THE BSDS SPECIFIES NON-DATA SHARING.**

Explanation: The system parameters passed on the DB2 start command specified data sharing, but the bootstrap data set (BSDS) did not indicate this DB2 is a data sharing member.

System Action: The DB2 subsystem stops.

Operator Response: If this DB2 should be a member of a data sharing group, inform the system programmer. If this DB2 is not a member of a data sharing group, restart DB2 with the correct system parameters load module

System Programmer Response: If this DB2 should be a member of a data sharing group, execute the installation job DSNTIJUZ, which updates the BSDS for data sharing.

If this DB2 is not a member of a data sharing group, reassemble the system parameters load module and specify DSHARE=NO.

If this DB2 is attempting to disable the data sharing group, then reassemble the system parameters load module and specify DSHARE=NO, then execute the installation job DSNTIJGF, and then restart this DB2. Job DSNTIJGF must be used with caution, this will disable the data sharing group. For more information, see Chapter 3 of *Data Sharing: Planning and Administration*.

DSNJ706I *csect-name* **THE DB2 SYSTEM PARAMETERS SPECIFY NON-DATA SHARING, BUT THE BSDS SPECIFIES DATA SHARING.**

Explanation: The system parameters passed on the DB2 START command specified non-data sharing, but the bootstrap data set (BSDS) indicates this is a data sharing member.

System Action: The DB2 subsystem stops.

Operator Response: If this DB2 is a member of a data sharing group, restart DB2 with the correct system parameters load module. If this DB2 is not a member of a data sharing group, inform the system programmer.

System Programmer Response: If this DB2 should be a member of a data sharing group, reassemble the system parameters load module and specify DSHARE=YES. If this DB2 is not a member of a data sharing group, execute the installation job DSNTIJGF, which updates the BSDS for non-data sharing.

DSNJ707E *csect_name* **LOCATION NAME** *location-name* **IN BSDS DOES NOT MATCH THE LOCATION NAME** *location-name* **ASSOCIATED WITH THE DATA SHARING GROUP.**

Explanation: DB2 issues this message during startup when it detects that the LOCATION name in the bootstrap data set (BSDS) does not match the LOCATION name in the system communications area (SCA) structure.

System Action: DB2 startup continues.

Operator Response: Notify the system programmer.

System Programmer Response: Depending on the accuracy of the BSDS value, take one of the following actions:

- BSDS value is correct: DB2 startup will automatically replace the LOCATION name in the SCA with the correct value. The BSDS for each member of this DB2 data sharing group must specify this same value for LOCATION. If any member specifies a different value for LOCATION, use the change log inventory utility (DSNJU003) to change the LOCATION name, as described in *Utility Guide and Reference* .
- BSDS value is not correct: DB2 startup will replace the LOCATION name in the SCA. The SCA value will be incorrect when startup is complete. Take the following actions to correct this situation:
  - Stop this DB2 subsystem.
  - Use the change log inventory utility (DSNJU003) to change the LOCATION name of this member, as described in *Utility Guide and Reference*.
  - Issue START DB2 for this member. START DB2 will correct the LOCATION name contained in the SCA.

DSNJ711E *csect-name* **SCA OPEN FAILURE ENCOUNTERED.**

Explanation: A failure occurred during command processing in an attempt to open an object in the SCA.

System Action: Command processing terminates unsuccessfully.

System Programmer Response: Obtain SYS1.LOGREC and possible SVC dump for analysis.

Problem Determination: Review the DB2 system console for possible DSN7xxxx and/or SVC dump messages that could relate to this problem.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNJ712E *csect-name* **SCA READ FAILURE ENCOUNTERED.**

Explanation: A failure occurred during command processing attempting to read from the SCA.

System Action: Command processing terminates unsuccessfully.

System Programmer Response: Obtain SYS1.LOGREC and possible SVC dump for analysis.

Problem Determination: Review the DB2 system console for possible DSN7xxxx and/or SVC dump messages that could relate to this problem.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNJ713E *csect-name* **SCA WRITE FAILURE ENCOUNTERED.**

Explanation: A failure occurred during command processing attempting to write to the SCA.

System Action: Command processing terminates unsuccessfully.

System Programmer Response: Obtain SYS1.LOGREC and possible SVC dump for analysis.

Problem Determination: Review the DB2 system console for possible DSN7xxxx and/or SVC dump messages that could relate to this problem.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNJ991I *csect-name* **START OF LOG DATA SET PREFORMAT FOR JOB** *job-name step-name*

Explanation: The active log data set preformat utility has started.

Severity: 0 (informational)

DSNJ992I *csect-name* **LOG DATA SET NAME =** *data-set-name*

Explanation: The indicated *data-set-name* is to be preformatted.

Severity: 0 (informational)

DSNJ993I *csect-name* **LOG DATA SET IS NOT A VSAM DATA SET**

Explanation: The input log dataset is not a VSAM data set.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Use the AMS IDCAMS Service to define the active log data set as a VSAM Linear data set.

DSNJ994I *csect-name* **VSAM OPEN ERROR, ACBERRFLG =** *error-code*

Explanation: VSAM OPEN failed with the indicated ACB *error-code*.

Severity: 8 (error) if error is greater than or equal to 128; otherwise, 4 (warning)

System Action: Processing terminates if the error code is greater than or equal to 128; otherwise, processing continues normally.

User Response: Notify the system programmer.

System Programmer Response: Follow standard VSAM diagnostic procedure. Refer to *DFSMS/MVS: Macro Instructions for Data Sets*. See also *MVS/DFP V3R3 Diagnosis Guide* for more information about the VSAM procedures.

DSNJ995I *csect-name* **VSAM PUT ERROR, RPLERREG =** *return-code*, **RPLERRCD =** *reason-code*

Explanation: VSAM PUT failed with the indicated *return-code* and *reason-code*.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Notify system programmer.

System Programmer Response: Follow standard VSAM diagnostic procedure. Refer to *DFSMS/MVS: Macro Instructions for Data Sets*. See also *MVS/DFP V3R3 Diagnosis Guide* for more information about the VSAM procedures.

DSNJ996I *csect-name* **LOG PREFORMAT COMPLETED SUCCESSFULLY, nn RECORDS FORMATTED**

Explanation: The active log data set has been preformatted successfully. 'nn' records (or VSAM control intervals) have been formatted.

Severity: 0 (informational)

DSNJ997I *csect-name* **LOG PREFORMAT TERMINATED**

Explanation: Preformatting of the active log data set did not complete successfully.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Examine other error messages associated with this job.

DSNJ998I *csect-name* **LOG DATA SET IS NOT EMPTY**

Explanation: The input log data set is not an empty data set. The input data set must be empty to prevent the loss of actual log data.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Use the AMS IDCAMS Service to delete and redefine the active log data set or correct the input log data set name.

DSNL... Messages

DSNL001I DDF IS ALREADY STARTED

Explanation: The distributed data facility (DDF) was already active when you issued -START DDF command.

This message is issued by the following CSECT: DSNLSSRC

System Action: The issued command is not executed.

DSNL002I DDF IS ALREADY STOPPED

Explanation: The distributed data facility (DDF) had already been stopped when the -STOP DDF command was issued.

This message is issued by the following CSECT: DSNLSSRC

System Action: The issued command is not executed.

DSNL003I DDF IS STARTING

Explanation: The distributed data facility (DDF) -START command is starting.

This message is issued by the following CSECT: DSNLSSST

System Action: DB2 begins processing the -START DDF command.

DSNL004I *csect* **DDF START COMPLETE LOCATION** *locname* **LU** *netname.luname* **GENERICLU** *netname.gluname* **DOMAIN** *domain* **TCPPORT** *tcpport* **RESPORT** *resport*

Explanation: The distributed data facility (DDF) started.

locname
The LOCATION of the DB2 subsystem.

netname.luname
The fully qualified LU name for the DB2 subsystem.

netname.gluname
The fully qualified VTAM generic LU name for the DB2 subsystem. The value '-NONE' indicates that no VTAM generic LU name is used by the DB2 subsystem.

domain
For non-data sharing systems, domain is the name returned by the DNS for the system's default IP address. For data sharing systems, domain is the name that represents the DB2 group. For the remote DB2 data sharing group, the DRDA requester should use a domain name of the following form:

```
location.sysplex.domainname
```

where **location** is the DB2 location name, **sysplex** is the sysplex name in the COUPLExx parmlib member and **domainname** is the domain name specified in the TCPIP.DATA file. If you are an MVS requester, the domain name is specified in column IPADDR of catalog table SYSIBM.IPNAMES. If you are a DB2 Connect requester, the CATALOG TCPIP NODE command (or the equivalent command for your environment) is used to specify the TCP/IP domain name. The value '-NONE' indicates that TCP/IP is not supported, or TCP/IP initialization failed, or DB2 has been started in restricted access mode.

tcpport
The TCP/IP port number used by this DB2 subsystem to accept incoming DRDA connection requests.
A zero indicates TCP/IP is not supported.

resport
The TCP/IP port number used by this DB2 subsystem to accept incoming two-phase commit resynchronization requests.
A zero indicates TCP/IP is not supported.

System Action: The DDF start up process completed. However, it might fail for reasons specified by messages DSNL013I, DSNL015I, DSNL016I, DSNL017I, DSNL018I, DSNL019I, DSNL700I, or DSNL705I.

System Programmer Response: Use the recommended domain name when configuring network definitions for TCP/IP requesters.

DSNL005I DDF IS STOPPING

Explanation: The distributed data facility (DDF) -STOP command has been initiated.

This message is issued by the following CSECT: DSNLSSST

System Action: The -STOP DDF command is initiated.

DSNL006I DDF STOP COMPLETE

Explanation: The distributed data facility (DDF) -STOP command has completed.

This message is issued by the following CSECT: DSNLSSST

System Action: The DDF has stopped.

DSNL007I DDF IS ABNORMALLY TERMINATING

Explanation: Abnormal termination of the distributed data facility (DDF) has started.

This message is issued by the following CSECT: DSNLSSST

System Action: Abnormal termination of the DDF is starting.

DSNL008I DDF ABNORMAL TERMINATION COMPLETE

Explanation: Abnormal termination of the distributed data facility (DDF) has completed.

This message is issued by the following CSECT: DSNLSSST

System Action: The DDF has stopped.

DSNL009I INVALID DDF THREAD *logical-unit-of-work-id* **SPECIFIED**

Explanation: No distributed transaction with the specified 'logical-unit-of-work-id' exists.

This message is issued by the following CSECT: DSNLCNCL

System Action: The specified thread is not canceled.

User Response: Determine the correct 'logical-unit-of-work-id' of the distributed thread that is to be canceled and then reissue the command.

Problem Determination: Determine the correct value. The -DISPLAY THREAD command can be used to display all distributed activity.

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DSNL010I DDF THREAD *logical-unit-of-work-id* HAS BEEN CANCELED

Explanation: The distributed data facility (DDF) thread 'logical-unit-of-work-id' was canceled.

If 'logical-unit-of-work-id' is an LUWID (LU network name and an LUW instance number) instead of an LUWID TOKEN, then in rare circumstances more than one DDF thread might be canceled.

This situation only arises when an application accesses the same DB2 server by different access paths (for example, A->B->C and A->D->C). In such a case, multiple threads with the same LUWID exist at the server (for example, C). If CANCEL DDF THREAD is issued at the server specifying this LUWID, every thread at the server with the LUWID is canceled.

This message is issued by the following CSECT: DSNLCNCL

System Action: The specified thread is canceled.

DSNL011I VTAM STOPPING DDF

Explanation: The operator issued a HALT NET command to terminate VTAM.

This message is issued by the following CSECT: DSNLVPTE

System Action: The distributed data facility (DDF) -STOP command is initiated.

DSNL012I VTAM TERMINATING DDF

Explanation: The operator issued a HALT NET QUICK command or a HALT NET CANCEL command, or VTAM is terminating abnormally. This message can be issued any time after -START DDF and occurs when VTAM is stopped, which can occur prior to DDF termination. This message is not issued when DDF terminates normally.

This message is issued by the following CSECT: DSNLVPTE

System Action: Termination of the distributed data facility is initiated.

DSNL013I VTAM OPEN ACB FAILED ERROR=*error-code*

Explanation: VTAM returned a nonzero return code after DB2 invoked the OPEN ACB macro instruction during termination of the distributed data facility (DDF). VTAM return codes for OPEN error conditions are defined in *VTAM for MVS/ESA Programming*.

This message is issued by the following CSECT: DSNLVACB

System Action: Termination of the distributed data facility is initiated.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the cause of the OPEN ACB failure, correct the error, and issue the -START DDF command.

Problem Determination: Refer to *VTAM for MVS/ESA Programming* for failure analysis during an OPEN macro instruction.

DSNL014I VTAM CLOSE ACB FAILED ERROR=*error-code*

Explanation: VTAM returned a nonzero return code after DB2 invoked the CLOSE ACB macro instruction during termination of the distributed data facility (DDF). VTAM return codes for CLOSE error conditions are defined in *VTAM for MVS/ESA Programming*.

This message is issued by the following CSECT: DSNLVACB

System Action: Termination of DDF continues.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the cause of the failure, fix the error condition, and then issue the -START DDF command.

Problem Determination: Refer to *VTAM for MVS/ESA Programming* for failure analysis during a CLOSE macro instruction.

DSNL015I VTAM SETLOGON FAILED RTNCD=*error-code* FDBK2=*open-flags*

Explanation: VTAM returned a nonzero return code after DB2 invoked the SETLOGON macro during initialization of the distributed data function (DDF). VTAM return codes are defined in *VTAM for MVS/ESA Programming*.

This message is issued by the following CSECT: DSNLVINI

System Action: Termination of the DDF is started.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to *VTAM for MVS/ESA Programming* to determine the cause of the failure. After the error is fixed, issue the -START DDF command.

DSNL016I DDF RECORD NOT FOUND IN BSDS

Explanation: DDF cannot find the DDF communication record in the BSDS.

This message is issued by the following CSECT: DSNLVACB

System Action: DDF termination process is initiated.

Operator Response: Notify the system programmer.

System Programmer Response: Use the change log inventory to add the DDF communication record to the BSDS.

Problem Determination: Collect the following diagnostic item:

- Print the contents of the BSDS using the print log map utility.

DSNL017I INVALID DDF RECORD FOUND IN BSDS

Explanation: A invalid or incomplete DDF communication record was found in the BSDS.

This message is issued by the following CSECT: DSNLVACB

System Action: DDF termination process is initiated.

Operator Response: Notify the system programmer.

System Programmer Response: Use the change log inventory to add a valid DDF communication record to the BSDS.

Problem Determination: Collect the following diagnostic item:

- Print the contents of the BSDS using the print log map utility.

DSNL018I VSAM ERROR READING DDF RECORD IN BSDS RPLERRCD=*error-code*

Explanation: A VSAM GET command was issued that resulted in a nonzero return code. RPLERRCD 'error-code' is the VSAM return code.

This message is issued by the following CSECT: DSNLVACB

System Action: Termination of the distributed data facility (DDF) is initiated.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the cause of the failure, fix the error condition, and issue the -START DDF command.

The cause of the failure is dictated by the VSAM return code. The BSDS may have to be recovered by using a backup copy.

Problem Determination: Refer to the appropriate VSAM publications.

DSNL019I VTAM DOES NOT SUPPORT APPC FUNCTIONS

Explanation: The installed release of VTAM does not support the advanced program-to-program communications (APPC) application program interface (API). The APPC API bit is not set in the VTAM function-list vector in the access-method-support vector list.

This message is issued by the following CSECT: DSNLVACB

System Action: Termination of the distributed data facility (DDF) is initiated.

Operator Response: Notify the system programmer.

System Programmer Response: Determine whether the installed release of VTAM supports the APPC API. If VTAM does not support the APPC API, a VTAM release that supports the APPC API must be installed before the DDF can be started.

DSNL020I KEYWORD 'THREAD' PARAMETER *parameter* **FORMAT IN ERROR**

Explanation: The parameter value specified for the logical-unit-of-work ID on the CANCEL DDF THREAD has an invalid format. The correct form is 'netid.luname.luwunique', where:

netid	A 1- to 8-character network ID.
luname	A 1- to 8-character luname.
luwunique	A 12-character hex number.

Luname and luwunique are separated by a '.' delimiter. Netid is optional. If netid is specified, then netid and luname are separated by a '.' delimiter. If netid is not specified, then the '.' delimiter before luname is not present.

This message is issued by the following CSECT: DSNLCNCL

System Action: The specified thread is not canceled.

User Response: Determine the correct logical-unit-of-work ID of the distributed thread that is to be canceled and reissue the command.

Problem Determination: Determine the correct value. The -DISPLAY THREAD command can be used to display all distributed activity.

DSNL021I *command* **IS ACCEPTED**

Explanation: The 'command' command has been accepted and asynchronous processing of 'command' has been initiated. The command can only be -START or -STOP the distributed data facility.

This message is issued by the following CSECT: DSNLSSRC

System Action: The command was accepted and asynchronous processing has been initiated.

DSNL022I *csect-name* **DDF THREAD** *logical-unit-of-work-id* **WAS PREVIOUSLY CANCELED**

Explanation: A command to cancel the distributed data facility (DDF) thread *logical-unit-of-work-id* was previously issued. Either the CANCEL DDF THREAD or the CANCEL THREAD command was entered. The thread is currently being canceled. The CANCEL command terminates a thread only if the thread is processing in DB2 or is currently suspended by DB2. The thread might not be processing in DB2 in these situations:

- The thread is processing in the application and has not made a request to DB2. The DISPLAY THREAD command indicates this.
- The user placed the thread on an MVS resource using the ENQUE command. The CANCEL command has no effect on the thread until ENQUE completes and the thread returns to DB2.
- The thread is processing in VTAM and is waiting for a response from a partner. The DISPLAY THREAD DETAIL command indicates this. In this case the thread does not terminate until VTAM returns to DB2. VTAM commands, which will terminate the session or LU, can be used to cause VTAM to return to DB2.

DSNL023I DDF IS ALREADY IN THE PROCESS OF STARTING

Explanation: The distributed data facility (DDF) was starting when the -START DDF or -STOP DDF command was issued.

This message is issued by the following CSECT: DSNLSSRC

System Action: The issued command is not executed.

DSNL024I DDF IS ALREADY IN THE PROCESS OF STOPPING

Explanation: The distributed data facility (DDF) was stopping when the -STOP DDF or -START DDF command was issued.

This message is issued by the following CSECT: DSNLSSRC

System Action: The -START or -STOP DDF command is not executed.

DSNL025I A DISTRIBUTED AGENT FOR *luw-id=token* **EXISTS AT THIS LOCATION BUT NOT AT SITE WITH LOCATION** *location* **AND LU** *luname*

Explanation: The DDF error monitor has detected that a distributed agent exists at this location but not at the named partner location.

Where

luw-id=token	The logical unit of work ID of the thread followed by an '=' sign and a token which may be used in place of 'luw-id' in

any DB2 command that accepts 'luw-id' as input.

location — The location name of the partner site where a thread with the same 'luw-id' does not exist.

luname — The 8-character LUNAME of the partner location.

This message is issued by the following CSECTs: DSNLEDDA, DSNLEDPE

System Action: None. This message will repeat periodically until the inconsistency is resolved.

Operator Response: Determine if the inconsistency is due to network conditions or a DB2 error. If a DB2 error is suspected, acquire documentation to diagnose the problem.

1. Console dump of DB2 address spaces (*ssnm*DBM1, *ssnm*MSTR, *ssnm*DIST), VTAM, and user's address space at the requesting site.
2. Console dump of DB2 address spaces (*ssnm*DBM1, *ssnm*MSTR, *ssnm*DIST), and VTAM at the server site.
3. SYSLOG from requesting and server sites.
4. LOGREC from requesting and server sites.

If an indefinite inconsistency is suspected, use the CANCEL DDF THREAD command to terminate the thread. If CANCEL DDF THREAD fails to terminate the agent, use VTAM commands to terminate the thread conversations.

Problem Determination: Use the DB2 DISPLAY THREAD command with DETAIL option at each DB2 subsystem to display information about the agent and its conversations. Use VTAM commands to display additional information about the conversations being used by the thread and also about network conditions.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 5.

DSNL026I LUW-ID *luw-id=token* **APPEARS TO BE SUSPENDED PARTNER LOCATION** *location* **PARTNER LU** *luname*

Explanation: The DDF error monitor has detected that a distributed agent with the specified 'luw-id' at this location and at the named partner 'location' may be suspended indefinitely.

Where

luw-id=token — The logical unit of work ID of the thread followed by an '=' sign and a token which may be used in place of 'luw-id' in any DB2 command that accepts 'luw-id' as input.

location — The location name of the partner site where a thread with the same 'luw-id' exists.

luname — The 8-character LUNAME of the partner location.

This message is issued by the following CSECTs: DSNLEDDA, DSNLEDPE

System Action: None. This message will repeat periodically until the inconsistency is resolved.

Operator Response: Determine if the inconsistency is due to network conditions or a DB2 error. If a DB2 error is suspected, acquire documentation to diagnose the problem.

1. Console dump of DB2 address spaces (*ssnm*DBM1, *ssnm*MSTR, *ssnm*DIST), VTAM, and hung user's address space at the requesting site.
2. Console dump of DB2 address spaces (*ssnm*DBM1, *ssnm*MSTR, *ssnm*DIST), and VTAM as the server site.
3. SYSLOG from requesting and server sites.
4. LOGREC from requesting and server sites.

If an indefinite inconsistency is suspected, use the CANCEL DDF THREAD command to terminate the thread. If CANCEL DDF THREAD fails to terminate the agent, use VTAM commands to terminate the thread conversations.

Problem Determination: Use the DB2 DISPLAY THREAD command with DETAIL option at each DB2 subsystem to display information about the agent and its conversations. Use VTAM commands to display additional information about the conversations being used by the thread and also about network conditions.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 5.

DSNL027I *dis-agent-type* **DISTRIBUTED AGENT WITH LUW-ID** *luw-id=token* **THREAD-INFO thread-info RECEIVED ABEND=***abnd* **REASON=***reason*

Explanation: A distributed agent has abended at this location. This message will be followed by zero or more occurrences of DSNL028I, each of which describes a remote location where the distributed agent also exists and where diagnostic information might also need to be collected. This message is informational and with the DSNL028I message(s) identifies the remote locations where diagnostic information may have to be collected.

Where

dis-agent-type — 'REQUESTING' if the thread that abended is an allied thread that has distributed activity and SERVER if the thread that abended is a database access thread.

luw-id=token — The logical unit of work ID of the thread followed by an '=' sign and a 5 digit token value which may be used in any DB2 command that accepts luw-id as input.

thread-info — Thread info contains additional identifiers that define more specific information regarding the identity of the thread.

In many distribution configurations, the primary authorization-id used with DB2 is not necessarily the user-id of the end user. If provided by the client, the additional tokens further assist in identifying the client end user.

The following identifiers, separated by a colon(:), are provided:

- The primary authorization-id associated with the thread.
- Name of the end user's work station. An asterisk (*) indicates that it is not relevant to the thread or was not provided by the client.

- End user's user-id. An asterisk (*) indicates that it is not relevant to the thread or was not provided by the client.
- Application name of the end user's application. An asterisk (*) indicates that it is not relevant to the thread or was not provided by the client.

abnd — The abend code or zeros if the abend code is indeterminate.

reason — The DB2 reason code or zeros if the reason code is indeterminate.

This message is issued by the following CSECT: DSNLBABR

Problem Determination: Gather appropriate diagnostic information (refer to the System Programmer Response section of the abend reason code specified in this message if applicable). Refer to DSNL028I message(s) for the names of the other location(s).

DSNL028I *luw-id=token* **ACCESSING DATA** *preposition* **LOCATION** *location nettype netvalue*

Explanation: This message follows DSNL027I and identifies a remote location where work might have been occurring for the distributed thread. This message is informational and with the DSNL027I message identifies a remote location where diagnostic information might have to be collected.

luw-id=token — The logical unit-of-work ID of the thread followed by an '=' sign and a token which may be used in place of 'luw-id' in any DB2 command that accepts 'luw-id' as input.

preposition — 'FOR' if the thread is a database access thread and 'AT' if the thread is an allied thread that has distributed activity.

location — The LOCATION name of the remote site.

nettype — Identifies the type of network used to access the remote site. There are two possible values:

- **LU --** indicates that VTAM is used to connect to the remote site.
- **IPADDR --** indicates that TCP/IP is used to connect to the remote site.

netvalue — The network address of the remote location. *netvalue* can be blank.

- If *nettype* is LU, *netvalue* specifies the VTAM LU name of the remote location.
- If *nettype* is IPADDR, *netvalue* specifies the dotted decimal IP address of the remote location.

This message is issued by the following CSECT: DSNLBABR

Problem Determination: See message DSNL027I.

DSNL029I DDF IS NOT INITIALIZED

Explanation: A -START DDF or -STOP DDF command was issued before DDF was initialized during DB2 startup processing.

This message is issued by the following CSECT: DSNLSSRC

System Action: None

Operator Response: Wait for the DSN9022I 'START DB2' NORMAL COMPLETION message and re-issue the command.

DSNL030I *csect-name* **DDF PROCESSING FAILURE FOR LUWID=***luwid* **AUTHID=***authid* **REASON=***reason*

Explanation: A requesting conversation was terminated because of DDF processing failure. The requesting agent is identified by the 'luwid' and 'authid' values, if they are available. If the authorization ID is not available, the value '-UNKNOWN' will be displayed. If the 'luwid' is not available, the string 'netid.luname.000000000000' will be displayed, describing the LU that made the request.

The reason code in this message describes the nature of the DDF processing failure.

System Action: The system will eventually abend the database access agent.

Operator Response: Notify the system programmer for analysis.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Inspect the reason code and determine if the system is operating as expected. Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

DSNL031I *csect-name* **DRDA EXCEPTION CONDITION IN RESPONSE FROM SERVER LOCATION=***location* **FOR THREAD WITH LUWID=***luwid* **REASON=***reason code* **ERROR ID=***module_name and source id* **CORRELATION ID=***correlation-id* **CONNECTION ID=***connection-id* **IFCID=***ifcid* **SEE TRACE RECORD WITH IFCID SEQUENCE NUMBER=***seq-no*

Explanation: A DRDA exception condition was detected in response data returned from the application server (AS) with location name *location*.

A DRDA exception condition, detected at the application requester, is one of the following:

- An error reply message and severity code received from the server.
- A parsing error detected while processing a reply message or reply data object
- A DRDA protocol violation, (for example, an object returned that is not valid for this command).

The variables have the following meanings:

luwid — The logical unit of work (LUW) ID that identifies the thread and is also included in the trace record.

reason — The DB2 reason code for this specific error.

error id — The module name concatenated with a 4-byte source id that uniquely determines the source within the module where the exception is encountered.

correlation-id — The correlation identifier of the thread that detected the DRDA exception condition. Correlation-IDs beginning with '0nn', where nn is a number from 01 to 28, identify system agents.

connection-id — The connection name of the thread that detected the DRDA exception condition.

ifcid — The IFCID number of the trace record that was written.

seq-no — The IFCID sequence number associated with the trace record. The trace record contains information that can be used to determine what caused the DRDA exception condition, and is written to statistics class 4. Statistics class 4 is directed to SMF by default during DB2 installation, and must be directed to a permanent destination (SMF or GTF) for the trace record to be accessible. The message and the trace record are only written the first time an error is detected. This avoids flooding the console and the trace. The sequence number is printed in hexadecimal.

If the sequence number is zero this has been caused by one of two conditions:

- statistics class 4 was not directed to a permanent destination
- statistics class 4 was directed to the resident trace table as its permanant destination.

If this message first occurred because statistics class 4 was not directed to a permanent destination, then the same message recurs later (along with trace record) when the statistics class is directed to the resident table as its permanent destination instead of SMF or GTF.

System Action: An alert was generated. Additionally, the system wrote a trace record with IFCID=*ifcid* to statistics class 4 that can be used to diagnose the problem.

Problem Determination: Determine the destination of statistics class 4 and locate and print the trace record with SEQUENCE NUMBER=*seq-no*. The reason code is described in “Section 4. DB2 Codes” on page 4-1. The description of the reason code can be used in conjunction with the publication Distributed Relational Database Architecture Reference to determine the type of DRDA exception that has been detected. Use the procedures described in Section 5 of *Diagnosis Guide and Reference* to determine the problem and which system is responsible.

DSNL032I *csect-name* **DRDA EXCEPTION CONDITION IN REQUEST FROM REQUESTER LOCATION=***location* **FOR THREAD WITH LUWID=***luwid* **REASON=***reason code* **ERROR ID=***module_name and source id* **IFCID=***ifcid* **SEE TRACE RECORD WITH IFCID SEQUENCE NUMBER=***seq-no*

Explanation: A DRDA exception condition was detected while processing a command or command data received from the application requester (AR) with location name *location*. A DRDA exception condition, detected at the application server (AS), is a parsing error detected while processing a command or a command data object.

location — This field contains one of the following:

- The requester's relational database name (location name)
- The requester's VTAM LU name (<luname>)
- The requester's dotted decimal IP address (nnn.nnn.nnn.nnn)

luwid — The logical unit of work (LUW) ID that identifies the thread and is also included in the trace record, or 'NETID.LUNAME.000000000000' if the error detected involves an invalid FMH5.

reason — The DB2 reason code for this specific error.

error id — The module name concatenated with a 4-byte source id that uniquely determines the source within the module where the exception was encountered.

ifcid — The IFCID sequence number associated with the trace record. The trace record contains information that can be used to determine what caused the DRDA exception condition, and is written to statistics class 4. Statistics class 4 is directed to SMF by default during DB2 installation, and must be directed to a permanent destination (SMF or GTF) for the trace record to be accessible. The message and the trace record are only written the first time an error is detected. This avoids flooding the console and the trace. The sequence number is printed in hexadecimal.

If the sequence number is zero this has been caused by one of two conditions:

- statistics class 4 was not directed to a permanent destination
- statistics class 4 was directed to the resident trace table as its permanant destination.

If this message first occurred because statistics class 4 was not directed to a permanent destination, then the same message recurs later (along with trace record) when the statistics class is directed to the resident table as its permanent destination instead of SMF or GTF.

System Action: An alert was generated and the system wrote a trace record with IFCID=*ifcid* to statistics class 4 that can be used to diagnose the problem.

Operator Response: Notify the system programmer for analysis.

System Programmer Response: Determine the destination of statistics class 4 and locate and print the trace record with SEQUENCE NUMBER=*seq-no*. The reason code is described

in “Section 4. DB2 Codes” on page 4-1. The description of the reason code can be used in conjunction with the publication Distributed Relational Database Architecture Reference to determine the type of DRDA exception that has been detected. Use the procedures described in *Diagnosis Guide and Reference* to determine the problem and which system is responsible.

DSNL033I *csect-name* **DDF TERMINATION SCHEDULED DUE TO DETECTION OF ABEND** *abend* **REASON** *reason*

Explanation: A severe error was detected during DDF processing. DDF processing can no longer continue so DDF termination has been scheduled. 'Csect-name' is the DB2 module that detected the condition and requested DDF termination.

The abend and reason may also contain additional information about the cause.

abend — The abend code or zeros if no abend is associated with the termination of DDF.

If the abend was a DB2 04E abend, the reason code will contain additional information about the abend.

reason — The DB2 reason code or zeros if no DB2 reason code is associated with the termination of DDF.

If no abend is associated with the problem, the reason code describes the cause for the termination.

System Action: Termination of the distributed data facility (DDF) is initiated.

Operator Response: Notify the system programmer for analysis.

System Programmer Response: Determine the cause of the failure. Correct the condition and restart DDF using the -START DDF command.

Problem Determination: If an abend is associated with the failure, a dump may have been provided. LOGREC will also contain information about the abend.

DSNL034E DDF CANNOT BE STARTED BECAUSE OF BSDS INCONSISTENCIES, ORIGINAL LUNAME=*luname1***, BSDS LUNAME=***luname2***, ORIGINAL LOCATION=***location1***, BSDS LOCATION=***location2*

Explanation: The LUNAME or the LOCATION name stored in the bootstrap data set (BSDS) was changed since the distributed data facility (DDF) was last started, but DDF still has resynchronization responsibility with one or more partner logical units using the old LUNAME and LOCATION name. Both the original and current BSDS values of LUNAME and LOCATION name are displayed.

luname1 — The LUNAME required for resynchronization

luname2 — The LUNAME currently stored in the BSDS

location1 — The LOCATION name required for resynchronization

location2 — The LOCATION name currently stored in the BSDS

This message is issued by the following CSECTs: DSNLTESU, DSNLTMIN

System Action: DDF cannot be started until the inconsistencies are corrected.

Operator Response: Inform the database administrator.

Database Administrator Action: You have the following options, depending on whether there is a requirement to change the LUNAME or LOCATION name in the BSDS:

- If the names were changed in error, use the change log inventory (DSNJU003) utility to change the LUNAME and/or LOCATION name back to the correct value. Then START DDF.
- If the name must be changed, you must first remove all of the resynchronization responsibility that DB2 had using the old names. You can purge this information, allow automatic resynchronization to take place, or use a combination of both.

  You can purge resynchronization information by using the RESET INDOUBT command with the FORCE option. You can purge all information regardless of partner name (LOCATION (*)), or you can selectively purge by specifying a location name. DDF does not have to be started to use this command. You can use the DISPLAY THREAD command to generate a report of indoubt threads. This report indicates all resynchronization responsibility known by DB2.

  If you do not purge the resynchronization information, or only selectively purge, and you want automatic resynchronization to occur before changing the names, you must first use the change log inventory (DSNJU003) utility to change the LUNAME and/or LOCATION name back to the correct value. Then START DDF. At this point, automatic resynchronization begins. You can monitor the progress by periodically using the DISPLAY THREAD command for TYPE (INDOUBT) threads. Resynchronization does not complete until all needed communications paths are available and all needed partner logical units are available. If you cannot wait for availability, use the RESET INDOUBT command with the FORCE option to purge information associated with unavailable partners.

DSNL035I DDF CANNOT BE STOPPED BECAUSE AN INDOUBT DATA BASE ACCESS THREAD EXISTS

Explanation: DDF is the connection manager for a database access thread (DBAT) that is indoubt. A STOP DDF MODE(QUIESCE) command is rejected until the indoubt logical unit of work is resolved.

This message is issued by the following CSECT: DSNLSSRC

System Action: DDF is not stopped.

Operator Response: Inform the database administrator.

Database Administrator Action: You have the following options:

- Wait for automatic resynchronization to be performed. When this occurs, either message DSNL407I or DSNL415I is displayed.

  After the indoubt thread is resolved, reissue the STOP DDF command.
- Use the DISPLAY THREAD TYPE(INDOUBT) command to find the LOCATION that has coordinator responsibility for the indoubt LUW. Contact that location and determine whether the LUW committed or aborted. Then use the RECOVER INDOUBT command to cause the indoubt DBAT to be resolved with the same decision.

After the indoubt thread is resolved, reissue the STOP DDF command.

- Issue the STOP DDF MODE(FORCE) command. The indoubt thread remains indoubt and can be resolved by using automatic resynchronization after DDF is started again, or it can be resolved manually as described above.

DSNL036I DDF THREAD *logical-unit-of-work-id* **SPECIFIED IS INDOUBT**

Explanation: A database access thread that is indoubt cannot be canceled by using the -CANCEL DDF THREAD command.

This message is issued by the following CSECT: DSNLCNCL

System Action: The specified thread is not canceled.

Operator Response: Use the -DISPLAY THREAD TYPE(*) command to display all distributed activity.

DSNL037I *csect-name* **RESET GENERICLU** *lu* **SUCCESSFUL**

Explanation: The RESET GENERICLU command successfully purged the VTAM sysplex information from shared memory.

lu The value supplied on the RESET GENERICLU command

System Action: The VTAM information contained in the sysplex shared memory for the indicated LU is purged.

DSNL038E *csect-name* **RESET GENERICLU** *lu* **FAILED DUE TO VTAM RTNCD=***xx* **and FDB2=***yy*

Explanation: The VTAM CHANGE,OPTCD=(SYN,ENDAFFIN) macro returned an unexpected return code, which is described by the indicated VTAM RTNCD and FDB2 values.

lu The value supplied on the RESET GENERICLU command

xx The hexadecimal value of the VTAM RTNCD field

yy The hexadecimal value of the VTAM FDB2 field

System Action: VTAM was not able to purge the sysplex shared memory information for the indicated LU.

System Programmer Response: Refer to *VTAM for MVS/ESA Programming* for the meaning of the VTAM RTNCD and FDB2 values.

DSNL039E *csect-name* **RESET GENERICLU** *lu* **FAILED DUE TO ACTIVE VTAM SESSIONS**

Explanation: The RESET GENERICLU command was not accepted because one or more active VTAM sessions exist to the indicated LU. All VTAM sessions must be terminated before the command is accepted.

lu The value supplied on the RESET GENERICLU command

System Action: The command is rejected.

System Programmer Response: Terminate the VTAM sessions to the remote LU and reissue the -RESET GENERICLU command.

DSNL040E *csect-name* **RESET GENERICLU** *lu* **FAILED DUE TO INDOUBT RESOLUTION INFORMATION**

Explanation: The RESET GENERICLU command was not accepted because information is currently being retained for resolution of indoubt threads for the indicated partner LU. The DISPLAY THREAD TYPE(INDOUBT) command can be used to view this information.

lu The value supplied on the RESET GENERICLU command

System Action: The command is rejected.

System Programmer Response: Make sure that all indoubt threads at the remote site are resolved before issuing the RESET GENERICLU command.

When DB2 performs automatic indoubt thread resolution, the information contained in the DISPLAY THREAD TYPE(INDOUBT) display is purged at the end of the resynchronization process.

If required, use the -RESET INDOUBT command to manually purge the indoubt resolution information.

DSNL041E *csect-name* **DB2 GENERIC LU NAME REQUESTED, BUT REQUIRED VTAM LEVEL IS NOT INSTALLED**

Explanation: The DB2 GENERIC LUNAME installation option was specified. This option requires VTAM Version 4 Release 2 or a later release.

System Action: The DB2 GENERIC LUNAME installation option is ignored.

System Programmer Response: If the DB2 GENERIC LUNAME is required, install VTAM Version 4 Release 2 or a later release.

DSNL042E *csect-name* **DB2 SYSPLEX TP WAS INVOKED BY LU** *lu***, BUT REQUIRED MVS LEVEL IS NOT INSTALLED**

Explanation: A request for the DB2 sysplex transaction program (TP) was received by a DB2 server that is a member of a data sharing group. The DB2 sysplex TP is used by the requesting systems to determine which DB2 systems within the group are currently available for DDF conversations.

The DB2 sysplex TP uses functions in MVS Version 5 Release 2 or a later release to balance distributed workload among the DB2 systems in the group. Because the required MVS release is not installed, the DB2 sysplex TP is not able to provide the requested information.

lu The name of the LU in the network that invoked the DB2 sysplex TP

System Action: The DB2 sysplex TP returns the NETID.LUNAME of the local DB2 system as the only available DB2 server in the group. The requester is not provided the names of other DB2 systems in the group, so all sessions from the requester are routed to the local DB2 server.

System Programmer Response: Install MVS Version 5 Release 2 or a later release if you want to have the DB2 sysplex TP return multiple NETID.LUNAME values to the requester.

DSNL043I *csect-name* **RESET GENERICLU** *luname* **INVALID**

Explanation: The luname value specified is invalid. The correct format is either a

- 1 to 8 character luname, or
- 1 to 8 character network ID, a period, and a 1 to 8 character luname.

System Action: The parameter is ignored. Processing continues with the next luname, if any.

User Response: Determine the correct luname and reissue the command.

DSNL044I *csect-name* **MVS** *macname* **MACRO FAILED WITH RETCODE=***xx* **AND RSNCODE=***yy*

Explanation: An MVS Workload Manager (WLM) macro # returned an unexpected return code, which is described by the # indicated RETCODE and RSNCODE values. DDF uses MVS # Workload Manager macros to obtain data sharing sysplex # routing information for incoming DDF work requests, and to # establish an MVS enclave for the execution environment of the # distributed thread.

macname The name of the MVS macro that returned the # unexpected return code. The possible values # are:

- IWMSRSRG: Register with WLM for # sysplex routing.
- IWMSRSRS: Request sysplex routing # information.
- IWMSRDRS: Deregister with WLM for # sysplex routing.
- IWMECREA: Create enclave.

xx The hexadecimal value of the MVS # RETCODE field.

yy The hexadecimal value of the MVS # RSNCODE field.

System Action: If a sysplex routing macro failed, then # sysplex routing may not be performed in which case, all SQL # statements received from the client will be processed by this # DB2 subsystem. If an enclave macro failed, the distributed # thread may not be able to execute in an MVS enclave, # however the distributed thread will continue to execute as an # MVS SRB.

System Programmer Response: Refer to *MVS/ESA Programming: Workload Management Services* for the meaning of the MVS RETCODE and RSNCODE values.

| **DSNL050E** *csect-name* **DB2 ENCOUNTERED AN ERROR WHILE DOING DCE-RELATED PROCESSING. ERROR ID=***errid* **RETURN STATUS=***major* **(MINOR=minor) FUNCTION=***function-name*

| **Explanation:** DB2 has received a CONNECT request from a DRDA requester that requires DCE authentication. DDF encountered an error in performing the DCE-related functions required to complete the request. The FUNCTION field contains the name of the function being performed. RETURN STATUS and MINOR may contain additional information about the error, depending on the ERROR ID.

| The FUNCTION name may be one of the following:

| **ENROLL_DB2** A set of DCE operations performed to enroll DB2 as a DCE-based server. Message DSNL051 was also issued for this error.

| **ACCEPT_PRINCIPAL** A set of DCE and RACF operations performed to accept DCE security tokens from a DCE user and to derive the corresponding RACF user ID for that user. Message DSNL052 was also issued for this error.

| The ERROR ID may be one of the following:

| **20301** DDF is unable perform DCE-related processing.

| **20302** The current cell size is not large enough to process the function. RETURN STATUS and MINOR contain serviceability information.

| **20303** DDF issued the MVS CPOOL macro to get a cell from its cell pool for DCE-related processing but the CPOOL operation failed. RETURN STATUS contains the MVS system code returned by the MVS CPOOL macro and MINOR contains the associated reason code. For example, RETURN STATUS of '00000C78' is the C78 system code. Refer to *OS/390 MVS System Codes* for an explanation and a description of relevant reason codes.

| **20304** DCE working storage could not be acquired.

| **20305** DDF received more connection requests requiring DCE authentication than it could handle concurrently.

| **System Action:** The connection request is terminated. Other messages may also have been issued.

| It may be necessary to stop and restart DDF to correct the problem. If this is the case and it is not possible to do so immediately, all other DDF activity not requiring DCE services will process normally.

| **User Response:** Attempt the connection request again. If the connection request fails for the same reason, contact the system programmer.

| **System Programmer Response:** Take the actions indicated for the following errors:

| **20301** Refer to DSNL057 for further information and corrective actions.

| **20302** DDF preallocates fixed-sized storage cells large enough to accommodate the largest expected DCE authentication request. This request exceeds this amount. This connection request cannot be processed, although other requests requiring less storage will continue to be processed. Report this problem as a DDF internal error.

| To process this request, DDF can be stopped and restarted; DDF will automatically allocate a larger cell size. When DB2 is stopped, however, the cell size reverts to the default.

| **20303** Refer to the RETURN STATUS and MINOR to understand the CPOOL macro failure. It may be necessary to stop and restart DDF to clear the problem. If the problem persists, report the problem.

| **20304** Retry the connection request. If the error persists, report the problem.

20305 The number of concurrent DCE authentication requests allowed is 4096. Retry the connection request.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 4, 5.

DSNL051E *csect-name* **DB2 ENCOUNTERED AN ERROR WHILE ENROLLING UNDER ITS LOCATION NAME=***locname* **TO USE OS/390 DCE SERVICES. ERROR ID=***errid* **RETURN STATUS=***major* **(MINOR=minor)**

Explanation: DB2 has received a CONNECT request from a DRDA requester that requires DCE authentication. Before it can complete this request, DDF must first be enabled for DCE-related processing. If DDF has not completed all enablement functions when a CONNECT request is received, it automatically attempts to perform the uncompleted functions.

DDF was not enabled for DCE-related processing when it received this CONNECT request. One of the uncompleted functions was to enroll with DCE. This function registers DB2's location name as a server principal capable of accepting DCE security tokens. An error occurred while performing this function.

LOCATION NAME is the location name for the DB2 system.

For ERROR IDs greater than 20000, message DSNL050E was also issued and describes the ERROR ID listed.

ERROR IDs less than 20000 may be one of the following:

101 gss_import_name failed
102 gssdce_register_acceptor_identity failed

The RETURN STATUS contains error information about the function that failed. The RETURN STATUS contains OS/390 DCE return information that is described in *OS/390 R1 OE DCE Messages and Codes*.

System Action: DDF cannot complete the processing that enable it to perform DCE-related operations. DSNL056 is also issued to the console.

It may be necessary to stop and restart DDF to correct the problem. If this is the case and it is not possible to do so immediately, all other DDF activity not requiring DCE services will process normally.

System Programmer Response: Verify that DCE is operational. If it is not, correct the problem. Refer to DSNL054 and DSNL056 for additional information.

If DCE is operational, determine the reason *locname* cannot be enrolled by examining the RETURN STATUS and MINOR codes.

- Contact the DCE security administrator to determine if *locname* is a valid principal in the DCE security registry.
- Contact the RACF security administrator to determine if *locname* is a valid OMVS user.

If *locname* has not been properly defined to DCE and RACF security, then correct the problem. Refer to DSNL056 for additional information.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 4, 5.

DSNL052E *csect-name* **DB2 ENCOUNTERED AN ERROR WHILE ATTEMPTING TO VALIDATE DCE AUTHENTICATION TOKENS FROM A REMOTE USER AT LOCATION=***locname* **LUWID=***luwid* **ERROR ID=***errid* **RETURN STATUS=***major* **(MINOR=minor)**

Explanation: DB2 has received a CONNECT request from a DRDA requester that requires DCE authentication. DDF encountered an error in performing one of the operations required to authenticate the DCE user identity or to determine the corresponding RACF user ID.

For ERROR IDs greater than 20000, message DSNL050E was also issued and describes the ERROR ID listed.

ERROR IDs less than 20000 may be one of the following:

201 gss_import_name failed
202 gss_acquire_cred failed
203 gss_accept_sec_context failed
204 gss_display_name failed
205 gssdce_extract_creds_from_sec_context failed
206 sec_cred_get_initiator failed
207 sec_cred_get_pa_data failed
208 uuid_to_string failed
209 uuid_to_string failed
210 __convert_id_np failed

The RETURN STATUS contains error information about the function that failed. For all ERROR IDs except 210, the RETURN STATUS contains OS/390 DCE return information that is described in *OS/390 R1 OE DCE Messages and Codes*. If MINOR is provided, it contains the DCE minor code.

For ERROR ID 210, RETURN STATUS contains an errno described in *IBM C/C++ for MVS/ESA Library Reference*. MINOR contains errno2 information for the operation.

System Action: Connection processing terminates.

It may be necessary to stop and restart DDF to correct the problem. If this is the case and it is not possible to do so immediately, all other DDF activity not requiring DCE services will process normally.

System Programmer Response: Verify that DCE is operational. If it is not, correct the problem.

If DCE is operational, determine the cause of the failure by examining the return status and minor code.

For ERROR ID 210, verify that RACF has been properly set up to handle cross-linked DCE information. If this is correct, verify whether cross-linking information has been added for the user attempting access to the database resource. If not, contact the RACF administrator and DCE security administrator to perform this task.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 4, 5.

DSNL053I *csect-name* **DDF COMPLETED DCE-RELATED PROCESSING BUT COULD NOT RELEASE TEMPORARY DCE WORK STORAGE. ERROR ID=***errid* **RETURN STATUS=***major* **(MINOR=minor) FUNCTION=***function-name*

Explanation: DB2 has received a CONNECT request from a DRDA requester that requires DCE authentication. DDF encountered an error in releasing temporary work storage acquired by DCE as part of function processing.

The FUNCTION name may be one of the following:

ENROLL_DB2 A set of DCE operations performed to enroll DB2 as a DCE-based server.

ACCEPT_PRINCIPAL A set of DCE and RACF operations performed to accept DCE security tokens from a DCE user and to derive the corresponding RACF user ID for that user.

ERROR IDs may be one of the following:

103 gss_release_name failed
211 gss_release_name failed
212 gss_release_name failed
213 gss_release_cred failed
214 gss_delete_sec_context failed
215 rpc_string_free failed
216 rpc_string_free failed
217 gss_release_buffer failed
218 gss_release_buffer failed

The RETURN STATUS contains error information about the operation that failed. The RETURN STATUS contains OS/390 DCE return information that is described in *OS/390 R1 OE DCE Messages and Codes*. If MINOR is provided, it contains the DCE minor code.

System Action: Connection processing continues. The storage will be recovered when DDF is stopped.

System Programmer Response: No action is required. If this error occurs repeatedly and the storage loss appears to be negatively affecting DDF operation, then stop and restart DDF to clear the problem. Report the problem. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 4, 5.

DSNL054I *csect-name* **DDF IS BEING ENABLED FOR DCE-RELATED PROCESSING.**

Explanation: DB2 has received a CONNECT request from a DRDA requester that requires DCE authentication. To process this request, DDF must first have completed a set of functions that enable it to invoke DCE services. If DDF receives such a CONNECT request and it has not already successfully completed all these functions, it automatically attempts each uncompleted function and issues this message to indicate that this processing is in progress.

When DDF has successfully completed all these functions, it issues DSNL055 to indicate that DDF is now enabled for DCE-related processing. Otherwise, it issues DSNL056 to indicate a failure has occurred.

System Action: DDF completes the functions needed to enable for DCE-related processing. If the functions complete, then DDF continues processing the DRDA connection request.

DSNL055I *csect-name* **DDF HAS BEEN ENABLED FOR DCE-RELATED PROCESSING.**

Explanation: DB2 has received a CONNECT request from a DRDA requester that requires DCE authentication. To process this request, DDF must first have completed a set of functions that enable it to invoke DCE services. If DDF receives such a CONNECT request and it has not already successfully completed all these functions, it automatically attempts each uncompleted function and issues DSNL054 to indicate that this processing is in progress.

When DDF has successfully completed all these functions, it issues this message to indicate that DDF is now enabled for DCE-related processing.

System Action: DDF continues processing the DRDA connection request. DDF is now able to process other CONNECT requests requiring DCE authentication.

DSNL056E *csect-name* **DDF COULD NOT BE ENABLED FOR DCE-RELATED PROCESSING. ERROR ID=***errid***, RETURN STATUS=***major* **(MINOR=minor)**

Explanation: DB2 has received a CONNECT request from a DRDA requester that requires DCE authentication. To process this request, DDF must first have completed a set of functions that enable it to invoke DCE services. If DDF receives such a CONNECT request and it has not already successfully completed all these functions, it automatically attempts each uncompleted function. An error has occurred while performing these enabling functions. RETURN STATUS and MINOR may contain additional information, depending on the ERROR ID.

The ERROR ID may be one of the following:

20101 A fatal error has occurred and DDF cannot perform the functions required. See message DSNL057 for additional information.

20102 The OS/390 DCE service routine (EUVQDMC) could not be loaded. Verify that the DCE base services feature has been enabled on your system and that your system is at the OS/390 Release 1 level or higher. If DCE as this level has not been enabled, then DCE authentication cannot be used. Another authentication method should be selected for this user. Refer to the *OS/390 MVS System Codes* for an explanation and a description of relevant reason codes.

20103 DDF issued the CPOOL macro to build a cell pool for use in DCE-related processing, but the CPOOL request failed. RETURN STATUS contains the MVS system code returned by the MVS CPOOL macro and MINOR contains the reason code. For example, RETURN STATUS of '00000C78' is the C78 system code. Refer to the *OS/390 MVS System Codes* for an explanation and a description of relevant reason codes.

20104 The OS/390 DCE service routine (EUVQDMC) could not load the module EUVQSAM.

20105 The OS/390 DCE service routine (EUVQDMC) could not attach a task.

20106 The OS/390 DCE service routine (EUVQDMC) had a storage allocation error.

20107 DDF could not enroll with DCE security services as a DCE-based server. See message DSNL051 for error information.

System Action: The connection request is terminated. Other messages may also have been issued.

It may be necessary to stop and restart DDF to correct the problem. If this is the case and it is not possible to do so immediately, all other DDF activity not requiring DCE services will process normally.

User Response: Attempt the connection request again. If the connection request fails for the same reason, contact the system programmer.

System Programmer Response: Take the actions indicated for the following errors:

20101 Refer to DSNL057 for corrective action.

20102 The required module EUVQDMC is located in the DCE library (xxx.SEUVLIB). Verify that the OS/390 DCE feature is enabled on your system. If it is, verify that the DCE library is either in the link list for your system or included in the STEPLIB for the DDF startup procedure (ssnDIST).

If DCE is not enabled on your system, then DCE authentication cannot be used. Another authentication method should be chosen for this user.

If DCE is enabled, correct the problem. DDF must be stopped and restarted after the problem is corrected.

20103 DDF preallocates a cell pool for use in processing DCE-related functions. Examine the CPOOL macro system and reason codes. Attempt to stop and restart DDF to clear the problem. If the problem persists, report the problem.

20104 Report this problem to OS/390 DCE as an error involving EUVQDMC.

20105 Report this problem to OS/390 DCE as an error involving EUVQDMC.

20106 Retry the connection request. If the problem persists, stop and restart DDF to clear the problem. DCE message EUVQ00103E has also been issued to the console.

20107 DSNL051 and possibly DSNL050 will also have been issued. Refer to those messages for corrective action.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 4, 5.

DSNL057I *csect-name* **DDF CANNOT PERFORM DCE-RELATED PROCESSING: REASON=***reason* **FAILURE TOKEN=***token*

Explanation: DB2 has received a CONNECT request from a DRDA requester that requires DCE authentication but cannot process it because DDF is unable to perform DCE-related functions. REASON explains why this is so. FAILURE TOKEN contains serviceability information.

REASON may be one of the following:

ERROR An error occurred while performing DCE-related processing. DDF is no longer enabled for DCE-related processing.

DDF-STOPPING DDF is stopping. DDF cannot perform DCE-related functions until DDF is started again.

NOT-ENABLED DDF automatically attempts to enable DCE-related processing when it receives a connection request from a DRDA requester requiring DCE authentication. An error has occurred during this processing.

ENABLE-ERROR An unrecoverable error occurred and DDF is unable to perform operations needed to enable for DCE-related processing.

NOT-RESPONDING DDF received a previous DRDA CONNECT request requiring DCE authentication and is already performing operations to enable DDF to perform DCE-related functions. That processing may be taking longer than expected or it may have encountered a fatal error. The other requester may be hung.

System Action: The connection request is terminated. Other messages may also have been issued.

It may be necessary to stop and restart DDF to correct the problem. If this is the case and it is not possible to do so immediately, all other DDF activity not requiring DCE services will process normally.

User Response: Attempt the connection request again. If the connection request fails for the same reason, contact the system programmer.

System Programmer Response: Take the actions indicated for the following errors:

ERROR Determine the cause of the failure by examining related console messages, especially DSNL058 to determine if a fatal error has occurred but has not been recovered.

If DSNL059 has been issued, DDF was able to reset from the error and it will automatically attempt to re-enable for DCE-related processing with the next DRDA CONNECT request requiring DCE authentication. No action is required.

DDF-STOPPING No action is required. Wait for DDF to start again and retry the request.

NOT-ENABLED Determine why DDF was not able to enable for DCE-related processing by examining related console messages, especially DSNL056.

ENABLE-ERROR	Determine why DDF was not able to enable for DCE-related processing by examining related console messages, especially DSNL056 and DSNL058.
NOT-RESPONDING	Determine if DDF processing to enable DCE-related fucntions is encountering errors by examining console messages (DSNL050-DSNL064). Look for a DSNL054 message that is not paired with a DSNL055 or DSNL056 message. Look for threads that may be hung in DCE processing by issuing the -DISPLAY THREADS(*) LOCATION(*) command and looking for STATUS of RD. If any threads are hung in this manner, it will be necessary to issue -STOP DDF MODE(FORCE) to clear the error.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 4, 5.

DSNL058I *csect-name* **DDF DISABLED FOR DCE-RELATED PROCESSING. TOKEN=***token***.**

Explanation: DDF is disabled for DCE-related processing. Either DDF is being stopped or DDF encountered a fatal error while performing DCE-related operations. The error may have occurred in DDF processing or in DCE processing. TOKEN contains serviceability information.

System Action: If DDF is being stopped, DDF stop processing continues.

If a fatal error has occurred, DB2 attempts to reset itself and allow for future re-enablement. The next DRDA CONNECT request requiring DCE authentication will then trigger operations that re-enable DDF for DCE-related functions. If DDF cannot reset itself or if the enablement operations fail, all DRDA CONNECT requests requiring DCE authentication are rejected.

It may be necessary to stop and restart DDF to correct the problem. If this is the case and it is not possible to do so immediately, all other DDF activity not requiring DCE services will process normally.

System Programmer Response: If DDF stop processing is being performed, no action is required.

If a fatal error has occurred, no action is required if the DDF is able to reset itself for future re-enablement. If subsequent DRDA CONNECT requests fail because DDF was not able to re-enable for DCE-related processing, examine messages at the console, especially DSNL056 and take corrective action. It may be necessary to stop and restart DDF to clear the problem.

If you suspect a problem in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 4, 5.

DSNL059I *csect-name* **DDF RESET FROM FAILURE THAT DISABLED DCE-RELATED PROCESSING.**

Explanation: DDF previously encountered a fatal error while performing DCE-related processing and issued message DSNL058. DDF has been able to reset from this failure.

System Action: DDF recovered from the previous failure. The next DRDA CONNECT request requiring DCE authentication will trigger the operations needed to re-enable for DCE-related processing.

DSNL060I *csect-name* **DDF ATTEMPTED TO FREE A CELL AT ADDRESS=***address* **IN THE CELL POOL WITH CPOOL ID=***cpid* **BUT FAILED WITH CPOOL ABEND CODE=***syscode***, REASON CODE=***reascode***. STORAGE RECOVERED WHEN DDF STOPPED.**

Explanation: DB2 has received a CONNECT request from a DRDA requester that requires DCE authentication. DDF acquired a cell from its cell pool to process the request. The request completed successfully, but DDF encountered an error in freeing the cell. ABEND CODE contains the MVS system code returned by the CPOOL macro and REASON CODE contains the associated reason code. For example, an ABEND CODE of '00000C78' is the C78 system code. Refer to the *OS/390 MVS System Codes* for an explanation and a description of relevant reason codes.

System Action: Connection procession continues. The storage will be recovered when DDF is stopped.

System Programmer Response: No action is required. If this error occurs repeatedly and the storage loss appears to be negatively affecting DDF operation, stop and restart DDF to clear the problem. Report the problem. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 4, 5.

DSNL061I *csect-name* **DDF ATTEMPTED TO DELETE THE CELL POOL WITH ID=***cpid* **BUT FAILED WITH CPOOL ABEND CODE=***syscode***, REASON CODE=***reascode***. STORAGE RECOVERED WHEN DB2 STOPPED.**

Explanation: A -STOP DDF or -STOP DDF MODE(FORCE) command is being executed. The cell pool allocated by DDF to perform DCE-related processing could not be deleted. ABEND CODE contains the MVS system code returned by the CPOOL macro and REASON CODE contains the associated reason code. For example, an ABEND CODE of '00000C78' is the C78 system code. Refer to the *OS/390 MVS System Codes* for an explanation and a description of relevant reason codes.

System Action: DDF completes STOP DDF processing. Cell pool storage is recovered when DB2 is stopped.

System Programmer Response: No action is required. If this error occurs repeatedly and the storage loss appears to be negatively affecting DDF operation, then stop and restart DB2 to clear the problem. Report the problem. Refer to Section 3 of

Diagnosis Guide and Reference for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 4, 5.

DSNL062I *csect-name* **DDF DCE-RELATED SHUTDOWN PROCESSING HAS STARTED.**

Explanation: A -STOP DDF or -STOP DDF MODE(FORCE) command is being executed. DDF is performing operations to disable for DCE-processing and to free resources used in that processing.

System Action: DDF completes the disablement operations and then continues with the STOP DDF processing.

DSNL063I *csect-name* **DDF DCE-RELATED SHUTDOWN PROCESSING HAS COMPLETED.**

Explanation: A -STOP DDF or -STOP DDF MODE(FORCE) command is being executed. DDF has completed DCE operations that disable its capability to perform DCE-related processing.

System Action: DDF continues with STOP DDF processing.

DSNL064E *csect-name* **DDF DCE-RELATED SHUTDOWN PROCESSING FAILED. FAILURE TOKEN=***token*

Explanation: A -STOP DDF or -STOP DDF MODE(FORCE) command is being executed. An operation to remove DDF's DCE processing capability has failed. FAILURE TOKEN contains serviceability information.

System Action: DDF continues with STOP DDF processing. It should not be affected by this failure.

DSNL200I DISPLAY LOCATION REPORT FOLLOWS—

Explanation: This message is the title for the -DISPLAY LOCATION command report output. It precedes the other messages generated by this command. This message is followed by messages DSNL201I and DSNL202I. The final message for the report is be message DSNL205I.

This message is issued by the following CSECT: DSNLDLM

System Action: The -DISPLAY LOCATION command continues normally.

DSNL201I LOCATION PRDID LINKNAME REQUESTERS SERVERS CONVS

Explanation: The column headings for the list of locations generated by the -DISPLAY LOCATION command are displayed. The definitions are listed below:

Heading	Description
LOCATION	The location name associated with the remote site
PRDID	Identifies the database product at the location
LINKNAME	The VTAM LU name associated with the remote location
REQUESTERS	The number of agents at this site that are requesting data from the remote location
SERVERS	The number of agents at this site that are acting as a server to the remote location
CONVS	The total number of conversations in use between this site and the remote location

See message DSNL202I a for more specific description of these items.

The message number and subsystem recognition character are not included in this message.

This message is issued by the following CSECT: DSNLDLM

System Action: Processing continues normally.

DSNL202I LOCATION PRDID LINKNAME REQUESTERS SERVERS CONVS

Explanation: This message lists the status of communications between a remote location and this DB2 subsystem. Information about the status appears below:

Item	Description
LOCATION	A 16-byte name for the remote site.
PRDID	Identifies the database product at the location in the form nnnvvrrm. • nnn - Identifies the database product. E.g., DSN=DB2. • vv - Product version. • rr - Product release. • m - Product modification level.
LINKNAME	The VTAM LU name or dotted decimal IP address associated with the remote location.
REQUESTERS	A count of the threads at this location that access data at the remote location. The count includes all the allied threads associated with the remote location, and any database access threads that are accessing data at the remote location.
SERVERS	A count of the database access threads at this location that access data for agents at the remote location.
CONVS	A count of the total number of conversations between the two systems. The count includes both allied and database threads.

The message number and subsystem recognition character are not included in this message.

This message is issued by the following CSECT: DSNLDL

System Action: Processing continues normally.

DSNL203I L203-SYSTASK SESSID A ST TIME

Explanation: This message forms the heading for the listing of DB2 system threads that communicate with other locations. It follows each occurrence of message DSNL202I if the DETAIL keyword of the DISPLAY LOCATION command is used. This message is followed by one or more occurrences of message DSNL204I, which describe the DB2 system threads communicating with the remote site and its conversation information. Items in this part of the heading are:

SYSTASK Heading that describes the DB2 system thread

SESSID Heading for the associated conversation identifiers

A Heading for the associated active indicators

ST Heading for the associated status indicators

TIME Heading for the associated timestamps

See message DSNL204I for descriptions of these items.

The message number and subsystem recognition character are not included in this message. However, L203 is included in the message text to identify the message.

This message is issued by the following CSECT: DSNLDL

System Action: Processing continues normally.

DSNL204I L204-SYSTASK SESSID ACTIVE STATUS TIME

Explanation: This message follows the DSNL203I message for a remote location when a detail display is specified on the DISPLAY LOCATION command. This message is displayed for each conversation owned by a DB2 system thread that communicates with the site. It lists detailed information about the conversations associated with the DB2 system thread.

systask Describes the DB2 system threads as follows:

- SYSCON-x

  Where x =

  O The system thread that manages 'outbound' DB2 system conversations.

  I The system thread that manages 'inbound' DB2 system conversations.

  When DB2 is communicating with other DB2 locations using system-directed access, DB2 establishes 'system conversations' to the remote DB2 location. DB2 uses these conversations internally. The conversations created are one directional. That is, DB2 has a conversation that it uses to send information to the remote site, and another that it uses to receive information from the remote site. A DB2 system thread is created to manage 'outbound' (used for sending) conversations and another to manage 'inbound' (used for receiving) conversations.

- RESYNC

  A conversation used to resynchronize a unit of work that encountered a previous thread or communication error. There can be one entry representing each thread needing resynchronization with the remote site.

sessid Two possible values can appear in this column:

1. For VTAM network connections, this column contains the VTAM-defined session instance identifier of the session on which the conversation is executing. If the session identifier is not applicable, this field contains zeros.

   VTAM does not supply the entire session id to DB2. The first two digits of the session id are incorrect. Therefore, the session id, as presented in this message, is not acceptable in VTAM commands. Use the VTAM DISPLAY NET,ID=db2-luname,SCOPE=ACT command to obtain the full session ID. The DISPLAY NET command lists all sessions (SID) for the DB2 logical unit. Scan the DISPLAY NET output for the complete SID.

2. For TCP/IP network connections, this column contains a string of the form 'local:remote', where:

   local -- specifies the local DB2 system's TCP/IP port number

   remote -- specifies the remote partner's TCP/IP port number

active One of the following:

V The conversation is active within VTAM or TCP/IP.

W The conversation is suspended in DB2 waiting for VTAM or TCP/IP notification that the function is complete.

Blank, otherwise.

status Status of the conversation:

A Conversation in allocation.

C Session limits are being negotiated with the partner (CNOS) prior to conversation allocation.

D Conversation in deallocation.

R Receiving.

S Sending.

Blank otherwise.

time The timestamp (yydddhhmmssth) of the last message sent or received on the conversation.

The message number and subsystem recognition character are not included in this message. However, L204 is included in the message text to identify the message.

This message is issued by the following CSECT: DSNLDL

System Action: Command processing continues

DSNL205I DISPLAY LOCATION REPORT COMPLETE

Explanation: This message follows messages DSNL200I, DSNL201I, and DSNL202I and indicates that the -DISPLAY LOCATION report successfully completed.

The message number and subsystem recognition character are not included in this message.

This message is issued by the following CSECT: DSNLDLM

System Action: Processing continues normally.

DSNL206I *csect-name named-command* **COMMAND INVALID, DDF NOT STARTED**

Explanation: The 'named-command' command was issued before the distributed data facility (DDF) was started. The 'named-command' command executes successfully only if the DDF is operating.

System Action: Processing continues normally.

DSNL207I DISPLAY LOCATION NO LOCATIONS FOUND

Explanation: The -DISPLAY LOCATION command was unable to find any locations associated with the specified list of locations. If all locations were specified, there is no distributed activity.

This message is issued by the following CSECT: DSNLDL

System Action: Processing completed normally.

User Response: If a location list was specified, reissue the -DISPLAY LOCATION command using the LOCATION(*) parameter to display information for all locations, if desired.

DSNL208I DISPLAY LOCATION TERMINATED WITH MAX LINES

Explanation: The message indicates the -DISPLAY LOCATION report was truncated. The report was generated in response to a command from an MVS console and more than 254 response messages were generated. Only 254 response messages are returned.

This message is issued by the following CSECT: DSNLDL

System Action: Command processing completes. The truncated report is written to the MVS console.

User Response: Reissue the -DISPLAY LOCATION request specifying a specific location or list of locations.

DSNL400E INDOUBT THREAD RESOLUTION WITH COORDINATOR *location* SHOWS HEURISTIC DAMAGE FOR *luwid=token* - REMOTE COMMIT VERSUS LOCAL ABORT. INFORMATION RECORDED IN TRACE RECORD WITH IFCID=207 AND IFCID SEQUENCE NUMBER=*seq-no1* AND IN TRACE RECORD WITH IFCID=203 AND IFCID SEQUENCE NUMBER=*seq-no2*

Explanation: DB2 has participant responsibility in the logical unit of work identified by 'luwid=token'. Resolution with the coordinator identified by 'location' shows heuristic damage occurred. The DB2 thread representing the logical unit of work was previously resolved using the RECOVER INDOUBT command. The action taken was to abort the thread. Subsequently, communication was reestablished with the coordinator and resolution shows that the coordinator committed the thread.

- The application was told that commit succeeded.
- Any resources updated at the coordinator were committed.
- Updated resources at this DB2 were rolled back.

location — The field contains one of the following:

- The relational database name (location name)
- The VTAM LU name (<luname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

luwid=token — The global logical unit of work id and the local token that identify the thread.

seq-no1 — The IFCID sequence number associated with the 207 trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, IFCID 207 was not active or it was active with a destination of the resident trace table only. IFCID 207 is a member of statistics class 4, which has a default destination of SMF. This trace record is written when the heuristic damage condition was detected and contains information about the damage condition.

seq-no2 — The IFCID sequence number associated with the 203 trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, IFCID 203 was not active or it was active with a destination of the resident trace table only. IFCID 203 is a member of statistics class 4, which has a default destination of SMF. This trace record is written when the heuristic decision to commit or abort was made and contains information about the decision, including the names of any downstream participants.

This message is issued by the following CSECTs: DSNLTPDI, DSNLTRPA, DSNLTRPN

System Action: Alert A004 is generated. A trace record whose IFCID=207 is written. Indoubt resolution with the coordinator completes.

System Programmer Response: Determine the destination of statistics class 4 and locate and print the trace record with SEQUENCE NUMBER='seq-no1'. Call the database administrator.

Database Administrator Action: Correct the damage. This is not an easy task. Since the time of the heuristic action, the data that was aborted with the RECOVER INDOUBT command might have been used by many applications - read and/or write. Correcting the damage might involve reversing the effects of these applications as well. Tools available are:

- The statistics trace class 4 contains an IFCID 207 trace record. This record contains the RBA of the first DB2 log record written for the logical unit of work whose LUWID is included in this message.
- The DSN1LOGP utility provides a summary report that identifies the table spaces modified by the logical unit of work and any downstream participant locations involved in the logical unit of work.
- DISPLAY THREAD TYPE(INDOUBT) displays the RBA of the first DB2 log record written for the logical unit of work whose LUWID is included in this message. This information continues to appear in the DISPLAY THREAD report until it is purged with the RESET INDOUBT command.

Contact your IBM Support Center for further assistance.

DSNL401E INDOUBT THREAD RESOLUTION WITH COORDINATOR *location* SHOWS HEURISTIC DAMAGE FOR *luwid=token* - REMOTE ABORT VERSUS LOCAL COMMIT. INFORMATION RECORDED IN TRACE RECORD WITH IFCID=207 AND IFCID SEQUENCE NUMBER=*seq-no1* AND IN TRACE RECORD WITH IFCID=203 AND IFCID SEQUENCE NUMBER=*seq-no2*

Explanation: DB2 has participant responsibility in the logical unit of work identified by 'luwid=token'. Resolution with the coordinator identified by 'location' shows heuristic damage occurred. The DB2 thread representing the logical unit of work was previously resolved with the RECOVER INDOUBT command. The action taken was to commit the thread. Subse-

quently, communication was reestablished with the coordinator and resolution shows that the coordinator aborted the thread.

- The application was told that commit failed.
- Any resources updated at the coordinator were rolled back.
- Updated resources at this DB2 were committed.

location — The field contains one of the following:

- The relational database name (location name)
- The VTAM LU name (<luname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

luwid=token — The global logical unit of work id and the local token that identify the thread.

seq-no1 — The IFCID sequence number associated with the 207 trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, IFCID 207 was not active or it was active with a destination of the resident trace table only. IFCID 207 is a member of statistics class 4, which has a default destination of SMF. This trace record is written when the heuristic damage condition was detected and contains information about the damage condition.

seq-no2 — The IFCID sequence number associated with the 203 trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, IFCID 203 was not active or it was active with a destination of the resident trace table only. IFCID 203 is a member of statistics class 4, which has a default destination of SMF. This trace record was written when the heuristic decision to commit or abort was made and contains information about the decision, including the names of any downstream participants.

This message is issued by the following CSECTs: DSNLTPDI, DSNLTRPA, DSNLTRPN

System Action: Alert A004 is generated. A trace record whose IFCID=207 is written. Indoubt resolution with the coordinator completes.

System Programmer Response: Determine the destination of statistics class 4. Locate and print the trace record with SEQUENCE NUMBER='seq-no1'. Call the database administrator.

Database Administrator Action: Correct the damage. This is not an easy task. Since the time of the heuristic action, the data that was committed with the RECOVER INDOUBT command might have been used by many applications - read and/or write. Correcting the damage might involve reversing the effects of these applications as well. Tools available are:

- The statistics trace class 4 contains an IFCID 207 trace record. This record contains the RBA of the first DB2 log record written for the logical unit of work whose LUWID is included in this message.
- The DSN1LOGP utility provides a summary report that identifies the table spaces modified by the logical unit of work, and any downstream participant locations involved in the logical unit of work.
- DISPLAY THREAD TYPE(INDOUBT) displays the RBA of the first DB2 log record written for the logical unit of work whose LUWID is included in this message. This information continues to appear in the DISPLAY THREAD report until it is purged with the RESET INDOUBT command.

Contact your IBM Support Center for further assistance.

DSNL402I INDOUBT THREAD RESOLUTION WITH PARTICIPANT *location* SHOWS HEURISTIC DAMAGE FOR *luwid=token* - REMOTE COMMIT VERSUS LOCAL ABORT. INFORMATION RECORDED IN TRACE RECORD WITH IFCID=207 AND IFCID SEQUENCE NUMBER=*seq-no*

Explanation: DB2 has coordinator responsibility for the logical unit of work identified by 'luwid=token'. Resolution with a participant shows heuristic damage occurred. The participant identified by 'location' manually resolved the indoubt thread identified by 'luwid=token'. The action taken was to commit the thread. This is inconsistent with the abort decision of the coordinator.

- The application was told that commit failed.
- Any resources updated at the participant were committed.
- Updated resources at this DB2 were rolled back.

location — The field contains one of the following:

- The relational database name (location name)
- The VTAM LU name (<luname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

luwid=token — The global logical unit of work id and the local token that identify the thread.

seq-no — The IFCID sequence number associated with the trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, then IFCID 207 was not active or it was active with a destination of the resident trace table only. IFCID 207 is a member of statistics class 4, which has a default destination of SMF.

This message is issued by the following CSECTs: DSNLTPDI, DSNLTRCA, DSNLTRCN, DSNLTRLN, DSNLTRRA

System Action: Alert A004 is generated. A trace record whose IFCID=207 is written. Indoubt resolution with the participant completes.

System Programmer Response: Call the database administrator.

Database Administrator Action: Inform the database administrator at 'location' that heuristic damage occurred for the logical unit of work with LUWID='luwid'. DB2 was the coordinator for the logical unit of work and made the decision to abort the database updates made by 'luwid'. At 'location' a heuristic decision was made to COMMIT the updates made by 'luwid'.

Information about the heuristic damage continues to appear in the DISPLAY THREAD TYPE(INDOUBT) report until it is purged with the RESET INDOUBT command.

DSNL403I INDOUBT THREAD RESOLUTION WITH PARTICIPANT *location* **SHOWS HEURISTIC DAMAGE FOR** *luwid=token* **- REMOTE ABORT VERSUS LOCAL COMMIT. INFORMATION RECORDED IN TRACE RECORD WITH IFCID=207 AND IFCID SEQUENCE NUMBER=***seq-no*

Explanation: DB2 has coordinator responsibility for the logical unit of work identified by 'luwid=token'. Resolution with a participant shows heuristic damage occurred. The participant identified by 'location' manually resolved the indoubt thread identified by 'luwid=token'. The action taken was to abort the thread. This is inconsistent with the commit decision of the coordinator.

- The application was told that commit succeeded.
- Any resources updated at the participant were rolled back.
- Updated resources at this DB2 were committed.

location — The relational database name (location-name), SNA LU name (<luname>), or dotted decimal IP address of the participant.

luwid=token — The global logical unit of work id and the local token that identify the thread.

seq-no — The IFCID sequence number associated with the trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, IFCID 207 was not active or it was active with a destination of the resident trace table only. IFCID 207 is a member of statistics class 4, which has a default destination of SMF.

This message is issued by the following CSECTs: DSNLTPDI, DSNLTRCA, DSNLTRCN, DSNLTRLA, DSNLTRLN, DSNLTRRA

System Action: Alert A004 is generated. A trace record with IFCID 207 is written. Indoubt resolution with the participant completes.

System Programmer Response: Call the database administrator.

Database Administrator Action: Inform the database administrator at 'location' that heuristic damage occurred for the logical unit of work with LUWID='luwid'. DB2 was the coordinator for the logical unit of work and made the decision to COMMIT the database updates made by 'luwid'. At 'location' a heuristic decision was made to back out (ABORT) the updates made by 'luwid'.

Information about the heuristic damage continues to appear in the DISPLAY THREAD TYPE(INDOUBT) report until it is purged with the RESET INDOUBT command.

DSNL404E PROTOCOL ERROR DURING INDOUBT THREAD RESOLUTION WITH COORDINATOR *location* **LUWID=***luwid=token* **INFORMATION RECORDED IN TRACE RECORD WITH IFCID=206 AND IFCID SEQUENCE NUMBER=***seq-no*

Explanation: DB2 has participant responsibility for the logical unit of work identified by 'luwid=token'. The DB2 thread associated with the logical unit of work is indoubt. A protocol error occurred during indoubt resolution with the coordinator identified by 'location'.

location — Either the relational database name (location-name) or the logical unit name (<luname>) of the coordinator.

luwid=token — The global logical unit of work id and the local token that identify the thread.

seq-no — The IFCID sequence number associated with the trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, IFCID 206 was not active or it was active with a destination of the resident trace table only. IFCID 206 is a member of statistics class 4, which has a default destination of SMF.

This message is issued by the following CSECTs: DSNLTRE, DSNLTRPV

System Action: The indoubt thread remains indoubt. Alert A003 is generated. A trace record whose IFCID=206 is written.

System Programmer Response: This is an APARable error, probably at the coordinator, but possibly at the DB2 participant. The DB2 documentation required is contained in the statistics class 4 trace record that was written. Determine the destination of statistics class 4. Locate and print the trace record with SEQUENCE NUMBER='seq-no'.

Call the database administrator.

Database Administrator Action: DB2 does not attempt to automatically resolve the indoubt thread. The indoubt thread must be manually resolved. The commit or abort decision made at the coordinator must be determined so that the same decision can be made at this participant DB2.

Contact the database administrator at the coordinator location to determine whether the thread with LUWID=luwid committed or aborted.

If the coordinator system is another DB2, the following steps can be taken at the DB2 coordinator to determine the commit or abort decision.

1. If the coordinator DB2 system is running and a DB2 conditional restart was not performed since the error was detected at this (the participant) location, ask the database administrator at the DB2 coordinator location to issue one of the following DISPLAY THREAD TYPE(INDOUBT) commands:
   - A -DISPLAY THREAD TYPE(INDOUBT), using the LOCATION keyword and specifying the location name of the local DB2.
   - A -DISPLAY THREAD TYPE(INDOUBT) LUWID(luwid)

   If a thread with LUWID=luwid appears in the display, then the display also includes the commit or abort decision. If no thread with LUWID=luwid appears in the display, the thread was aborted.
2. If the DB2 coordinator is down, or if a conditional restart was performed there, ask the database administrator at the DB2 coordinator to run DSN1LOGP, specifying SUMMARY(ONLY) FILTER LUWID(luwid). The output from DSN1LOGP includes the commit or abort decision.

Use the RECOVER INDOUBT command at this (the participant) location to resolve the indoubt thread.

DSNL405I THREAD *luwid=token* **PLACED IN INDOUBT STATE BECAUSE OF COMMUNICATION FAILURE WITH COORDINATOR** *location***. INFORMATION RECORDED IN TRACE RECORD WITH IFCID=209 AND IFCID SEQUENCE NUMBER=***seq-no*

Explanation: During execution of the two phase commit protocol with the coordinator identified by 'location', communication failed. Phase 1 of the protocol completed and the thread is prepared for either commit or abort.

The thread is placed in the indoubt state and appears in a DISPLAY THREAD TYPE (INDOUBT) report. Periodic attempts are made to reestablish communication with the coordinator for automatic indoubt resolution. If successful, message DSNL407 or DSNL415 is written.

luwid=token The global logical unit of work id and the local token that identify the thread.

location The field contains one of the following:

- The relational database name (location name)
- The VTAM LU name (<luname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

seq-no The IFCID sequence number associated with the trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, IFCID 209 was not active or it was active with a destination of the resident trace table only. IFCID 209 is a member of statistics class 4, which has a default destination of SMF.

This message is issued by the following CSECT: DSNLTSCE

System Action: Alert A006 is generated. A trace record whose IFCID=209 is written.

Operator Response: If message DSNL407 or DSNL415 for the LUWID specified in the DSNL405 message does not appear in a reasonable amount of time, call the system programmer.

System Programmer Response: Determine the cause of the communication failure and have the problem fixed. DB2 periodically attempts to reestablish communication. If the problem cannot be fixed in a reasonable amount of time, call the database administrator. Manual resolution of the indoubt thread might be necessary to release locked resources.

Database Administrator Action: Take the following actions to resolve this thread using manual means (that is, take heuristic action) if it is necessary to release locks held by this thread.

- Determine the proper commit or abort decision by contacting the database administrator at the coordinator 'location' shown in this message in order to determine whether the thread with LUWID=luwid committed or aborted.

  If the coordinator system is another DB2, the following steps can be taken at the DB2 coordinator to determine the commit or abort decision.

  1. If the coordinator DB2 system is running and a DB2 conditional restart was not performed since the error was detected at this (the participant) location, ask the database administrator at the DB2 coordinator location to issue one of the following DISPLAY THREAD TYPE(INDOUBT) commands:
     - A -DISPLAY THREAD TYPE(INDOUBT), using the LOCATION keyword and specifying the location name of the local DB2.
     - A -DISPLAY THREAD TYPE(INDOUBT) LUWID(luwid)

     If a thread with LUWID=luwid appears in the display, then the display also includes the commit or abort decision. If no thread with LUWID=luwid appears in the display, then the thread was aborted.
  2. If the DB2 coordinator is down or if a conditional restart was performed there, ask the database administrator at the DB2 coordinator to run DSN1LOGP, specifying SUMMARY(ONLY) FILTER LUWID(luwid). The output from DSN1LOGP includes the commit or abort decision.

- Use the RECOVER INDOUBT command to commit or abort the thread.

DSNL406I THREAD *luwid=token* **AT PARTICIPANT** *location* **MAY BE INDOUBT BECAUSE OF A COMMUNICATION FAILURE. DB2 COMMITTED THE THREAD. INFORMATION RECORDED IN TRACE RECORD WITH IFCID=209 AND IFCID SEQUENCE NUMBER=***seq-no*

Explanation: During execution of the two phase commit protocol with the participant identified by 'location', communications failed. Phase 1 of the protocol completed with the participant, which is prepared to either commit or abort. The decision to commit the thread was made, but cannot be communicated to the participant at this time. The participant is indoubt.

DB2 becomes responsible for indoubt resolution with the participant. This responsibility appears in a DISPLAY THREAD TYPE (INDOUBT) report. Periodic attempts are made to reestablish communication with the participant for automatic indoubt resolution. If successful, message DSNL423 is written.

luwid=token The global logical unit of work id and the local token that identify the thread.

location The field contains one of the following:

- The relational database name (location name)
- The VTAM LU name (<luname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

seq-no The IFCID sequence number associated with the trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, IFCID 209 was not active or it was active with a destination of the resident trace table only. IFCID 209 is a member of statistics class 4, which has a default destination of SMF.

This message is issued by the following CSECT: DSNLTSCE

System Action: Alert A006 is generated. A trace record whose IFCID=209 is written.

Operator Response: If message DSNL423 for the LUWID specified in message DSNL406 does not appear in a reasonable amount of time, call the system programmer.

System Programmer Response: Determine the cause of the communication failure and have the problem fixed. DB2 periodically attempts to reestablish communication. If the problem cannot be fixed in a reasonable amount of time, call the database administrator. The participant might need to manually resolve the indoubt state to release locked resources.

Database Administrator Action: If the unit of work with LUWID=luwid is indoubt at 'location', inform the database administrator there that the logical unit of work with LUWID=luwid was committed to assist in manual resolution of the indoubt thread at 'location'.

DSNL407I AUTOMATIC RESOLUTION OF *luwid=token* WITH COORDINATOR *location* RESULTED IN COMMIT

Explanation: The identified indoubt logical unit of work was automatically resolved by communication with the coordinator location. After automatic resolution, this message is issued if message DSNL405 was previously issued to report the thread as indoubt. This message is not issued if message DSNL405 occurs in one restart of DDF or DB2, and automatic resolution occurs in a different restart of DDF or DB2.

luwid=token The global logical unit of work id and the local token that identify the thread

location The field contains one of the following:

- The relational database name (location name)
- The VTAM LU name (<luname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

This message is issued by the following CSECT: DSNLTRD

System Action: Processing continues normally.

DSNL408I INDOUBT THREAD RESOLUTION WITH COORDINATOR *location* SHOWS HEURISTIC DAMAGE AT PARTICIPANT *location* FOR *luwid=token* - COORDINATOR COMMIT VERSUS PARTICIPANT ABORT. INFORMATION RECORDED IN TRACE RECORD WITH IFCID=207 AND IFCID SEQUENCE NUMBER=*seq-no*

Explanation: DB2 has participant responsibility in the logical unit of work identified by 'luwid=token' for the coordinator at COORDINATOR 'location' and coordination responsibility in the same logical unit of work for the participant at PARTICIPANT 'location'. Heuristic damage occurred.

- The application was told that commit succeeded.
- Any resources updated at the coordinator and at this DB2 were committed.
- Updated resources at the participant were rolled back.

location The field contains one of the following:

- The relational database name (location name)
- The VTAM LU name (<luname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

luwid=token The global logical unit of work id and the local token that identify the thread.

seq-no The IFCID sequence number associated with the trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, then IFCID 207 was not active or it was active with a destination of the resident trace table only. IFCID 207 is a member of statistics class 4, which has a default destination of SMF.

This message is issued by the following CSECT: DSNLTPDI

System Action: Alert A004 is generated. A trace record whose IFCID=207 is written. Indoubt resolution with the coordinator completes.

System Programmer Response: Determine the destination of statistics class 4. Locate and print the trace record with SEQUENCE NUMBER='seq-no'. Call the database administrator.

Database Administrator Action: Inform the database administrator at the coordinator 'location' and at the participant 'location' of the problem.

Correcting the damage at the participant is not an easy task. Since the time of the heuristic action, the data that was aborted using manual means might have been used by many applications - read and/or write. Correcting the damage might involve reversing the effects of these applications as well. The following information that is available at DB2 might be helpful in correcting the problem:

- The statistics trace class 4 contains an IFCID 207 trace record. This record contains the RBA of the first DB2 log record written for the logical unit of work whose LUWID is included in this message.
- The DSN1LOGP utility provides a summary report that identifies the table spaces modified by the logical unit of work at the local DB2 as well as any downstream participant locations involved in the logical unit of work. This information, while not directly related to the damage at the participant, might be useful in determining the scope of the problem.
- DISPLAY THREAD TYPE(INDOUBT) displays the RBA of the first DB2 log record written for the logical unit of work whose LUWID is included in this message. This information continues to appear in the DISPLAY THREAD report until it is purged with the RESET INDOUBT command.

Contact your IBM Support Center for further assistance.

DSNL409I INDOUBT THREAD RESOLUTION WITH COORDINATOR *location* SHOWS HEURISTIC DAMAGE AT PARTICIPANT *location* FOR *luwid=token* - COORDINATOR ABORT VERSUS PARTICIPANT COMMIT. INFORMATION RECORDED IN TRACE RECORD WITH IFCID 207 AND IFCID SEQUENCE NUMBER=*seq-no*

Explanation: DB2 has participant responsibility in the logical unit of work identified by 'luwid=token' for the coordinator at COORDINATOR 'location' and coordination responsibility in the same logical unit of work for the participant at PARTICIPANT 'location'. Heuristic damage occurred.

- The application was told that commit failed.
- Any resources updated at the coordinator and at this DB2 were rolled back.

- Updated resources at the participant were committed.

location — The field contains one of the following:

- The relational database name (location name)
- The VTAM LU name (<luname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

luwid=token — The global logical unit of work id and the local token that identify the thread.

seq-no — The IFCID sequence number associated with the trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, then IFCID 207 was not active or it was active with a destination of the resident trace table only. IFCID 207 is a member of statistics class 4, which has a default destination of SMF.

This message is issued by the following CSECT: DSNLTPDI

System Action: Alert A004 is generated. A trace record whose IFCID=207 is written. Indoubt resolution with the coordinator completes.

System Programmer Response: Determine the destination of statistics class 4. Locate and print the trace record with SEQUENCE NUMBER='seq-no'. Call the database administrator.

Database Administrator Action: Inform the database administrator at the coordinator 'location' and at the participant 'location' of the problem.

Correcting the damage at the participant is not an easy task. Since the time of the heuristic action, the data that was committed using manual means might have been used by many applications - read and/or write. Correcting the damage might involve reversing the effects of these applications as well. This information is available at DB2 and might be helpful in correcting the problem.

- The statistics trace class 4 contains an IFCID 207 trace record. This record contains the RBA of the first DB2 log record written for the logical unit of work whose LUWID is included in this message.
- The DSN1LOGP utility provides a summary report that identifies the table spaces modified by the logical unit of work at the local DB2 and any downstream participant locations involved in the logical unit of work. This information, while not directly related to the damage at the participant, might be useful in determining the scope of the problem.
- DISPLAY THREAD TYPE(INDOUBT) displays the RBA of the first DB2 log record written for the logical unit of work whose LUWID is included in this message. This information continues to appear in the DISPLAY THREAD report until it is purged with the RESET INDOUBT command.

Contact your IBM support center for further assistance.

DSNL410I WARM START CONNECTION BY PARTNER *location* **REJECTED. PARTNER CHANGED AT LEAST 1 OF - OUR LOG NAME** *oldourname(newourname)***, THEIR LOG NAME** *oldtheirname(newtheirname)***, PA_SUPPORT** *oldpa(newpa)***, FLAG_BYTE_SENT** *oldfb(newfb)***, CCLUNAME_SENT** *oldccls(newccls)***, AND INDOUBT THREADS REQUIRE RESOLUTION. SEE IFCID=205 TRACE RECORD WITH IFCID SEQUENCE NUMBER=***seq-no***.**

Explanation: An attempt to make a warm start connection with a partner was rejected because the partner specified a different set of sync point parameters than the ones that were in use when communications were lost. DB2 has knowledge of indoubt threads that involve the partner as either the coordinator or a participant. This error might be a recoverable error if the partner can restart with the original sync point parameters. If this is not possible, then the partner must perform a cold start connection with DB2.

location — The 'location' with which the connection failed: either the relational database name (locationname) or the logical unit name (<luname>) of the partner.

oldourname — The log name for this DB2 subsystem. This value is null if the partner did not initiate the log name exchange.

newourname — The log name for this DB2 subsystem, as remembered by our partner and sent to us in the attempted warm start connection. This value is null if the partner did not initiate the log name exchange.

oldtheirname — The log name used by the partner during the last connection, as remembered by DB2.

newtheirname — The log name used by the partner in the attempted warm start connection.

oldpa — The sync point protocol used during the last connection, as remembered by the DB2 (PA - Presumed Abort, PN - Presumed Nothing).

newpa — The sync point protocol used during the last connection, as remembered by the partner (PA - Presumed Abort, PN - Presumed Nothing).

oldfb — The use of the PS header byte 2 during the last connection, as remembered by DB2 (F - used as flag byte, N - not used as flag byte).

newfb — The use of the PS header byte 2 during the last connection, as remembered by the partner (F - used as flag byte, N - not used as flag byte).

oldccls — Whether the luname of the conversation correlator was exchanged as part of the sync point protocol during the last connection, as remembered by DB2. (E - was exchanged, N - was not exchanged).

newccls — Whether the luname of the conversation correlator was exchanged as part of the sync point protocol during the last connection, as remembered by the partner (E - was exchanged, N - was not exchanged).

seq-no The IFCID sequence number associated with the trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, then IFCID 0205 was not active or it was active with a destination of the resident trace table only. IFCID 0205 is a member of statistics class 4, which has a default destination of SMF.

This message is issued by the following CSECT: DSNLTPXL

System Action: The connection with the partner is rejected. Alert A002 is generated. DB2 retains indoubt knowledge.

System Programmer Response: Call the database administrator.

Database Administrator Action: Contact the database administrator at the partner 'location' and determine if it is possible for the partner to perform a warm start with same sync point parameters as ours ('oldourname', 'oldtheirname', 'oldpa', 'oldfb', 'oldccls'). If this is possible, the next attempt to connect will succeed.

If this cannot be done, then there are two other possible solutions:

- Have the partner 'location' perform a cold start connection with this DB2 subsystem.
- Use the RESET INDOUBT command with the FORCE option in conjunction with the LOCATION parameter to cause the next connection with the partner to be a cold start connection.

DSNL411E COLD START CONNECTION BY COORDINATOR *location* ACCEPTED. INDOUBT THREADS NEED MANUAL RESOLUTION. INFORMATION RECORDED IN TRACE RECORD WITH IFCID=204 AND IFCID SEQUENCE NUMBER=*seq-no*

Explanation: DB2 has participant responsibility for indoubt threads. The coordinator informed DB2 that it performed a cold start operation and lost all knowledge of indoubt threads. The indoubt threads at this DB2 must be manually resolved with the RECOVER INDOUBT command.

location The field contains one of the following:

- The relational database name (location name)
- The VTAM LU name (<luname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

seq-no The IFCID sequence number associated with the trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, then IFCID 204 was not active or it was active with a destination of the resident trace table only. IFCID 204 is a member of statistics class 4, which has a default destination of SMF.

This message is issued by the following CSECT: DSNLTPXL

System Action: The connection with the partner is accepted. Alert A001 is generated. A trace record whose IFCID=204 is written.

System Programmer Response: Call the database administrator.

Database Administrator Action: DB2 is a participant with one or more indoubt threads where the coordinator is 'location'. The DBMS at 'location' performed a cold start. The DB2 participant assumes that the coordinator recovery log was lost or damaged and indoubt thread resolution cannot be achieved. There is probably inconsistent data at the coordinator. A list of indoubt threads involving the coordinator 'location' can be displayed using the DISPLAY THREAD command for indoubt type threads by including the LOCATION('location') parameter in the command.

The heuristic decision (that is, to commit or abort the logical unit of work) should be coordinated with any other participants. The existence of other participants might not be easy to determine. The information might be available in the coordinators recovery log even though the coordinator performed a cold start. If the coordinator is a DB2, then it might be possible to execute the DSN1LOGP utility to produce a summary report. If this is possible, the following information might be produced:

- The LUWID of the thread.
- The NID used by IMS or CICS to identify the thread.
- The name of all participants.
- The name of an upstream coordinator if the coordinator is also a participant. This could happen when an application requester accesses a DB2 AS using application-directed access, which in turn accesses another DB2 server with system-directed access. (The local DB2 might be the third system in this scenario.)

At this DB2 participant, all indoubt threads coordinated by the cold starting location must be resolved with the RECOVER INDOUBT command. Locked data remains unavailable until resolution. Threads that were already resolved with this command are discarded. Threads not yet resolved are discarded after resolution with the command.

The commit or abort decision provided using the RECOVER INDOUBT command for a logical unit of work are propagated to all downstream participants, if any.

DSNL412I PROTOCOL ERROR DETECTED IN SYNCPOINT REQUEST/RESPONSE FROM COORDINATOR *location* LUWID=*luwid=token*. INFORMATION RECORDED IN TRACE RECORD WITH IFCID=208 AND IFCID SEQUENCE NUMBER=*seq-no*

Explanation: DB2 is a participant in the logical unit of work identified by 'luwid=token'. A protocol error occurred during the SNA sync point exchange with the coordinator identified by 'location'. The protocol error fits into one of the following categories:

- An unknown SNA PS header was received.
- An SNA PS header was received in the wrong sequence.
- An invalid LU6.2 verb sequence was used to deliver the SNA PS header.
- A DEALLOCATE TYPE(ABEND_SVC) was received from the coordinator, indicating that the coordinator detected a protocol violation in the PS headers transmitted by DB2.

location Either the relational database name (location-name) or the logical unit name (<luname>) of the coordinator.

luwid=token The global logical unit of work id and the local token that identify the thread.

seq-no The IFCID sequence number associated with the trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, IFCID 208 was not active or it was active with a destination of the resident trace table only. IFCID 208 is a member of statistics class 4, which has a default destination of SMF.

If the protocol error was detected before the commit decision, the unit of work at the DB2 system might be indoubt. DB2 does not automatically resolve such an indoubt thread.

If the protocol error was detected after the commit decision, the unit of work either completed commit or abort processing.

This message is issued by the following CSECT: DSNLTSPE

System Action: Alert A005 is generated. A trace record whose IFCID=208 is written.

System Programmer Response: This is an APARable error, probably at the coordinator, but possibly at DB2. The DB2 documentation required is contained in the statistics class 4 trace record. Determine the destination of statistics class 4. Locate and print the trace record with SEQUENCE NUMBER='seq-no'.

The database administrator might need to manually resolve the indoubt thread.

Database Administrator Action: Determine if the 'luwid' is indoubt by using the DISPLAY THREAD command for type indoubt threads and including the LUWID('token') parameter in the command. If the thread is indoubt, it must be manually resolved using the RECOVER INDOUBT command. The commit or abort decision made at the coordinator must be determined so that the same decision can be made at DB2.

Contact the database administrator at the coordinator location to determine whether the thread with LUWID=luwid committed or aborted.

If the coordinator system is another DB2, then the following steps can be taken at the DB2 coordinator to determine the commit or abort decision.

1. If the coordinator DB2 system is running and a DB2 conditional restart was not performed since the error was detected at this (the participant) location, ask the database administrator at the DB2 coordinator location to issue one of the following DISPLAY THREAD TYPE(INDOUBT) commands:
   - A -DISPLAY THREAD TYPE(INDOUBT), using the LOCATION keyword and specifying the location name of the local DB2.
   - A -DISPLAY THREAD TYPE(INDOUBT) LUWID(luwid)

   If a thread with LUWID=luwid appears in the display, then the display also includes the commit or abort decision. If no thread with LUWID=luwid appears in the display, then the thread was aborted.
2. If the DB2 coordinator is down or if a conditional restart was performed there, ask the database administrator at the DB2 coordinator to run DSN1LOGP, specifying SUMMARY(ONLY) FILTER LUWID(luwid). The output from DSN1LOGP includes the commit or abort decision.

DSNL413I PROTOCOL ERROR DETECTED IN SYNCPOINT REQUEST/RESPONSE FROM PARTICIPANT *location* **LUWID=***luwid=token***. INFORMATION RECORDED IN TRACE RECORD WITH IFCID=208 AND IFCID SEQUENCE NUMBER=***seq-no*

Explanation: DB2 is the coordinator of the logical unit of work identified by 'luwid=token'. A protocol error occurred during the SNA sync point exchange with the participant identified by 'location'. The protocol error fits into one of the following categories:

- An unknown SNA PS header was received.
- An SNA PS header was received in the wrong sequence.
- An invalid LU6.2 verb sequence was used to deliver the SNA PS header.
- A DEALLOCATE TYPE(ABEND_SVC) was received from the participant, indicating that the participant detected a protocol violation in the PS headers transmitted by DB2.

location The relational database name (location-name) of the participant.

luwid=token The global logical unit of work id and the local token that identify the thread.

seq-no The IFCID sequence number associated with the trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, IFCID 208 was not active or it was active with a destination of the resident trace table only. IFCID 208 is a member of statistics class 4, which has a default destination of SMF.

If the protocol error is detected before the commit decision, the unit of work is backed out.

If the protocol error is detected after the commit decision, the outcome of the unit of work is unchanged. In this case, the remote participant might be indoubt. DB2 does not automatically resolve the indoubt thread with the partner 'location' after a protocol error is detected.

This message is issued by the following CSECT: DSNLTSPE

System Action: Alert A005 is generated. A trace record whose IFCID=208 is written.

System Programmer Response: This is an APARable error, probably at the participant, but possibly at the DB2 coordinator. The DB2 documentation required is contained in the statistics class 4 trace record. Determine the destination of statistics class 4. Locate and print the trace record with SEQUENCE NUMBER='seq-no'.

Call the database administrator. The participant might need to manually resolve the indoubt thread.

Database Administrator Action: The DB2 coordinator does not know the status of the thread at the participant. The DB2 coordinator assumes that it is indoubt and maintains knowledge of the indoubt participant until it is purged with the RESET INDOUBT command. If the thread is indoubt at the participant, it must be resolved using manual (heuristic) means. The status of the thread at the local DB2 (the coordinator) can be determined with the DISPLAY THREAD command for type indoubt threads by including the LUWID('token') parameter in the command.

If the 'participant' location is also a DB2, the RECOVER INDOUBT command can be used at the participant to resolve the indoubt thread.

DSNL414E PROTOCOL ERROR DURING INDOUBT THREAD RESOLUTION WITH PARTICIPANT *location* **LUWID=***luwid=token* **INFORMATION RECORDED IN TRACE RECORD WITH IFCID=206 AND IFCID SEQUENCE NUMBER=***seq-no*

Explanation: DB2 has coordinator responsibility for the logical unit of work identified by 'luwid=token'. The DB2 thread associated with the logical unit of work is either committed or aborted. A protocol error occurred during indoubt resolution with the participant identified by 'location'.

The thread at the participant remains indoubt. DB2 rejects further attempts to automatically resolve the indoubt thread.

location — The relational database name (location-name) of the participant.

luwid=token — The global logical unit of work id and the local token that identify the thread.

seq-no — The IFCID sequence number associated with the trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, IFCID 206 was not active or it was active with a destination of the resident trace table only. IFCID 206 is a member of statistics class 4, which has a default destination of SMF.

This message is issued by the following CSECTs: DSNLTRE, DSNLTRPV

System Action: Alert A003 is generated. A trace record whose IFCID=206 is written.

System Programmer Response: This is an APARable error, probably at the participant, but possibly at the DB2 coordinator. The DB2 documentation required is contained in the statistics class 4 trace record. Determine the destination of statistics class 4. Locate and print the trace record with SEQUENCE NUMBER='seq-no'.

Call the database administrator. The participant might need to manually resolve the indoubt thread.

Database Administrator Action: The DB2 coordinator maintains knowledge of the indoubt participant until it is purged with the RESET INDOUBT command. If the thread is indoubt at the participant, it must be manually (heuristically) resolved. The status of the thread at the local DB2 (the coordinator) can be determined with the DISPLAY THREAD command for type indoubt threads by including the LUWID('token') parameter in the command.

If the participant is another DB2, the RECOVER INDOUBT command can be used to resolve the indoubt thread.

DSNL415I AUTOMATIC RESOLUTION OF *luwid=token* **WITH COORDINATOR** *location* **RESULTED IN ABORT**

Explanation: The identified indoubt logical unit of work was automatically resolved by communication with the coordinator location. After automatic resolution, this message is issued if message DSNL405 was previously issued to report the thread as indoubt. This message is not issued if message DSNL405 occurs in one restart of DDF or DB2, and automatic resolution occurs in a different restart of DDF or DB2.

luwid=token — The global logical unit of work id and the local token that identify the thread

location — The field contains one of the following:

- The relational database name (location name)
- The VTAM LU name (<luname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

This message is issued by the following CSECT: DSNLTRD

System Action: Processing continues normally.

DSNL416I COLD START CONNECTION REJECTED BY PARTNER *location*

Explanation: DB2 attempted to make a cold-start connection with a partner location. The partner rejected this attempted connection. DB2 never rejects cold-start connections by partners.

location — Either the relational database name (location-name) or the logical unit name (<luname>) of the partner.

This message is issued by the following CSECT: DSNLTPXL

System Action: The connection was not made.

System Programmer Response: Call the database administrator.

Database Administrator Action: DB2 is not able to connect the partner 'location' until the partner 'location' allows a cold-start connection with DB2. Contact the database administrator at the partner 'location'.

Contact your IBM Support Center for further assistance.

DSNL417E *csect-name* **COLD START DETECTED AT COORDINATOR LOCATION** *location* **FOR INDOUBT THREAD WITH** *luwid=token***. MANUAL RESOLUTION IS REQUIRED. INFORMATION RECORDED IN TRACE RECORD WITH IFCID=204 and IFC SEQUENCE NUMBER=***seq-no***.**

Explanation: DB2 has resync responsibility for the indoubt thread identified. The partner location informed DB2 that it had performed a cold start operation and lost all knowledge of this indoubt thread. This indoubt thread must be manually resolved with the RECOVER INDOUBT command, followed by the RESET INDOUBT command.

location — The field contains one of the following:

- The relational database name (location name)
- The VTAM LU name (<luname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

luwid=token The logical unit of work id and the local token that identify the thread.

seq-no The IFCID sequence number associated with the trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, then IFCID 204 was not active or it was active with a destination of the resident trace table only. IFCID 204 is a member of statistics class 4, which has a default destination of SMF and contains information about a partner's cold start.

System Action: Alert A001 is generated. A trace record whose IFCID=204 is written.

System Programmer Response: Call the database administrator.

Database Administrator Action: DB2 is a participant with one or more indoubt threads where the coordinator is 'location'. The DBMS at 'location' performed a cold start. The DB2 participant assumes that the coordinator recovery log was lost or damaged and indoubt thread resolution cannot be achieved. There may be inconsistent data at the coordinator. A list of indoubt threads involving the coordinator 'location' can be displayed using the DISPLAY THREAD command for indoubt type threads by including the LOCATION('location') parameter in the command.

The heuristic decision (that is, to commit or abort the logical unit of work) should be coordinated with any other participants. The existence of other participants might not be easy to determine. The information might be available in the coordinators recovery log even though the coordinator performed a cold start. If the coordinator is a DB2, then it might be possible to execute the DSN1LOGP utility to produce a summary report. If this is possible, the following information might be produced:

- The LUWID of the thread.
- The NID used by IMS or CICS to identify the thread.
- The name of all participants.
- The name of an upstream coordinator if the coordinator is also a participant. This could happen when an application requester accesses a DB2 AS using application-directed access, which in turn accesses another DB2 server with system-directed access. (The local DB2 might be the third system in this scenario.)

At this DB2 participant, all indoubt threads coordinated by the cold starting location must be resolved with the RECOVER INDOUBT command. Locked data remains unavailable until resolution. Threads that were already resolved with this command are discarded. Threads not yet resolved are discarded after resolution with the command.

The commit or abort decision provided using the RECOVER INDOUBT command for a logical unit of work are propagated to all downstream participants, if any.

DSNL418E *csect-name* **COLD START DETECTED AT PARTICIPANT LOCATION** *location* **FOR INDOUBT THREAD WITH** *luwid=token***. POSSIBLE DAMAGE. INFORMATION RECORDED IN TRACE RECORD WITH IFCID=204 and IFC SEQUENCE NUMBER=***seq-no***.**

Explanation: DB2 has coordinator responsibility for the indoubt thread identified. The partner location informed DB2 that it had performed a cold start operation and lost all knowledge of this indoubt thread. There might be damage at the participant.

location The field contains one of the following:

- The relational database name (location name)
- The VTAM LU name (<luname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

luwid=token The global logical unit of work id and the local token that identify the thread.

seq-no The IFCID sequence number associated with the trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, then IFCID 204 was not active or it was active with a destination of the resident trace table only. IFCID 204 is a member of statistics class 4, which has a default destination of SMF.

System Action: Alert A001 is generated. A trace record whose IFCID=204 is written.

System Programmer Response: Call the database administrator.

Database Administrator Action: DB2 is the coordinator with indoubt thread resolution responsibility for one or more indoubt logical units of work at 'location'. The DBMS at 'location' performed a cold start. DB2 assumes that the participant recovery log was lost or damaged and indoubt thread resolution cannot be achieved. There is probably inconsistent data at the participant. Minimally, the participant might not completely reflect the final outcome of the threads that were indoubt at the time the failure occurred. A list of indoubt threads involving the partner 'location' can be displayed using the DISPLAY THREAD command for type indoubt threads by including the LOCATION('location) parameter in the command.

Information about the indoubt participant continues to appear in the DISPLAY THREAD TYPE(INDOUBT) report until it is purged with the RESET INDOUBT command.

DSNL419I PARTNER *location* **HAS RESOLVED WARM START STATUS AND CONNECTION IS ACCEPTED**

Explanation: A successful warm start connection was made with a partner. A previous attempt to make a warm start connection with the partner was rejected with a DSNL410I message because the partner specified an incorrect log name.

location Either the relational database name (location-name) or the logical unit name (<luname>) of the partner

This message is issued by the following CSECT: DSNLTPXL

System Action: The connection was successful. Normal processing continues.

DSNL420I COLD START CONNECTION BY PARTICIPANT *location* **ACCEPTED. POSSIBLE DAMAGE. INFORMATION RECORDED IN TRACE RECORD WITH IFCID=204 AND IFCID SEQUENCE NUMBER=***seq-no*

Explanation: DB2 has coordinator responsibility for indoubt threads at a participant and just connected with the participant, which lost all knowledge of indoubt threads because of a previous cold start. There might be damage at the participant.

location The field contains one of the following:

- The relational database name (location name)
- The VTAM LU name (<luname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

seq-no The IFCID sequence number associated with the trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, then IFCID 204 was not active or it was active with a destination of the resident trace table only. IFCID 204 is a member of statistics class 4, which has a default destination of SMF.

This message is issued by the following CSECT: DSNLTPXL

System Action: The connection with the partner is accepted. Alert A001 is generated. A trace record whose IFCID=204 is written.

System Programmer Response: Call the database administrator.

Database Administrator Action: DB2 is the coordinator with indoubt thread resolution responsibility for one or more indoubt logical units of work at 'location'. The DBMS at 'location' performed a cold start. DB2 assumes that the participant recovery log was lost or damaged and indoubt thread resolution cannot be achieved. There is probably inconsistent data at the participant. Minimally, the participant might not completely reflect the final outcome of the threads that were indoubt at the time the failure occurred. A list of indoubt threads involving the partner 'location' can be displayed using the DISPLAY THREAD command for type indoubt threads by including the LOCATION('location) parameter in the command.

Information about the indoubt participant continues to appear in the DISPLAY THREAD TYPE(INDOUBT) report until it is purged with the RESET INDOUBT command.

DSNL421I SNA XLN PROTOCOL VIOLATION BY PARTNER *location*. INFORMATION RECORDED IN TRACE RECORD WITH IFCID=0236 AND IFCID SEQUENCE NUMBER=*seq-no*

Explanation: DB2 detected a protocol violation in the SNA Exchange Log Names (XLN) exchange with the partner at the specified location.

location Either the relational database name (location-name) or the logical unit name (<luname>) of the partner that sent the invalid XLN message.

seq-no The IFCID sequence number associated with the trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, then IFCID 0236 was not active or it was active with a destination of the resident trace table only. IFCID 0236 is a member of statistics class 4, which has a default destination of SMF.

This message is issued by the following CSECTs:

DSNLCRAC DSNLCRES DSNLCXLN

System Action: The attempt to connect with the remote site fails. DB2 writes a trace record with IFCID 0236.

Operator Response: Call the system programmer.

System Programmer Response: Contact the system programmer for the remote site. The invalid XLN message is recorded in the IFCID 0236 trace record. The system logic error that causes the invalid XLN message must be corrected at the remote site.

DSNL422I WARM START CONNECTION BY PARTNER *location* REJECTED BECAUSE THE PARTNER REMEMBERS OUR LOG NAME INCORRECTLY. OUR LOG NAME IS *name1* AND THE PARTNER REMEMBERS IT AS *name2*

Explanation: An attempt to make a warm start connection with a partner was rejected because the partner specified our log name as name2. Our log name is name1, which is the LUNAME of the local DB2. This error might be a recoverable error if the partner can restart with our log name as name1. If this is not possible, then the partner must perform a cold start connection with DB2.

location The 'location' with which the connection failed: either the relational database name (location-name) or the logical unit name (<luname>) of the partner.

name1 Our log name, as remembered by us.

name2 Our log name, as remembered by our partner and sent to us in the attempted warm start connection.

This message is issued by the following CSECT: DSNLTPXL

System Action: The connection with the partner is rejected. DB2 retains indoubt knowledge.

System Programmer Response: Call the database administrator.

Database Administrator Action: Contact the database administrator at the partner 'location' and determine if it is possible for the partner to perform a warm start with our log name specified as the LUNAME of this DB2. If this is possible, the next attempt to connect will succeed.

If this cannot be done, then there are two other possible solutions.

- Have the partner 'location' perform a cold start connection with this DB2 subsystem.
- Use the RESET INDOUBT command with the FORCE option in conjunction with the LOCATION parameter to cause the next connection with the partner to be a cold start connection.

DSNL423I AUTOMATIC RESOLUTION OF *luwid=token* WITH PARTICIPANT *location* RESULTED IN COMMIT

Explanation: The identified indoubt logical unit of work was automatically resolved through communication with the participant location. After automatic resolution, this message is issued if message DSNL406 was previously issued reporting the thread as indoubt. This message is not issued if message DSNL406 occurs in one restart of DDF or DB2, and automatic resolution occurs in a different restart of DDF or DB2.

luwid=token The global logical unit of work id and the local token that identify the thread.

location The field contains one of the following:

- The relational database name (location name)
- The VTAM LU name (<luname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

This message is issued by the following CSECT: DSNLTRD

System Action: Processing continues normally.

DSNL424I AUTOMATIC RESOLUTION OF *luwid=token* WITH PARTICIPANT *location* RESULTED IN ABORT

Explanation: The identified indoubt logical unit of work was automatically resolved by communication with the participant location. After automatic resolution, this message is issued if message DSNL425 was previously issued reporting the thread as being indoubt. This message is not issued if message DSNL425 occurs in one restart of DDF or DB2, and automatic resolution occurs in a different restart of DDF or DB2.

luwid=token The global logical unit of work id and the local token that identify the thread

location The field contains one of the following:

- The relational database name (location name)
- The VTAM LU name (<luname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

This message is issued by the following CSECT: DSNLTRD

System Action: Processing continues normally.

DSNL425I THREAD *luwid=token* AT PARTICIPANT *location* MAY BE INDOUBT BECAUSE OF A COMMUNICATION FAILURE. DB2 ABORTED THE THREAD. INFORMATION RECORDED IN TRACE RECORD WITH IFCID=209 AND IFCID SEQUENCE NUMBER=*seq-no*

Explanation: During execution of the two phase commit protocol with the participant identified by 'location', communications failed. Phase 1 of the protocol completed with the participant and it is prepared for either commit or abort. The decision to abort the thread was made, but cannot be communicated to the participant at this time. The participant is indoubt.

DB2 becomes responsible for indoubt resolution with the participant. This responsibility appears in a DISPLAY THREAD TYPE (INDOUBT) report. Periodic attempts are made to reestablish communication with the participant for automatic indoubt resolution. If successful, message DSNL424 is written.

luwid=token The global logical unit of work id and the local token that identify the thread.

location The field contains one of the following:

- The relational database name (location name)
- The VTAM LU name (<luname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

seq-no The IFCID sequence number associated with the trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, IFCID 209 was not active or it was active with a destination of the resident trace table only. IFCID 209 is a member of statistics class 4, which has a default destination of SMF.

This message is issued by the following CSECT: DSNLTSCE

System Action: Alert A006 is generated. A trace record whose IFCID=209 is written.

Operator Response: If message DSNL424 for the LUWID specified in message DSNL406 does not appear in a reasonable amount of time, call the system programmer.

System Programmer Response: Determine the cause of the communication failure and have the problem fixed. DB2 periodically attempts to reestablish communication. If the problem cannot be fixed in a reasonable amount of time, call the database administrator. The participant might need to resolve the indoubt state manually in order to release locked resources.

Database Administrator Action: If the unit of work with LUWID=luwid is indoubt at 'location', inform the database administrator there that the logical unit of work with LUWID=luwid was aborted to assist in manual resolution of the indoubt thread at 'location'.

DSNL429I INCONSISTENT DDF LOG DATA, THE FIRST CONNECTION WITH EACH REMOTE LOCATION WILL BE A COLD START CONNECTION

Explanation: DB2 detected an inconsistency in the DB2 log during restart operations. Since the log is inconsistent and cannot be trusted, DB2 performs a cold start connection with each partner LU the next time a connection with that LU is attempted. If DB2 has indoubt resolution responsibility either as a coordinator or as a participant, then this information is lost as indicated by messages DSNL438 and/or DSNL439, which might follow this message. This means that:

- All information that DB2 maintained about having coordinator responsibility for remote participants was purged. These remote participants need manual resolution for any indoubt threads for which DB2 was the coordinator. A DSNL439I message is displayed for each indoubt remote participant.
- All information that DB2 maintained about having participant responsibility for remote coordinators was purged. A DSNL438I message is displayed for each database access thread that has a remote coordinator. If a database access thread remains indoubt at the end of restart, then the thread must be manually resolved. A -DISPLAY THREAD (*) TYPE(INDOUBT) LOCATION (*) command provides a report that lists the indoubt threads that need manual resolution.

This message is issued by the following CSECT: DSNLTECS

System Action: Processing continues normally.

System Programmer Response: Call the database administrator.

Database Administrator Action: See the DSNL438I and DSNL439I messages to determine what action to take.

DSNL432I DDF IS COORDINATOR FOR *nnnn* THREADS WITH *mmmm* INDOUBT REMOTE PARTNERS

Explanation: This message is issued when DDF is started or stopped, if DDF determines that this DB2 has coordinator responsibility for one or more indoubt threads with one or more partners. This is a summary status message.

nnnn The number of indoubt threads for which DB2 is the coordinator

mmmm The number of remote partners where the threads are indoubt

This message is issued by the following CSECT: DSNLTIDM

System Action: Processing continues normally.

Operator Response: If the message was issued as a result of DDF starting, no action is necessary. If the message was issued as a result of DDF stopping, contact the database administrator.

Database Administrator Action: If the message was issued as a result of stopping DDF, then DB2 maintained all information necessary to perform automatic resynchronization with partner locations and resolve all indoubt units of work. Issue the START DDF command to initiate this process.

If the message was issued as a result of starting DDF, then DDF started automatic resynchronization.

DSNL433I DDF IS PARTICIPANT FOR *nnnn* INDOUBT THREADS WITH *mmmm* REMOTE PARTNERS

Explanation: This message is issued when DDF is started or stopped, if DDF determines that this DB2 has participant responsibility for one or more indoubt threads with one or more partners. This is a summary status message.

nnnn The number of indoubt threads for which DB2 is the participant

mmmm The number of remote partners that have coordinator responsibility

This message is issued by the following CSECT: DSNLTIDM

System Action: Processing continues normally.

Operator Response: If the message was issued as a result of DDF starting, no action is necessary. If the message was issued as a result of DDF stopping, contact the database administrator.

Database Administrator Action: If the message was issued as a result of stopping DDF, then DB2 maintained all information necessary to perform automatic resynchronization with partner locations and resolve all indoubt units of work. Issue the START DDF command to initiate this process.

If you do not want to perform automatic resynchronization, you can still resolve the indoubt units of work for which DB2 is a participant and which hold database resources locked. Use the DISPLAY THREAD command for type indoubt threads to produce a display that lists these threads. Then use the RECOVER INDOUBT command to either commit or abort these units of work.

To avoid data inconsistency, coordinate this manual resolution with the database administrators at the locations that have coordinator responsibility for each indoubt unit of work. If any of the indoubt units of work at DB2 also have coordinator responsibility for participant locations, then you should notify the database administrators at the participant locations of the commit or abort decision so they can make the same decision.

DSNL434E DDF NOT STARTED - INCORRECT VTAM RELEASE LEVEL

Explanation: The local VTAM release level is older than the minimum release level required by DB2. When DB2 issues the VTAM OPEN macro, the VTAM release level is returned to DB2. DB2 examines the VTAM release level to determine whether the local VTAM system provides the function required by DB2.

This message is issued by the following CSECT: DSNLVACB

System Action: The attempt to START DDF fails.

Operator Response: Call the system programmer.

System Programmer Response: Install a release of VTAM that is compatible with the DB2 system. The DB2 Program Directory identifies the required VTAM release level.

DSNL438I RESYNC STATUS PURGED FOR COORDINATOR *location*. LUWID=*luwid*, URID=*urid*, STATUS=*s* INFORMATION RECORDED IN TRACE RECORD WITH IFCID=235 and IFCID SEQUENCE NUMBER=*seq-no*

Explanation: The information related to resynchronization with the remote coordinator location for the logical unit of work identified by 'luwid', which is displayed in this message, is being purged by DB2. Automatic indoubt resolution responsibility for this distributed logical unit of work can no longer be performed.

This situation can arise in one of two ways;

- A DB2 conditional restart (other than a DB2 cold start; that is, a DB2 conditional restart with STARTRBA=ENDRBA) is being performed.
- An inconsistency in the DB2 log was detected during DB2 restart processing (indicated by a DSNL429I message).

This message is issued by the following CSECT: DSNLTECS

location The field contains one of the following:

- The relational database name (location name)
- The VTAM LU name (<luname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

luwid The global logical unit of work id that identifies the logical unit of work.

urid The unit of recovery identifier. This is the RBA on the DB2 recovery log of the log record that marks the beginning of the logical unit of work. This is the earliest RBA required to process the logical unit of work during restart.

s Restart status of the logical unit of work. When DB2 came down, the logical unit of work was in one of these states:

A INABORT: The logical unit of work was in the “must-complete” phase of abort, but abort has not yet completed.

C INCOMMIT: The logical unit of work was in the “must-complete” phase of commit, but commit has not yet completed.

D INDOUBT: The logical unit of work completed the first phase of commit, but DB2 has not yet received the commit or abort decision from the coordinator.

F INFLIGHT: The logical unit of work has not yet completed the first phase of commit and should be backed out.

U UNKNOWN: The status of the logical unit of work is not known to DB2 because of conditional restart.

seq-no The IFCID sequence number associated with the trace record. The trace record is written to statistics class 4, which is started to SMF as a default during DB2 installation. Statistics class 4 must be started to a permanent destination (SMF or GTF) for the trace record to be accessible. The sequence number is printed in hexadecimal.

This message is issued by the following CSECT: DSNLTECS

System Action: Processing continues normally.

System Programmer Response: Call the database administrator.

Database Administrator Action: The resynchronization information that was purged by DB2 is recorded in this message. To determine the proper commit or abort decision made by the coordinator at 'location', use the status code as follows:

A The correct decision is to abort the logical unit of work.

C The correct decision is to commit the logical unit of work.

D Contact the database administrator at 'location' to determine the correct decision.

F The correct decision is to abort the logical unit of work.

U Contact the database administrator at 'location' to determine the correct decision.

DSNL439I RESYNC STATUS PURGED FOR PARTICIPANT *location*. LUWID=*luwid*, URID=*urid*, STATUS=*s* INFORMATION RECORDED IN TRACE RECORD WITH IFCID=235 and IFCID SEQUENCE NUMBER=*seq-no*

Explanation: DB2 is purging the information related to resynchronization with the remote participant location for the logical unit of work identified by 'luwid', which is displayed in this message. Automatic indoubt resolution responsibility for this distributed logical unit of work can no longer be performed.

This situation can arise in one of two ways:

- A DB2 conditional restart (other than a DB2 cold start; that is, a DB2 conditional restart with STARTRBA=ENDRBA) is being performed.
- An inconsistency in the DB2 log was detected during DB2 restart processing (indicated by a DSNL429I message).

location The field contains one of the following:

- The relational database name (location name)
- The VTAM LU name (<luname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

luwid The global logical unit of work id that identifies the logical unit of work.

urid The unit of recovery identifier. This is the RBA on the DB2 recovery log of the log record that marks the beginning of the logical unit of work. This is the earliest RBA required to process the logical unit of work during restart.

s Restart status of the logical unit of work. When DB2 came down, the logical unit of work was in one of these states:

A INABORT: The logical unit of work was in the “must-complete” phase of abort, but abort has not yet completed.

C INCOMMIT: The logical unit of work was in the “must-complete” phase of commit, but commit has not yet completed.

D INDOUBT: The logical unit of work completed the first phase of commit, but DB2 has not yet received the commit or abort decision from the coordinator.

F INFLIGHT: The logical unit of work has not yet completed the first phase of commit and should be backed out.

U UNKNOWN: The status of the logical unit of work is not known to DB2 because of conditional restart.

seq-no The IFCID sequence number associated with the trace record. The trace record is written to statistics class 4, which is started to SMF as a default during DB2 installation. Statistics class 4 must be started to a permanent destination (SMF or GTF) for the trace record to be accessible. The sequence number is printed in hexadecimal.

This message is issued by the following CSECT: DSNLTECS

System Action: Processing continues normally.

System Programmer Response: Call the database administrator.

Database Administrator Action: The resynchronization information that was purged by DB2 is recorded in this message. When communicating the proper commit or abort decision to the database administrator at 'location', use the status code as follows:

A Abort the logical unit of work.

C Commit the logical unit of work.

D See the DSNL438I message produced for the same 'luwid' and 'urid' to determine the coordinator 'location'. Contact the database administrator at 'location' to determine the correct decision.

F Abort the logical unit of work.

U If there is a DSNL438I message for the same 'luwid' and 'urid', proceed as described above under 'D'. Otherwise, there might be information available on the DB2 log that a DSN1LOGP summary report can provide. If this is not successful, contact the IBM Support Center.

DSNL440I *csect-name* **RESET INDOUBT COMMAND SPECIFICATION IN ERROR**

Explanation: A RESET INDOUBT command was issued, but the specification of keywords or keyword parameter values was in error.

System Action: No indoubt information was purged. System processing continues normally.

User Response: One of the following errors was made in the RESET INDOUBT command specification:

- RESET INDOUBT was issued without any other keywords specified. At least one of the following keywords must also be specified: LUNAME, IPADDR, LOCATION, or LUWID.
- RESET INDOUBT was issued with both the LUWID and LOCATION keywords specified, but a list of LOCATION keyword parameter values was specified. When both the LUWID and LOCATION keywords are specified only one LOCATION keyword parameter value is allowed.
- RESET INDOUBT was issued with at least one LOCATION keyword parameter value that began with a '<', but did not end with a '>', or the length of the bracketed value was not 1 to 8 characters. When the LOCATION keyword parameter value is specified in the <luname> format, the luname value must be bracketed with '<' and '>' and be 1 to 8 characters long.
- RESET INDOUBT was issued with an invalid IPADDR keyword parameter value. Verify that the specified IPADDRs are in the proper dotted decimal form, that there is a colon delimeter between the IPADDR and port, and that the port number is valid.

If needed, issue the DISPLAY THREAD TYPE(INDOUBT) command to display information (including LOCATION, LUWID, and LUNAME values) about all indoubt threads. Correct the RESET INDOUBT command specification, and reissue the command.

DSNL441I **KEYWORD 'LUWID' PARAMETER VALUE** *parmvalue* **FORMAT IN ERROR**

Explanation: A RESET INDOUBT command with the LUWID parameter was issued, but the specified parameter value (parmvalue) has an invalid format for an LUWID. There are two correct formats for the LUWID parameter. The first correct format is called a token, and is a 1 to 5 digit decimal number. The second correct format is 'netid.luname.luwunique.comseq', where:

netid A 1 to 8 character network ID

luname A 1 to 8 character luname

luwunique A 12 character hexadecimal number

comseq A 4 character hexadecimal number

All fields in the second correct format must be separated by a period (.) delimiter.

This message is issued by the following CSECT: DSNLTRSI

System Action: Indoubt information about the specified logical unit of work is not purged from the system.

User Response: To determine the correct LUWID value for the unit of work indoubt information that you want to purge, issue the DISPLAY THREAD TYPE(INDOUBT) command to display all units of work for which indoubt information exists. Then reissue the RESET INDOUBT command, specifying the correct LUWID parameter value.

DSNL442I **QUALIFYING INDOUBT INFORMATION FOR LOCATION** *location* **NOT FOUND**

Explanation: A -RESET INDOUBT LOCATION('location') command was issued, but DB2 has no indoubt information about the specified location.

location The value specified after the LOCATION keyword in the RESET INDOUBT command.

This message is issued by the following CSECT: DSNLTRSI

System Action: No indoubt information was purged. System processing continues normally.

User Response: Use the -DISPLAY THREAD(*) TYPE(INDOUBT) LOCATION(*) command to list the locations for which DB2 has indoubt information. After determining the correct location, reissue the command.

DSNL443I **QUALIFYING INDOUBT INFORMATION FOR LUWID=***value* **NOT FOUND**

Explanation: A -RESET INDOUBT LUWID('value') command was issued where 'value' is either an luwid or the local token that represents an luwid. Either DB2 has no indoubt information about the specified luwid or token, or DB2 has indoubt information that cannot be purged using the -RESET INDOUBT command with the LUWID option.

value The global logical unit of work id or the local token that was specified for the LUWID keyword in the RESET INDOUBT command.

This message is issued by the following CSECT: DSNLTRSI

System Action: No indoubt information was purged. System processing continues normally.

User Response: Use the -DISPLAY THREAD(*) TYPE(INDOUBT) LOCATION(*) command to list the indoubt information known to DB2. If the -DISPLAY THREAD output does not include information about the specified luwid, then that is the reason the message was issued. If the -DISPLAY THREAD output does include information about the specified luwid, this information cannot be purged using the -RESET INDOUBT command with the LUWID option. Refer to the description of each message produced by the -DISPLAY THREAD output that relates to the specified luwid in order to determine how to proceed. After determining the correct luwid or token, reissue the command.

DSNL444I **QUALIFYING INDOUBT INFORMATION FOR LOCATION** *location* **HAS BEEN PURGED**

Explanation: A -RESET INDOUBT LOCATION('location') command issued to purge indoubt information about the named location completed successfully and the indoubt information was purged.

location Either the relational database name (location-name) or the logical unit name (<luname>) that was specified after the LOCATION keyword on the RESET INDOUBT command.

This message is issued by the following CSECT: DSNLTRSI

System Action: The specified indoubt information was purged. System processing continues normally.

DSNL445I QUALIFYING INDOUBT INFORMATION FOR LUWID *value* HAS BEEN PURGED

Explanation: A -RESET INDOUBT LUWID('value') command, which was issued to purge indoubt information about the specified luwid, completed successfully. The indoubt information was purged.

value The value specified for the LUWID keyword in the -RESET INDOUBT LUWID(value) command that is being processed.

This message is issued by the following CSECT: DSNLTRSI

System Action: System processing continues normally.

DSNL446I COLD START WILL BE PERFORMED WITH *nettype netvalue*

Explanation: A -RESET INDOUBT LUNAME('luname') FORCE or a -RESET INDOUBT IPADDR('ipaddr') FORCE command issued to force a cold start completed successfully. The next connection with 'luname' or 'ipaddr' is a cold start.

nettype Identifies the type of network used to access the remote site. There are two possible values:

LU -- indicates that VTAM is used to connect to the remote site.

IPADDR -- indicates that TCP/IP is used to connect to the remote site.

netvalue The network address of the remote location.

- If *nettype* is LU, *netvalue* specifies the VTAM LU name of the remote location.
- If *nettype* is IPADDR, *netvalue* specifies the dotted decimal IP address of the remote location.

This message is issued by the following CSECT: DSNLTRSI

System Action: System processing continues normally.

DSNL447I CANNOT DELETE ENTRY *'value'* BECAUSE THERE IS AN INDOUBT THREAD TO BE RESOLVED FIRST

Explanation: A -RESET INDOUBT command was issued with LUNAME(value), IPADDR(value), LOCATION(value), or LUWID(value). The 'value' is an LU name, an IP address, a location, ora LUWID (or its token), that identifies a logical unit of work for which DB2 has participant indoubt resolution responsibility, coordinator indoubt resolution responsibility, or both.

This message is issued by the following CSECT: DSNLTRSI

System Action: Resynchronization responsibility information was not purged. System processing continues normally.

User Response: Use the information in this section to determine the correct action to take. Then issue the proper command to perform that action.

The two most probable causes for the problem are that the -RESET INDOUBT command was issued with the wrong parameters, or that an incorrect 'value' was specified. Use the -DISPLAY THREAD(*) TYPE(INDOUBT) LOCATION(*) command to display the indoubt information known to DB2.

1. If the intent was to purge participant or coordinator indoubt resolution responsibility, then examine the -DISPLAY THREAD output to determine the location name, or names, for which this responsibility is to be purged. Then use the -RESET INDOUBT LUNAME(luname) command with the FORCE option or the -RESET INDOUBT IPADDR(ipaddr) command with the FORCE option to purge this responsibility.

   To determine the luname or IP address and resync port for an upstream coordinator that can be used with the FORCE option, look at the coordinator information from the DSNV408I message in the -DISPLAY THREAD output. There are two tokens associated with the coordinator information that are delimited by a colon (":").

   - The first token is the partner location name or "<luname>" for an SNA connection, or the dotted decimal IP address for a TCP/IP connection (nnn.nnn.nnn.nnn).
   - The second token is the partner LU name for an SNA connection, or the resync port number for a TCP/IP connection.

   To determine the luname or IP address and resync port for downstream participants that can be used with the FORCE option, look at the location names from the DSNV450I and DSNV446I messages. There are two or three tokens associated with the participant location which are delimited by a colon (":").

   - The first token is the partner location name.
   - The second token is the partner LU name for an SNA connection, or the dotted decimal IP address for a TCP/IP connection (nnn.nnn.nnn.nnn).
   - The third token only appears if the second token is an IP address in which case the third token is the partner resync port number.

   See the description of the -RESET INDOUBT command in *Command Reference* for more information.

   Remember that the FORCE option causes DB2 to purge all knowledge of indoubt resolution responsibility involving the luname or ipaddrspecified on the command.

   Use caution when using the FORCE parameter to purge participant indoubt information when no errors are precluding automatic resolution. Normally, after the use of the RECOVER INDOUBT command, automatic resolution with the coordinator determines if heuristic damage occurred. This detection is lost if RESET INDOUBT is used before automatic resolution with the coordinator can be achieved.

   Use caution when using the FORCE parameter to purge coordinator indoubt information when no errors are precluding automatic resolution. Once the information is purged, any participant that is indoubt is forced to use a heuristic decision process to resolve the indoubt logical unit of work.

2. Examine the -DISPLAY THREAD output. If the value specified in the command (and displayed in the DSNL447I message) is incorrect, determine the correct value and reissue the command using the correct value.

DSNL448I UNABLE TO FORCE COLD START WITH *nettype netvalue*, SESSION STILL EXISTS

Explanation: A -RESET INDOUBT LUNAME('luname') FORCE or a -RESET INDOUBT IPADDR('ipaddr') FORCE command was issued to force a cold start, but network connections still exist between DB2 and the partner 'luname' or 'ipaddr'. The information related to this partner was not purged, so a cold start is not performed.

nettype Identifies the type of network used to access the remote site. There are two possible values:

LU -- indicates that VTAM is used to connect to the remote site.

IPADDR -- indicates that TCP/IP is used to connect to the remote site.

netvalue The network address of the remote location.

- If *nettype* is LU, *netvalue* specifies the VTAM LU name of the remote location.
- If *nettype* is IPADDR, *netvalue* specifies the dotted decimal IP address of the remote location.

This message is issued by the following CSECT: DSNLTRSI

System Action: System processing continues normally.

User Response: For SNA, you can use the VTAM command DISPLAY NET to determine the existence of sessions between two logical units. Terminate the sessions by using the VTAM command VARY NET,TERM to allow the RESET INDOUBT to occur. For TCP/IP, terminate all connections to the IP address.Determine the correct luname or ipaddr and reissue the command.

DSNL449I DB2 HAS NO INFORMATION RELATED TO LUNAME *luname*

Explanation: A -RESET INDOUBT LUNAME('luname') FORCE command was issued but DB2 has no knowledge of the specified 'luname'.

luname The logical unit name, as defined to VTAM, of the coordinator or participant

This message is issued by the following CSECT: DSNLTRSI

System Action: No information was purged. System processing continues normally.

User Response: Determine the correct luname as follows:

- Use the -DISPLAY THREAD(*) TYPE(INDOUBT) LOCATION(*) command to determine locations for which DB2 has indoubt responsibility.
- Query the SYSIBM.LOCATIONS table to correlate a location name with an luname. The LINKNAME column contains the luname associated with the location name in the LOCATION column.

Then reissue the command, specifying the correct luname.

DSNL450I DDF THREAD *luwid=token* IS BETWEEN PHASE 1 AND PHASE 2 OF COMMIT. THREAD IS NOW AN INDOUBT THREAD AS A RESULT OF CANCEL REQUEST.

Explanation: The identified DDF thread was in a prepared state waiting for the commit or backout decision of the commit coordinator. The thread cannot be canceled in this state. However, the thread was removed from the active state and placed into the indoubt state. The conversation with the coordinator was deallocated. The thread is now indoubt and appears in the display thread report for indoubt threads. The resources held by the thread continue to be held. Automatic resolution of the indoubt state is attempted periodically. Resources held by the thread are released after indoubt resolution occurs.

luwid=token The global logical unit of work id and the local token that identify the thread

This message is issued by the following CSECT: DSNLTPDI

System Action: Processing continues normally.

Operator Response: If the purpose of canceling this thread was to free the resources held by the thread, call the database administrator.

Database Administrator Action: To release the resources held by the indoubt thread before automatic resolution with the coordinator, a manual commit or abort decision can be made with the RECOVER INDOUBT command. First, issue the DISPLAY THREAD command for an indoubt thread report, which includes the subject thread. From this report, determine the name of the coordinator. Contact the coordinator system and find out whether a commit or abort decision was made.

DSNL451I QUALIFYING INDOUBT INFORMATION FOR LUNAME *luname* NOT FOUND

Explanation: A -RESET INDOUBT LUNAME('luname') command was issued, but DB2 has no indoubt information about the specified luname.

luname The logical unit name, as defined to VTAM, of the coordinator or participant

This message is issued by the following CSECT: DSNLTRSI

System Action: No indoubt information was purged. System processing continues normally.

User Response: Use the -DISPLAY THREAD(*) TYPE(INDOUBT) LOCATION(*) command to list the locations for which DB2 has indoubt information. Entries associated with a particular LUNAME have a location name in this form: '<luname>'. Use 'luname' (without the enclosing brackets) as the input string to RECOVER INDOUBT.

After determining the correct luname, reissue the command.

DSNL452I QUALIFYING INDOUBT INFORMATION FOR LUNAME *luname* HAS BEEN PURGED

Explanation: A -RESET INDOUBT LUNAME('luname') command, which was issued to purge indoubt information about the specified luname completed successfully. The indoubt information was purged.

luname The luname specified for the LUNAME keyword in the -RESET INDOUBT LUNAME(luname) command being processed.

This message is issued by the following CSECT: DSNLTRSI

System Action: The specified indoubt information was purged. System processing continues normally.

DSNL453I *csect* **QUALIFYING INDOUBT INFORMATION FOR IP ADDRESS** *ipaddr* **NOT FOUND**

Explanation: A -RESET INDOUBT IPADDR('ipaddr') command was issued, but DB2 has no indoubt information about the specified IP address.

csect The CSECT name of the DB2 module that issued the message

ipaddr The dotted decimal IP address of the coordinator or participant

This message is issued by the following CSECT: DSNLTRSI

System Action: No indoubt information was purged. System processing continues normally.

User Response: Use the -DISPLAY THREAD(*) TYPE(INDOUBT) LOCATION(*) command to list the locations for which DB2 has indoubt information. Entries associated with TCP/IP have a string with this format in the LOCATION field: "nnn.nnn.nnn.nnn".

After determining the correct *ipaddr*, reissue the command.

DSNL454I *csect* **QUALIFYING INDOUBT INFORMATION FOR IP ADDRESS** *ipaddr* **HAS BEEN PURGED**

Explanation: A -RESET INDOUBT IPADDR('ipaddr') command, which was issued to purge indoubt information about the specified IP address completed successfully. The indoubt information was purged.

csect The CSECT name of the DB2 module that issued the message

ipaddr The IP address specified for the IPADDR keyword in the -RESET INDOUBT IPADDR(ipaddr) command being processed

This message is issued by the following CSECT: DSNLTRSI

System Action: The specified indoubt information was purged. System processing continues normally.

DSNL455I *csect* **DB2 HAS NO INFORMATION RELATED TO IP ADDRESS** *ipaddr*

Explanation: A -RESET INDOUBT IPADDR('ipaddr') FORCE command was issued but DB2 has no knowledge of the specified 'ipaddr'.

csect The CSECT name of the DB2 module that issued the message.

ipaddr The dotted decimal TCP/IP address of the coordinator or participant

This message is issued by the following CSECT: DSNLTRSI

System Action: No information was purged. System processing continues normally.

User Response: Determine the correct luname as follows:

- Use the -DISPLAY THREAD(*) TYPE(INDOUBT) LOCATION(*) command to determine locations for which DB2 has indoubt responsibility. Entries associated with TCP/IP locations specify "nnn.nnn.nnn.nnn" in the LOCATION field.

Reissue the command; specify the correct ipaddr.

DSNL500I **CONVERSATION FAILED TO LOCATION=***locname* **RESOURCE=***luname.modename. convid.sessid* **RTNCD=***global vtam primary return code* **FDBK2=***global vtam secondary return code* **RCPRI=***appc-specific primary return code* **RCSEC=***appc-specific secondary return code* **SENSE=***sna sense code*

Explanation: An advanced program-to-program communications (APPC) conversation failed, or could not be allocated, because a VTAM return code indicates a conversation failure. VTAM return codes are defined in *VTAM for MVS/ESA Programming for LU 6.2*.

SNA sense codes that start with 00 represent DB2 reason codes. Refer to “Section 6. SNA Codes” on page 6-1 for a description of more common SNA sense codes returned to DB2 by VTAM.

The variables that are not return codes are described as follows:

Variable	Description
locname	The location name associated with the remote site.
luname	The VTAM LU name associated with the remote location.
modename	The logon mode used by DB2 to allocate the conversation.
convid	The conversation identifier given DB2 by VTAM when the conversation was allocated.
sessid	The session identifier given DB2 by VTAM when the conversation was allocated.

This message is issued by the following CSECT: DSNLVRPL

System Action: Communication on the conversation is discontinued.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to *VTAM for MVS/ESA Programming for LU 6.2* for failure analysis or “Section 4. DB2 Codes” on page 4-1 for information on reason codes.

DSNL501I **CNOS PROCESSING FAILED FOR LU** *luname* **AND MODE** *modename* **RTNCD=***global vtam return code* **FDBK2=***global vtam secondary return code* **RCPRI=***appc-specific primary return code* **RCSEC=***appc-specific secondary return code* **SENSE=***vtam sense code*

Explanation: A failure occurred while attempting to negotiate limits with the specified location for a LU and mode. VTAM return codes are described in *VTAM for MVS/ESA Programming for LU 6.2*. VTAM sense codes that start with 00 represent DB2 reason codes.

The variables are described as follows:

Variable	Description
luname	The VTAM LU name associated with the remote location.
modename	The logon mode used by DB2 to allocate the conversation.

This message is issued by the following CSECT: DSNLVCNS

System Action: All communication to the remote location fails until the limits can be negotiated with the remote location.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to *VTAM for MVS/ESA Programming for LU 6.2* for failure analysis or "Section 4. DB2 Codes" on page 4-1 for information on reason codes.

DSNL502I **SYSTEM CONVERSATION FAILED TO LOCATION** *locname*
RESOURCE=*luname.modename. convid.sessid*
RTNCD=*global vtam primary return code*
FDBK2=*global vtam secondary return code*
RCPRI=*appc-specific primary return code*
RCSEC=*appc-specific secondary return code*
SENSE=*sna sense code*

Explanation: A system conversation failed, or could not be allocated, because VTAM returned a nonzero return code. VTAM return codes are defined in *VTAM for MVS/ESA Programming for LU 6.2*.

SNA sense codes that start with 00 represent DB2 reason codes. Refer to "Section 6. SNA Codes" on page 6-1 for a description of more common SNA sense codes returned to DB2 by VTAM.

The variables are described as follows:

Variable	Description
locname	The location name associated with the remote site.
luname	The VTAM LU name associated with the remote location.
modename	The logon mode used by DB2 to allocate the conversation.
convid	The conversation identifier given DB2 by VTAM when the conversation was allocated.
sessid	The session identifier given DB2 by VTAM when the conversation was allocated.

This message is issued by the following CSECT: DSNLVRPL

System Action: Communication on the conversation is not allowed.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to *VTAM for MVS/ESA Programming for LU 6.2* for failure analysis or "Section 4. DB2 Codes" on page 4-1 for information on reason codes.

DSNL504I *csect-name* **RESOURCE UNAVAILABLE REASON=***reason*
TYPE=*type* **LOCATION=***location* **NAME=***name*

Explanation: The requested function requires a resource that is currently unavailable. The reason code, type, location, and name identifies the resource.

Operator Response: Note the reason, type codes, location, and name.

Problem Determination: The reason for the resource's unavailability is identified by the reason code. The reason codes that appear in this message are described in "Section 4. DB2 Codes" on page 4-1. Refer to Table 3 in "Appendix B. Problem Determination" on page X-5 for an explanation of resource type codes.

DSNL510I *csect-name* **CONVLIMIT NEGOTIATED FROM** *x* **TO** *y* **WITH LOCATION** *locname* **FOR LU** *luname* **AND MODE** *modename*

Explanation: The maximum conversation limit is changed for a mode with a remote subsystem. The limit might change when a CNOS request is received from or sent to a remote subsystem, and the limit is determined by VTAM.

x	The most recent value of CONVLIMIT before the last CNOS request was processed by advanced program-to-program communications (APPC)/VTAM for the specified mode name to the specified location.
y	The current value of CONVLIMIT for the specified mode name to the specified location.
locname	The location name associated with the remote site that sent the CNOS request to the local DB2 subsystem, or received the CNOS request from the local DB2 subsystem.
luname	The VTAM LU name associated with the remote location that had its CONVLIMIT changed.
modename	The logon mode for the specified location that had its CONVLIMIT changed.

This message is issued by the following CSECTs: DSNLVCNS, DSNLVPCS

System Action: Conversation requests are queued when the maximum conversation limit is reached for a mode to remote subsystem.

DSNL511I *csect* **TCP/IP CONVERSATION FAILED TO LOCATION** *locname* **IPADDR=***ipaddr* **PORT=***port* **SOCKET=***socket* **RETURN CODE=***'rc'***X REASON CODE=***'reason'***X**

Explanation: A TCP/IP socket call failed with the error condition identified by *rc* and *reason*.

Variable	Description
csect	The CSECT name of the DB2 module that issued the message.
locname	The location name associated with the remote site.
ipaddr	The IP address of the remote site in dotted decimal format.
port	The TCP/IP port used by the remote site.
socket	The TCP/IP socket call that returned the error.
rc	The error condition reported by TCP/IP. The return code values are documented in *OS/390 OpenEdition Messages and Codes*.
reason	Provides further detail associated with the TCP/IP return code. The reason code values are documented in *OS/390 OpenEdition Messages and Codes*.

This message is issued by the following CSECT: DSNLxxxx

System Action: Communication on the conversation is discontinued.

User Response: Notify the system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to *MVS/ESA Application Development Reference: Assembler Callable Services for OpenEdition MVS* for an explanation of the error.

Problem Determination: See System Programmer Response.

DSNL512I *csect* **TCP/IP** *socket* **FAILED WITH RETURN CODE=***'rc'***X AND REASON CODE=***'reason'***X**

Explanation: A TCP/IP socket call used to establish communication between DB2 and TCP/IP failed.

Variable	Description
csect	The CSECT name of the DB2 module that issued the message.
socket	The name of the TCP/IP socket call that failed.
rc	The return code reported by TCP/IP. The return code values are documented in *OS/390 OpenEdition Messages and Codes*.
reason	The reason code reported by TCP/IP. The reason code values are documented in *OS/390 OpenEdition Messages and Codes*.

This message is issued by the following CSECT: DSNLxxxx

System Action: DB2 retries the socket call periodically, so that TCP/IP communication can be reestablished.

User Response: Notify the system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to *OS/390 OpenEdition Messages and Codes* for an explanation of the error. If you receive the message "SETRLIMIT FAILED" with reason code=1148033C, then you should define DB2 as a superuser. See *Installation Guide* for instructions on enabling DDF as a superuser.

Problem Determination: See System Programmer Response.

DSNL513I *csect* **TCP/IP GETHOSTBYNAME FAILED WITH ERRNO=***errno* **FOR DOMAIN** *domain*

Explanation: DB2 encountered a TCP/IP gethostbyname socket call error when attempting to convert a TCP/IP domain name into an IP address.

Variable	Description
csect	The CSECT name of the DB2 module that issued the message.
errno	The error condition reported by TCP/IP. The *errno* values are documented in *IBM TCP/IP for MVS: Application Programming Reference*.
domain	The TCP/IP domain name that DB2 wants to convert into an IP address. DB2 obtains the *domain* value from the IPADDR column of the SYSIBM.IPNAMES communications database table.

This message is issued by the following CSECT: DSNLxxxx

System Action: The row in SYSIBM.IPNAMES containing the specified *domain* in the IPADDR column is invalid. If the error occurs during DDF startup, the row in SYSIBM.IPNAMES is ignored. If the error occurs during an SQL statement, the SQL statement fails and the location associated with the SYSIBM.IPNAMES row is not available for TCP/IP communication.

User Response: Notify the system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to *IBM TCP/IP for MVS: Application Programming Reference* for an explanation of the error. Correct the IPADDR column value in SYSIBM.IPNAMES or register the *domain* with TCP/IP.

Problem Determination: See System Programmer Response.

DSNL514I *csect-name* **TCP/IP SERVICE** *serv* **IS NOT DEFINED**

Explanation: The TCP/IP getservbyname socket call did not find a matching definition for *serv*.

Variable	Description
serv	The TCP/IP service name that DB2 wants to convert into a TCP/IP port number. DB2 obtains the service name from the PORT column of the SYSIBM.LOCATIONS communication database table.

System Action: The row in SYSIBM.LOCATIONS containing the specified service name in the PORT column is invalid. The associated LOCATION cannot be used for TCP/IP communication. If the error occurs during an SQL statement, the SQL statement fails.

User Response: Notify the system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: If the value specified by *serv* is incorrect, correct the PORT column value in SYSIBM.LOCATIONS.

If the value specified by *serv* is correct, register the service name with TCP/IP.

TCP/IP service names are case sensitive, so make sure that the PORT column in SYSIBM.LOCATIONS is an exact match for the service name defined to TCP/IP.

Problem Determination: See System Programmer Response.

DSNL515I *csect* **TCP/IP BIND FOR PORT** *port* **FAILED WITH RETURN CODE=***'rc'***X AND REASON CODE=***'reason'***X**

Explanation: DB2 encountered an error on the TCP/IP bind socket call while attempting to register a TCP/IP port number with the TCP/IP instance.

Variable	Description
csect	The CSECT name of the DB2 module that issued the message.

port — The TCP/IP port number DB2 wants to register with the TCP/IP instance.

rc — The return code reported by TCP/IP. The return code values are documented in *OS/390 OpenEdition Messages and Codes*.

reason — The reason code reported by TCP/IP. The reason code values are documented in *OS/390 OpenEdition Messages and Codes*.

This message is issued by the following CSECT: DSNLxxxx

System Action: If this error occurs for the TCP/IP port used for incoming DRDA requests, the error is probably caused by DB2 restarting on a CEC that already has another DB2 subsystem using the DRDA port number. DB2 will continue to try to activate the TCP/IP port number periodically.

If this error occurs for the DRDA resynchronization port, DB2 invokes internal processing that is equivalent to STOP DDF MODE(FORCE).

User Response: Notify the system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to *MVS/ESA Application Development Reference: Assembler Callable Services for OpenEdition MVS* for an explanation of the error.

Define DB2's TCP/IP port number to the TCP/IP instance, or use the change log izxentory utility to correct the TCP/IP port number used by DB2.

Problem Determination: See System Programmer Response.

DSNL516I *csect-name* **TCP/IP SERVICES NOT AVAILABLE CEEPIPI ROUTINE Language Environment CANNOT BE LOADED.**

Explanation: DB2 must load the Language Environment interface module (CEEPIPI) to process TCP/IP socket calls. If the CEEPIPI module is not included in an accessible data set such as STEPLIB data sets or the LPA library, DDF is unable to call Language Environment to process TCP/IP socket requests.

System Action: DDF startup continues, but DDF users cannot use TCP/IP to communicate with other network locations.

System Programmer Response: Add the Language Environment library to the DDF STEPLIB concatenation. The Language Environment library must be APF authorized when it appears in the DDF STEPLIB concatenation.

Problem Determination: Collect the following diagnostic item listed in “Appendix B. Problem Determination” on page X-5: 1.

DSNL517I *csect-name* **CEEPIPI** *func* **SERVICE FAILED WITH RETURN CODE=***rc*

Explanation: DB2 uses the Language Environment CEEPIPI service to issue certain TCP/IP socket calls. The Language Environment return code *rc* was not expected for the indicated Language Environment function call.

func — The function requested by DB2. Possible values are:

- add_entry — Add an entry to the Language Environment PIPI table dynamically.
- call_sub — Run a program that issues a TCP/IP socket call using an existing Language Environment run time environment.
- del_sub — Delete an entry from the Language Environment PIPI table dynamically.
- init_sub — Create Language Environment sub run time environment.
- term — Terminate the Language Environment run time environment.

rc — The return code received from CEEPIPI.

System Action: The attempt to issue the LE/370 request fails.

If this message is issued during DDF startup, DDF startup continues.

If this message is issued during an SQL statement, a -904 SQLCODE is returned to the calling application.

System Programmer Response: The Language Environment return codes from CEEPIPI are documented in *Language Environment for MVS & VM Programming Guide*.

Problem Determination: Collect the following diagnostic item listed in “Appendix B. Problem Determination” on page X-5: 1.

DSNL518I *csect-name* **LE/370 ENCLAVE FAILED WITH RETURN CODE=***erc* **AND FEEDBACK=***fi*

Explanation: DB2 uses the Language Environment CEEPIPI call_sub service to execute certain TCP/IP socket calls. The CEEPIPI interface returned information indicating a failure occurred while executing the TCP/IP socket.

erc — The Language Environment enclave return code.

fi — Contains one or two message identifiers. The message identifiers are constructed from the Language Environment condition token.

The message identifiers are constructed as follows:

- Single message: Facility_Id combined with Msg_No
- Two messages: Facility_Id combined with Class_Code and Facility_Id combined with Cause_Code

System Action: The SQL statement fails with SQLCODE -904.

System Programmer Response: A description of the Language Environment enclave return code and the condition token are documented in *Language Environment for MVS & VM Programming Guide*.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1. 4.

DSNL519I *csect* **TCP/IP SERVICES AVAILABLE FOR PORT** *tcpport*

Explanation: DB2 encountered a TCP/IP failure during DDF startup processing. The DSNL515I message identifies the cause of the failure. After the failure is detected, DDF periodically attempts to reinitialize TCP/IP to allow remote connections. This message is issued when reinitialization is successful.

Variable	Description
csect	The CSECT name of the DB2 module that issued the message.
domain	The TCP/IP port number used by this DB2 subsystem to accept incoming DRDA connection requests.

System Action: The DB2 TCP/IP port number is available to accept incoming DRDA connection requests.

DSNL520I *csect* **TCP/IP SERVICES AVAILABLE FOR RESPORT** *port*

Explanation: DB2 encountered a TCP/IP failure during DDF startup processing. The DSNL515I message identifies the cause of the failure. After the failure is detected, DDF periodically attempts to reinitialize TCP/IP to allow TCP/IP resynchronization to occur. This message is issued when reinitialization is successful.

Variable	Description
csect	The CSECT name of the DB2 module that issued the message.
port	The TCP/IP port number used by this DB2 subsystem to accept incoming resynchronization connection requests.

System Action: The DB2 TCP/IP port is available to accept incoming resynchronization connection requests.

DSNL521I *csect-name* **INVALID DDF BSDS VALUES DETECTED (PORT=***port***,RESPORT=***rport***).**

Explanation: DB2 encountered invalid values for the TCP/IP port numbers in the DDF record of the BSDS. Valid TCP/IP port numbers must obey the following rules:

- If PORT is non-zero, RESPORT must also be non-zero.
- If RESPORT is non-zero, PORT must also be non-zero.
- PORT and RESPORT must not specify the same value.

Variable	Description
port	The TCP/IP port number used by this DB2 subsystem to accept incoming DRDA SQL connection requests.
rport	The TCP/IP port number used by this DB2 subsystem to accept incoming 2-phase commit resynchronization requests.

System Action: DDF startup terminates abnormally.

System Programmer Response: Use the Change Log Inventory utility (DSNJU003) to correct the TCP/IP port numbers used by DB2.

DSNL522I *csect-name* **REQUIRED TCP/IP SUPPORT NOT AVAILABLE**

Explanation: The DB2 BSDS indicated that TCP/IP access was required, but the required TCP/IP interfaces were not available on this system. The required TCP/IP interfaces are provided by OS/390 Release 3.

System Action: DDF startup terminates abnormally.

System Programmer Response: Take one of the following actions:

- Install OS/390 Release 3 or later, so that the required TCP/IP interfaces are available.
- Use the Change Log Inventory utility (DSNJU003) to deactivate DB2's TCP/IP support, by specifying PORT=0 and RESPORT=0 on the DDF statement.

DSNL600I **RESOURCE UNAVAILABLE CORRELATION ID=***correlation-id* **CONNECTION ID=***connection-id* **LUW ID=***luw-id=token* **REASON=***reason-code* **TYPE=***resource-type* **LOCATION=***location-name* **NAME=***resource-name*

Explanation: This message is produced at the requesting site when a distributed request requires a resource that is not available.

The resource identified by 'resource-name' and 'resource-type' was not available at 'location-name' due to the indicated reason code.

correlation-id	The correlation identifier of the thread associated with the requester of the resource. Correlation IDs beginning with '0nn' where 'nn' is a number from 01 to 28, identify system agents.
connection-id	The connection identifier of the requester.
luw-id=token	The logical unit of work ID of the thread followed by an '=' sign and a token which may be used in place of luw-id in any DB2 command that accepts luw-id as input.

Refer to message DSNT500I under “DSNT... Messages” on page 3-201 for an explanation of the resource type and resource name.

This message is issued by the following CSECT: DSNLXQUR

System Action: The SQL statement cannot be executed.

Operator Response: See Problem Determination.

Problem Determination: The reason the resource is unavailable is identified by the reason code. The reason codes are described in “Section 4. DB2 Codes” on page 4-1. Collect the information described for the reason code received.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1.

DSNL700I *csect-name* **CDB RESOURCE UNAVAILABLE, DEFAULTS MAY BE USED REASON=***reason* **TYPE=***type* **NAME=***name*

Explanation: This message indicates that a requested function required the CDB which is currently unavailable. Defaults can be used to allocate conversations or set conversation limits with VTAM and TCP/IP partners.

This message is issued by the following CSECTs: DSNLVCLM, DSNLVXID, and DSNLVCIP.

System Action: If the SYSIBM.MODESELECT table is unavailable, VTAM defaults are used to allocate conversations. If the the SYSIBM.LUMODES table is unavailable, VTAM defaults can be used for conversation limits. If the SYSIBM.LOCATIONS, SYSIBM.IPNAMES, SYSIBM.LULIST, or SYSIBM.LUNAMES tables areunavailable, conversations can not be allocated to remote LOCATIONs.

Operator Response: Note the REASON code, the TYPE code, and the NAME. See Problem Determination section for an explanation of the collected data.

Problem Determination: The reason the resource is unavailable is identified by a reason code. The reason codes that appear in this message are described in “Section 4. DB2 Codes” on page 4-1. Use the table defined for message DSNT500I to find the TYPE of resource identified in the message.

DSNL701I **CDB OBJECT** *object-name* **DOES NOT EXIST**

Explanation: The communications database (CDB) does not contain *object-name*. The incorrect *object-name* can be the database name, the table space name, or the table name.

This message is issued by the following CSECT: DSNLVVDB

System Action: Termination of the distributed data facility (DDF) is initiated.

Operator Response: Notify the system programmer.

System Programmer Response: Determine what caused the failure, define the object as required, and issue the -START DDF command.

Problem Determination: Print the definition of the communications database (CDB).

DSNL702I **CDB TABLE** *table-name* **DOES NOT HAVE PROPER COLUMN DEFINITIONS, COLUMN** *column-name* **IS MISSING OR INCORRECTLY DEFINED**

Explanation: The communications database (CDB) needs a definition for 'column-name' in 'tablename'. The current definition is missing or incorrect.

This message is issued by the following CSECT: DSNLVVDB

System Action: Termination of the distributed data facility (DDF) is initiated.

Operator Response: Notify the system programmer.

System Programmer Response: Determine what caused the failure, define the column as required, and issue the -START DDF command.

Problem Determination: Print the definition of the communications database (CDB).

DSNL703I **CDB TABLE** *table-name* **DOES NOT HAVE PROPER INDEX DEFINITIONS, INDEX** *index-name* **IS MISSING OR INCORRECTLY DEFINED**

Explanation: The communications database (CDB) requires an index name for *table-name*. The current definition is missing or incorrect.

This message is issued by the following CSECT: DSNLVVIX

System Action: The distributed data facility (DDF) terminates.

Operator Response: Notify the system programmer.

System Programmer Response: Define the index as required and issue the -START DDF command. Refer to Section 3 of *Installation Guide*.

Problem Determination: Print the definition of the communications database (CDB).

DSNL704I **CDB OBJECT** *object-name* **DOES NOT HAVE PROPER REFERENTIAL CONSTRAINT DEFINITIONS**

Explanation: The communications database (CDB) requires referential constraint definitions for 'object-name'. The current definition is missing or incorrect.

This message is issued by the following CSECT: DSNLVVIX

System Action: Termination of the distributed data facility (DDF) is initiated.

Operator Response: Notify the system programmer.

System Programmer Response: Determine what caused the failure, define the missing referential constraint, and issue the -START DDF command. Refer to Section 3 of *Installation Guide* .

Problem Determination: Print the definition of the communications database (CDB).

DSNL705I **CDB IS UNAVAILABLE OR INCORRECTLY DEFINED**

Explanation: During start-up of the distributed data facility, the required CDB was unavailable or incorrectly defined.

This message is issued by the following CSECT: DSNLVACB

System Action: Termination of the DDF is initiated.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to the previous message that specifies the cause of the CDB failure (DSNL700I, DSNL701, DSNL702I, DSNL703I, or DSNL704I). Determine what caused the failure, fix the error condition, and issue the -START DDF command.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1.

DSNL706I *csect-name* **AN ERROR HAS OCCURRED IN DDF EXIT ROUTINE** *routine*

Explanation: An error occurred following invocation of a DDF exit routine by DB2.

The variable “routine” is the name of the exit routine, DSNLHLIx, invoked by DB2.

System Action: The system abends the failing database-access agent.

DSNM... Messages

All of the DSNM... messages are sent to the IMS master terminal operator (MTO), and to the appropriate MVS console.

DSNM001I IMS/TM xxxx CONNECTED TO SUBSYSTEM yyyy

Explanation: This is an information message only. The control region of the IMS/TM system specified in the message as 'xxxx' has successfully connected to the DB2 subsystem specified in the message as 'yyyy'. The message is sent to the IMS/TM master terminal operator.

This message is issued by the following CSECT: DSNMID00

System Action: IMS/TM transactions can access DB2 resources.

DSNM002I IMS/TM xxxx DISCONNECTED FROM SUBSYSTEM yyyy RC=rc

Explanation: The IMS/TM system named 'xxxx' control region has disconnected from the DB2 subsystem named 'yyyy' for the RC, reason code, of 'rc'. The message is sent to the IMS/TM master terminal operator. The reason code values are:

Value	Description
A	IMS/TM is terminating normally (for example, /CKPT FREEZE command).
B	IMS/TM is terminating abnormally.
C	DB2 is terminating in a quiesce fashion (for example, DB2 stop quiesce command).
D	DB2 is terminating abnormally.
E	The connection between IMS/TM and the DB2 subsystem is terminating; however, both subsystems remain operational.

This message is issued by the following CSECT: DSNMINIT

System Action: The connection between IMS/TM and DB2 terminated. IMS/TM transactions can no longer access DB2 resources.

Operator Response: Notify the system programmer.

System Programmer Response: Reason code A, C, or E makes this an information message. Reason code D indicates that a serious problem occurred in the DB2 subsystem, and that the SYS1.LOGREC should be examined. For reason code B or D, determine the failing subcomponent, and if you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: SYS1.LOGREC and/or dump information may be available for reason codes B and D.

DSNM003I IMS/TM xxxx FAILED TO CONNECT TO SUBSYSTEM yyyy RC=rc

Explanation: The IMS/TM system (named 'xxxx') control region did not connect to the DB2 subsystem (named 'yyyy'). This message is sent to the IMS/TM master terminal operator. The return code 'rc' indicates the reason for the failure.

Value	Description
00	The DB2 subsystem is not operational. However, a notify message has been queued and, when the DB2 subsystem is started, it will automatically connect to IMS/TM.
04	The connection attempt failed between IMS/TM and the DB2 subsystem.

This message is issued by the following CSECT: DSNMID00

System Action: IMS/TM transactions cannot access DB2 resources.

Operator Response: For return code 00, start the DB2 subsystem. For return code 04, notify the system programmer.

System Programmer Response: For return code 04, refer to Section 4 (Volume 1) of *Administration Guide* for failure analysis procedures.

Problem Determination: For return code 04, an IMS/TM attachment facility snap record (code X'5501FF') is written to the IMS/TM log to indicate the reason for the failure.

DSNM004I RESOLVE INDOUBT ENTRY(S) ARE OUTSTANDING FOR SUBSYSTEM xxxx

Explanation: The DB2 subsystem ID of 'xxxx' has 'indoubt' entry(s) remaining after the IMS/TM subsystem has attempted to resolve the work units that are indoubt. This message is sent to the IMS/TM master terminal operator.

This message is issued by the following CSECT: DSNMRI00

System Action: The connection between the DB2 and IMS/TM subsystems remains active, and applications can access DB2 resources.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to Section 4 (Volume 1) of *Administration Guide* for failure analysis procedures. DB2 commands (DISPLAY THREAD and RECOVER INDOUBT) may be used to display and resolve the work unit(s) that are indoubt.

Problem Determination: Recovery information is available on the DB2 log and IMS/TM log to assist in the resolution of the work unit(s) indoubt. For each indoubt work unit, an IMS/TM attachment facility snap record (code X'5501FE') is written to the IMS/TM log.

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DSNM005I IMS/TM RESOLVE INDOUBT PROTOCOL PROBLEM WITH SUBSYSTEM xxxx

Explanation: The DB2 subsystem ID of 'xxxx' has protocol incompatibilities with IMS/TM. The DB2 resolve indoubt process received an unknown or invalid recovery request (RRE) from IMS/TM. The request was rejected by DB2 and kept by IMS/TM. The message is sent to the IMS/TM master terminal operator.

This message is issued by the following CSECT: DSNMRI00

System Action: The connection between the DB2 and IMS/TM subsystems remains active, and applications can access DB2 resources.

Operator Response: Notify the system programmer.

System Programmer Response: Call the support center after extracting from the IMS/TM log the IMS/TM attachment facility snap records (code X'5501FE') using the IMS/TM utility DFSERA10.

These records contain the complete request from IMS/TM to DB2, the request type is at offset X'01C', this is a four-character identifier which should contain any of the following words:

'SHOW', 'IDBT', 'COMM', or 'ABRT'.

If the IMS/TM recovery request (RRE) found in the log is an invalid one, (not 'COMM' or 'ABRT'), you may manually delete it using the IMS/TM/CHANGE SUBSYS RESET command after consulting with the support center.

If the IMS/TM request is a valid one (abort or commit), you must find the action that IMS/TM performed for that RRE by locating the X'3730' (commit) or X'3801' (abort) record in the IMS/TM log and perform the same action under DB2 by using the -RECOVER INDOUBT command. Also refer to Section 4 (Volume 1) of *Administration Guide* for more information about resolve-indoubt failure analysis.

Problem Determination: Recovery information is available on the DB2 log and IMS log to assist in the resolution of the problem. For each indoubt work unit, an IMS/TM attachment facility snap record (code X'5501FE') is written to the IMS/TM log.

DSNM100I SUBSYSTEM xxxx NOT AVAILABLE

Explanation: The IMS/TM command facility which routes commands to the DB2 subsystem cannot perform its functions because the DB2 subsystem named 'xxxx' is considered not operational.

This message is issued by CSECT: DSNMCMD0

System Action: The connection to the DB2 subsystem failed for the command. The command is rejected.

System Programmer Response: If the DB2 subsystem is operational, and if you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem. The person entering the request may not be authorized to execute the command. If the DB2 subsystem is not operational, DB2 commands from IMS/TM cannot be processed.

Problem Determination: A snap record (X'5501FF') is written to the IMS/TM log if a connection request failed.

DSNM104I xxxx COMMAND FAILED

Explanation: The DB2 command specified by 'xxxx' failed to complete.

System Action: The command terminated without providing an output message. Commands will still be allowed by the IMS/TM attachment facility.

This message is issued by CSECT: DSNMCMD0

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: If the command failed because of an abend, a snap record (X'5501FF') is written to the IMS/TM log and SYS1.LOGREC information is available.

DSNN... Messages

DSNN40 THE NUMBER YOU SELECTED IS NOT A VALID SQL RETURN CODE NUMBER

Explanation: The user looking at the SQL Return Codes Menu in DB2 HELP selected a number that is not a valid SQL return code.

This message is issued by the following CSECT: DSN4SRC

System Action: The SQL Return Codes Menu continues to be displayed.

User Response: Select a valid SQL return code number, and try again.

Operator Response: Select a valid SQL return code number, and try again.

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DSNP... Messages

The DSNP-prefixed messages contain a connection ID, a correlation ID, and a logical-unit-of-work ID. Messages that have the same connection ID, correlation ID, and logical-unit-of-work ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user.

DSNP001I *csect* **–** *data-set-name* **IS WITHIN** *nk* **BYTES OF AVAILABLE SPACE. RC=***rrrrrrrr*
CONNECTION-ID=*xxxxxxxx***,**
CORRELATION-ID=*yyyyyyyyyyyy***,**
LUW-ID=*logical-unit-of-work-id=token*

Explanation: This message warns of an impending space shortage. The data space manager (DSM) extend function CSECT 'DSNPmmmm' detected the space shortage through the use of a 'hedge' quantity 'n'. Reason code 'rrrrrrrr' gives some information about why space could not be obtained. (See “Section 4. DB2 Codes” on page 4-1.)

There might also be some preceding DSM and VSAM messages that can help to determine why space cannot be obtained. The connection, correlation, and logical-unit-of-work IDs identify the user or application that encountered the problem. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

A LUW-ID of '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user.

This message is issued by the following CSECT: DSNPXTN0

System Action: If sufficient space is available for the current request, continue. Otherwise, message DSNP007I follows, and the current SQL request fails.

Operator Response: DSM messages are directed to the database administrator (DBA) or system administrator. However, the DBA or system administrator can request that the operator issue an MVS WRITELOG operator command (for example, 'W A') to obtain MVS SYSLOG output. The SYSLOG sometimes contains media manager messages that might be helpful to the DBA or system administrator in determining why space could not be allocated.

System Programmer Response: Based on the reason code (RC) in the message, as well as information that might be available in access method services or VSAM messages preceding this one, try one of the following:

- If you do not anticipate further extension of this table space or index, ignore the message.
- If the table space or index is backed by storage group-defined data sets and this data set is not at maximum (123) extents, use the ALTER STOGROUP statement to add volumes to the storage group (up to 133 of them).
- If the table space or index is backed by 'user-defined' data sets, and not at maximum (123) extents for the data set, issue an ALTER ADDVOLUMES access method services command to provide additional volumes (up to 133 of them). Or, if the table space is nonpartitioned and the high allocated RBA is greater than or equal to 2GB (2,147,483,648) for the indicated data set, define the data set required for the next sequential piece. (Actually, in this case, there should be an indication in console messages or the reason code that the data set required for the next piece was not found.)
- If the data set is at maximum (123) extents, try reorganizing the table space or index into a data set or data sets having larger primary and secondary values. This process is discussed in Section 2 (Volume 1) of *Administration Guide*.

Problem Determination: Examine the console messages, SYS1.LOGREC information, and SYSLOG to determine the reason for the condition. Try to resolve it by the methods described in the Operator Response section of this message. If you feel that this message indicates a problem in an IBM program, you should provide the following sources of information about the problem:

- Console sheet showing the message and related messages that might precede or follow it.
- System log printout (obtained via MVS WRITELOG operator command) showing related VSAM/media manager messages that might appear there (usually needed only if you have a message or reason code that indicates a media manager services problem occurred).
- Integrated catalog facility (ICF) catalog listing showing characteristics of the data set in question and of the ICF catalog itself.
- VTOC listing of packs associated with the request, showing space available for data sets, catalogs, VTOC index, and the VTOC itself, as well as data set extent information.
- Any associated dumps.
- SYS1.LOGREC listing showing entries at or near the time of the problem (unless these appear in an associated dump).
- Depending on the reason code, the results of certain SQL SELECT operations on DB2 catalog tables may be needed. (See “Section 4. DB2 Codes” on page 4-1.)

DSNP002I *csect* **– DEFINE FAILED FOR** *data-set-name*
RC=*rrrrrrrr* **CONNECTION-ID=***xxxxxxxx***,**
CORRELATION-ID=*yyyyyyyy***, LUW-ID=***logical-unit-of-work-id =token*

Explanation: Data set definition failed (in CSECT 'DSNPmmmm') for the reason identified by RC. (See “Section 4. DB2 Codes” on page 4-1.) The connection ID, correlation ID, and logical-unit-of-work ID (LUW-ID) identify the user or application that encountered the problem. The connection, correlation, and logical-unit-of-work IDs identify the user or application that encountered the problem. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

A LUW-ID of '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an

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'=' sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user.

This message is issued by the following CSECT: DSNPDFN1

System Action: The data space manager (DSM) terminates its actions associated with the current SQL request. Higher level functions might terminate the current SQL request or the unit of recovery that issued the request.

Operator Response: This message is directed to either the database administrator or the system administrator. Bring the message to their attention if it appears on the MVS operator's console. The installation should consider directing DB2 messages to a console other than the operator's console.

System Programmer Response: Investigate the problem indicated by the reason code and preceding access method services messages, if any, and correct it, if possible. If an out-of-space condition exists, see the description of message DSNP001I for actions to consider.

Problem Determination: See Problem Determination of message DSNP001I for this information.

DSNP003I *csect* **– RESET FAILED FOR** *data-set-name***. RC=***rrrrrrrr* **CONNECTION-ID=***xxxxxxxx***, CORRELATION-ID=***yyyyyyyyyyyy***, LUW-ID=***logical-unit-of-work-id=token*

Explanation: Reset, a data space manager (DSM) function invoked by DB2 utilities, failed in CSECT 'DSNPmmmm' for the reason identified by RC. (See “Section 4. DB2 Codes” on page 4-1.) The connection ID, correlation ID, and logical-unit-of-work ID (LUW-ID) identify the user or application that encountered the problem. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

A LUW-ID of '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and tie together activities involving a given user.

This message is issued by the following CSECTs: DSNPRST0, DSNPRST1

System Action: DSM terminates its actions associated with the current SQL request. Higher level functions might terminate the current SQL request or the unit of recovery that issued the request.

Operator Response: This message is directed to the database administrator or the system administrator. Bring it to that person's attention if it appears on the MVS operator's console. The installation should consider directing DB2 messages to a console other than the operator's console.

System Programmer Response: Investigate the problem indicated by the reason code and preceding DB2, access method services, or VSAM messages, if any, and correct it, if possible. It might be necessary to delete and redefine the data set using access method services. Consider making a backup copy before doing this. (Use DB2 utilities to make the copy; in general, VSAM utilities do not work on DB2 database services data sets.)

Problem Determination: See Problem Determination for message DSNP001I for this information.

DSNP004I *csect* **– DELETE FAILED FOR** *data-set-name***. RC=***rrrrrrrr* **CONNECTION-ID=***xxxxxxxx***, CORRELATION-ID=***yyyyyyyyyyyy***, LUW-ID=***logical-unit-of-work-id=token*

Explanation: Deletion failed in CSECT 'DSNPmmmm' for the reason identified by RC. (See “Section 4. DB2 Codes” on page 4-1.) The connection ID, correlation ID, and logical-unit-of-work ID (LUW-ID) identify the user or application that encountered the problem. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

The value of the LUWID is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

Messages that have the same connection ID, correlation ID, and LUWID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user.

This message is issued by the following CSECTs:

DSNPDLT1 DSNPDLLR DSNPCILR DSNPDLTE

Severity: 8 (error)

System Action: DB2 terminates its actions associated with the current SQL request. DB2 might terminate the current SQL request or the unit of recovery that issued the request.

Operator Response: This message is directed to the database administrator or the system administrator. Bring it to that person's attention if it appears on the MVS operator's console. The installation should consider directing DB2 messages to a console other than the operator's console.

System Programmer Response: Investigate the problem indicated by the reason code and preceding access method services messages if any, and correct it, if possible. Check the data set and delete it by using access method services directly if reasonable to do so. Consider making a backup copy before doing this. (Use DB2 utilities to make the copy; in general, VSAM utilities do not work on DB2 data sets.)

Problem Determination: See Problem Determination for message DSNP001I for this information.

DSNP005I *csect* **– COULD NOT REMOVE EXCESS VOLUMES FROM CANDIDATE LIST OF** *data-set-name* **CONNECTION-ID=***xxxxxxxx***, CORRELATION-ID=***yyyyyyyyyyyy***, LUW-ID=***logical-unit-of-work-id=token*

Explanation: Volumes from a storage group were entered in the data set’s candidate list and could not be removed by CSECT 'DSNPmmmm' after some data space manager (DSM) operation. The connection ID, correlation ID, and logical-unit-of-work ID (LUW-ID) identify the user or application that encountered the problem. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

A LUW-ID of '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user.

This is not a major problem. However, the data set will not properly reflect subsequent deletions from the volume list in its storage group (via ALTER STOGROUP command in SQL), because the data set's integrated catalog facility (ICF) catalog entry still contains the volume serial numbers.

If needed, the storage group in question can be identified by issuing an SQL SELECT to get information about the table space or index that is identified by the third and fourth qualifiers (database name, table space name) in the data set name.

This message is issued by the following CSECT: DSNPRMVV

System Action: Operation continues.

Operator Response: This message is directed to the database administrator or the system administrator. Bring it to that person's attention if it appears on the MVS operator's console. The installation should consider directing DB2 messages to a console other than the operator's console.

System Programmer Response: Look for associated DSM and access method services messages preceding this one to get additional information. Attempt an ALTER REMOVEVOLUMES access method services command, if appropriate, after issuing a LISTCAT to see which volumes are recorded as 'candidate' in the integrated catalog facility (ICF) catalog.

Problem Determination: See Problem Determination for message DSNP001I for this information. (However, there should not be a need for VTOC or SYSLOG information for this case.)

DSNP006I *csect* **– REQUIRED STOGROUP DEFINED DATA SET NOT AVAILABLE—** *data-set-name* **RC=***rrrrrrrr* **CONNECTION-ID=***xxxxxxxx***, CORRELATION-ID=***yyyyyyyyyyyy***, LUW-ID=***logical-unit-of-work-id=token*

Explanation: An attempt to alter the shareoptions of this data set failed. The data set could not be accessed for the reason indicated by RC. (See "Section 4. DB2 Codes" on page 4-1.) The connection ID, correlation ID, and logical-unit-of-work ID (LUWID) identify the user or application that encountered the problem. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

The value of the LUWIDis a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of the logical-unit-of-work-id in any DB2 command that accepts the logical-unit-of-work-id as input.

Messages having the same connection ID, correlation ID, and LUWID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user.

This message is issued by the following CSECTs: DSNPATS0 DSNPRNM0

Severity: 8 (error)

System Action: DB2 terminates its actions associated with the current SQL request. DB2 might terminate the current SQL request or the unit of recovery that issued the request.

Operator Response: This message is directed to the database administrator or the system administrator. Bring it to that person's attention if it appears on the MVS operator's console. The installation should consider directing DB2 messages to a console other than the operator's console.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: See Problem Determination for message DSNP001I for this information.

DSNP007I *csect* **– EXTEND FAILED FOR** *data-set-name***. RC=***rrrrrrrr* **CONNECTION-ID=***xxxxxxxx***, CORRELATION-ID=***yyyyyyyyyyyy***, LUW-ID=***logical-unit-of-work-id =token*

Explanation: Extension failed in CSECT 'DSNPmmmm' of the data space manager (DSM). The 'data-set-name' identifies the data set that is being extended. RC is the reason code, which indicates why the extend process failed. (See "Section 4. DB2 Codes" on page 4-1.) The 'connection ID', 'correlation ID', and 'logical-unit-of-work ID' (LUW-ID) identify the user or application that encountered the problem. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

A LUW-ID of '*' indicates that the thread does not have a LUW-ID. If the 'LUW-ID' is not an '*', the value is a 'logical-unit-of-work-id' that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of 'logical-unit-of-work-id' in any DB2 command that accepts 'logical-unit-of-work-id' as input.

Messages that have the same 'connection ID', 'correlation ID', and 'LUW-ID' relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user.

This message is issued by the following CSECT: DSNPXTN0

System Action: The DSM terminates its actions associated with this extend request. Higher level functions might terminate if they cannot continue without a successful extend. In this case, additional console messages and/or SQL codes are produced. In other cases, higher level functions might be able to resolve the space need without the extend, so they continue normally.

System Programmer Response: The following sources of information are available to help determine the cause of the failure:

- See the Programmer Response for message DSNP001I.
- Analyze the RC value in conjunction with the console messages.
- The reason code might apply to the data set identified in the message or to another data set that is needed for the extend process. If the reason code indicates a data set access failure, the console messages indicate the data set name. For example, if the RC indicates 'resource

unavailable', console messages identify the resource that is unavailable. Most likely, the message will be DSNT500I.

- Retrieve diagnostic information from the output of the DISPLAY DB...RESTRICT or DISPLAY UTIL(*)... commands.
- If the extend failed on a result table space, refer to "Sort Data Sets" in Section 5 (Volume 2) of *Administration Guide*.
- If the extend failed on an SQL insert or update, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.
- If you need to enlarge your data set, refer to "Out of DASD Space" in Section 4 (Volume 1) of *Administration Guide*.
- To find out how the extend function operates, refer to "Improving DASD Utilization" in Section 5 (Volume 2) of *Administration Guide*.

Operator Response: See Operator Response for message DSNP001I for this information.

System Programmer Response: See System Programmer Response for message DSNP001I for this information.

Problem Determination: See Problem Determination for message DSNP001I

DSNP008I *csect*– **REQUIRED USER–DEFINED DATA SET NOT AVAILABLE—***data-set-name* **RC=***rrrrrrrr* **CONNECTION-ID=***xxxxxxxx***, CORRELATION-ID=***yyyyyyyyyyy***, LUW-ID=***logical-unit-of-work-id=token*

Explanation: One of the following actions applied against user-defined data sets failed in CSECT 'DSNPmmmm' of the data space manager (DSM):

- Create table space or index
- Extend table space or index
- Process the SQL ALTER DATABASE statement
- Process the REORG TABLESPACE utility with SHRLEVEL REFERENCE or CHANGE

Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

One or more of the data sets could not be accessed for the reason indicated by RC. (See "Section 4. DB2 Codes" on page 4-1.) The connection ID, correlation ID, and logical-unit-of-work ID (LUWID) identify the user or application that encountered the problem.

The value of the LUWID is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

Messages having the same connection ID, correlation ID, and LUWID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user.

If the name of the data set in the message is different from the name of the original data set (for example, '....A002' instead of '...A001'), a new data set might need to be created. A different name indicates that the original data set exceeded its limit.

This message is issued by the following CSECTs:

DSNPCPS0 DSNPXTN0 DSNPATS0 DSNPRNM0

Severity: 8 (error)

System Action: DB2 terminates its actions associated with the current SQL request or utility. DB2 might terminate the current SQL request or utility or the unit of recovery that issued the request.

Operator Response: This message is directed to the database administrator or the system administrator. Bring it to that person's attention if it appears on the MVS operator's console. The installation should consider directing DB2 messages to a console other than the operator's console.

System Programmer Response: Refer to the reason code in "Section 4. DB2 Codes" on page 4-1. The return code description might indicate that one of the following actions needs to be performed or it indicates the necessary steps:

- If the data set does not exist, create it before attempting the create table space/index or extend data set again.
- If the data set shareoptions are incorrect, modify the shareoptions with access method services (AMS).
- The appropriate AMS command is ALTER SHAREOPTIONS.

Problem Determination: See Problem Determination for message DSNP001I for this information.

DSNP009I THE FOLLOWING ERROR MESSAGES WERE RECEIVED FOR *operation* **ON** *data-set-name*
DSNP010I END OF ERROR MESSAGES. CONNECTION-ID=*xxxxxxxx***, CORRELATION-ID=***yyyyyyyyyyy***, LUW-ID=***logical-unit-of-work-id=token*

Explanation: Messages DSNP009I and DSNP010I enclose a block of messages that are received by the data space manager (DSM) subcomponent of DB2 in response to an access method services (AMS) operation.

operation	The access method services operation that was being performed.
data-set-name	The data set on which the operation was being performed.

The prefix of the messages in the block is usually IDC (access method services messages). However, the prefix can also be IKJ (dynamic allocation) or other system subcomponent IDs. Refer to the appropriate MVS publication for descriptions of the enclosed messages.

The operation can be DEFINE CLUSTER, ALTER ADDVOLUMES, ALTER REMOVEVOLUMES, or DELETE CLUSTER. One or more other DSM messages follow this message to explain what happened as a result of the failure of this access method services request. The connection ID, correlation ID, and logical-unit-of-work ID (LUW-ID) identify the user or application that encountered the problem.

A LUW-ID of '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

This message is issued by the following CSECT: DSNPAMS2

System Action: Operation continues.

Operator Response: This message is directed to the database administrator or the system administrator. Bring it to that person's attention if it appears on the MVS operator's console. The installation should consider directing DB2 messages to a console other than the operator's console.

System Programmer Response: Use this information to help resolve problems indicated by other DSM messages that follow this one.

Problem Determination: See Problem Determination for message DSNP001I for this information.

DSNP011I *csect* **– MEDIA MANAGER SERVICES ERROR FOR** *data-set-name***. MMRC=***ccccccccc* **DSMRC=***ffffffff* **CONNECTION-ID=***xxxxxxxx***, CORRELATION-ID=***yyyyyyyyyyy***, LUW-ID=***logical-unit-of-work-id =token*

Explanation: The MMRC is the return code that DB2 received from media manager services. Refer to the appropriate MVS publication for a description of these codes. DSMRC is a DSM reason code that indicates which of the media manager services functions, update or extend, failed. (See "Section 4. DB2 Codes" on page 4-1.) The message is from CSECT 'DSNPmmmm' of the data space manager (DSM). The connection ID, correlation ID, and logical-unit-of-work ID (LUW-ID) identify the user or application that encountered the problem. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

A LUW-ID of '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user.

This message is issued by the following CSECTs:

DSNPIPP DSNPXTN0 DSNPRSP0 DSNPRST0

System Action: The DSM terminates its actions associated with the current SQL request. Higher level functions might terminate the current SQL request or the unit of recovery that issued the request.

Operator Response: DSM messages are directed to either the database administrator (DBA) or the system administrator. However, they can request that the operator issue an MVS WRITELOG operator command (for example, 'W A') to obtain MVS SYSLOG output. The SYSLOG sometimes contains media manager messages that might be helpful to the DBA or system administrator in determining why space could not be allocated.

System Programmer Response: This message might be preceded by one or more IEC or ICY messages on the console or in SYSLOG. These messages help to determine what happened and what action to take.

Problem Determination: See Problem Determination for message DSNP001I for this information.

DSNP012I *csect* **– ERROR IN ICF CATALOG LOCATE FUNCTION FOR** *data-set-name* **CTLGRC=***cc* **CTLGRSN=***zzzzrrrr* **CONNECTION-ID=***xxxxxxxx***, CORRELATION-ID=***yyyyyyyyyyy***, LUW-ID=***logical-unit-of-work-id=token*

Explanation: CTLGRC and CTLGRSN are the return and reason codes that DB2 received from the SVC 26 (ICF catalog locate function). The reason code is in the same format as that returned to DB2 by the SVC 26. In it, *zzzz* is the hexadecimal value of the last two characters of the SVC 26 CSECT that set the code. The full CSECT name is derived by appending these two characters to 'IGG0CL'; *rrrr* is the numeric part of the reason code, in hexadecimal.

See the description of access method services message IDC3009I in the appropriate MVS publication for explanations of the return code and the numeric portion (*rrrr*) of the reason code. The values documented there are decimal, whereas the value in this message is hexadecimal.

The connection ID, correlation ID, and LUW-ID identify the user or application that encountered the problem. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

An LUW-ID of '*' indicates that the thread does not have an LUW-ID. If the LUW-ID is not an '*', the value is a 'logical-unit-of-work-id' that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of 'logical-unit-of-work-id' in any DB2 command that accepts 'logical-unit-of-work-id' as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user.

System Action: DB2 terminates its actions associated with the current SQL request. Higher level functions might terminate the current SQL request or the unit of recovery that issued the request.

System Programmer Response: Correct the problem indicated by the catalog return and reason codes.

Problem Determination: See Problem Determination for message DSNP001I for this information.

This message is issued by the following CSECTs:

DSNPAVLR DSNPCLO0 DSNPCNP0 DSNPDFN1
DSNPGNP0 DSNPIPP DSNPSCTC DSNPSCTD
DSNPSCT0

DSNP013I INSUFFICIENT PRIMARY ALLOCATION SPACE TO FORMAT CONTROL PAGES IN DATA SET *data-set-name* **CONNECTION-ID=***xxxxxxxx***, CORRELATION-ID=***yyyyyyyyyyy***, LUW-ID=***logical-unit-of-work-id =token*

Explanation: Data space manager (DSM) discovered that the primary space quantity given in the data set definition was not large enough. Formatting of required control information in the first several pages was not possible. The connection ID, correlation ID, and logical-unit-of-work ID (LUW-ID) identify the user or application that encountered the problem.

A LUW-ID of '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of

logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

This message is issued by the following CSECT: DSNPIPP

System Action: DSM terminates its actions associated with the current SQL request. Higher level functions might terminate the current SQL request or the unit of recovery that issued the request.

Operator Response: This message is directed to the database administrator or the system administrator. Bring it to that person's attention if it appears on the MVS operator's console. The installation should consider directing DB2 messages to a console other than the operator's console.

System Programmer Response: This should occur only for table spaces or indexes that are not storage group defined. (The DB2 interpreter forces the initial allocation to be large enough if a storage group is used.) Check both the page size specification (4KB or 32KB) and the number of control pages required (2 for table space, 3 for index space). Specify the primary allocation value again so that at least (pages × page size) bytes are allocated.

Problem Determination: See Problem Determination for message DSNP001I for this information.

DSNP014I IRLM MANUAL LOCK REQUEST FAILED FOR *data-set-name*. **RC=***rr*,**SC=***ssssssss*, **CONNECTION-ID=***xxxxxxxx*, **CORRELATION-ID=***yyyyyyyyyyyy*, **LUW-ID=***logical-unit-of-work-id=token*

Explanation: DB2 requested a manual lock on a data set, but the lock could not be obtained for reasons specified in RC and SC. RC and SC are the return code and reason code from IRLM. RC and the first two digits of SC are documented in "Section 5. IRLM Messages and Codes" on page 5-1. The connection ID, correlation ID, and logical-unit-of-work ID (LUW-ID) identify the user or application that encountered the problem.

A LUW-ID of '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user. DSNP001I or DSNP007I follow this message. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

If message DSNT376I was received before message DSNP014I, the lock request failed because of a timeout condition. Otherwise, refer to the IRLM return and reason codes for an explanation of the failure.

This message is issued by the following CSECT: DSNPXTN1

System Action: The current SQL or the unit of recovery that issued the request might be terminated.

Operator Response: This message is directed to the database administrator or the system administrator. Bring it to that person's attention if it appears on the MVS operator's console. The installation should consider directing DB2 messages to a console other than the operator's console.

System Programmer Response: Investigate the problem indicated by the IRLM return and reason code.

Problem Determination: Provide the console sheet and a dump. A GTF trace might also be required. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem. Refer to the explanation section of this message for additional problem determination information.

DSNP015I *csect* **– IRLM MANUAL UNLOCK REQUEST FAILED FOR** *data-set-name*. **RC=***rr*,**SC=***ssssssss*, **CONNECTION-ID=***xxxxxxxx*, **CORRELATION-ID=***yyyyyyyyyyyy*, **LUW-ID=***logical-unit-of-work-id=token*

Explanation: DB2 requested a manual unlock on a data set, but the unlock could not be performed for reasons specified in RC and SC. RC and SC are the return code and reason code from IRLM. RC and the first two digits of SC are documented in "Section 5. IRLM Messages and Codes" on page 5-1. The connection ID, correlation ID, and logical-unit-of-work ID (LUW-ID) identify the user or application that encountered the problem.

A LUW-ID of '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

This message is issued by the following CSECT: DSNPXTN1

System Action: The current SQL or the unit of recovery that issued the request might be terminated.

Operator Response: This message is directed to the database administrator or the system administrator. Bring it to that person's attention if it appears on the MVS operator's console. The installation should consider directing DB2 messages to a console other than the operator's console.

System Programmer Response: Investigate the problem indicated by the IRLM return and reason code.

Problem Determination: Provide the console sheet and a dump. A GTF trace might also be required. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem. See the explanation section of this message for additional problem determination information.

DSNP016I CREATE FAILED FOR *pageset-name*. **RC=***rrrrrrrr* **CONNECTION-ID=***xxxxxxxx*, **CORRELATION-ID=***yyyyyyyyyyy*, **LUW-ID=***logical-unit-of-work-id =token*

Explanation: Creation of a table space or index space failed in the data space manager (DSM) for the reason given in RC. (See "Section 4. DB2 Codes" on page 4-1.) The pageset-name format is 'dbname.tiname', where 'dbname' is the database name, and 'tiname' is the table space or index space name.

This message identifies the function that was in progress at the time of a failure. The specific failure is usually identified by a preceding message. The connection ID, correlation ID, and logical-unit-of-work ID (LUW-ID) identify the user or application that encountered the problem.

A LUW-ID of '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

This message is issued by the following CSECT: DSNPCPS0

System Action: DSM terminates its actions associated with the current SQL request. Higher level functions might terminate the current SQL request or the unit of recovery that issued the request.

Operator Response: This message is directed to the database administrator or the system administrator. Bring it to that person's attention if it appears on the MVS operator's console. The installation should consider directing DB2 messages to a console other than the operator's console.

System Programmer Response: Investigate the problem indicated by reason code and preceding messages, and correct it, if possible.

Problem Determination: See Problem Determination for message DSNP001I for this information.

DSNP017I RESET FAILED FOR *pageset-name*. **RC=***rrrrrrrr* **CONNECTION-ID=***xxxxxxxx*, **CORRELATION-ID=***yyyyyyyyyyy*, **LUW-ID=***logical-unit-of-work-id =token*

Explanation: Reset failed in the data space manager (DSM) subcomponent of DB2 for a table space or index space for the reason given in RC. (See "Section 4. DB2 Codes" on page 4-1.) The 'pageset-name' format is 'dbname.tiname', where 'dbname' is the database name and 'tiname' is the table space or index space name.

This message identifies the function that was in progress at the time of a failure. The specific failure is usually identified by a preceding message. The connection ID, correlation ID, and logical-unit-of-work ID (LUW-ID) identify the user or application that encountered the problem.

A LUW-ID of '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

This message is issued by the following CSECT: DSNPRSP0

System Action: DSM terminates its actions associated with the current SQL request. Higher level functions might terminate the current SQL request or the unit of recovery that issued the request.

Operator Response: This message is directed to the database administrator or the system administrator. Bring it to that person's attention if it appears on the MVS operator's console. The installation should consider directing DB2 messages to a console other than the operator's console.

System Programmer Response: Investigate the problem indicated by the reason code and preceding messages, and correct it, if possible.

Problem Determination: See Problem Determination for message DSNP001I for this information.

DSNP018I DROP FAILED FOR *pageset-name*. **RC=***rrrrrrrr* **CONNECTION-ID=***xxxxxxxx*, **CORRELATION-ID=***yyyyyyyyyyy*, **LUW-ID=***logical-unit-of-work-id =token*

Explanation: Drop failed in the data space manager (DSM) subcomponent of DB2 for a table space or index space for the reason given in RC. Refer to "Section 4. DB2 Codes" on page 4-1. The 'pageset-name' format is 'dbname.tiname', where 'dbname' is the database name and 'tiname' is the table space or index space name. This message identifies the function that was in progress at the time of a failure. The specific failure is usually identified by a preceding message. The connection ID, correlation ID, and logical-unit-of-work ID (LUW-ID) identify the user or application that encountered the problem.

A LUW-ID of '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

This message is issued by the following CSECT: DSNPDPS0

System Action: DSM terminates its actions associated with the current SQL request. Higher level functions might terminate the current SQL request or the unit of recovery that issued the request.

Operator Response: This message is directed to the database administrator or the system administrator. Bring it to that person's attention if it appears on the MVS operator's console. The installation should consider directing DB2 messages to a console other than the operator's console.

System Programmer Response: Investigate the problem indicated by the reason code and preceding messages, and correct it, if possible.

Problem Determination: See Problem Determination for message DSNP001I for this information.

DSNP019I *csect* **– REALLOCATE FAILED FOR** *data-set-name***. RC=***rrrrrrrr* **CONNECTION-ID=***xxxxxxxx***, CORRELATION-ID=***yyyyyyyyyyyy***, LUW-ID=***logical-unit-of-work-id =token*

Explanation: After a successful ALTER REMOVEVOLUMES request, the data space manager (DSM) subcomponent of DB2 was unable to reallocate the data set for the reason indicated by RC. (See "Section 4. DB2 Codes" on page 4-1.) The connection ID, correlation ID, and logical-unit-of-work ID (LUW-ID) identify the user or application that encountered the problem.

A LUW-ID of '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

System Action: Operation continues.

Operator Response: This message is directed to the database administrator or the system administrator. Bring it to that person's attention if it appears on the MVS operator's console.

System Programmer Response: The data set and corresponding page set piece or partition can usually continue to be used by the DB2 subsystem. However, they should be stopped and restarted at the earliest possible time in order to synchronize the allocation control blocks with the integrated catalog facility (ICF) catalog volume list.

Problem Determination: See Problem Determination for message DSNP001I for this information.

DSNP020I *csect-name* **- USER DEFINED ATTRIBUTES INCORRECT FOR** *data-set-name***. RC=***rrrrrrrr* **CONNECTION-ID=***xxxxxxxx***, CORRELATION-ID=***yyyyyyyy***, LUW-ID=***logical-unit-of-work-id =token*

Explanation: The specified data set was access method services user-defined and does not have the required DB2 attributes. The connection ID, correlation ID, and LUW-ID identify the user or application that encountered the problem.

The value of the LUWID is a 'logical-unit-of-work-id' that is assigned to the thread, followed by an '=' sign and a token value, which can be used in place of 'logical-unit-of-work-id' in any DB2 command that accepts 'logical-unit-of-work-id' as input.

Messages having the same connection ID, correlation ID, and LUWID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

This message is issued by the following CSECTs: DSNPATS0 DSNPSCT0 DSNPSCTC DSNPRNM0

Severity: 8 (error)

System Action: No action is taken with the named data set. An error code is returned and a dump is not taken.

Operator Response: Notify the system programmer.

System Programmer Response: Delete the named data set and define it with the correct attributes.

Problem Determination: Obtain an access method services LISTCAT for the named data set's attributes. Refer to Section 2 (Volume 1) of *Administration Guide* for the correct data set definition attributes.

DSNP021I *csect-name* **EXTEND NOTIFY FAILED FOR** *data-set-name***, SC=***ssssssss***, NOTESC=***nnnnnnnn***, CONNECTION-ID=***xxxxxxxx***, CORRELATION-ID=***yyyyyyyyyyyy***, LUW-ID=***logical-unit-of-work-id=token*

Explanation: This is an internal error. The connection ID, correlation ID, and logical-unit-of-work ID (LUW-ID) identify the user or application that encountered the problem.

An LUW-ID of '*' indicates that the thread does not have an LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of the logical-unit-of-work-id in any DB2 command that accepts the logical-unit-of-work-id as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

If message DSNT376I was received before message DSNP021I, the notify request failed because of a timeout condition.

System Action: The current SQL statement or the unit of recovery that issued the request might be terminated.

Problem Determination: Obtain the console sheet and a dump. A GTF trace might also be required.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNP022I *csect-name* **EXTEND DBET RECORDING FAILED FOR** *data-set-name***, RC=***rrrrrrrr***, SC=***ssssssss***, DBETSC=***nnnnnnnn***, CONNECTION-ID=***xxxxxxxx***, CORRELATION-ID=***yyyyyyyyyyyy***, LUW-ID=***logical-unit-of-work-id=token*

Explanation: This is an internal error. The connection ID, correlation ID, and logical-unit-of-work ID (LUW-ID) identify the user or application that encountered the problem.

An LUW-ID of '*' indicates that the thread does not have an LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of the logical-unit-of-work-id in any DB2 command that accepts the logical-unit-of-work-id as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activ-

ities involving a given user. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

System Action: The current SQL statement or the unit of recovery that issued the request might be terminated.

Problem Determination: Obtain the console sheet and a dump. A GTF trace might also be required.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNP026I *csect-name* **DATASET IS NOT ALLOWED TO BE DELETED** *data-set-name*, **RC=***rrrrrrrr*, **CONNECTION-ID=***xxxxxxxx*, **CORRELATION-ID=***yyyyyyyyyyy*, **LUW-ID=***logical-unit-of-work-id=token*

Explanation: During clean up of the shadow data set in the final step of online REORG, an error is detected due to an attempt to delete a regular table or index space data set. Refer to Section 2 of *SQL Reference* for information about online REORG. The connection ID, correlation ID, and logical unit of work ID (LUWID) identify the user or application that encountered the problem. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

The value of the LUWID is assigned to the thread followed by an '=' sign and a token value, that can be used in place of the LUWID in any DB2 command that accepts it as input.

Messages that have the same connection ID, correlation ID, and LUWID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user.

System Action: No action is taken with the named data set. An error code is returned and a dump is not taken.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error in the online REORG of utility. See the 'Problem Determination' section of message DSNP001I for this information.

DSNP027I *csect-name* **RENAME FAILED OLD DATASET=***data-set-name*, **NEW DATASET=***data-set-name*, **RC=***rrrrrrrr*, **CONNECTION-ID=***xxxxxxxx*, **CORRELATION-ID=***yyyyyyyyyyy*, **LUW-ID=***logical-unit-of-work-id=token*

Explanation: An attempt to alter the data set name failed. The connection ID, correlation ID, and logical unit of work ID (LUWID) identify the user or application that encountered the problem. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

The value of the LUWID is assigned to the thread followed by an '=' sign and a token value, that can be used in place of the LUWID in any DB2 command that accepts it as input.

Messages that have the same connection ID, correlation ID, and LUWID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user.

Severity: 8 (error)

System Action: DB2 terminates its actions associated with the current SQL request. DB2 might terminate the current SQL request or the unit of recovery that issued the request.

Operator Response: This message is directed to the database administrator or the system administrator. Bring it to that person's attention if it appears on the MVS operator's console. The installation should consider directing DB2 messages to a console other than the operator's console.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: See 'Problem Determination' for message DSNP001I for this information.

DSNP028I *csect-name* **HSM RECALL FAILED FOR DSNAME =** *dsn* **HSMRC=***rrrrrrrr*,**HSMRSN=***ssssssss* **CONNECTION ID=***xxxxxxxx*, **CORRELATION ID=***yyyyyyyyyyy*, **LUW-ID=***logical-unit-of-work-id=token*

Explanation: This message indicates that a required data set was migrated by HSM and an attempt to recall the data set failed, preventing DB2 from accessing the data set. The HSMRC and HSMRSN fields can be used to determine the HSM failure. See Problem Determination below. The connection ID, correlation ID, and 'logical-unit-of-work ID' (LUW-ID) identify the user or application that encountered the problem.

A LUW-ID of '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a 'logical-unit-of-work-id' that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of 'logical-unit-of-work-id' in any DB2 command that accepts 'logical-unit-of-work-id' as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

System Action: DSM terminates its action with the associated data set. Higher level functions that issued the recall request might terminate.

Operator Response: Notify the system programmer.

System Programmer Response: Investigate the reason for the HSM recall failure. Use the information in this message to help resolve this problem. Additional messages on the MVS operator's console might be associated with this message.

Problem Determination: If the HSMRSN is 999, refer to the following list for the explanation:

HSMRC	Description
4	HSM is not active.
8	No storage is available for MWE in CSA.
36	Input MWE is not within user storage.
40	Allocated amount of CSA for MWEs was exceeded.
100	There was an invalid function used.

For all other reason codes (HSMRSN), refer to the *DFSMS/MVS: DFSMShsm Managing Your Own Data* for an explanation of HSM user messages. The HSM user messages can be determined by appending the value in the HSMRC field of this message to ARC1100I (that is, HSMRC=12, HSM

message is ARC1112I). The HSMRSN reason code is referenced in the ARC1100I messages.

DSNR... Messages

The following information messages indicate the progress of DB2 through a restart process.

DSNR001I RESTART INITIATED

Explanation: This message delimits the beginning of the restart process within startup. The phases of restart are about to begin. These phases are necessary to restore the operational environment to that which existed at the time of the previous termination and to perform any recovery actions that may be necessary to return DB2-managed resources to a consistent state.

This message is issued by the following CSECT: DSNRRPRC

DSNR002I RESTART COMPLETED

Explanation: This message delimits the completion of the restart process within startup.

This message is issued by the following CSECT: DSNRRPRC

DSNR003I RESTART...PRIOR CHECKPOINT RBA=*xxxxxxxxxxxx*

Explanation: The message indicates the first phase of the restart process is in progress and identifies (as 'xxxxxxxxxxxx') the log positioning RBA of the checkpoint from which the restart process will obtain its initial recovery information.

This message is issued by the following CSECT: DSNRRCSR

DSNR004I RESTART...UR STATUS COUNTS IN COMMIT=*nnnn***, INDOUBT=***nnnn***, INFLIGHT=***nnnn***, IN ABORT=***nnnn*

Explanation: This message indicates the completion of the first phase of the restart process. The counts indicate the number of units of work whose execution state during a previous DB2 termination was such that (to ensure DB2 resource consistency) some recovery action must be performed during this restart process. The counts may provide an indication of the time required to perform the remaining two phases of restart (forward and backward recovery).

The IN COMMIT count specifies the number that had started but not completed phase 2 of the commit process. These must undergo forward recovery to complete the commit process.

The INDOUBT count specifies the number that were interrupted between phase 1 and phase 2 of the commit process. These must undergo forward recovery to ensure resources modified by them are unavailable until their indoubt status is resolved.

The INFLIGHT count specifies the number that neither completed phase 1 of the commit process nor began the process of backing out. These must undergo backward recovery to restore resources modified by them to their previous consistent state.

The IN ABORT count specifies the number that were in the process of backing out. These must undergo backward recovery to restore resources modified by them to their previous consistent state.

This message is issued by the following CSECT: DSNRRCSR

DSNR005I RESTART...COUNTS AFTER FORWARD RECOVERY IN COMMIT=*nnnn***, INDOUBT=***nnnn*

Explanation: The message indicates the completion of the forward recovery restart phase. The counts indicate the number of units of work whose recovery actions could not be completed during the phase. Typically, those in an IN COMMIT state remain because the recovery actions of some subcomponents have not been completed. Those units of work in an INDOUBT state will remain until connection is made with the subsystem that acts as their commit coordinator.

This message is issued by the following CSECT: DSNRRHSR

Operator Response: No action is required unless the conditions persist beyond some installation-defined period of time. Recovery action will be initiated when the resource is brought online. Indoubt resolution will be initiated as part of the process of reconnecting the subsystems.

DSNR006I RESTART...COUNTS AFTER BACKWARD RECOVERY INFLIGHT=*nnnn***, IN ABORT=***nnnn*

Explanation: The message indicates the completion of the backward recovery restart phase. The counts indicate the number of units of work whose recovery actions could not be completed during the phase. Typically, those in either state remain because the recovery actions of some subcomponents have not been completed.

This message is issued by the following CSECT: DSNRRAUB

Operator Response: No action is required unless the condition persists beyond some installation-defined period of time. Recovery action will be initiated when the resource collection is brought online.

DSNR007I RESTART...STATUS TABLE

Explanation: This message precedes a table showing the status of units of recovery (URs) after each restart phase. The message and the table will accompany the DSNR004I, DSNR005I, or DSNR006I message after each nested phase. At the end of the current status rebuild phase, it shows the status of any URs that require processing. At the end of the forward recovery and backoutphases, it shows the status of only those URs which needed processing but were not processed. The table helps to identify the URs that were active when DB2 came down, and to determine the log scope required to bring DB2 up.

The format of the table is shown below:

```
T CONID CORRID AUTHORIZATION ID PLAN S URID DAY TIME
```

where the columns contain the following information:

T — Connection type. The values may be:

- B — Batch: a batch program or QMF user.
- I — Internal: a system service being performed on some user's behalf.

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S — Subsystem: work that originated from an attached subsystem, either CICS or IMS/VS.

CONID — Connection identifier for related URs. Batch connections are not related to any other connection. Subsystem connections with the same identifier indicate URs that originated from the same subsystem.

CORRID — Correlation identifier; unique within a subsystem connection, it relates a UR to a particular CICS or IMS/VS transaction.

AUTHORIZATION ID — Authorization identifier of the user for whom this UR was created.

PLAN — Name of the plan allocated to the UR.

S — Restart status of the UR. When DB2 came down, the UR was in one of these situations:

- A — INABORT: The UR was in the 'must-complete' phase of abort, and is yet to be completed.
- C — INCOMMIT: The UR was in the 'must-complete' phase of commit, and is yet to be completed.
- D — INDOUBT: The UR had completed the first phase of commit, but DB2 had not received the second phase instruction. The UR must be remembered so it can be resolved when the owning subsystem reattaches.
- F — INFLIGHT: The UR had not completed the first phase of commit, and will be backed out.

URID — UR identifier, the log RBA of the beginning of this unit of work. It is the earliest RBA required to process the UR during Restart.

DAY — The day the UR was created, in the format 'ddd'. It is approximately the time of the first SQL statement of the application or the first SQL statement following a commit point.

TIME — The time the UR was created, in the format 'hh mm ss '. It is approximately the time of the first SQL statement of the application or the first SQL statement following a commit point.

This message is issued by the following CSECT: DSNRUDIS

DSNR009I STORAGE IS NOT AVAILABLE FOR THE UR DISPLAY TABLE, THE SIZE REQUESTED = *xxxx*, STORAGE MANAGER REASON CODE = *yyyyyyyy*

Explanation: There was not enough storage available during the creation of the recoverable UR (RURE) display table (DSNDRUDT).

This message is issued by the following CSECT: DSNRRCSR

System Action: The system continues to restart but the RESTART... STATUS TABLE is not displayed.

System Programmer Response: Increase the region size of the *ssnm*MSTR address space before restarting DB2 again.

Operator Response: Save the console output and inform the system programmer.

Problem Determination: The size requested is approximately 110 bytes for each unit of recovery (UR). See the message DSNR004I to determine the total number of URs to process. Then get the 00E2xxxx reason code from the DSNR009I header. Use these two numbers to determine the reason for the shortage.

DSNR010I AN ERROR OCCURRED IN THE RURE STATUS TABLE SORT/TRANSLATE MODULE (DSNRUSOR), THE ERROR LOCATION CODE = *xxxx*

Explanation: There was an error in processing the RURE display table. One of these ERROR LOCATION CODES tells what function the module was attempting to perform:

X'0001'	Trace entry to the module
X'0002'	Sort the recoverable UR display table
X'0003'	Translate the recoverable UR table
X'0004'	Convert the store clock value for display
X'0005'	Trace exit from the module

This message is issued by the following CSECT: DSNRRCSR

System Action: The system continues to restart but the RESTART... STATUS TABLE is not displayed.

System Programmer Response: Use the error code in the message to fill in the problem description.

Operator Response: Save the console output and inform the system programmer.

Problem Determination: The ERROR CODE tells the problem area and should be used in the problem description. A record was added to the SYS1.LOGREC that contains the PSW and module at the time of the error. This error indicates an application program check of some type.

DSNR011I AN ERROR OCCURRED IN THE RURE STATUS TABLE DISPLAY MODULE (DSNRUDIS), THE ERROR LOCATION CODE = *xxxx*

Explanation: There was an error in processing the RURE display table. One of these ERROR LOCATION CODES tells what function the module was attempting to perform:

X'0001'	Trace entry to the module
X'0002'	Build header for the display table
X'0003'	Build entries for the display table
X'0004'	Call DSNRWTO to display the table
X'0005'	Trace exit from the module
X'0006'	Get message text

This message is issued by the following CSECTs:

DSNRRCSR DSNRRHSR DSNRRAUB

System Action: The system continues to restart but the RESTART... STATUS TABLE is not displayed.

System Programmer Response: Use the error code in the message to fill in the problem description.

Operator Response: Save the console output and inform the system programmer.

Problem Determination: The ERROR CODE describes the problem area and should be used in the problem description. A record was added to the SYS1.LOGREC containing the value DSNRUDIS, and the PSW and CSECT at the time of the error. This error indicates an application program check of some type.

Error codes other than X'0006' indicate an application program check of some type. Code X'0006' indicates an error attempting to locate the table text. The trace entry for DSNRUDIS contains the return and reason codes from the Get Text request. That information should be used to fill in the problem description.

DSNR014I EXCLUDED RURE TABLE

Explanation: This is a list of RUREs which are being bypassed because of the conditional restart. Either they were to be processed in a phase that was bypassed or they were outside the log range.

The following shows the format of the table headings. See message DSNR007I for an explanation of the table columns.

```
T CONID CORRID AUTHORIZATION ID PLAN S URID DAY TIME
```

System Action: Restart continues.

DSNR015I THE CHKPTRBA *xxxxxxxxxxxx* SPECIFIED IN THE CRCR IS INVALID

Explanation: The checkpoint RBA specified in the conditional restart control record (CRCR) is either not available or is not a begin checkpoint record.

This message issued by the following CSECT: DSNRIT03

System Action: Restart is abended with reason code '00D99001'.

Operator Response: Inform the system programmer.

System Programmer Response: By specifying the STARTRBA and/or ENDRBA on the CRESTART control statement, change log inventory (DSNJU003) utility selects an appropriate RBA.

Problem Determination: Print the complete checkpoint records queue by using the print log map (DSNJU004) utility. Select a checkpoint RBA from this queue or let the change log inventory (DSNJU003) utility make the selection.

DSNR016I STARTRBA *xxxxxxxxxxxx* VALIDATION FAILED

Explanation: A scan from the STARTRBA failed to find a complete log record. Either the entire log was scanned and no complete record was found, or the log manager found an invalid log record. The log manager sends the error messages to the console indicating a bad log record.

System Action: Restart abends.

Operator Response: Record the log manager message numbers and inform the system programmer.

System Programmer Response: Use DSN1LOGP to determine a STARTRBA to use for restart. The recovery manager uses the STARTRBA as a starting point for its search of the beginning of a valid log record.

DSNR017I RESTART IS BEING TERMINATED BECAUSE OF CSRONLY SPECIFICATION IN CRCR

Explanation: The restart procedure only completed the first phase of startup. The status displayed during this partial restart can be used to build the conditional restart control record (CRCR).

System Action: Restart is abended.

System Programmer Response: To prevent the restart control record from being reused during the next restart attempt, the current restart control record must be canceled. Use the change log inventory (DSNJU003) CRESTART CANCEL option, or create a new restart control record. The newly created restart control record will automatically cancel the previous record.

DSNR020I *csect-name* START MEMBER *member*, OR REPLY 'NO' OR 'QUIESCED'

Explanation: During a group restart, the group member issuing this message attempted to access the BSDS for member *member*, and either was not able to access the BSDS, or discovered that the BSDS was modified by the change log inventory (DSNJU003) utility since that member was last started. In either case, this DB2 is not able to perform peer restart for member *member*.

For group restart to continue, the identified member must be started.

If it is not possible to start the other member and you want to terminate this group restart, you can reply 'NO' to this message. Replying 'NO' to this message causes this DB2 to terminate with a reason code of 00D900E1. You then have to reply 'NO' to this message for all remaining members participating in this group restart.

If you are sure that the identified member was quiesced the last time it was started, that is, it was stopped with a -STOP DB2 MODE(QUIESCE) command and it stopped with no indoubt units of recovery and no distributed resynchronization responsibility, then you can reply 'QUIESCED' to this message. Replying 'QUIESCED' to this message causes message DSNR030I to be issued as a reminder that group restart will continue **without using the log** from the identified member.

System Action: This group member waits for the identified member to be started or for a valid reply to this message.

- If the identified member is started, group restart continues.
- If the reply is 'NO', this DB2 terminates with a reason code of 00D900E1.
- If the reply is 'QUIESCED', group restart continues **without using the log** from the identified member.

DSNR021I *csect-name* DB2 SUBSYSTEM MUST PERFORM GROUP RESTART FOR PEER MEMBERS

Explanation: This DB2 subsystem must perform the group restart phase to recover either the shared communications area (SCA) or the retained locks for nonstarting members in the data sharing group.

This message marks the beginning of group restart processing for peer members. Messages DSNR023I and DSNR024I or messages DSNR025I and DSNR026I are issued for each peer

that is processed by this DB2 subsystem. Message DSNR022I marks the end of group restart processing for peer members.

This message is issued before this DB2 member enters the group restart process. The group restart process is synchronized among all group members that are starting and therefore participating in this group restart. After this DB2 member synchronizes with other members, it is possible that no peer processing will be necessary; in that case message DSNR022I immediately follows this message.

If it is necessary to recover both the SCA and retained locks, this message is issued twice; once for SCA recovery and again for the recovery of the retained locks.

System Action: The subsystem begins group restart processing.

DSNR022I *csect-name* **DB2 SUBSYSTEM HAS COMPLETED GROUP RESTART FOR PEER MEMBERS**

Explanation: This DB2 subsystem, which previously issued message DSNR021I, completed the group restart phase to recover the shared communications area (SCA) or retained locks for nonstarting DB2 members in the data sharing group.

System Action: The subsystem continues with the next restart phase of its own subsystem.

DSNR023I *csect-name* **GROUP RESTART INITIATED TO RECOVER THE SCA FOR GROUP MEMBER** *membname*

Explanation: The DB2 subsystem that issued this message is performing the group restart phase to recover the shared communications area (SCA) for nonstarting member *membname* of the data sharing group.

This message is followed by message DSNR024I after the group restart phase to recover the SCA for the identified member is complete.

System Action: The subsystem continues the group restart process.

DSNR024I *csect-name* **GROUP RESTART COMPLETED TO RECOVER THE SCA FOR GROUP MEMBER** *membname*

Explanation: The DB2 subsystem that issued this message completed the group restart phase to recover the shared communications area (SCA) for member *membname* of the data sharing group.

This message is issued only if messages DSNR021I and DSNR023I were issued.

System Action: The subsystem continues the group restart process.

DSNR025I *csect-name* **GROUP RESTART INITIATED TO RECOVER RETAINED LOCKS FOR GROUP MEMBER** *membname*

Explanation: The DB2 subsystem that issued this message is performing the group restart phase to recover the retained locks for nonstarting member *membname* of the data sharing group.

This message is followed by message DSNR026I after the group restart phase to recover the retained locks for the identified member is complete.

System Action: The subsystem continues the group restart process.

DSNR026I *csect-name* **GROUP RESTART COMPLETED TO RECOVER RETAINED LOCKS FOR GROUP MEMBER** *membname*

Explanation: The DB2 subsystem that issued this message completed the group restart phase to recover the retained locks for member *membname* of the data sharing group.

This message is issued only if messages DSNR021I and DSNR025I were issued.

System Action: The subsystem continues the group restart process.

DSNR030I *csect-name* **WILL CONTINUE WITHOUT THE** *member* **MEMBER'S LOG, REPLY 'YES' OR 'NO'**

Explanation: The reply to message DSNR020I was 'QUIESCED'. This message is issued as a reminder that group restart will continue **without using the log** from the identified member.

If you are sure that the identified member was quiesced the last time it was started, that is, it was stopped with a -STOP DB2 MODE(QUIESCE) command and it stopped with no indoubt units of recovery and no distributed resynchronization responsibility, then reply 'YES'; otherwise, reply 'NO'.

System Action: This group member waits for a valid reply to this message.

- If the reply is 'YES', group restart continues **without using the log** from the identified member.
- If the reply is 'NO', message DSNR020I is reissued to allow you to enter a different response.

DSNR031I *csect-name* **PROCESSING LOG RECORD AT RBA** *rba1* **TO RBA** *rba1*

Explanation: This message is produced periodically during the forward and backward processing phases of restart. The RBAs presented in this message can be used to monitor the progress of the phases of restart.

Forward processing occurs between messages DSNR004I and DSNR005I. During forward processing, the log is read in a forward direction.

Backward processing occurs between messages DSNR005I and DSNR006I. During backward processing, the log is read in a backward direction and will stop reading at the RBA matching the URID of the oldest in-flight or in-abort UR.

rba1 is the RBA of the log record currently being processed. *rba2* is the RBA of the last log record that will be read in this phase of restart.

System Action: DB2 restart continues.

User Response: This is an information only message.

DSNR032E *csect-name* **DB2 IS STARTING AT RELEASE LEVEL** *code-level-1***, WHICH IS NOT COMPATIBLE WITH RELEASE LEVEL** *code-level-2*

Explanation: The DB2 you tried to start is not at the proper code release, or does not have the correct fallback/coexistence SPE applied.

code-level-1 and *code-level-2* are a string of three numeric characters as follows:

- Version
- Release
- Modification level

code-level-1 The current release level of the starting DB2.

code-level-2 One of the following:

- In non-data-sharing, the highest release with which this DB2 has ever been started.
- In a data sharing environment, the highest release with which any DB2 in the data sharing group has ever been started. This is known as the *group release level*.

This message can occur in the following situations:

- The starting DB2 fell back from a later release and does not have the proper fallback SPE applied.
- The starting DB2 does not have the proper coexistence SPE to start in a data sharing group, which is at the higher release level.
- The starting DB2 is at a release in which coexistence with the current group release level is not supported.

System Action: DB2 terminates with reason code 00D900FA.

System Programmer Response: Verify that:

- Coexistence is supported between the releases you are trying to run.
- The startup procedure is pointing to the correct set of load libraries.
- The correct SPE has been applied.

For more information about what SPE is needed, see the program directory or preventative service planning (PSP) undates.

DSNR033E *csect-name* **MEMBER** *member-name* **IS AT RELEASE LEVEL** *code-level-1* **WHICH IS NOT COMPATIBLE WITH THE STARTING MEMBER AT RELEASE LEVEL** *code-level-2*

Explanation: The code level for the started DB2 member and the starting DB2 member are not compatible until you apply the correct SPE to the lower level release.

code-level-1 and *code-level-2* are a string of three numeric characters as follows:

- Version
- Release
- Modification level

code-level-1 The release level of the active DB2 member *member-name*.

code-level-2 The release level of the starting DB2.

This message occurs when a starting DB2 member is at a higher release than can coexist with an existing DB2 member.

System Action: After detecting the first member with which it cannot coexist, DB2 terminates with reason code 00D900FA.

System Programmer Response: If you want to start a higher release level of DB2, you must ensure that all active members in the group have the proper SPE applied. If you intended to start a lower release level of of DB2, make sure your startup procedure is pointing to the correct set of load libraries.

For more information about what SPE is needed, see the program directory or preventive service planning (PSP) updates.

DSNR034E *csect-name* **THERE CANNOT BE MORE THAN TWO RELEASE LEVELS OF DB2 RUNNING IN THE GROUP**

Explanation: You attempted to start a DB2 that was at a release level that cannot coexist in the data sharing group. There are already two different releases of DB2 currently running in the data sharing group.

System Action: DB2 terminates.

System Programmer Response: If you are sure that the startup procedure is pointing to the correct set of load libraries, you must stop any DB2 subsystems that cannot coexist with the one you are attempting to start.

See *Data Sharing: Planning and Administration* for more information about release coexistence in a data sharing group.

DSNR035I *csect-name* **WARNING - UNCOMMITTED UR AFTER** *nn* **CHECKPOINTS - CORRELATION NAME =** *xxxxxxxxxxxx* **CONNECTION ID =** *yyyyyyyy* **LUWID =** *logical-unit-of-work-id=token* **PLAN NAME =** *xxxxxxxx* **AUTHID =** *xxxxxxxx* **END USER ID =** *xxxxxxxx* **TRANSACTION NAME =** *xxxxxxxx* **WORKSTATION NAME =** *xxxxxxxx*

Explanation: This message indicates that during checkpoint, DB2 encountered an uncommitted UR that has an INFLIGHT status.

The value *nn* is cumulative, and it indicates the number of checkpoints taken since the beginning of the UR. CORRELATION name, CONNECTION ID, and LUWID together identify a thread associated with the UR. If the LUWID is an '*', it indicates that the thread originated at this site. *token* is a unique token number associated with the LUWID. PLAN NAME and AUTHID further identify the thread associated with the UR. If the thread was created with client End User infomation, the End User's ID, TRANSACTION NAME, and WORKSTATION NAME, will be displayed. Otherwise, these fields will contain an '*'.

System Action: DB2 continues processing. If statistics class 3 is turned on, IFCID 0313 is written.

System Programmer Response: Consult with the application programmer to determine if this is a problem UR. See Section 4 (Volume 1) of *Administration Guide* for more information about problems caused by uncommitted URs. If the UR is caused by an application program, you can use CANCEL THREAD to delete the UR, if necessary. If an uncommitted UR is deleted, DB2 will undo the changes. The amount of time required for this process depends on the amount of work done by the UR.

Programmer Response: Ensure that the application commits frequently enough, or consult with your DB2 administrator about decreasing the frequency of the check.

DSNR036I *csect-name* **UNRESOLVED UR ENCOUNTERED DURING CHECKPOINT - CORRELATION NAME =** *xxxxxxxxxxx* **CONNECTION ID =** *yyyyyyyy* **LUWID =** *logical-unit-of-work-id* **PLAN NAME =** *xxxxxxxx* **AUTHID =** *xxxxxxxx*

Explanation: DB2 has detected an INDOUBT unit of recovery (UR) during a checkpoint. The purpose of this message is to remind the operator that an INDOUBT UR exists.

CORRELATION name, CONNECTION ID, and LUWID together identify a thread associated with the UR. If the LUWID is an '*', it indicates that the thread originated at this site.
PLAN NAME and AUTHID further identify the thread associ-
ated with the indoubt UR.

System Action: DB2 continues processing. If statistics class 3 is turned on, IFCID 0313 is written.

System Programmer Response: Consult with the application programmer to determine whether this is a problem UR. See Section 4 (Volume 1) of *Administration Guide* for more information about resolving INDOUBT URs.

DSNR037I *csect-name* **WARNING - THE TCP/IP DRDA PORT NUMBER IS CHANGED FROM** *port_1* **TO** *port_2*

Explanation: The TCP/IP DRDA port number specified in the DB2 BSDS is different from the value used the last time a member of the DB2 data sharing group started. All members of a DB2 data sharing group must use the same TCP/IP DRDA port number.

port_1 The TCP/IP DRDA port number that was obtained from the DB2 BSDS during DB2 startup.

port_2 The TCP/IP DRDA port number that was obtained from the coupling facility during DB2 startup. This is the TCP/IP DRDA port number that was used the last time a member of the data sharing group was started.

System Action: DB2 accepts the new TCP/IP DRDA port number, and DB2 startup continues.

Operator Response: Contact the system programmer.

System Programmer Response: If the TCP/IP DRDA port number was changed inadvertently, stop DB2 immediately. Use the change log inventory utility (DSNJU003) to correct the PORT value, and restart DB2.

If this message reflects a change that you want to make to DB2's DRDA port number, no action is required. The DRDA port number stored in the coupling facility is updated, and this new port number will be used when DB2 validates each member's DRDA port number.

DSNR038I *csect-name* **WARNING - THE TCP/IP RESYNCHRONIZATION PORT NUMBER IS CHANGED FROM** *port_1* **TO** *port_2*

Explanation: The TCP/IP resynchronization port number obtained from the DDF record of the BSDS is different than the value specified the last time DB2 started.

Changing the TCP/IP resynchronization port number can cause problems during distributed 2-phase commit processing. Remote DRDA partners record DB2's resynchronization port number in their recovery logs. The resynchronization port number is used to reconnect to the appropriate DB2 member when communication failures occur during 2-phase commit processing. If a DB2 member changes its resynchronization port number, the remote DRDA partners may be unable to resolve indoubt units of work.

port_1 The TCP/IP resynchronization port number that was obtained from the DB2 BSDS during DB2 startup.

port_2 The TCP/IP resynchronization port number that was obtained from the coupling facility during DB2 startup. This is the TCP/IP resynchronization port number that was used the last time this member was started.

System Action: DB2 accepts the new TCP/IP resynchronization port number, and DB2 startup continues.

Operator Response: Contact the system programmer.

System Programmer Response: If the DB2 resynchronization port number was changed inadvertently, stop DB2 immediately. Use the change log inventory utility (DSNJU003) to correct the RESPORT value, and restart DB2.

If this message reflects a change that you want to make to DB2's resynchronization port number, no action is required. The resynchronization port number stored in the coupling facility for this member is updated, and this new port number will be used when DB2 validates the resynchronization port number for other DB2 members.

DSNR039I *csect-name* **WARNING - TCP/IP RESYNCHRONIZATION PORT NUMBER** *port_1* **IS THE SAME AS MEMBER** *member_name*

Explanation: The TCP/IP resynchronization port of the starting DB2 is the same as the member indicated by *member_name*.

port_1 The TCP/IP resynchronization port number that was obtained from the DB2 BSDS during DB2 startup.

member_name The member name of the DB2 data sharing member that used the same resynchronization port number.

System Action: The TCP/IP port number specified in the BSDS is accepted, and DB2 startup continues.

Operator Response: Contact the system programmer.

System Programmer Response: Each member of the DB2 data sharing group should have a unique TCP/IP resynchronization port number. Use the change log inventory utility (DSNJU003) to specify a unique RESPORT value for this DB2 member and the DB2 member identified by *member_name*.

DSNR040I *csect-name* **TRACKER RESTART ENDLRSN** *lrsn* **DOES NOT MATCH ENDLRSN** *lrsn* **ASSOCIATED WITH THE DATA SHARING GROUP**

Explanation: This message is produced during restart of a tracker site DB2 in a data sharing environment if the ENDLRSN specified on the Conditional Restart Control Record does not match the ENDLRSN in the system communications area (SCA) structure for the data sharing group.

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: If the ENDLRSN value for this member is incorrect, restore the BSDS and logs for this tracker site DB2 from the primary DB2, insure the Conditional Restart Control Record is correct, and restart DB2. If the ENDLRSN value in the SCA is incorrect, the SCA structure must be deleted and all members of the tracker site data sharing group must be restarted with the same ENDLRSN.

DSNT... Messages

Messages issued by DSNTINST, DSNTINS1, and DSNTINS2 installation CLISTs have an internal severity level as follows:

0 Successful execution: CLIST progress and tracing messages (processing continues)

4 Warning: some adjustments might be made by the installation CLISTs (processing and JCL editing continues)

8 Error: unable to continue (no JCL is edited)

DSNT101I A VSAM ERROR HAS BEEN ENCOUNTERED WHILE READING THE DB2 BSDS VSAM RETURN CODE = *x*, VSAM REASON CODE = *y*

Explanation: CSECT DSNTSTR2 attempted to read the DB2 bootstrap data set (BSDS), and a VSAM error has occurred. In the message, 'x' is a 1-byte VSAM return code and 'y' is a 1-byte VSAM reason code.

This message is issued by the following CSECT: DSNTSTR2

System Action: The DB2 start up process continues. However, any references to DB2 password-protected system databases will cause a 'resource unavailable' error. Any agent-related requests for DB2 subsystem database resources will result in an SQLCODE -904. Any requests that are not agent-related for unavailable resources will result in the following messages:

DSNI001I	DSNI002I	DSNI003I	DSNI004I
DSNI005I	DSNI006I	DSNT408I	DSNT414I
DSNT415I	DSNT416I	DSNT417I	DSNT500I

Abend X'04E' with reason code X'00E30010' is also produced. However, the error results in a retry. DB2 does not terminate, but a dump is produced.

Operator Response: Notify the system programmer.

System Programmer Response: A VSAM error occurred while reading the BSDS record with key '200000001'. Either the BSDS record does not exist or an I/O error occurred (indicating that the record is bad). Further information may be obtained from a VSAM diagnostics manual. Refer to Section 4 (Volume 1) of *Administration Guide* for procedures on recovering or repairing the DB2 bootstrap data set.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 16.

DSNT102I AN INVALID DATABASE SERVICES BOOTSTRAP RECORD HAS BEEN ENCOUNTERED

Explanation: CSECT DSNTSTR2 attempted to read the DB2 bootstrap data set (BSDS), and an invalid record was read by the recovery log manager (RLM) subcomponent. This is a DB2 error.

This message is issued by the following CSECT: DSNTSTR2

System Action: The DB2 start up process continues. However, any references to DB2 password-protected system databases will cause a 'resource unavailable' error. Any agent-related requests for DB2 subsystem database resources will result in an SQLCODE -904. Any requests that are not agent-related for unavailable resources will result in the following messages:

DSNI001I	DSNI002I	DSNI003I	DSNI004I
DSNI005I	DSNI006I	DSNT408I	DSNT414I
DSNT415I	DSNT416I	DSNT417I	DSNT500I

Abend X'04E' with reason code X'00E30010' is also produced. However, the error results in a retry. DB2 does not terminate, but a dump is produced.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a copy of SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This message is generated when the recovery log manager (RLM) subcomponent of DB2 encounters an invalid DB2 database services password record. A copy of the BSDS record with key '200000001', which is the invalid database services record retrieved, should be obtained.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 16.

DSNT103I THE CURRENTLY LOADED DSN6SPRM IS NOT THE MVS/XA VERSION

Explanation: A -START DB2 PARM=xxxxxxxx was issued where 'xxxxxxxx' is the version of the system parameter CSECTs. DB2 executes in a MVS/XA environment and will not execute in any other environment.

This message is issued by the following CSECT: DSNTSTR2

System Action: The message DSNV086E is generated with a reason code of X'00E30008'. DB2 is terminated with abend code X'04F'.

Operator Response: Notify the system programmer.

System Programmer Response: Restart DB2 with a -START DB2 PARM= command, where the parameter block that follows the 'PARM=' parameter specifies an MVS/XA version of the DB2 subsystem parameters.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 3, 5, 9.

DSNT104I THE CURRENTLY LOADED DSN6SPRM IS NOT THE MVS/370 VERSION

Explanation: A -START DB2 PARM=xxxxxxxx was issued, where 'xxxxxxxx' is the version of the system parameter CSECTs. DB2 executes in an MVS/370 environment and does not execute in any other environment.

This message is issued by the following CSECT: DSNTSTR2

System Action: Message DSNV086E is generated with reason code X'00E30009'. DB2 is terminated with abend code X'04F'.

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Operator Response: Notify the system programmer.

System Programmer Response: Restart DB2 with a -START DB2 PARM= command, where the parameter block that follows the PARM= parameter specifies an MVS/370 version of the DB2 subsystem parameters.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 3, 5, 9.

DSNT105I THE LOADED DSN6SPRM CSECT IS OBSOLETE. PLEASE REASSEMBLE THE DSN6SPRM CSECT AND RELINKEDIT THE DSNZPARM LOAD MODULE.

Explanation: DSNTSTR2 loaded an out-of-date system parameter CSECT DSN6SPRM. This error can only occur if code maintenance has been applied and CSECT DSN6SPRM has not been reassembled. This CSECT is contained in the load module specified in the 'PARM=' parameter of the -START DB2 command.

This message is issued by the following CSECT: DSNTSTR2

System Action: The message DSNV086E is generated with a reason code of X'00E30008'. DB2 is terminated with abend code X'04F'.

Operator Response: Notify the system programmer.

System Programmer Response: Reassemble DSN6SPRM, and relink-edit the DSNZPARM load module. This is done by resubmitting the install job stream, DSNTIJUZ, that built the load module that is named following the 'PARM=' parameter of the -START DB2 command.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 3, 5, 9.

DSNT106I THE LOADED DSN6SYSP CSECT IS OBSOLETE. PLEASE REASSEMBLE THE DSN6SYSP CSECT AND RELINKEDIT THE DSNZPARM LOAD MODULE.

Explanation: DSNTSTR2 loaded an out-of-date system parameter CSECT DSN6SYSP. This error can only occur if code maintenance has been applied and CSECT DSN6SYSP has not been reassembled. This CSECT is contained in the load module specified in the 'PARM=' parameter of the -START DB2 command.

This message is issued by the following CSECT: DSNTSTR2

System Action: The message DSNV086E is generated with a reason code of X'00E30008'. DB2 is terminated with abend code X'04F'.

Operator Response: Notify the system programmer.

System Programmer Response: Reassemble DSN6SYSP, and relink-edit the DSNZPARM load module. This is done by resubmitting the install job stream, DSNTIJUZ, that built the load module that is named following the 'PARM=' parameter of the -START DB2 command.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 3, 5, 9.

DSNT107I INVALID AMODE OR RMODE ATTRIBUTE FOUND FOR LOAD MODULE *module-name*

Explanation: During DB2 startup, the service controller establishes the addressability to the DB2 database services functional recovery and the emergency shutdown routines. Two load modules, DSNTF, and DSNTLCLE, are loaded into CSA. In the MVS/XA environment, DSNTLCLE must be link-edited with attributes AMODE(24) and RMODE(ANY). At least one of the modules did not have the correct addressing attribute when it was loaded. 'module-name' in the error message is the name of the first load module that has an invalid addressing mode.

This message is issued by the following CSECT: DSNTSTRT

System Action: DB2 database services start up is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Verify that all install and maintenance activities against these modules were executed using SMP. Verify that the JCLIN for SMP includes the correct AMODE and RMODE control statements, and that the linkage editor provided with the Data Facility Product (DFP) was invoked by SMP for the link edits. Correct the procedure or JCL which caused the error and rerun the necessary SMP jobs.

Problem Determination: A DB2 dump was requested to an MVS/XA SYS1.DUMP data set.

The MVS service aid AMBLIST provides linkage editor module attributes in the summary section of the LISTLOAD function output.

DSNT200I *type bind-type* **FOR PLAN** *plan-id* **SUCCESSFUL**

Explanation: A BIND, REBIND or FREE PLAN subcommand has completed successfully.

type	Indicates that a test bind was in progress. A test bind means that no plan name was specified. The token is omitted if a normal BIND PLAN was processed.
bind-type	Type of bind subcommand: BIND, REBIND, or FREE.
plan-id	Name of application plan specified in the subcommand.

This message is issued by the following CSECT: DSNTBAP2

System Action: The plan was successfully bound, rebound, or freed.

DSNT201I *type bind-type* **FOR PLAN** *plan-id* **NOT SUCCESSFUL**

Explanation: Errors have been detected during the processing of the indicated BIND, REBIND, or FREE PLAN subcommand.

type	Indicates that a test bind was in progress. A test bind means that no plan name was specified. The token is omitted if a normal BIND PLAN was processed.
bind-type	Type of bind subcommand: BIND, REBIND, or FREE.
plan-id	Name of application plan specified in the subcommand.

This message is issued by the following CSECT: DSNTBAP2

System Action: The BIND, REBIND, or FREE PLAN was not performed.

System Programmer Response: See other messages issued to determine the error that caused the bind subcommand to terminate unsuccessfully.

DSNT202I *bind-type* **FOR PLAN** *plan-id* **USING** *auth-id* **AUTHORITY EXCEEDED MESSAGE LIMIT. MESSAGE GENERATION TERMINATED**

Explanation: A fixed amount of space exists in which to generate bind subcommand messages. This message says that the indicated bind subcommand generated more messages than will fit in that space.

bind-type — Type of bind subcommand: BIND, REBIND, or FREE.

plan-id — Name of application plan specified in the bind subcommand.

auth-id — Authorization ID of the plan owner.

This message is issued by the following CSECT: DSNTBAP2

System Action: For bind subcommands that affect a single plan, the bind subcommand process continues. However, no other messages are generated for the indicated 'plan-id', except for message DSNT200I or DSNT201I. For bind subcommands that affect more than one plan, the bind subcommand process terminates and no other messages are generated.

System Programmer Response: The 'FLAG' parameter of the bind subcommand can be used to limit the types of messages that are generated.

DSNT205I *name* **IS A DUPLICATE** *name-type***, IT WILL BE USED ONLY ONCE**

Explanation: Name 'name' has been specified more than once in a list of names.

name — Name that was specified more than once.

name-type — Indicates the type of list in which the name was duplicated.

- MEMBER NAME - List of DBRM Members
- PLAN-ID - List of plan IDs
- SYSTEM NAME - List of system connection names on a DISABLE or ENABLE list.
- PACKAGE NAME - List of package IDs

This message is issued by the following CSECT: DSNTBAP2

System Action: Duplicates are removed from 'name-type' list and the bind process continues.

System Programmer Response: Verify the list that contains the duplicate. If the error is only in entering a name incorrectly, which happens to duplicate another entry, enter the name correctly and reissue the bind statement. If the entry is really a duplicate, no action is required.

DSNT207I **PROGRAM** *program-name* **WITH MARK** *release-dependency-mark* **FAILED BECAUSE IT DEPENDS ON FUNCTIONS OF THE RELEASE FROM WHICH FALL BACK HAS OCCURRED**

Explanation: Program 'program-name' depends on a function of DB2 that is not supported by the current active release.

program-name — Name of the application program.

release-dependency-mark — A one-character mark showing the oldest DB2 release supporting this program.

This message is issued by the following CSECTs: DSNTBCM1, DSNTBCM2

System Action: The bind operation for this plan or package is not performed.

User Response: The program cannot be used until the DB2 subsystem is remigrated to the newer release. Notify the system programmer.

System Programmer Response: Warn users not to use plans or packages containing this program until the DB2 subsystem has been remigrated to the newer release.

DSNT208I **PROGRAM** *program-name* **PRECOMPILED WITH INCORRECT LEVEL FOR THIS RELEASE**

Explanation: Program 'program-name' was precompiled under a release not supported by the current level of DB2, or the contents of the DBRM have been modified after the precompilation phase.

This message is issued by the following CSECTs: DSNTBCM1, DSNTBCM2

System Action: The BIND operation was not performed.

User Response: Precompile the named program again using the current precompiler. Reissue the BIND command.

Problem Determination: If the application program was precompiled at an appropriate release, and the problem persists, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 79, 80, 81.

DSNT209I *bind-type* **FOR PLAN** *plan-id* **WITH MARK** *release-dependency-mark* **FAILED BECAUSE PLAN DEPENDS ON FUNCTIONS OF THE RELEASE FROM WHICH FALL BACK HAS OCCURRED.**

Explanation: Plan 'plan-id' depends on a function of DB2 which is not supported by the currently active release.

bind-type — REBIND

plan-id — Name of the application plan

release-dependency-mark — A one-character mark showing the oldest release of DB2 which can support this plan. The release dependency mark for the plan is kept in the IBMREQD columns in the DB2 catalog in SYSIBM.SYSPLAN.

This message is issued by the following CSECT: DSNTBRB

System Action: The REBIND operation for this plan is not performed.

User Response: The plan cannot be used until the DB2 subsystem is remigrated to the newer release.

Operator Response: Notify the system programmer.

System Programmer Response: Warn users not to use the plan until the DB2 subsystem has been remigrated to the newer release.

DSNT210I *bind-type* **AUTHORIZATION ERROR USING** *authorization* **ID AUTHORITY PLAN=***plan-id* **PRIVILEGE=***privilege*

Explanation: The indicated authorization ID does not have the indicated privilege and therefore cannot invoke the indicated BIND subcommand against the indicated application plan.

bind-type	Type of BIND subcommand: BIND, REBIND, FREE.
authorization ID	Authorization ID of the plan owner.
plan-id	Application plan specified in the BIND subcommand.
privilege	Missing privilege: BIND, BINDADD

This message is issued by the following CSECTs:

DSNTBAP DSNTBCM1 DSNTBFR DSNTBRB

System Action: The BIND, REBIND, or FREE operation for 'plan-id' is not performed.

System Programmer Response: If the indicated privilege is BINDADD, then the privilege to invoke the BIND subcommand with the ACTION(ADD) option must be granted to the indicated authorization ID. If the indicated privilege is BIND, the privilege to invoke a BIND subcommand against the indicated application plan must be granted to the indicated authorization ID.

DSNT211I **REBIND FOR PLAN** *plan-id* **FAILED BECAUSE IBMREQD OF** *ibmreqd* **IS INVALID**

Explanation: The IBMREQD column of the SYSIBM.SYSPLAN catalog table for the named plan contains an unrecognizable character.

This message is issued by the following CSECT: DSNTBRB

System Action: The REBIND operation for the plan was not performed.

System Programmer Response: You must do a BIND ACTION(REPLACE) for this plan.

DSNT212I *bind-type* **AUTHORIZATION ID** *auth-id* **IN THE OWNER KEYWORD IS INVALID**

Explanation: The authorization ID specified in the OWNER keyword of the BIND or REBIND subcommand is invalid. To specify an OWNER that is not the primary authorization ID, or one of the secondary IDs of the process requires additional authority. See *Command Reference* for the authority required.

bind-type	Type of bind subcommand: BIND or REBIND
auth-id	The authorization ID specified as owner.

This message is issued by the following CSECTs:

DSNTBCM1 DSNTBCM2 DSNTBRB DSNTBRB2

System Action: The BIND or REBIND subcommand is not executed.

System Programmer Response: Rerun the subcommand and specify a valid authorization ID for the OWNER keyword. You may need to add the required authorization ID for this user to the security system.

DSNT213I **THE DCB BLOCK SIZE OF THE INPUT DBRM LIBRARY IS INVALID**

Explanation: An invalid DCB block size is specified for the DBRM library of the BIND subcommand.

This message is issued by the following CSECT: DSNTBAP1

System Programmer Response: Correct the DCB block size of the DBRM library, and reissue the BIND subcommand.

DSNT214I **I/O ERROR ON DBRM LIBRARY DBRM MEMBER=** *dbrm-name* **DBRM LIBRARY=** *dbrm-pds-name xxxxxx*

Explanation: An I/O error was encountered attempting to read database request module (DBRM) during a BIND subcommand. 'xxxxxx' is a portion of the message text generated by the SYNADAF macro instruction to describe the permanent I/O error This text may contain information such as jobname, stepname, unit address, device type, ddname, operation attempted, and error description.

dbrm-name	Name of the DBRM associated with the error.
dbrm-pds-name	Partitioned data set associated with the error.

This message is issued by the following CSECT: DSNTBAP1

System Action: No application plan is created.

System Programmer Response: Determine if an incorrect dbrm-pds-name was specified in the LIBRARY parameter of the BIND subcommand, or an incorrect data set name was specified for the DBRMLIB DD statement. Check correctly specified data sets for I/O errors or modified DCB attributes.

DSNT220I **BIND ADD ERROR USING** *auth-id* **AUTHORITY PLAN** *plan-id* **ALREADY EXISTS**

Explanation: An attempt was made to use the BIND subcommand with the 'ACTION(ADD)' option that specified a 'plan-id' that already exists.

auth-id	Authorization ID of the owner of the plan.
plan-id	Application plan specified in the BIND subcommand.

This message is issued by the following CSECT: DSNTBCM1

System Action: No application plan is created.

System Programmer Response: Check the SYSIBM.SYSPLAN catalog table for names of existing application plans. Reinvoke the BIND subcommand with a 'plan-id' that is not in use.

DSNT221I *bind-type* **ERROR USING** *auth-id* **AUTHORITY PLAN** *plan-id* **DOES NOT EXIST**

Explanation: The indicated bind subcommand was issued against an application plan that does not exist. The individual variable fields contain:

bind-type Type of bind subcommand: REBIND or FREE.

auth-id Authorization ID of the plan owner.

plan-id Application plan specified in the BIND subcommand.

This message is issued by the following CSECTs: DSNTBFR, DSNTBRB

System Programmer Response: Check the SYSPLAN catalog table for the correct 'plan-id' to use.

DSNT228I BIND ERROR, ATTEMPTING TO REPLACE PACKAGE = *package_name* **WITH VERSION =** *(version2)* **BUT THIS VERSION ALREADY EXISTS**

Explanation: An attempt is made to create a version of a package that already exists. The version specified in the REPLVER keyword is different from the version specified for the precompile. The version specified for the precompile already exists in the catalog. The combination of 'location.collection.package.version' must be unique in the SYSIBM.SYSPACKAGE catalog table. A common mistake is that the user may believe that the version he is creating is the one specified in the REPLVER keyword. This is not the case. The version specified in the REPLVER keyword is the name of the version being replaced. The version that will be created is the version that was given to the program when it was precompiled.

package_name Fully qualified package name

version2 Version-id of package that is to be created

This message is issued by the following CSECT: DSNTBCM2

System Action: The bind will fail.

System Programmer Response: There are two approaches to solve this problem. The first is to re-precompile the program with a new version name and re-issue the original BIND subcommand. The other approach is not to do the precompile but re-issue the BIND subcommand without the REPLVER parameter.

DSNT229I BIND ERROR, ATTEMPTING TO REPLACE PACKAGE = *package-name* **THERE ARE ENABLE OR DISABLE ENTRIES CURRENTLY ASSOCIATED WITH THE PACKAGE**

Explanation: The BIND subcommand was issued to replace a package that has ENABLE or DISABLE entries currently associated with the package. The individual variable fields contain:

package-name Name of the package (location.collection.package)

This message is issued by the following CSECT: DSNTBCM2

System Action: Package not bound.

System Programmer Response: FREE the package first and then BIND the package.

DSNT230I BIND DBRM MEMBER NAME ERROR USING *auth-id* **AUTHORITY** *object-type = object-name* **MEMBER** *dbrm-name* **NOT FOUND IN PDS SEARCH ORDER**

Explanation: The indicated 'dbrm-name' was not found in the search order in the PDSs specified on the BIND PLAN or BIND PACKAGE subcommand.

auth-id Authorization ID of the plan or package owner

object-type The type of object being bound: PLAN or PACKAGE

object-name If 'object-type' is PLAN, 'object-name' is the name of the application plan. Otherwise, it is the name of the package in 'location.collection.package' format.

dbrm-name Member name of the DBRM that was not found.

This message is issued by the following CSECT: DSNTBAP1

System Action: The bind is unsuccessful.

System Programmer Response: Determine if an incorrect 'dbrm-member-name' or PDS was specified. Reinvoke the BIND subcommand specifying the correct names.

DSNT231I BIND DBRM ERROR USING *auth-id* **AUTHORITY** *object-type = object-name* **DBRM** *dbrm-name* **IS IN AN INCONSISTENT STATE**

Explanation: The contents of a DBRM have been modified after the precompilation process, or the DBRM contains incorrect information in the header.

auth-id Authorization ID of the invoker of the BIND subcommand.

object-type The type of object being bound: PLAN or PACKAGE

object-name If 'object-type' is PLAN, 'object-name' is the name of the application plan. Otherwise, it is the name of the package in 'location.collection.package' format.

dbrm-name Name of the DBRM that is in error.

This message is issued by the following CSECT: DSNTBAP1

System Action: The bind is unsuccessful.

System Programmer Response: Precompile the application program associated with the indicated DBRM. Reinvoke the BIND subcommand.

DSNT232I SUCCESSFUL *bind-type* **FOR PACKAGE =** *package-name*

Explanation: A BIND, REBIND or FREE PACKAGE subcommand has completed successfully.

bind-type Type of bind subcommand: BIND, REBIND, or FREE

package-name Name of the package in the following format: 'location.collection.package.(version)'

This message is issued by the following CSECT: DSNTBAP2

System Action: The package was successfully bound, rebound, or freed.

DSNT233I UNSUCCESSFUL *bind-type* **FOR PACKAGE =** *package-name*

Explanation: Errors have been detected during the processing of the indicated BIND, REBIND, or FREE PACKAGE subcommand.

bind-type — Type of bind subcommand: BIND, REBIND, or FREE

package-name — Name of the package in the following format: 'location.collection.package.(version)'

This message is issued by the following CSECT: DSNTBAP2

System Action: The indicated package was not bound, rebound, or freed.

System Programmer Response: See other messages issued to determine the error that caused the subcommand to terminate unsuccessfully.

DSNT234I *bind-type* **FOR PACKAGE =** *package-name* **USING** *auth-id* **AUTHORITY EXCEEDED MESSAGE LIMIT. MESSAGE GENERATION TERMINATED**

Explanation: A fixed amount of space exists in which to generate BIND subcommand messages. This message says that the indicated subcommand generated more messages than will fit in that space.

bind-type — Type of bind subcommand: BIND, REBIND, or FREE

package-name — Name of the package in the following format: 'location.collection.package.(version)'

auth-id — Authorization ID of the package owner

This message is issued by the following CSECT: DSNTBAP2

System Action: For bind subcommands that affect a single package, the bind subcommand process continues. However, no other messages are generated for the indicated 'package-name', except for completion message DSNT232I or DSNT233I. For bind subcommands that affect more than one package, the bind subcommand process terminates and no other messages are generated.

System Programmer Response: The 'FLAG' parameter of the bind subcommand may be used to limit the types of messages that are generated.

DSNT235I *csect-name bind-type* **AUTHORIZATION ERROR USING** *auth-id* **AUTHORITY PACKAGE =** *package-name* **PRIVILEGE =** *privilege*

Explanation: The authorization ID given does not have the *privilege* indicated and cannot invoke the bind subcommand on the named package.

bind-type — Type of bind subcommand: BIND, REBIND, or FREE

auth-id — Authorization ID of of the package owner

package-name — Name of the package in the following format: 'location.collection.package.(version)'

privilege — Name of the privilege not held:

BINDADD or BINDADD *
The authority to create a new package using BIND with the ADD option.

BIND
The authority to BIND (REPLACE) or REBIND a package.

BIND *
The authority to add a new version of an existing package using BIND with the ADD option.

FREE
There is no FREE privilege, but the user needs the proper authority to free the package.

COPY
The authority to COPY from the indicated package.

CREATE IN or CREATE IN *
The authority to create a package in the indicated collection.

A blank and asterisk (*) in the privilege values 'BINDADD *', 'BIND *', and 'CREATE IN *' in the message indicates that the DB2 system parameter BIND NEW PACKAGE has the value BIND. When ' *' does not appear in these privilege values, BIND NEW PACKAGE has the value BINDADD.

The system parameter BIND NEW PACKAGE affects the authorization required to add a new package or a new version of an existing package to a collection. For more information about this system parameter, see:

- "Installing, Migrating, and Updating System Parameters" (Panel: DSNTIPP) in Section 2 of *Installation Guide*.
- "Controlling Access to DB2 Objects" in Section 3 (Volume 1) of *Administration Guide* .

System Action: The indicated package is not bound, rebound, or freed.

System Programmer Response: You must grant the indicated privilege to the authorization ID of the package owner.

DSNT236I REBIND FOR PACKAGE *package-name* **FAILED BECAUSE IBMREQD OF** *ibmreqd* **IS INVALID**

Explanation: The IBMREQD column of the SYSIBM.SYSPACKAGE catalog table for the named package contains an unrecognizable character. This usually means that the package depends on a function of DB2 which is not supported by the currently active release.

This message is issued by the following CSECT: DSNTBRB2

package-name — Name of the package in the following format: 'location.collection.package.(version)'

System Action: The package was not rebound.

System Programmer Response: Warn users not to use the package until the DB2 subsystem is remigrated to the newer release.

DSNT237I BIND ADD ERROR USING *auth-id* AUTHORITY PACKAGE = *package-name* ALREADY EXISTS

Explanation: An attempt is made to add a package that already exists. The combination of 'location.collection.package.version' must be unique in the SYSIBM.SYSPACKAGE table. In addition, the combination of 'location.collection.package.consistency-token' must be unique.

auth-id — Authorization ID of the owner of the package.

package-name — Name of the package in the following format: 'location.collection.package.(version)'

This message is issued by the following CSECT: DSNTBCM2

System Action: No package is created.

System Programmer Response: Check the SYSIBM.SYSPACKAGE catalog table for names of existing application packages. Re-invoke the BIND subcommand with a 'location.collection.package.version' that is not in use.

DSNT238I *bind-type error-type* USING *auth-id* AUTHORITY PACKAGE = *package-name* DOES NOT EXIST

Explanation: The indicated subcommand was issued against a package that does not exist. The individual variable fields contain:

bind-type — Type of bind subcommand (BIND COPY | BIND REPLACE | REBIND | FREE| BIND PLAN | REBIND PLAN | DROP PACKAGE). If BIND or REBIND PLAN is specified, the package-name refers to a package on the PKLIST for the plan.

error-type — Type of error: WARNING or ERROR.

auth-id — Authorization ID of the invoker of the BIND subcommand.

package-name — Name of the package in the following format 'location.collection.package.(version)'.

This message is issued by the following CSECTs:

DSNTBFR2 DSNTBRB2 DSNTBCM3

System Action: Package not rebound or freed.

System Programmer Response: Check the SYSPACKAGE catalog table for the correct 'location.collection.package.version' to use.

DSNT239I PLAN *plan-id* CONTAINS NO DBRMS AND NO PACKAGES

Explanation: A plan with no DBRMs was rebound with the NOPKLIST option specified. This creates an empty plan. No SQL can be executed. The individual variable fields contain:

plan-id — Plan name specified on the REBIND command.

This message is issued by the following CSECT: DSNTBRB

System Action: This is a warning message. The REBIND process will continue.

System Programmer Response: If an empty plan is not desired, reissue the REBIND command with the PKLIST keyword specifying a new list.

DSNT240I *csect-name bind-type* ERROR, ASTERISK NOT ALLOWED ON REMOTE *bind-type* PACKAGE

Explanation: When remotely rebinding or freeing a package, an asterisk (*) cannot be specified anywhere in the name of a package. In other words, it is not possible to remotely rebind or free multiple packages.

System Programmer Response: Remove the asterisk and rebind, or free a specific package. Refer to *Command Reference* for the correct syntax for REBIND or FREE PACKAGE.

DSNT241I *bind-type* AUTHORIZATION *error-type* ON PLAN *plan-id* AUTHORIZATION ID *auth-id* NOT AUTHORIZED TO EXECUTE PACKAGE = *package-name*

Explanation: The indicated authorization ID does not have EXECUTE authority on the specified package in the package list.

bind-type — Type of bind subcommand: BIND or REBIND

error-type — Type of error: WARNING or ERROR. If VALIDATE(BIND) was specified, this is an ERROR message. Otherwise, it is a WARNING message.

plan-id — Name of application plan specified in the subcommand.

auth-id — Authorization ID of the plan owner.

package-name — Name of the package (collection.package). The location of the package is the local DB2 location name.

This message is issued by the following CSECT: DSNTBBP

System Action: If the bind subcommand was invoked with VALIDATE(BIND), the BIND or REBIND operation is not performed. If VALIDATE(RUN) was used then the BIND or REBIND operation will continue.

System Programmer Response: The indicated plan owner should be granted the EXECUTE privilege on the package.

DSNT242I *bind-type* ERROR USING *auth-id* AUTHORITY NO BIND OR REBIND SUBCOMMANDS ARE ALLOWED FOR THIS AUTHID

Explanation: The authorization ID is not allowed to perform the indicated 'bind-type' against a plan or package because entries in the RLST table prohibit binding and rebinding by this authorization ID, or all authorization IDs.

bind-type — Type of bind subcommand: BIND or REBIND

auth-id — Authorization ID of the plan or package owner.

This message is issued by the following CSECTs: DSNTBCM, DSNTBAS

System Action: The plan or package is not bound or rebound.

System Programmer Response: If the indicated authorization ID should be allowed to bind, change the entry in the active RLST table.

DSNT243 BIND ERROR FOR PACKAGE = *pkg-id* CONTOKEN = *'contoken'*X IS NOT UNIQUE SO IT CANNOT BE CREATED

Explanation: An attempt is made to add or replace a package with a consistency token that is not unique for that package. In other words, the combination of 'location.collection.package.consistency-token' already exists.

pkg-id Fully qualified name of the package.

contoken Consistency token in hexadecimal.

This message is issued by the following CSECTs: DSNTBCM2, DSNTBMSG

System Action: The BIND will fail.

System Programmer Response: Check the SYSIBM.SYSPACKAGE catalog table for names of existing application packages with the indicated consistency token. Re-issue the BIND subcommand such that the 'location.collection.package.consistency-token' is unique within the catalog. The following SQL statement can be used to query the catalog,

```
SELECT COLLID,NAME
FROM loc-id.SYSIBM.SYSPACKAGE
WHERE HEX(CONTOKEN) = 'contokn';
```

DSNT244I *bind-type* ERROR *keyword* KEYWORD IS NOT SUPPORTED FOR REMOTE PROCESSING

Explanation: The indicated keyword is not supported for the remote bind or rebind subcommand.

bind-type Type of bind subcommand: BIND or REBIND

keyword Name of the keyword that is not supported.

This message is issued by the following CSECT: DSNTBAP

Programmer Response: Check *Command Reference* for the correct syntax.

DSNT245I LOCATION *location* CANNOT BE SPECIFIED. THE LOCAL DB2 IS UNDEFINED

Explanation: Since the local DB2 location name is undefined, no location name may be given when specifying a package name on a bind subcommand.

location Location specified on the bind subcommand.

This message is issued by the following CSECTs: DSNTBAP, DSNTBAP2

System Action: The bind subcommand was not performed.

System Programmer Response: The location name of the local DB2 must be defined in BSDS if the location is used in the BIND, REBIND, or FREE subcommand.

DSNT246I *bind-type* FOR PACKAGE *package-name* WITH MARK *release-dependency-mark* FAILED BECAUSE PACKAGE DEPENDS ON FUNCTIONS OF THE RELEASE FROM WHICH FALL BACK HAS OCCURRED

Explanation: The named package depends on a function of DB2 which is not supported by the currently active release.

bind-type Type of bind subcommand: REBIND

package-name Name of the package in the following format: 'location.collection.package.(version)'

release-dependency-mark A one-character mark showing the oldest release of the DB2 which can support this package. The release dependency mark for the package is kept in the IBMREQD column in the DB2 catalog in SYSIBM.SYSPACKAGE.

This message is issued by the following CSECT: DSNTBRB2

System Action: The 'bind-type' operation for this package is not performed.

User Response: The package cannot be bound until the DB2 subsystem is remigrated to the newer release.

System Programmer Response: Warn users not to use plans containing this package until the DB2 subsystem has been remigrated to the newer release.

DSNT247I *bind-type* ERROR *object-type* NOT FOUND FOR *object-type = object-name*

Explanation: You attempted to FREE or REBIND multiple plans or packages using the asterisk (*) but no plans or packages were found.

bind-type Type of bind subcommand: REBIND or FREE

object-type Type of object to be freed or rebound: PLAN or PACKAGE

object-name If object-type is PLAN, object-name is the name of the application plan. Otherwise, it is the name of the package in 'location.collection.package' format.

This message is issued by the following CSECTs:

DSNTBRB DSNTBRB2 DSNTBFR DSNTBFR2

System Action: The REBIND or FREE operation is not performed.

User Response: Check the plan or package name. If it is correct, no plans or packages were found and no operation can be performed; otherwise, correct the plan or package name and reissue the REBIND or FREE subcommand.

DSNT249I *csect-name bind-type* WARNING FOR PLAN *plan-name keyword* LOCATION-ID *location-id* NOT FOUND IN SYSIBM.LOCATION

Explanation: A 'location-id' was specified on the PKLIST or CURRENTSERVER keyword on a bind subcommand. That location is not defined in the SYSIBM.LOCATIONS table.

bind-type Type of bind subcommand: BIND or REBIND

plan-name Name of the plan

keyword The bind subcommand containing the nonexistent location: PKLIST or CURRENTSERVER

location-id The nonexistent location

System Action: The bind process will continue.

System Programmer Response: Define the appropriate 'location-ids' in the SYSIBM.LOCATION catalog table prior to executing the plan.

DSNT250I BIND UNABLE TO OPEN DBRM LIBRARY USING *authorization-id* **AUTHORITY** *object-type = object-name*

Explanation: The BIND subcommand was unable to open the DBRM partitioned data set(s).

authorization-id	Authorization ID of the invoker of the BIND subcommand.
object-type	PLAN | PACKAGE
object-name	If 'object-type' is PLAN, 'object-name' is the name of the application plan. Otherwise, it is the name of the package in 'location.collection.package' format.

This message is issued by the following CSECT: DSNTBAP1

User Response: Contact the system programmer, providing all material associated with the error.

System Programmer Response: Determine why the BIND subcommand was unable to open the DBRM library, and correct the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 32.

DSNT251I BIND UNABLE TO LOCATE DBRM LIBRARY MEMBERS USING *authorization-id* **AUTHORITY** *object-type = object-name*

Explanation: The BIND subcommand received an I/O error while attempting to locate the specified DBRM library member(s).

authorization-id	Authorization ID of the invoker of the BIND subcommand.
object-type	PLAN | PACKAGE
object-name	If object-type is PLAN, object-name is the name of the application plan. Otherwise, it is the name of the package in 'location.collection.package' format.

This message is issued by the following CSECT: DSNTBAP1

System Programmer Response: Correct the reason for the I/O error, and reissue the BIND subcommand.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 32.

DSNT252I *csect-name bind-type* **PARAMETERS FOR PLAN** *plan-name*

ACTION	*bind-option1*	*bind-option2*
OWNER	*bind-option3*	
VALIDATE	*bind-option4*	
ISOLATION	*bind-option5*	
ACQUIRE	*bind-option6*	
RELEASE	*bind-option7*	
EXPLAIN	*bind-option8*	
DYNAMICRULES	*bind-option9*	

Explanation: This message shows the BIND or REBIND options that were used for the plan specified by *plan-name* during bind or rebind processing.

Severity: 0 (informational)

DSNT253I *csect-name bind-type* **PARAMETERS FOR PLAN** *plan-name*

bind-option1	PREPARE
CACHESIZE	*bind-option2*
QUALIFIER	*bind-option3*
CURRENTSERVER	*bind-option4*
CURRENTDATA	*bind-option5*
DEGREE	*bind-option6*
SQLRULES	*bind-option7*
DISCONNECT	*bind-option8*
(REOPT | NOREOPT)	VARS
KEEPDYNAMIC	*bind-option9*

Explanation: This message shows the BIND or REBIND options that were used for the plan specified by *plan-name* during bind or rebind processing.

Severity: 0 (informational)

DSNT254I *csect-name bind-type* **OPTIONS FOR**

PACKAGE	*=package-name*
ACTION	(ADD | REP)
OWNER	*owner*
QUALIFIER	*qualifier*
VALIDATE	(BIND | RUN)
EXPLAIN	(NO | YES)
ISO	(RR | CS | blank)
RELEASE	(COMMIT | DEALLOCATE | blank)
COPY	*package-name*

Explanation: This message shows the BIND or REBIND options that were used for the local package specified by *package-name* during bind or rebind processing.

Severity: 0 (informational)

DSNT255I *csect-name bind-type* **OPTIONS FOR**

PACKAGE	*package-name*
SQLERROR	*bind-option1*
CURRENTDATA	*bind-option2*
DEGREE	*bind-option3*
DYNAMICRULES	*bind-option4*
(DEFER | NODEFER)	PREPARE
(REOPT | NOREOPT)	VARS
KEEPDYNAMIC	*bind-option5*

Explanation: This message shows the BIND or REBIND options that were used for the local package specified by *package-name* during bind or rebind processing.

Severity: 0 (informational)

DSNT256I DBRM MEMBER *member-name* **IS EMPTY, A PACKAGE CANNOT BE BOUND**

Explanation: The named DBRM member is empty, a package cannot be created.

This message is issued by the following CSECT: DSNTBCM

System Action: No package is created.

DSNT257I BIND ERROR, PACKAGE *package-name* **CANNOT BE CREATED BECAUSE IT HAS THE SAME NAME AS THE PACKAGE BEING COPIED**

Explanation: The location and collection-id of the package being created are the same as the local location and the collection-id specified with the COPY keyword. You cannot create a package that is the same name as the package being copied.

package-name Name of the package (location.collection.package.(version))

This message is issued by the following CSECT: DSNTBAP

System Action: The package is not bound.

System Programmer Response: Choose a different collection id for the package you are creating and resubmit the subcommand.

DSNT258I *bind-type* **WARNING FOR PLAN** *plan-name* **THE LOCATION-ID** *location-id* **SPECIFIED IN CURRENTSERVER MAY NEED A PACKAGE LIST**

Explanation: If binding a PLAN with a nonlocal location specified in the CURRENTSERVER, a package list is required using the PKLIST keyword to access any packages at the location specified.

bind-type Type of bind subcommand: BIND or REBIND

plan-name Name of plan

location-id Location of CURRENTSERVER

This message is issued by the following CSECTs: DSNTBCM, DSNTBRB

System Action: The bind process will continue.

System Programmer Response: Add a package list with package(s) that reference the location specified in the CURRENTSERVER or delete the CURRENTSERVER from the BIND or REBIND subcommand.

DSNT259I *bind-type* **WARNING FOR PLAN** *plan-name* **NO PACKAGES IN THE PACKAGE LIST REFERENCE THE LOCATION-ID** *location-id* **SPECIFIED IN CURRENTSERVER**

Explanation: There are no packages in the package list that reference the location specified in the CURRENTSERVER keyword.

bind-type Type of bind subcommand: BIND or REBIND

plan-name Name of plan

location-id Location of CURRENTSERVER

This message is issued by the following CSECT: DSNTBCM3

System Action: The bind process will continue.

System Programmer Response: Change 'location-ids' for the packages in the package list to reference the location in the CURRENTSERVER or change the location specified in CURRENTSERVER.

DSNT260I *csect-name bind-type* **- THE SUBMITTED PARAMETERS RESULT IN AN INVALID COMBINATION OF** *bind-option1* **AND** *bind-option2* **FOR** *object-type = object-name*

Explanation: The BIND or REBIND subcommand has been submitted with an invalid combination of bind option or parameter values.

bind-type Type of bind subcommand: BIND or REBIND.

object-type PLAN or PACKAGE

object_name If *object-type* is PLAN, *object-name* is the name of the application plan. If *object_type* is PACKAGE, *object_name* is the name of the package in the format 'location-id.collection-id.package-id'.

bind-option1 and *bind-option2*
The invalid combination of bind option values, where *bind-option1* and *bind-option2* are each an option name and value.

If *object-type* is PLAN, then one of the following applies:

- *bind-option1* was used on the REBIND subcommand and *bind-option2* exists in the SYSIBM.SYSPLAN catalog table for PLAN *object-name*, or
- *bind-option2* was used on the REBIND subcommand and *bind-option1* exists in the SYSIBM.SYSPLAN catalog table for PLAN *object-name*.

If *object-type* is PACKAGE, then one of the following applies:

- *bind-option1* was used on the BIND COPY or REBIND subcommand and *bind-option2* exists in the SYSIBM.SYSPACKAGE catalog table for PACKAGE *object-name*, or
- *bind-option2* was used on the BIND COPY or REBIND subcommand and *bind-option1* exists in the SYSIBM.SYSPACKAGE catalog table for PACKAGE *object-name*.

The combination of *bind-option1* and *bind-option2* is not supported by DB2.

System Action: The BIND or REBIND process is terminated for the indicated plan or package.

User Response: Refer to *Command Reference* for valid combinations of the indicated bind option values, and reissue the BIND or REBIND subcommand with a valid combination.

Problem Determination: See the Explanation section of this message.

DSNT261I *bind-type* **WARNING FOR** *object-type = object-name* **ALL CONNECTION TYPES ARE DISABLED**

Explanation: All possible connection types are disabled. The plan or package cannot be executed.

bind-type Type of bind subcommand: BIND or REBIND

object-type PLAN or PACKAGE

object-name If object-type is PLAN, object-name is the name of the application plan. Otherwise, it is the name of the package in 'location.collection.package' format.

This message is issued by the following CSECTs: DSNTBAP, DSNTBAPM

System Action: The bind process will continue.

System Programmer Response: Delete one or more connection types from DISABLE clause or add a list of connection names associated with one of the connection types

(DLIBATCH, CICS, IMSBMP, IMSMPP, or REMOTE. REMOTE is only valid for BIND/REBIND PACKAGE)

DSNT262I *csect bind-type* **WARNING - ISOLATION** *old-iso* **NOT SUPPORTED. CHANGING TO ISOLATION** *new-iso*

Explanation: DB2 does not support the isolation level specified on the local BIND or REBIND PACKAGE subcommand. The isolation level specified by *new-iso* is used instead.

Severity: 4

System Action: Processing continues

User Response: If the new isolation level is not satisfactory, change the ISOLATION option on the BIND or REBIND PACKAGE subcommand and rebind the package. Use a value that DB2 supports.

DSNT263I *csect-name bind-type* **FOR** *object-type = object-name* **FAILED BECAUSE THE** *bind-type* **DEPENDS ON FUNCTIONS IN A LATER DB2 RELEASE WITH MARK** *release-dependency-mark* **OR HIGHER**

Explanation: The current DB2 does not support a bind option or feature specified in the indicated bind subcommand. The bind option or feature depends on functions in a later DB2 release.

bind-type Type of bind subcommand: BIND or REBIND

object-type PLAN or PACKAGE

object-name If *object-type* is PLAN, *object-name* is the name of the plan.

If *object-type* is PACKAGE, *object-name* is the name of the package in the format 'location-id.collection-id.package-id'.

release-dependency-mark
A one-character mark indicating the oldest DB2 release that can support the bind subcommand.

This message can be issued in the following situations:

- When the DSN command explicitly or implicitly uses the name of a DB2 subsystem that does not support a bind option or feature used in the DSN bind subcommand *bind-type*, or
- When the DSN command uses a group attachment name for a DB2 data sharing group and the receiving DB2 data sharing member does not support a bind option or feature used in the DSN bind subcommand *bind-type*.

System Action: The *bind-type* operation is not performed.

User Response: In the DSN command, specify the name of a DB2 subsystem having release dependency mark *release-dependency-mark* or higher that supports all of the bind options or features used in the *bind-type* subcommand.

For a list of the DB2 release dependency marks and their meanings, refer to the IBMREQD column in the SYSIBM.SYSPLAN or SYSIBM.SYSPACKAGE DB2 catalog tables described in Appendix D of *SQL Reference*.

System Programmer Response: See the 'User Response' section of this message.

DSNT270I THE FOLLOWING SQLCA INFORMATION WAS RETURNED FROM *subsystem*

SQLCODE = sqlcode
SQLSTATE = sqlstate
SQLERRMT = tokens
SQLWARN = warn_fields

Explanation: A warning or error has been received from a database server using Advanced SQL protocols (ASP) of the Distributed Relational Database Architecture (DRDA), during remote program BIND processing. The tokens of the message are:

1. subsystem - the database server,
2. sqlcode - SQL return code,
3. sqlstate - additional set of return codes common to the four relational products,
4. tokens - specific tokens passed in the message portion of the SQLCA for problem determination, and
5. warn_fields - the warning information indicators.

This message is issued by the following CSECT: DSNLXMSG

System Action: See the System Action associated with the indicated SQL return code.

System Programmer Response: See the Programmer Response associated with the indicated SQLCODE and/or SQLSTATE. Take note of the warning or error (as indicated in the SQLCODE, SQLSTATE, or one or more of the SQLWARN fields), and determine if a program change is necessary. SQLWARNx fields are described in Appendix C of *SQL Reference* . A change to the application may be necessary or the system programmer may have to be consulted depending on the situation.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

DSNT271I THE FOLLOWING SQLCA INFORMATION WAS RETURNED FROM *subsystem*

SQLCODE = sqlcode
SQLSTATE = sqlstate
SQLERRMT = tokens
SQLWARN = warn_fields
STATEMENT = stmt_num

Explanation: A warning or error has been received from a database server using advanced SQL protocols (ASP) of the Distributed Relational Database Architecture (DRDA), during remote program BIND processing. The tokens of the message are:

1. subsystem - database server,
2. sqlcode - SQL return code,
3. sqlstate - additional set of return codes common to the four relational products,
4. tokens - specific tokens passed in the message portion of the SQLCA for problem determination,
5. warn_fields - the warning information indicators, and
6. stmt_num - the statement number of the failing statement.

This message is issued by the following CSECT: DSNLXMSG

System Action: See the System Action associated with the indicated SQLCODE.

System Programmer Response: Take note of the warning or error (as indicated in the SQLCODE, SQLSTATE, or one or more of the SQLWARN fields), and determine if a program change is necessary. SQLWARNx fields are described in Appendix C of *SQL Reference* . A change to the application may be necessary or the system programmer may have to be consulted depending on the situation.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

DSNT300I AUTH-ID *authorization-id* **NOT AUTHORIZED TO PERFORM** *function* **ON DATABASE** *dbname***. REQUEST REJECTED**

Explanation: The invoker’s 'authorization-id' as designated by AUTHORIZATION ID is not authorized to perform the specified database control command function on this database. The 'function' is either -START, -STOP, or -DISPLAY. The name of the database is 'dbname'.

This message is issued by the following CSECT: DSNTDMSG

System Action: The request is rejected.

User Response: Notify the system programmer.

System Programmer Response: The privilege to issue the command must be granted to the indicated 'authorization-id'.

DSNT301I INVALID DATABASE *dbname*

Explanation: The databases named in the -START, -STOP, or -DISPLAY DATABASE command do not exist. The name of the database is 'dbname'.

System Action: The request is rejected. This message may be repeated.

This message is issued by the following CSECT: DSNTDMSG

System Programmer Response: Reissue the command with a valid name.

DSNT302I INVALID NAME *spname*

Explanation: In the message, 'spname' is the name of the table space or index space. The 'spname' specified in the SPACENAM keyword on the -START, -STOP, or -DISPLAY DATABASE command does not exist.

System Action: The request is rejected. This message may be repeated.

This message is issued by the following CSECT: DSNTDMSG

System Programmer Response: Reissue the command with a valid table space name or index name.

DSNT303I SPACENAM KEYWORD ONLY VALID FOR A SINGLE DATABASE. REQUEST REJECTED

Explanation: The SPACENAM keyword may be specified only when a single database name is specified for the DATABASE keyword in the -START, -STOP, and -DISPLAY DATABASE command.

This message is issued by the following CSECT: DSNTDMSG

System Action: The request is rejected.

System Programmer Response: Reissue the command, specifying a single database name in the 'DATABASE' keyword.

DSNT304I *csect-name* **INSTALLATION SYSOPR IS NOT AUTHORIZED TO CHANGE OBJECT STATUS ON DATABASE** *dbname***. REQUEST IS REJECTED.**

Explanation: INSTALLATION SYSOPR is not authorized to perform the START DATABASE command function on this database because the command can change an objects status in this database. INSTALL SYSOPR can use the START DATABASE command only to recover LPL pages or GRECP objects. The name of the database is *dbname*.

System Action: The request is rejected.

Operator Response: Reissue the -START DATABASE command using the correct access mode or contact your system programmer.

DSNT305I SUBSYSTEM FAILURE DURING *command-name* **DATABASE COMMAND PROCESSING. RC =** *yy***, REASON =** *zz*

Explanation: An error was found while processing the -START, -STOP or -DISPLAY DATABASE command. In the message, 'command-name' is the string 'DISPLAY', 'STOP', or 'START' (depending upon the command processed).

This message is issued by the following CSECT: DSNTDMSG

System Action: Originating from CSECT DSNTDCST:

- For relational data system (RDS) subcomponent errors:
  - 'yy' is a 4-byte return code of 8.
  - 'zz' is a 4-byte abend code of '00E30085'.
- For data manager (DM) subcomponent errors:
  - 'yy' is a 4-byte return code consisting of a 2-byte return code and a 2-byte reason code returned by the data manager function invoked by DSNTDCST.
  - 'zz' is a 4-byte abend code '00E30086'.

  A record is written to SYS1.LOGREC, and an SVC dump is requested before the execution unit is abended.

Originating from CSECT DSNTDDIS:

- 'yy' is a 4-byte return code of 12.
- 'zz' is a 4-byte abend code of '00E30089'.

  The request is abended.

Originating from CSECTs DSNTDMUL or DSNTDMSG:

- 'yy' is a 4-byte return code returned by the message generator.
- 'zz' is a 4-byte abend code of '00E30084'.

  The request is abended.

System Programmer Response: Refer to “Section 4. DB2 Codes” on page 4-1 for the particular abend reason code issued.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 17.

DSNT306I RESPONSE MESSAGE LIMIT HAS BEEN REACHED

Explanation: A fixed amount of space exists in which to generate DISPLAY, START, or STOP database command messages. This message indicates that the DISPLAY, START, or STOP database command that was specified generated more messages than will fit in that space.

This message is issued by the following CSECT: DSNTDMSG

User Response: Specify individual databases and/or table spaces rather than specifying '*' (that is, all names).

DSNT307I INVALID RANGE SPECIFICATION *string1* **IS GREATER THAN** *string2*

Explanation: A range was specified on a DISPLAY DB(string1:string2) or DISPLAY DB(..) SPACENAM(string1:string2) command or on a database command (START DB, STOP DB, or DISPLAY DB) on PART(string1:string2) keywordwhere the first string, specified alphanumerically, collates after the second string.

This message is issued by the following CSECT: DSNTDMSG

User Response: Specify the command again. Make sure the first string does not alphanumerically collate after the second string specified.

DSNT308I AFTER KEYWORD ONLY VALID FOR A SINGLE DATABASE OR A SINGLE TABLESPACE/INDEXSPACE WITHIN A DATABASE. REQUEST REJECTED

Explanation: The AFTER keyword may be specified by one of the following:

- A single database name after the keyword DATABASE
- A single table space name or index space name after the keyword SPACENAM.

This message is issued by the following CSECT: DSNTDMSG

User Response: Specify the command correctly.

DSNT309I *csect-name object_name* **IS CURRENTLY** *state***.**

Explanation: One of the following is already in the requested state:

- A database listed in START DB(list) or STOP DB(list)
- A table space listed in START DB(name) SPACENAM(list) or STOP DB(name) SPACENAM(list)
- An index space listed in START DB(name) SPACENAM(list) or STOP DB(name) SPACENAM(list)
- A partition of a partitioned table space listed in START DB(list) SPACENAM(list) PART(n), STOP DB(list) SPACENAM(list) PART(n), START DB(list) SPACENAM(list), or STOP DB(list) SPACENAM(list)

In the message:

- The 'object' is the database, table space, index space or partition number with table space name or the index space name.
  - TABLESPACE, if the specified table space was currently in the requested state
  - INDEXSPACE, if the specified index space was currently in the requested state
  - DATABASE, if the database was currently in the requested state
  - PARTITION, if the specified partition of a partitioned table space or partitioned index was currently in the requested state
- The 'state' is:
  - START RW, if the specified object is currently started read/write
  - START RO, if the specified object is currently started read only
  - START UT, if the specified object is currently started for utility processing
  - STOPPED, if the specified object is currently stopped or is stopping
  - STOP PENDING, if the specified object currently is in stop pending status.

If there are pages in the logical page list (LPL) for the object, or if the object is in group buffer pool recovery pending (GRECP) status, a START DATABASE ACCESS(RO) or START DATABASE ACCESS(RW) command triggers a recovery of that object even if this message is issued for that object. For each object that has LPL or GRECP recovery that is initiated, DB2 issues a DSNI006 message followed by either a DSNI021 message (when the recovery completes successfully) or a DSNI005 message (when the recovery is unsuccessful).

User Response: No response is necessary. This message is informational only.

DSNT310I *csect-name* **ALL** *object* **CURRENTLY** *state***.**

Explanation: A database and all of its table spaces and index spaces are already in the requested state. This occurred following the processing of one of these commands:

- START DB(*)
- STOP DB(name)
- START DB(name) SPACENAM(*)
- STOP DB(name) SPACENAM(*).

In this message:

- The 'object' is either:
  - TABLESPACE(S) if the specified table space was currently in the requested state
  - INDEXSPACE(S) if the specified index space was currently in the requested state
  - DATABASE(S) if the database was currently in the requested state.
- The 'state' is either:
  - START RW if the specified table space is currently started read/write
  - START RO if the specified table space is currently started read only
  - START UT if the specified table space is currently started for utility processing
  - STOPPED if the specified table space is currently stopped, has a stop pending against it, or is stopping.

If there are pages in the logical page list (LPL) for the object, or if the object is in group buffer pool recovery pending (GRECP) status, a START DATABASE ACCESS(RO) or

START DATABASE ACCESS(RW) command triggers a recovery of that object even if this message is issued for that object. For each object that has LPL or GRECP recovery that is initiated, DB2 issues a DSNI006 message followed by either a DSNI021 message (when the recovery completes successfully) or a DSNI005 message (when the recovery is unsuccessful).

User Response: No response is necessary. This message is informational only.

DSNT311I MESSAGE LIMIT EXCEEDED. DISPLAY IS TERMINATED.

Explanation: The number of messages generated exceeds the maximum number of messages specified in the LIMIT keyword or exceeds the system default.

This message is issued by the following CSECT: DSNTDMSG

DSNT312I *object name* **MUST BE STARTED RW. NO ACTION TAKEN.**

Explanation: The ACCESS keyword is either RO or UT, and the object must be started ACCESS (RW).

In the message, 'object' is either:

- TABLESPACE(S) IN if the START DB(name) SPACENAM(...) is specified, or
- DATABASE if the START DB(name) is specified.

This message is issued by the following CSECT: DSNTDMSG

DSNT313I ACCESS(FORCE) IS VALID ONLY WITH EXPLICIT TABLESPACE OR INDEXSPACE NAMES. COMMAND IS REJECTED

Explanation: The ACCESS(FORCE) keyword can be specified when either:

- A single table space or index space name appears after the keyword SPACENAM in a START DATABASE command.
- A list of table space and/or index space names appears after the keyword SPACENAM in a START DATABASE command.

This message is issued by the following CSECT: DSNTDMSG

Operator Response: Specify the command correctly.

DSNT314I *csect_name* **INVALID PARTITION SPECIFICATION FOR OBJECT** *object-name*

Explanation: The PART keyword is invalidly specified in a START DATABASE, STOP DATABASE, or DISPLAY DATABASE command.

The PART keyword is invalid if it is specified for:

- A nonpartitioned table space
- A nonpartitioned type 1 index
- A type 2 index not defined on a partitioned table space

The object *object-name* can be either a table space or an index space.

No action for this table space or index space is performed by the START DATABASE, STOP DATABASE or DISPLAY DATABASE command. Any other valid table space or index space specified is processed by the command.

Severity: 8 (error)

System Action: The desired command is not processed for the table space or index space in question. All other valid table spaces or index spaces specified in the command are processed.

User Response: Resubmit the command for the nonpartitioned table space or index space without using the PART keyword.

Problem Determination: SYSIBM.SYSTABLESPACE in the DB2 catalog indicates whether a table space is partitioned. SYSIBM.SYSINDEXSPACE in the DB2 catalog indicates whether an index space is partitioned and whether the index space is a type 1 or a type 2 index. Type 2 nonpartitioned indexes can be started, stopped, or displayed at the logical partition level; type 1 cannot.

DSNT315I *csect_name* **INVALID PARTITION NUMBER OR RANGE SPECIFIED -** *part-num***FOR OBJECT** *object-name*

Explanation: An invalid partition number or range was specified in the PART keyword for a START DATABASE, STOP DATABASE or DISPLAY DATABASE command.

Partition number or range *part-num* is invalid for the object *object-name*.

Severity: 8 (error)

System Action: The part number or range is ignored. All other valid partitions specified are processed if PART was specified as list.

User Response: Determine the correct partition specification for the table space or index that was the subject of the specified command and resubmit the command.

Problem Determination: SYSIBM.SYSTABLESPACE in the DB2 catalog indicates the correct range of partition numbers for the table space. SYSIBM.SYSINDEXSPACE in the DB2 catalog indicates whether an index space is partitioned and whether the index space is a type 1 or a type 2 index. Type 2 indexes can be started, stopped, or displayed at the logical partition level; type 1 cannot.

DSNT316I *csect-name* **A LOGICAL PARTITION OF AN INDEX WHICH HAS PAGES IN THE LPL OR HAS BEEN MARKED GRECP CANNOT BE STARTED FOR RW OR RO ACCESS**

Explanation: The START DATABASE command was specified for a logical partition of a nonpartitioned index which has pages in the logical page list (LPL) or is marked group buffer pool recovery pending (GRECP). To start a nonpartitioned index with one of these exception conditions, the START DB command must be specified without the PART keyword.

Severity: 8 (error)

System Action: The command is not processed for the index space. All other valid table spaces or index spaces specified in the command are processed.

User Response: Submit the command for the nonpartitioned index space without using the PART keyword.

Problem Determination: If more information on the status of the index space is required, use the -DISPLAY DATABASE command.

DSNT317I *csect-name* **ANY USER-DEFINED INDEXES ON DSNDB06 COULD NOT BE** *cmd-type* **DUE TO A RESOURCE UNAVAILABLE ON THE CATALOG OR DIRECTORY.**

Explanation: If user-defined indexes exist on DSNDB06, they could not be displayed, started or stopped (depending on *cmd-type*) because the catalog or directory was not available. DB2-defined indexes and table spaces are not affected by this unavailability.

Programmer Response: When you get this message, correct the resource unavailable problem and reissue the command.

System Action: Any user-defined indexes on DSNDB06 were not affected by the command issued. All other table spaces and index spaces were processed by the command.

DSNT331I *csect-name***DATABASE** *name* **AND ANY SPACE IT CONTAINS CANNOT BE STOPPED. IT IS THE ACTIVE COMMUNICATIONS DATABASE**

Explanation: The database specified in the message cannot be stopped because it is the active communications database. In addition, spaces within the active communications database cannot be stopped.

System Action: Nothing is stopped.

Operator Response: If the database or any space within it must be stopped, you must stop the distributed data facility (STOP DDF). In a DB2 data sharing environment, you must stop the distributed data facility on all members of the DB2 data sharing group.

DSNT332I TABLESPACES AND INDEXSPACES ARE UNAVAILABLE BECAUSE DATABASE name IS STOPPED

Explanation: The database 'name' is currently marked as stopped. Consequently, its table spaces and index spaces are unavailable even though they may have been started.

This message is issued by the following CSECT: DSNTDMSG

DSNT350I –luw-id ACCESSING DATA FOR location

Explanation: This message follows message DSNT394I or DSNT396I for each thread reported that is participating in distributed data access (database access thread). This additional line reports the distributed identification as follows:

luw-id=token	The logical-unit-of-work identifier (LUW-ID) is a unique identifier that is assigned to the thread followed by an '=' sign and a token. The token can be used in place of luw-id in any DB2 command that accepts luw-id as input.
location	The LOCATION name assigned to the requesting site.

The message number and subsystem recognition character are not included in this message.

This message is issued by the following CSECT: DSNTDMUL

DSNT358I *csect_name* **INVALID PARTITION SPECIFICATION FOR OBJECT** *object-name*

Explanation: Specification of the PART keyword in a DISPLAY DATABASE command is invalid.

The PART keyword is invalid if it is specified for:

- A nonpartitioned table space
- A nonpartitioned type 1 index
- A type 2 index not defined on a partitioned table space

The object *object-name* can be either a table space or an index space.

No action for this table space or index space is performed by the DISPLAY DATABASE command. Any other valid table space or index space specified is processed by the command.

Severity: 8 (error)

System Action: The desired command is not processed for the table space or index space in question. All other valid table spaces or index spaces specified in the command are processed.

User Response: Resubmit the command for the nonpartitioned table space or index space without using the PART keyword.

Problem Determination: SYSIBM.SYSTABLESPACE indicates whether a table space is partitioned. SYSIBM.SYSINDEXSPACE indicates whether an index space is partitioned and whether the index space is a type 1 or a type 2 index. Type 2 nonpartitioned indexes can be displayed at the logical partition level; type 1 indexes cannot.

DSNT359I *csect_name* **INVALID PARTITION NUMBER SPECIFIED -** *part-num* **FOR OBJECT** *object-name*

Explanation: An invalid partition number was specified in the PART keyword for a DISPLAY DATABASE command.

Partition number *part-num* is invalid for the object *object-name*.

Severity: 8 (error)

System Action: The part number is ignored. All other valid partitions specified are processed.

User Response: Determine the correct partition specification for the table space or index that was the subject of the specified command and resubmit the command.

Problem Determination: SYSIBM.SYSTABLESPACE in the DB2 catalog indicates the correct range of partition numbers for the table space. SYSIBM.SYSINDEXSPACE in the DB2 catalog indicates whether an index space is partitioned and whether the index space is a type 1 or a type 2 index. The PART keyword can be used to display the status of logical partitions of type 2 indexes but not type 1 indexes.

DSNT360I **********

Explanation: This message consists of 35 asterisks that begin the display of any database and the display of space names for any database.

This message is issued by the following CSECT: DSNTDMSG

DSNT361I *DISPLAY DATABASE SUMMARY* report-type-list

Explanation: This message is a multiple-line message that labels the requested set of databases, table spaces, and index spaces.

In the message, 'report-type-list' lists all options specified on the command delimited by spaces. Possible values are:

ACTIVE	All allocated databases are listed.
GLOBAL	All requested database information is listed. This title is produced if ACTIVE, DISABLED, and RESTRICT are omitted.
LOCKS	The connection identifiers and correlation identifiers of all applications holding, retaining, or waiting for locks on the specified table spaces or index spaces are displayed.
RESTRICT	All databases with restricted usage (that is, RO, started UT) are listed.
USE	The connection identifiers and correlation identifiers of all allocated applications are listed.
CLAIMERS	The connection identifiers and correlation identifiers of all applications holding claims on the specified database are displayed.
LPL	The page number ranges of the pages that are included in the logical page list for the table space or index space.

This message is issued by the following CSECT: DSNTDMSG

DSNT362I DATABASE = *data-base-name* STATUS = *status* DBD LENGTH = *dbd-length*

Explanation: This message signals the beginning of display information from the DISPLAY DATABASE command. It lists the name, status, and DBD length of the database. All table space and index space names listed in the following DSNT392I, DSNT394I, or DSNT396I messages are contained within this database.

data-base-name The database name.

status A combination of one or more of the following strings delimited by a comma. The maximum length of the string is 18 characters.

RO	The database is started for read activity only.
RW	The database is started for read and write activity.
STOP	The database is stopped.
STOPP	A stop is pending or is in progress for this database.
UT	The database is started for utility processing only.

This message is issued by the following CSECT: DSNTDMSG

DSNT363I PHYSICAL ERROR PAGE RANGE FOR DATA SET data-set-name LOW=lowphy, HIGH=hiphy

Explanation: This message is the response to a -DISPLAY DATABASE command when the SPACENAM keyword is specified in order to notify the user of any physical I/O errors encountered on a data set.

In the message, 'data-set-name' is the name of the data set with errors. The variables 'lowphy' and 'hiphy' identify the range of physical pages, within the data set, that were being read when the I/O errors occurred. Physical page numbers are assigned in relationship to the beginning of the data set in which the pages reside.

This message is always preceded by messages DSNT360I and DSNT361I, which identify the name of the database and page set that the specified data set supports.

Page sets (table spaces or index spaces) are made up of supporting data sets. Physical pages are pages in supporting data sets that are numbered from the beginning of the particular data set in which they reside. This message refers to physical pages in a data set that support (are part of) some page set.

This message is issued by the following CSECT: DSNTDCST

System Action: See the Explanation section for this message.

DSNT365I NO DATABASES FOUND

Explanation: This message is produced when a DISPLAY DB(name) is entered and no databases were found to satisfy the request.

This message is issued by the following CSECT: DSNTDMSG

System Action: The process continues normally.

DSNT366I DATABASE name NOT type

Explanation: A database listed in the DISPLAY DB(...) is not of the correct type. The variables are as follows:

name	The name of the object.
type	The type of request specified: ACTIVE, RESTRICTED, ACTIVE OR RESTRICTED

Note that either DSNT301I or DSNT302I is produced if no object is found and the keywords ACTIVE and RESTRICT are omitted.

This message is issued by the following CSECT: DSNTDMSG

System Action: Processing continues normally.

DSNT367I NO INFORMATION AVAILABLE

Explanation: This message is produced when there is no LOCK or USE information available. When DISPLAY DB(...) is entered, and DB(...) is a list of databases or a list of names, this message indicates that no listed database has LOCK or USE information available.

If DISPLAY DB(...) or DISPLAY DB(...) SPACENAM(*) is entered, and DB(...) is a range or subset of databases, or all databases ('*'), this message indicates that no databases, for which the invoker has authority to display, have LOCK or USE information available. This message is produced only when the keywords USE and LOCKS are specified.

This message is issued by the following CSECT: DSNTDMSG

System Action: The process continues normally.

DSNT375I **PLAN** *plan-id1* **WITH CORRELATION-ID** *id1* **CONNECTION-ID** *id2* **LUW-ID** *id3* **IS DEADLOCKED WITH PLAN** *plan-id2* **WITH CORRELATION-ID** *id4* **CONNECTION-ID** *id5* **LUW-ID** *id6* **ON MEMBER** *id7*

Explanation: This message is issued whenever plan 'plan-id1' with correlation 'id1', connection 'id2', and LUW 'id3' is denied an IRLM lock because of a detected deadlock. Plan 'plan-id2' identifies one of the members of the deadlock.

DB2 does not attempt to identify all survivors of a deadlock or all participants in a deadlock in the DSNT375I message. Plan 'plan-id2' in message DSNT375I might be just one of several plans holding locks or waiting for locks on the desired resource.

If multiple deadlocks are detected during the same deadlock-detection interval, the blocker identified by 'plan-id2' in one DSNT375I message might be selected to break a deadlock identified by a different DSNT375I message. The blocker identified by 'plan-id2' is not guaranteed to be a winner in all deadlocks in which it participates.

A *blocker* is the thread that is disallowing the victim from getting its lock. The blocker might be a holder of the lock, or it might be another waiter (one that came in before the victim) that is incompatible with the holder's lock.

A DB2 IFCID 172 trace record contains the information needed to determine all participants in, and survivors of, a given deadlock.

plan-id1, plan-id2
: The names of the executing plans.

id1
: The correlation identifier of the thread associated with 'plan-id1'. Correlation IDs beginning with '0nn', where 'nn' is a number from 01 to 28, identify a system agent.

id2
: The connection identifier of the thread associated with 'plan-id1'.

id3
: The logical-unit-of-work identifier of the thread associated with 'plan-id1'. An asterisk (*) indicates that the thread does not have an LUW-ID. If the LUW-ID is not an asterisk, the value is a logical-unit-of-work identifier that is assigned to the thread. It is followed by an equal (=) sign and a token value, which can be used in place of the logical-unit-of-work identifier in any DB2 command that accepts a logical-unit-of-work identifier as input.

id4
: The correlation identifier of the thread associated with 'plan-id2'.

id5
: The connection identifier of the thread associated with 'plan-id2'.

id6
: The logical-unit-of-work identifier of the thread associated with 'plan-id2'. An asterisk (*) indicates that the thread does not have an LUW-ID. If the LUW-ID is not an asterisk, the value is a logical-unit-of-work-identifier that is assigned to the thread followed by an equal (=) sign and a token value, which can be used in place of logical-unit-of-work identifier in any DB2 command that accepts logical-unit-of-work identifier as input.

id7
: Identifies the member name of the DB2 subsystem on which the thread associated with *plan-id2* is executing.

An asterisk (*) can appear for PLANID2, ID4, ID5, ID6, and ID7 if the blocking request was released by the requester or was timed out between the detection of the deadlock and reporting the deadlock.

DB2 can recover from a lock denial in some cases and can complete successfully. In such a case, the SQLCA is not filled in. One example is during setup of performance enhancements during bind time for execution time.

The SQLCA corresponding to correlation id 'id1', connection id 'id2', and LUW-ID 'id3' contains an SQLCODE of -904, -911, -913, or -923 and the name of the resource involved in the deadlock.

If you receive a system plan in this message, see the information about system plans in message DSNT376I.

This message is issued by the following CSECT: DSNTLSUS

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 18.

DSNT376I **PLAN** *plan-id1* **WITH CORRELATION-ID** *id1* **CONNECTION-ID** *id2* **LUW-ID** *id3* **IS TIMED OUT. ONE HOLDER OF THE RESOURCE IS PLAN** *plan-id2* **WITH CORRELATION-ID** *id4* **CONNECTION-ID** *id5* **LUW-ID** *id6* **ON MEMBER** *id7*

Explanation: This message is issued whenever plan 'plan-id1' with correlation 'id1', connection 'id2', and LUW 'id3' is denied a lock by IRLM, because the amount of time to wait for a locked resource was exceeded. Plan 'plan-id2' identifies one of the plans holding a lock on the desired resource. The listed plan is not necessarily responsible for the time-out condition.

plan-id1, plan-id2
: The names of the executing plans.

id1
: The correlation identifier of the thread associated with 'plan-id1'. If the execution of the plan was switched by DB2 to a system agent, the correlation identifier identifies the system agent. Correlation IDs beginning with '0nn', where 'nn' is a number from 01 to 28, identify system agents.

id2
: The connection identifier of the thread associated with 'plan-id1'. If the execution of the plan was switched by DB2 to a system agent, the connection identifier is the DB2 subsystem name.

id3
: The logical-unit-of-work identifier of the thread associated with 'plan-id1'. An '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an "=" sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

id4
: The correlation identifier of the thread associated with 'plan-id2'. If the execution of the plan was switched by DB2 to a system agent, the correlation identifier identifies the system agent. Correlation IDs beginning with '0nn', where 'nn' is a number from 01 to 28, identify system agents.

id5 The connection identifier of the thread associated with 'plan-id2'. If the execution of the plan was switched by DB2 to a system agent, the connection identifier is the DB2 subsystem name.

id6 The logical-unit-of-work identifier of the thread associated with 'plan-id2'. An '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an "=" sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

id7 Identifies the member name of the DB2 subsystem on which the thread associated with *plan-id2* is executing.

DB2 can recover from a lock denial in some cases and can complete successfully. In such a case, the SQLCA is not filled in. One example is during setup of performance enhancements during bind time for execution time.

The SQLCA corresponding to correlation-id 'id1', connection-id 'id2', and LUW-ID 'id3' contains an SQLCODE of -904 or -923 and the name of the resource involved in the timeout.

Several different system plans can appear in 'plan-id1' and 'plan-id2'. These system plans are not documented in SYSIBM.SYSPLAN. If you receive a system plan in this message, you are in contention with another user. If you are not doing an automatic rebind, message DSNT500I or DSNT501I might accompany this message and identify that resource. If you need additional information, refer to the SQLCA and any additional bind messages. If you are doing an auto rebind, the SQLCA is not available. Refer to Section 5 of *Application Programming and SQL Guide* for more information about automatic rebinding. The system plans are:

ACT
BCT
DISTSERV
DSNBIND
STARTCT
DSNUTIL.

This message is issued by the following CSECT: DSNTLSUS

Operator Response: Notify the system programmer.

System Programmer Response: Timeouts can happen for many reasons, including factors relating to DB2 or IRLM. Some of those reasons are listed below along with possible ways to reduce or eliminate your timeout. Refer to Section 5 (Volume 2) of *Administration Guide* for more detail about the concepts discussed in this list. See also SQLCODEs -911 and -913.

Timeouts can result from the definition of objects or the structure of applications as explained below.

- If the resource involved in the timeout is listed in the DSNT500I/DSNT501I message as a table or table space, check the following items for other possible causes of timeout:
  1. Check the LOCKRULE column value in SYSIBM.SYSTABLESPACES for the table space being accessed. A lock size of TABLE or TABLESPACE could cause a timeout. If your application does not need to lock the entire table or table space, you can resolve the timeout by changing the lock size to PAGE or ANY using the ALTER statement.
  2. Check the number of LOCKS PER TABLE(SPACE), which was set at the time DB2 was installed. If a large number of page or row locks are acquired and held, a small value for LOCKS PER TABLE(SPACE) could be causing lock escalation to a table or table space lock. The timeout can be resolved by changing the value on the DSNTIPK update panel or by binding the application's plan with RELEASE(COMMIT) and doing commits more frequently.
  3. You can use EXPLAIN (described in Section 5 of *Application Programming and SQL Guide*) with the failing SQL statement and check the TSLOCKMODE column for every table/table space in the EXPLAIN output. If the competing applications are attempting to obtain incompatible locks, you might be able to resolve the timeout by running the applications sequentially rather than concurrently or by following the suggestions in other steps listed here, such as changing lock size, ACQUIRE/RELEASE parameters or ISOLATION type.
  4. Check the ACQUIRE/RELEASE values specified on the plan. ACQUIRE(ALLOCATE) acquires all locks for all tables and table spaces referenced in the plan, even if the program logic does not cause the table/table space to be accessed. Binding with RELEASE(DEALLOCATE) causes table, table space and DBD locks to be held longer than binding with RELEASE(COMMIT), possibly causing a timeout.
  5. Use the DISPLAY DB LOCKS command during program execution to verify that the locks being held at the time of the timeout are as expected. If they are not, you may need to use ALTER to change the locksize of the table space if possible, or rebind your plan with different ACQUIRE, RELEASE or ISOLATION values.
  6. ISOLATION level affects the mode of table/table space locks chosen and may be of concern if the plan is bound with RR and there is a page set scan.
- Check the ISOLATION level specified on the plan in SYSIBM.SYSPLAN. A value of RR is more likely to cause a timeout because it requires more page or row locks and also has a greater potential than CS for causing lock escalation, which can cause timeouts as noted above.
- Check the frequency of COMMITs in the application. A large number of updates without any COMMITs can cause a timeout because the more pages that are changed, the more page or row locks held, and the greater potential for lock escalation.

This condition might be caused by an undetected deadlock, for example, an agent holding a lock on the resource for a period of time that exceeds either the specified time or the IRLM default wait time.

If the time limit is too small, you can increase the limit by specifying a new IRLM locked resource wait time limit. To do this, you can either use the parameter in the DSN6SPRM assembler macro in the DSNTIJUZ job stream or update the 'wait-time' field of the DB2 installation IMS Resource Lock Manager panel, IRLMRWT. You must also specify all other parameters contained in this version of the CSECT. Then do one of the following:

- Resubmit installation job DSNTIJUZ with the link-edit SYSIN file 'NAME' parameter that matches the -START DB2 'PARM=' parameter.
- Reassemble DSN6SPRM and relink-edit DSNZPARM by resubmitting installation job DSNTIJUZ. The link-edit

SYSIN file 'NAME' parameter must match the -START DB2 'PARM=' parameter.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 9, 18.

DSNT377I PLAN *plan-id1* **WITH CORRELATION-ID** *id1* **CONNECTION-ID** *id2* **LUW-ID** *id3* **IS IN CONFLICT WITH AN INDOUBT THREAD ON MEMBER** *id4*

Explanation: This message is issued by the service controller subcomponent. A plan cannot gain an IRLM lock because a required resource is currently undergoing recovery. The message identifies the plan in this way:

plan-id1 The name of the executing plan.

id1 The correlation identifier (ID) of the thread associated with plan 'plan-id1'. Correlation IDs beginning with '0nn', where 'nn' is a number from 01 to 28, identify system agents.

id2 The connection-ID of plan 'plan-id1'.

id3 The logical-unit-of-work ('LUW-ID') of 'plan-id1'. An '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work id that is assigned to the thread followed by an "=" sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

id4 Identifies the member name of the DB2 subsystem on which the indoubt thread is executing.

The SQLCA corresponding to correlation-ID 'id1', connection-ID 'id2', and LUW-ID 'id3' contains an SQLCODE -904, -911, -913, or -923 and the name of the resource currently being recovered by DB2.

If you receive a system plan in this message, see the information about system plans in message DSNT376I.

This message is issued by the following CSECT: DSNTLSUS

System Action: Processing continues.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 4.

DSNT378I *csect-name* **PLAN** *plan-id1* **WITH CORRELATION-ID** *id1* **CONNECTION-ID** *id2* **LUW-ID** *id3* **TIMED OUT BECAUSE OF A RETAINED LOCK HELD BY MEMBER** *id4*

Explanation: A plan cannot get an IRLM lock because the resource is held by a retained lock on behalf of another member in the data sharing group, and the amount of time to wait for the locked resource was exceeded. The member holding the retained lock is either failed, or is in the process of restarting to recover its retained locks. This message is only issued if the RETLWAIT installation parameter in DSN6SPRM is set to 'YES'. If RETLWAIT is set to 'NO' (this is the default), then any IRLM lock that conflicts with a retained lock will not wait, but instead will be immediately rejected (see reason codes 00C900BE and 00C20254).

The following identifiers are used in the message:

plan-id1 The name of the executing plan.

id1 The correlation identifier (ID) of the thread associated with plan 'plan-id1'. Correlation IDs beginning with '0nn', where 'nn' is a number from 01 to 28, identify system agents.

id2 The connection-ID of plan 'plan-id1'.

id3 The logical-unit-of-work ('LUW-ID') of 'plan-id1'. An '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work id that is assigned to the thread followed by an "=" sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

id4 Identifies the member name of the failed or restarting DB2 subsystem which holds the conflicting retained lock.

System Action: The SQLCA corresponding to correlation-ID 'id1', connection-ID 'id2', and LUW-ID 'id3' contains an SQLCODE -904, -911 , -913 or -923 and the name of the resource involved in the timeout.

System Programmer Response: Restart the member holding the retained lock if it has not yet been restarted.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 4.

DSNT379I CANNOT IDENTIFY TO IRLM. INVALID SSNAME OR IRLM IS NOT CURRENTLY ACTIVE

Explanation: Either an attempt was made to identify the IRLM with a subsystem name not recognized by MVS, or the IRLM is not currently active. This message is also issued if common service area (CSA) storage is insufficient.

This message is issued by the following CSECT: DSNTLIDE

System Action: DB2 abends with a reason code of X'04E'.

Operator Response: Notify system programmer.

System Programmer Response: This is probably a user error. Change the IRLMSID parameter in the DB2 DSN6SPRM initialization macro to match the MVS subsystem table, or start IRLM if IRLM is not already up. See return code 00E30079 for further information about determining the cause of the error.

DSNT380I CANNOT IDENTIFY TO IRLM, SSNAME ALREADY IN USE

Explanation: Either DB2 previously terminated and did not successfully sign off from IRLM, or another subsystem is identified to IRLM with this installation-defined SSNAME. This message accompanies abend reason code X'00E30071'.

This message is issued by the following CSECT: DSNTLIDE

System Action: DB2 is abended with an abend code of X'04E'.

Operator Response: Notify the system programmer.

System Programmer Response: Either manually stop IRLM, or change the installation-defined SSNAME.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 9, 18.

DSNT381I IRLM QUIT REQUEST FAILED, RC = xx , SC = yy

Explanation: During the QUIT (or signoff) request to the IMS/VS Resource Lock Manager, a return code and subcode were returned indicating an unsuccessful completion of the request. Refer to "Section 5. IRLM Messages and Codes" on page 5-1, for IRLM return codes and subcode meanings.

This message is issued by the following CSECT: DSNTLQUI

System Action: This message indicates that the DB2 subsystem shutdown could not be completed normally.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the cause of the failure from the return code and subcode, and correct the error. Refer to "Section 5. IRLM Messages and Codes" on page 5-1, for IRLM return codes and subcode meanings. DB2 has terminated but has not signed off from IRLM. It will be necessary to issue the 'F irlmproc, ABDUMP' command to stop the IRLM. This must be done before issuing another -START DB2 command.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 9, 18.

DSNT382I IRLM AUTO-START FAILED

Explanation: During the IDENTIFY to IRLM, the AUTO-START of IRLM using SVC 34 failed. This message accompanies abend code X'00E30080'.

This message is issued by the following CSECT: DSNTLIDE

System Action: DB2 is terminated with an abend code of X'04E'.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the cause of failure from the SVC 34 return code preserved in register 2.

DSNT383I *csect-name* **IRLM AUTO-STOP FAILED**

Explanation: During a sign off from IRLM caused by either DB2 normal shutdown (CSECT DSNTLQUI) or DB2 subsystem termination (CSECT DSNTLCLE), an AUTO-STOP of IRLM using SVC 34 failed. If this occurred during normal sign off, this message accompanies abend reason code X'00E30075'.

System Action: DB2 abends.

Operator Response: Notify the system programmer.

System Programmer Response: Manually stop IRLM.

Problem Determination: Determine the cause of failure from the SVC return code preserved in register 2.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 9.

DSNT384I IRLM AUTO-START WAIT TIME EXCEEDED

Explanation: An attempt was made to automatically start IRLM. However, the wait time specified was exceeded.

This message is issued by the following CSECT: DSNTLIDE

System Action: DB2 is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Either manually start IRLM or modify the installation-defined auto-start wait time. Restart DB2.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 9.

Check the IRLMID given in the IRLM procedure against the IRLMSID in macro DSN6SPRM which was in the DSNZPARM used at startup.

DSNT388I NAME TYPE PART STATUS CONNID CORRID CLAIMINFO

Explanation: This message is the heading for a set of messages that display information as a result of a -DISPLAY DATABASE command when the keyword CLAIMERS is specified. The message number for this message is not displayed. This message is always followed by multiple DSNT389I messages containing the column data. Refer to message DSNT389I for a description of the data these headings identify.

This message is issued by the following CSECT: DSNTDMUL

DSNT389I *space type part status conn-id corr-id claims*

Explanation: This message contains the display information that results from a -DISPLAY DATABASE command when the keyword CLAIMERS is specified. This message contains the column data describing the status of a table space or index space in the database listed in message DSNT362I.

space The table space name or index space name.

type TS for a table space or IX for an index space.

part The partition number. For a nonpartitioned table space or an index on a nonpartitioned table space, it is blank. For nonpartitioned indexes on a partitioned table space, it is the logical partition number preceded by the character L (for example, L001).

status Blank, or one or more of the following, delimited by commas. The maximum length of the string is 18 characters.

- CHKP The object (a table space or a partition within a table space) is in check pending status.
- COPY The object (a table space or a partition within a table space) is in copy pending status. An image copy is required for this object.
- GRECP The object (a table space, a table space partition, index space, or index space partition) is marked recovery pending because of the failure of a a group buffer pool. This status value appears only on spaces. It does not apply to databases. See *Data Sharing: Planning and Administration* for information about resolving this restricted status.
- LPL The object has pages or ranges of pages that are unavailable because of logical or physical damage.
- LSTOP The logical partition is stopped.

PSRCP The index space is in page set recovery pending status.

RECP The object (a table space, table space partition, index space, index partition or logical index partition) is in recovery pending status. For logical partitions, the RECP status can appear as RECP*. RECP* indicates that the entire index is inaccessible to SQL applications, however only the logical partition needs to be recovered.

REST The table space or index space is being restarted.

RO The table space, table space partition, index space or index space partition is started for read-only activity.

RSTRT There are one or more DB2 subsystems that hold a retained lock on the table space or index space because the subsystem abnormally terminated while the object was being accessed and the subsystem was a member of a DB2 data sharing group. The subsystems must be restarted to restore full access to the object.

RW The table space, table space partition, index space or index space partition is started for read and write activity.

STOP The table space, table space partition, index space or index space partition is stopped.

STOPE The table space or index space was implicitly stopped because there is a problem with the log RBA in a page. Message DSNT500I or DSNT501I is issued when the error is detected to indicate the inconsistency.

STOPP A stop is pending for the database, table space, table space partition, index space or index space partition.

UT The table space, table space partition, index space or index space partition is started for utility processing only.

UTRO A utility is in process on the table space, table space partition, index space, or index space partition that allows only RO access.

UTRW A utility is in process on the table space, table space partition, index space or index space partition that allows RW access.

UTUT A utility is in process on the table space, table space partition, index space or index space partition that allows only UT access.

If the status for a nonpartitioned index is blank, then the status information is displayed at the logical partition level.

conn-id A connection identifier for the thread.

corr-id A correlation identifier of the thread associated with the space name.

claims The type and duration of currently held claims. The claim is composed of a claim class descriptor and a claim duration descriptor.

The claim class descriptor has one of the following values:

CS Cursor stability claim class
RR Repeatable-read claim class
WR Write claim class

The claim duration descriptor describes the duration of the claims as follows:

A The claim is held until deallocation.
C The claim is held until the next commit point.
H The claim is held across commit.

This message is issued by the following CSECT: DSNTDMUL

DSNT390I * DISPLAY OF DATABASE name action*

Explanation: This message indicates the end of a set of DSNT391I and DSNT392I messages, a set of DSNT393I and DSNT394I messages, or a set of DSNT395I and DSNT396I messages.

In this message:

- The 'name' is the name of the database.
- The 'action' is one of the following:

  CONTINUES
  The remaining table space and index space names within this database are continued to a new display.

  TERMINATED
  The remaining table space and index space names within this database are terminated.

  ENDS The display for this database is complete.

This message is issued by the following CSECTs: DSNTDMUL, DSNTDMSG

DSNT391I NAME TYPE STATUS PHYERRLOW PHYERRHI CATALOG PIECE

Explanation: This message indicates the beginning of a set of messages used to display information as a result of a DISPLAY DATABASE command when the keywords LOCKS, LPL, CLAIMERS and USE are omitted. (The message appears in one continuous line across the screen, not as shown above.) This message forms the headings of the display and is always followed by multiple DSNT392I messages containing the column data. Refer to message DSNT392I for a description of the data these headings identify.

This message is issued by the following CSECT: DSNTDMUL

DSNT392I *space type part status lo-page hi-page cat-name piece*

Explanation: This message contains the display information as a result of a DISPLAY DATABASE command when the keywords LOCK, CLAIMERS, LPL and USE are omitted. This message contains the column data describing the status of a table space or index space in the database listed in the preceding DSNT362I message. This message is always preceded by its column headings in message DSNT391I. The message number for this message is not displayed. However, messages DSNT391I, DSNT392I, and DSNT390I are always produced with a multiple line WTO and are never interrupted.

In this message:

- The *space* is the table space name or index space name.
- The *type* is TS for a table space or IX for an index space.
- The *part* is the partition number. It is blank for a simple table space or simple index space.
- The *status* is one or more of the following, delimited by commas. The maximum length of the string is 18 characters:

  CHKP The object (a table space or a partition within a table space) is in the check pending status.

  COPY The object (a table space or a partition within a table space) is in the copy pending status. An image copy is required for this object.

  GRECP The object (a table space, a table space partition, index space, or index space partition) is marked recovery pending because of the failure of a a group buffer pool. This status value appears only on spaces. It does not apply to databases. See *Data Sharing: Planning and Administration* for information about resolving this restricted status.

  LPL The object has pages or ranges of pages that are unavailable because of logical or physical damage.

  LSTOP The logical partition is stopped.

  PSRCP The index space is in a page set recovery pending status.

  RECP The object (a table space, table space partition, index space, index partition or logical index partition) is in the recovery pending status. For logical partitions, the RECP status can appear as RECP*. RECP* indicates that the entire index is inaccessible to SQL applications, however only the logical partition needs to be recovered.

  REST The table space or index space is being restarted.

  RO The table space, table space partition, index space or index space partition is started for read-only activity.

  RW The table space, table space partition, index space or index space partition is started for read and write activity.

  STOP The table space, table space partition, index space or index space partition is stopped.

  STOPE The table space or index space was implicitly stopped because there is a problem with the log RBA in a page. Message DSNT500I or DSNT501I is issued when the error is detected to indicate the inconsistency.

  STOPP A stop is pending for the database, table space, table space partition, index space or index space partition.

  UT The table space, table space partition, index space or index space partition is started for utility processing only.

  UTRO A utility is in process on the table space, table space partition, index space, or index space partition that allows only RO access. If the utility was cancelled before the object was drained, the object can allow SQL access since the object was not altered by the utility.

  UTRW A utility is in process on the table space, table space partition, index space or index space partition that allows RW access.

  UTUT A utility is in process on the table space, table space partition, index space or index space partition that allows only UT access. If the utility was cancelled before the object was drained, the object can allow SQL access since the object was not altered by the utility.

- When a data set supporting the specified table space or index space has physical I/O errors, *lo-page* is a hexadecimal number identifying the lowest page number containing an I/O error. This column is blank if there are no physical errors.
- When a data set supporting the specified table space or index space has physical I/O errors, *hi-page* is a hexadecimal number identifying the highest page number containing an I/O error. This column is blank if there are no physical errors.
- When a data set supporting the specified table space or index space has physical I/O errors, *cat-name* identifies the catalog owning the data set with the I/O errors. This column is blank if there are no physical errors.
- When a data set supporting the specified table space or index space has physical I/O errors, *piece* is an integer number identifying the piece within the table space or index space having the error. This column is blank if there are no physical errors.

  The piece number can be used to construct the name of the data set supporting the space containing the physical error as follows:

  ```
  cat-name.DSNDBC.database-
  name.space-name.I0001.Axxxx
  ```

  The value xxxx is the piece number plus one and database-name is the name displayed in the preceding DSNT362I message. If the table space or index space is partitioned, the partition number should equal the piece number plus one.

This message is issued by the following CSECT: DSNTDMUL

DSNT393I NAME TYPE PART STATUS CONNID CORRID USERID

Explanation: This message indicates the beginning of a set of messages used to display information as a result of a DISPLAY DATABASE command when the keyword USE is specified. This message contains the headings of the display. (The message appears in one continuous line across the screen, not as shown above.) This message is always followed by multiple DSNT394I messages containing the column data. Refer to message DSNT394I for a description of the data these headings identify.

This message is issued by the following CSECT: DSNTDMUL

DSNT394I *space type part status conn-id corr-id user-id*

Explanation: This message contains the display information resulting from a DISPLAY DATABASE command when the keyword USE is specified. This message contains the column data describing the status of a table space or index space in the database listed in the preceding DSNT362I message. This message is always preceded by message DSNT393I containing the column headings. The message number for this message is not displayed. However, messages DSNT393I, DSNT394I, and DSNT390I are always produced with a multiple line WTO and are never interrupted.

In this message:

- The *space* is the table space name or index space name.
- The *type* is TS for a table space or IX for an index space.
- The *part* is the partition number. It is blank for a simple table space or simple index space.
- The *status* is one or more of the following, delimited by commas. The maximum length of the string is 18 characters:

  CHKP The object (a table space or a partition within a table space) is in the check pending status.

  COPY The object (a table space or a partition within a table space) is in the copy pending status. An image copy is required for this object.

  GRECP The object (a table space, a table space partition, index space, or index space partition) is marked recovery pending because of the failure of a group buffer pool. This status value appears only on spaces. It does not apply to databases. See *Data Sharing: Planning and Administration* for information about resolving this restricted status.

  LPL The object has pages or ranges of pages that are unavailable because of logical or physical damage.

  LSTOP The logical partition is stopped.

  PSRCP The index space is in a page set recovery pending status.

  RECP The object (a table space, table space partition, index space, index partition or logical index partition) is in the recovery pending status. For logical partitions, the RECP status can appear as RECP*. RECP* indicates that the entire index is inaccessible to SQL applications, however only the logical partition needs to be recovered.

  REST The table space or index space is being restarted.

  RO The table space, table space partition, index space or index space partition is started for read-only activity.

  RW The table space, table space partition, index space or index space partition is started for read and write activity.

  STOP The table space, table space partition, index space or index space partition is stopped.

  STOPE The table space or index space was implicitly stopped because there is a problem with the log RBA in a page. Message DSNT500I or DSNT501I is issued when the error is detected to indicate the inconsistency.

  STOPP A stop is pending for the database, table space, table space partition, index space or index space partition.

  UT The table space, table space partition, index space or index space partition is started for utility processing only.

  UTRO A utility is in process on the table space, table space partition, index space, or index space partition that allows only RO access. If the utility was cancelled before the object was drained, the object can allow SQL access since the object was not altered by the utility.

  UTRW A utility is in process on the table space, table space partition, index space or index space partition that allows RW access.

  UTUT A utility is in process on the table space, table space partition, index space or index space partition that allows only UT access. If the utility was cancelled before the object was drained, the object can allow SQL access since the object was not altered by the utility.

- The *conn-id* is a connection identifier for the thread. It is one of the following:
  - BATCH if the thread is from a batch region.
  - TSO if the thread is from a TSO terminal.
  - UTILITY if the thread is from a utility.
  - 'IMS identifier' if the thread is from an IMS terminal.
  - 'CICS identifier' if the thread is from a CICS terminal.
  - CONSOLE if the thread is from the console.
- The *corr-id* is a correlation identifier of the thread associated with the space name. It is one of the following:
  - 'job name' if the thread is from a batch region.
  - 'TSO logon identifier' if the thread is from a TSO terminal.
  - PST#.PSBNAME if the thread is from an IMS terminal.
  - 'entry ID.thread number.tran id' if the thread is from a CICS terminal.
  - CONSOLE if the thread is from the console.
  - '0nn', where 'nn' is a number , if the thread is for a system agent.

  - For distributed database access threads, this field contains the following:
    - While the thread is being created:
      1. '028.DBAA nn', where nn ranges from 01 to 99. This indicates that the database access agent (DBAA) is in its connection processing, which consists of establishing the DBAA thread, and validating and verifying the user's ID. Refer to "Controlling Access to a DB2 Subsystem" in *Administration Guide* for descriptions of the authorization checks that might be performed.

         All RACF requests are serialized on a single DB2 RACF service task, which might increase the validation time when multiple DBAAs are being created concurrently.
    - After the thread is created:
      1. For threads using system-directed access and threads using application-directed access from a DB2 requester, this variable displays the correlation ID of the thread at the requesting location.
      2. For threads using application-directed access from a non-DB2 requester, this variable displays the first twelve characters in the DDM external name (EXTNAM) parameter of the DDM EXCSAT command received as part of the SQL CONNECT.
- The *user-id* is one of the following:
  - 'TSO logon identifier' if the thread is from a TSO terminal.
  - 'sign-on id' or the LTERM if the thread is from an IMS message-driven region.
  - AXBUSER if the thread is from an IMS message-driven region and RACF is used.
  - 'PSB name' if the thread is from an IMS nonmessage-driven region and RACF is not used.
  - 'user-id', 'term id', 'tran id' or other, as specified in the resource control table (RCT), if the thread is from CICS.

This message is issued by the following CSECT: DSNTDMUL

DSNT395I NAME TYPE PART STATUS CONNID CORRID LOCKINFO

Explanation: This message indicates the beginning of a set of messages used to display information as a result of a DISPLAY DATABASE command when the keyword LOCKS is specified. This message forms the headings of the display. (The message appears in one continuous line across the screen, not as shown above.) This message is always followed by multiple DSNT396I messages containing the column data. Refer to message DSNT396I for a description of the data these headings identify.

This message is issued by the following CSECT: DSNTDMUL

DSNT396I *space type part status conn-id corr-id lock*

Explanation: This message contains the display information that results from a DISPLAY DATABASE command when the keyword LOCKS is specified. This message contains the column data describing the status of a table space or index space in the database listed in the preceding DSNT362I message. This message is always preceded by its column headings in message DSNT395I. The message number for this message is not displayed. However, the messages DSNT395I, DSNT396I, and DSNT390I are always produced with a multiple line WTO and are never interrupted.

In this message:

- The *space* is the table space name, index space name, or table OBID.
- The *type* is TS for a table space, IX for an index space, or TB for a table.
- The *part* is the partition number. It is blank for a simple table space, simple index space, or segmented table space.
- The *status* is blank or one or more of the following, delimited by commas. The maximum length of the string is 18 characters:

  CHKP The object (a table space or a partition within a table space) is in the check pending status.

  COPY The object (a table space or a partition within a table space) is in the copy pending status. An image copy is required for this object.

  GRECP The object (a table space, a table space partition, index space, or index space partition) is marked recovery pending because of the failure of a group buffer pool. This status value appears only on spaces. It does not apply to databases. See *Data Sharing: Planning and Administration* for information about resolving this restricted status.

  LPL The object has pages or ranges of pages that are unavailable because of logical or physical damage.

  LSTOP The logical partition is stopped.

  PSRCP The index space is in a page set recovery pending status.

  RECP The object (a table space, table space partition, index space, index partition or logical index partition) is in the recovery pending status. For logical partitions, the RECP status can appear as RECP*. RECP* indicates that the entire index is inaccessible to SQL applications, however only the logical partition needs to be recovered.

  REST The table space or index space is being restarted.

  RO The table space, table space partition, index space or index space partition is started for read-only activity.

  RW The table space, table space partition, index space or index space partition is started for read and write activity.

STOP The table space, table space partition, index space or index space partition is stopped.

STOPE The table space or index space was implicitly stopped because there is a problem with the log RBA in a page. Message DSNT500I or DSNT501I is issued when the error is detected, indicating the inconsistency.

STOPP A stop is pending for the database, table space, table space partition, index space or index space partition.

UT The table space, table space partition, index space or index space partition is started for utility processing only.

UTRO A utility is in process, on the table space, table space partition, index space, or index space partition that allows only RO access. If the utility was cancelled before the object was drained, the object can allow SQL access since the object was not altered by the utility.

UTRW A utility is in process, on the table space, table space partition, index space or index space partition, that allows RW access.

UTUT A utility is in process, on the table space, table space partition, index space or index space partition, that allows only UT access. If the utility was cancelled before the object was drained, the object can allow SQL access since the object was not altered by the utility.

If the status is blank, then the status information is displayed at the logical partition level.

If the *type* is TB, the *status* field is blank.

- The *conn-id* is a connection identifier for the thread. It is one of the following:
  - BATCH if the thread is from a batch region.
  - TSO if the thread is from a TSO terminal.
  - UTILITY if the thread is from a utility.
  - 'IMS identifier' if the thread is from an IMS terminal.
  - 'CICS identifier' if the thread is from a CICS terminal.
  - CONSOLE if the thread is from the console.

  When the displayed lock is a P-lock or a retained lock, *conn-id* is not specified.
- The *corr-id* is a correlation identifier of the thread associated with the space name. It is one of the following:
  - 'job-name' if the thread is from a batch region.
  - 'TSO logon identifier' if the thread is from a TSO terminal.
  - PST#.PSBNAME if the thread is from an IMS terminal.
  - 'entry ID.thread number.tran id' if the thread is from a CICS terminal.
  - CONSOLE if the thread is from the console.
  - For distributed database access threads, this field contains the following:
    - While the thread is being created:
      1. '028.DBAA nn', where nn ranges from 01 to 99. This indicates that the database access agent (DBAA) is in its connection processing, which consists of establishing the DBAA thread, and validating and verifying the user's ID. Refer to "Controlling Access to a DB2 Subsystem" in *Administration Guide* for descriptions of the authorization checks that might be performed.

         All RACF requests are serialized on a single DB2 RACF service task, which might increase the validation time when multiple DBAAs are being created concurrently.
    - After the thread is created:
      1. For threads using system-directed access and threads using application-directed access from a DB2 requester, this variable displays the correlation ID of the thread at the requesting location.
      2. For threads using application-directed access from a non-DB2 requester, this variable displays the first twelve characters in the DDM external name (EXTNAM) parameter of the DDM EXCSAT command received as part of the SQL CONNECT.

  corr-id is not specified when the displayed lock is a P-lock or a retained lock.
- The *lock* describes the type and duration of locks:
  - Transaction locks (also called L-locks) are identified by their corresponding agents' connection and correlation IDs

    Multiple locks held by an agent are listed on multiple lines of the report followed by any locks the agent is currently awaiting.
  - Physical locks (P-locks) and retained locks are identified by their DB2 data sharing member names.

    Multiple P-locks or retained locks held by a DB2 data sharing member are listed on multiple lines of the report followed by any locks the member is currently awaiting.

  The *lock* is composed of a 'lock status' and followed by a dash '-', a 'lock state' followed by a 'lock type', and a 'lock duration' delimited by commas.
  - The 'lock status' is a value of:

    H The lock is held by the agent or the DB2 member.

    W The agent or the member is awaiting the lock.

    R The lock is retained.
  - The 'lock state' describes the mode of the lock as follows:
    - For L-locks and drain locks,

      IS A lock with read intentions.

      IX A lock with update intentions.

      S A lock with read-only capability.

      U A lock with update capability.

      SIX A table space or table lock with a protocol that does not lock a page while reading, but locks the page with update intention while updating.

      X An exclusive lock.

- For P-locks,

  IS This DB2 member has R/O interest. The page set or partition is group buffer pool (GBP) dependent.

  IX This DB2 member has R/W interest. The page set or partition is GBP-dependent.

  S This DB2 member has R/O interest. The page set or partition is not GBP-dependent.

  SIX This DB2 member has R/W interest. The page set or partition is GBP-dependent.

  NSU This DB2 member has R/W interest. The page set or partition is GBP-dependent.

  X This DB2 member has R/W interest. The page set or partition is not GBP-dependent.

– The 'lock type' describes the type of locking as follows:

  S A table space L-lock

  T A table L-lock

  C A cursor-stability read drain lock

  R A repeatable-read drain lock

  W A write drain lock

  P A partition L-lock

  PP A page set or partition P-lock

– If the 'lock status' is H, the 'lock duration' describes the duration of the lock:

  A The lock is freed at deallocation.

  C The lock is freed at commit.

  H The lock is freed when all cursors are closed.

  M The lock is freed by the system.

  P The lock is freed when the plan is complete.

  I The lock is a page set or partition P-lock. It is released when the pageset or partition data set is closed.

– If the 'lock status' is W, the 'lock duration' is a 2-digit number indicating the waiter's position in the local DB2 system's lock waiting queue. When this lock is acquired, its duration is the same as all locks held by the user.

– For a P-lock, the lock is owned by the system, not the user, and its duration is not related to the duration of the locks that are owned by the user.

– Retained locks do not have a lock duration.

All index spaces on tables are implicitly locked with transaction locks at the same level as the table spaces containing those tables. P-locks are acquired by DB2 on index spaces as well as on table spaces.

This message is issued by the following CSECT: DSNTDMUL

DSNT397I

Explanation: This message indicates the beginning of a multiple line display generated as a result of a DISPLAY DATABASE command. The format of this multiple line display has three parts:

- The column headers, which are dependent on the keywords issued. The headers are underlined.
- The space information for all spaces and partitions requested by the command.
- An ending message to state whether the spaces were displayed or not.

There are five different headers for the DISPLAY DATABASE commands. The headers are dependent on the presence of the keywords: CLAIMERS, LOCKS, USE, LPL, or no keyword. These five different DISPLAY DATABASE command formats are described below.

- DISPLAY DATABASE CLAIMERS

  This DISPLAY DATABASE command displays the claims that are on certain table spaces, index spaces, and partitions.

  The column headers in this command are as follows:

  NAME TYPE PART STATUS CONNID CORRID CLAIMINFO

  – NAME is the table space name or index space name.

  – TYPE is TS for a table space or IX for an index space.

  – PART is the partition number. It is blank for a simple table space or simple index space. For nonpartitioned indexes on a partitioned table space, it is the logical partition number preceded by the character L (for example, L01).

  – STATUS is blank, or one or more of the following, delimited by commas. The maximum length of the string is 18 characters.

    CHKP The object (a table space or a partition within a table space) is in the check pending status.

    COPY The object (a table space or a partition within a table space) is in the copy pending status. An image copy is required for this object.

    GRECP The object (a table space, a table space partition, index space, or index space partition) is marked recovery pending because of the failure of a group buffer pool. This status value appears only on spaces. It does not apply to databases. See *Data Sharing: Planning and Administration* for information about resolving this restricted status.

    LPL The object has pages or ranges of pages that are unavailable because of logical or physical damage.

    LSTOP The logical partition is stopped.

    PSRCP The index space is in a page set recovery pending status.

    RECP The object (a table space, table space partition, index space, index partition or logical index partition) is in the recovery pending

status. For logical partitions, the RECP status can appear as RECP*. RECP* indicates that the entire index is inaccessible to SQL applications, however only the logical partition needs to be recovered.

REST The table space or index space is being restarted.

RO The database, table space, table space partition, index space, or index space partition is started for read-only activity.

RW The database, table space, table space partition, index space, or index space partition is started for read and write activity.

STOP The database, table space, table space partition, index space, or index space partition is stopped.

STOPE The table space or index space was implicitly stopped because there is a problem with the log RBA in a page. Message DSNT500I or DSNT501I is issued when the error is detected to indicate the inconsistency.

STOPP A stop is pending for the database, table space, table space partition, index space, or index space partition.

UT The database, table space, table space partition, index space, or index space partition is started for utility processing only.

UTRO A utility is in process on the table space, table space partition, index space, or index space partition that allows only RO access. If the utility was cancelled before the object was drained, the object can allow SQL access since the object was not altered by the utility.

UTRW A utility is in process on the table space, table space partition, index space, or index space partition that allows RW access.

UTUT A utility is in process on the table space, table space partition, index space, or index space partition that allows only UT access. If the utility was cancelled before the object was drained, the object can allow SQL access since the object was not altered by the utility.

If the *type* is TB, the *status* field is blank.

If the status for an index is blank, then the status information is displayed at the logical partition level.

– The CONNID is a connection identifier for the thread. It is one of the following:
  - BATCH if the thread is from a batch region.
  - TSO if the thread is from a TSO terminal.
  - UTILITY if the thread is from a utility.
  - 'IMS identifier' if the thread is from an IMS terminal.
  - 'CICS identifier' if the thread is from a CICS terminal.
  - CONSOLE if the thread is from the console.
  - For distributed database access threads, this field contains the following:
    - For threads using system-directed access and for threads using application-directed access from a DB2 Version 3 or later requester, this variable displays the connection name of the thread at the requesting location.
    - For threads using application-directed access from a non-DB2 requester or from a DB2 Version 2 Release 3 requester, this field displays the constant SERVER.

– CORRID is a correlation identifier of the thread associated with the space name. It is one of the following:
  - 'job name' if the thread is from a batch region.
  - 'TSO logon identifier' if the thread is from a TSO terminal.
  - PST#.PSBNAME if the thread is from an IMS terminal.
  - 'entry ID.thread number.tran id' if the thread is from a CICS terminal.
  - CONSOLE if the thread is from the console.
  - '0nn', where 'nn' is a number, if the thread is for a system agent.
  - For distributed database access threads, this field contains the following:
    - While the thread is being created:
      1. '028.DBAA nn', where nn ranges from 01 to 99. This indicates that the database access agent (DBAA) is in its connection processing, which consists of establishing the DBAA thread, and validating and verifying the user's ID. Refer to "Controlling Access to a DB2 Subsystem" in *Administration Guide* for descriptions of the authorization checks that might be performed.

         All RACF requests are serialized on a single DB2 RACF service task, which might increase the validation time when multiple DBAAs are being created concurrently.
    - After the thread is created:
      1. For threads using system-directed access and threads using application-directed access from a DB2 requester, this variable displays the correlation ID of the thread at the requesting location.
      2. For threads using application-directed access from a non-DB2 requester, this variable displays the first twelve characters in the DDM external name (EXTNAM) parameter of the DDM EXCSAT command received as part of the SQL CONNECT.

– CLAIMINFO is the type and duration of currently held claims. The claim is composed of a claim class descriptor and a claim duration descriptor.

  The claim class descriptor has one of the following values:

  CS Cursor stability claim class

RR Repeatable-read claim class
WR Write claim class

The claim duration descriptor describes the duration of the claims as follows:

A The claim is held until deallocation.
C The claim is held until the next commit point.
H The claim is held across commit.

- DISPLAY DATABASE LOCKS

  This DISPLAY DATABASE command displays the locks that are on certain table spaces, index spaces and partitions.

  The column headers in this command are as follows:

  NAME TYPE PART STATUS CONNID CORRID LOCKINFO

  – The NAME column states the table space name, index space name, or table object ID.
  – The TYPE column states TS for table space, IX for index, or TB for table.
  – The PART, STATUS, CONNID, and CORRID columns are described in the DISPLAY DATABASE CLAIMERS section.
  – The *conn-id* and *corr-id* are not specified when the displayed lock is a P-lock or a retained lock (either L-lock or P-lock). For page set P-locks, the DB2 member name is used to identify the lock.
  – The LOCKINFO describes the type and duration of locks used by corresponding agents identified by their connection and correlation IDs (for transaction locks, which are also called L-locks) or used by corresponding subsystems identified by their DB2 data sharing member names (for physical locks, which are called P-locks, and retained locks). Multiple locks held by an agent are listed on multiple lines of the report followed by any locks the agent is currently awaiting. Multiple P-locks or retained locks held by a DB2 data sharing member are listed on multiple lines of the report followed by any locks the member is currently awaiting. The LOCKINFO consists of a 'lock status', followed by a dash '-', a 'lock state', a 'lock type', and a 'lock duration' delimited by commas.

    - The 'lock status' is a value of:

      H The lock is held by the agent or the DB2 member.

      W The agent or the member is awaiting the lock.

      R The lock is retained.

    - The 'lock state' describes the mode of lock as follows:

      • For L-locks and drain locks,

        IS A lock with read intentions.

        IX A lock with update intentions.

        S A lock with read-only capability.

        U A lock with update capability.

        SIX A lock with a protocol that does not lock a page while reading, but locks the page with update intention while updating.

        X An exclusive lock.

      • For P-locks,

        IS This DB2 member has R/O interest. The page set or partition is group buffer pool (GBP) dependent.

        IX This DB2 member has R/W interest. The page set or partition is GBP-dependent.

        S This DB2 member has R/O interest. The page set or partition is not GBP-dependent.

        SIX This DB2 member has R/W interest. The page set or partition is GBP-dependent.

        NSU This DB2 member has R/W interest. The page set or partition is GBP-dependent.

        X This DB2 member has R/W interest. The page set or partition is not GBP-dependent.

    - The 'lock type' describes the type of locking as follows:

      S A table space L-lock

      T A table L-lock

      C A cursor-stability read drain lock

      R A repeatable-read drain lock

      W A write drain lock

      P A partition L-lock

      PP A page set or partition P-lock

    - If the 'lock status' is H,the 'lock duration' describes the duration of the lock:

      A The lock is freed at deallocation.

      C The lock is freed at commit.

      H The lock is freed when all cursors are closed.

      M The lock is freed by the system.

      P The lock is freed when the plan is complete.

      I The lock is a page set or partition P-lock. It is released when the page set or partition data set is closed.

    - If the 'lock status' is W, the 'lock duration' is a 2-digitnumber indicating the waiter's position in the local DB2 system's lock waiting queue. When this lock is acquired, its duration is the same as all locks held by the user.

    - For a P-lock, the lock is owned by the system, not the user, and its duration is not related to the duration of the locks that are owned by the user.

    - Retained locks do not have a lock duration.

  There are no explicit index space locks. However, all index spaces on tables are implicitly locked at the same level as the table spaces containing those tables. P-locks are acquired by DB2 on index spaces as well as on table spaces.

- DISPLAY DATABASE USE

  This DISPLAY DATABASE command displays the user IDs that are accessing certain table spaces, index spaces, and partitions.

  The column headers in this command are as follows:

  NAME TYPE PART STATUS CONNID CORRID USERID

  – The NAME, TYPE, PART, STATUS, CONNID, and CORRID columns are described in the DISPLAY DATABASE CLAIMERS section.

  – The USERID is one of the following:

    - 'TSO logon identifier' if the thread is from a TSO terminal.
    - 'sign-on id' or the LTERM if the thread is from an IMS message-driven region.
    - AXBUSER if the thread is from an IMS message-driven region and RACF is used.
    - 'PSB name' if the thread is from an IMS nonmessage-driven region and RACF is not used.
    - 'userid', 'term id', 'tran id' or other, as specified in the resource control table (RCT), if the thread is from CICS.

- DISPLAY DATABASE LPL

  NAME TYPE PART STATUS LPL PAGES

  This message contains the display information resulting from a DISPLAY DATABASE command when the keyword LPL is specified. It contains the column data describing the status of a table space or index space in the database listed in the preceding DSNT362I message. This message is always preceded by its column headings message DSNT805I. The message number for this message is not displayed.

  In this message:

  – The LPL PAGES column lists the pages in the specified *space* that are unavailable because of logical or physical damage.

- DISPLAY DATABASE (with no LOCKS, USE, LPL or CLAIMERS keyword).

  This DISPLAY DATABASE command displays the error page range information for certain table spaces, index spaces, and partitions.

  The column headers in this command are as follows:

  NAME TYPE PART STATUS PHYERRLO PHYERRHI CATALOG PIECE

  In this message:

  – The NAME, TYPE, PART, and STATUS columns are described in the DISPLAY DATABASE CLAIMERS section.

  – When a data set supporting the specified table space or index space has physical I/O errors, PHYERRLO is a hexadecimal number identifying the lowest page number containing an I/O error. This column is blank if there are no physical errors.

  – When a data set supporting the specified table space or index space has physical I/O errors, PHYERRHI is a hexadecimal number identifying the highest page number containing an I/O error. This column is blank if there are no physical errors.

  – When a data set supporting the specified table space or index space has physical I/O errors, CATALOG identifies the catalog owning the data set with the I/O errors. This column is blank if there are no physical errors.

  – When a data set supporting the specified table space or index space has physical I/O errors, PIECE is an integer number identifying the piece within the table space or index space having the error. This column is blank if there are no physical errors.

    The piece number can be used to construct the name of the data set supporting the space containing the physical error as follows:

    ```
    cat-name.DSNDBC.database-
    name.space-name.I0001.Axxxx
    ```

    The value xxxx is the piece number plus one and database-name is the name displayed in the preceding DSNT362I message. Note that if the table space or index space is partitioned, the partition number should equal the piece number plus one.

There are other informational messages that can be displayed that are not related to one specific keyword. They are listed below:

- –luw-id ACCESSING DATA FOR location

  This message is issued for each thread reported that is participating in distributed data access (database access thread). The thread that corresponds to this message is the thread named by the correlation id and connection id of the data line preceding this message. This additional line reports the distributed identification as follows:

  luw-id=token
  : The logical-unit-of-work identifier (LUW-ID) is a unique identifier that is assigned to the thread followed by an '=' sign and a token. The token can be used in place of luw-id in any DB2 command that accepts luw-id as input.

  location
  : The LOCATION name assigned to the requesting site.

- –MEMBER NAME *member-name*

  This message is issued with messages DSNT389I, DSNT394I or DSNT396I for each thread in a data sharing environment. This additional line reports the member name of the DB2 subsystem accessing this object.

  If the characters '(CO)' follow the member name, then this member is the castout owner for the page set or partition. The castout owner for a page set or partition is the DB2 member responsible for doing all of the castout I/O for that page set or partition.

  The message number and subsystem recognition character are not included in this message.

- INVALID space-name

  The space-name specified in the SPACENAM keyword on the -DISPLAY DATABASE command does not exist. The name of the table space or index space is 'space-name'. The request is rejected.

- NO SPACES FOUND

  This message is produced when a DISPLAY DB(name) SPACENAM(...) is entered and no spaces were found to

satisfy the request. SPACENAM(...) might have been entered as a range, a subset, or a list of spaces.

- spacetype name NOT type

  This message is produced when no table space or index space listed in the DISPLAY DB(...) SPACENAM(...) satisfies your request.

  spacetype — TABLESPACE if the space is a table space or INDEXSPACE if the space is an index space.

  name — The name of the space.

  type — A character string that indicates the type of request specified. The string is a list of the following, delimited by 'OR':

  – ACTIVE if the keyword ACTIVE is specified

  – RESTRICTED if the keyword RESTRICT is specified.

- NO INFORMATION AVAILABLE

  This message is produced when there is no LOCK or USE information available. When DISPLAY DB(name) SPACENAM(...) is entered, and SPACENAM(...) is a list of spaces, this message indicates that no table spaces or index spaces whose names are listed have LOCK or USE information available. If DISPLAY DB(name) SPACENAM(...) is entered, and SPACENAM(...) is a range or a subset of spaces, no table spaces and index spaces within the specified database have LOCK or USE information available. This message is produced only when the keywords USE and LOCKS are specified.

The ending message looks like this:

* DISPLAY OF DATABASE name action *

In this message:

name — The name of the database

action — One of the following:

CONTINUES — The remaining table space and index space names within this database are continued to a new display.

TERMINATED — The remaining table space and index space names within this database are terminated.

ENDS — The display for this database is complete.

This message is issued by the following CSECT: DSNTDMUL

DSNT398I

Explanation: This message appears within a multiple line WTO message set and precedes DSNT391I, DSNT393I, and DSNT395I. It is used to underscore the column headings.

This message is issued by CSECT: DSNTDMUL

DSNT399I INVALID space-name

Explanation: The space-name specified in the SPACENAM keyword on the -DISPLAY DATABASE command does not exist. The name of the table space or index space is 'space-name'. The request is rejected.

This message is issued by the following CSECT: DSNTDMUL

DSNT400I SQLCODE = 0, SUCCESSFUL EXECUTION

Explanation: The SQLCODE was 0, indicating successful execution of the function. SQLWARN indicators may note some warnings. SQLWARNx fields are described in Appendix C of *SQL Reference*.

This message is issued by the following CSECT: DSNTIAR

DSNT401I DSNT401I WARNING - HELP IS NOT INSTALLED

Explanation: You invoked the installation process with the DSNTINST CLIST. To enable online help, you must use the DSNTINS0 CLIST instead of the DSNTINST CLIST.

This message is issued by panel: DSNTIPA1

System Action: The panel is displayed with the warning message.

User Response: No response is necessary if you do not desire online help for the panel. Press ENTER to continue with the installation process after filling in desired panel values. If panel help is desired: exit this panel, make sure BookManager or the online help reader is installed on your system, and invoke the installation process with the DSNTINS0 CLIST.

DSNT402I ONLINE BOOK DATA SET NAMES MUST END IN '.BOOK'

Explanation: All book names entered on this panel must end in ".BOOK".

This message is issued by panel: DSNTIPA0

System Action: The panel is redisplayed with the error message.

User Response: Replace the book name or names with a value that ends in ".BOOK".

DSNT404I SQLCODE = xxx, explanation

Explanation: This message contains an SQL return code and a brief explanation, with text inserted from the SQLERRM field. The SQL return code is positive, indicating a warning condition. For more information about this SQL return code, see “Section 2. SQL Return Codes” on page 2-1.

This message is issued by the following CSECT: DSNTIAR

System Programmer Response: Determine the cause for the SQL warning code, and correct the situation if needed. Rerun the application program or SQL statement.

DSNT405E csect-name DISPATCH PRIORITIES NOT IN SYNC: ccccccc1: hhh1 COMPARED TO ccccccc2: hhh2

Explanation: The dispatch priorities of task 'ccccccc1' (dispatch priority 'hhh1') and task 'ccccccc2' (dipatch priority 'hhh2') are found to be incorrect in relation to each other. This can cause severe performance problems and possible failure of either task 'ccccccc1', task 'ccccccc2', or other tasks.

System Action: DB2 continues with possible problems described above.

Operator Response: Notify the system programmer.

System Programmer Response: Modify the dispatch priority algorithms for the two tasks to meet documented requirements. For instance, IRLM must have a higher dispatch priority than DB2.

DSNT406I THE ART/ORT ESCAPE CHARACTER CAN BE ANY CHARACTER EXCEPT % OR _

Explanation: You specified the percent sign (%) or the underscore character (_) as the application registration table/object registration table (ART/ORT) escape character. The ART/ORT escape character can be any other character.

This message is issued by the following panel: DSNTIPZ

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Change the ART/ORT escape character value.

DSNT407I THIS FIELD HAS AN INVALID FORMAT

Explanation: The DEALLCT parameter must be NOLIMIT, 1440, 0, or minutes and seconds separated by a comma.

This message is issued by the following panel: DSNTIPA

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Correct the input.

DSNT408I SQLCODE = -xxx, explanation

Explanation: This message contains an SQL return code and a brief explanation, with text inserted from the SQLERRM field. The SQL return code is negative, indicating that an error has occurred. For more information about this SQL return code, see “Section 2. SQL Return Codes” on page 2-1.

This message is issued by the following CSECT: DSNTIAR

System Programmer Response: Determine the cause for the SQL error by using information about that specific SQLCODE. Correct the error if desired. Rerun the application program or SQL statement.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 14, 17.

DSNT409I BUFFERPOOL SIZES SHOWN MAY BE OBSOLETE

Explanation: The buffer pool sizes shown here were set at installation or migration time and might not be the most current. Updates might have occurred using the ALTER BUFFERPOOL command.

This message is issued by the following panels: DSNTIP1, DSNTIP2

System Action: Processing continues.

User Response: No response is required.

DSNT410I INCORRECT COMMAND PREFIX THE SUBSYSTEM COMMAND PREFIX ENTERED IS INCORRECT

Explanation: You entered an incorrect command prefix. The first character of the command prefix must be one of the following:

```
@     $     #     .     /     '     ?     "     %     !     <
)     *     +     -     =     ¢     :     _     ;     |
```

The remaining characters of the command prefix must be one of the above, A-Z, or 0-9.

This message is issued by the following panel: DSNTIPM

System Action: The panel is redisplayed and the cursor is placed on the field in error

User Response: Enter a valid command prefix

DSNT411I SQLCAID = xxxx, SQLCA IDENTIFIER

Explanation: The SQLCA ID field (SQLCAID) is not the expected value, C'SQLCA'.

This message is issued by the following CSECT: DSNTIAR

System Programmer Response: The SQLCA area is invalid. This type of error is usually the result of one of the following:

- Calling the DSNTIAR formatting routine before an SQL statement initializes the area
- Overlaying the SQLCA area
- Passing the wrong address to the DSNTIAR routine.

Correct the error, and rerun the application program.

DSNT412I SQLCABC = xxxx, SQLCA BYTE COUNT

Explanation: The size of the SQLCA is not the expected value (136 bytes).

This message is issued by the following CSECT: DSNTIAR

System Programmer Response: The SQLCA area is invalid. Correct the error. It is probably an overlay or an incorrect SQLCA address. Rerun the application program.

DSNT413I SQLCODE = xxxx, INVALID SQLCODE

Explanation: The SQL return code is not a valid value.

This message is issued by the following CSECT: DSNTIAR

System Programmer Response: Either the SQLCA area is invalid or the maintenance was not coordinated correctly. As a result, the SQL return code was added to the DB2 subsystem but not to the formatting routine.

An invalid SQLCA area is usually the result of one of the following:

- Calling the DSNTIAR formatting routine before an SQL statement initializes the area
- Overlaying the SQLCA area
- Passing the wrong address to the DSNTIAR routine.

If the maintenance was not coordinated correctly, the DSNTIAR and DSNTIAM CSECTs were probably not replaced in the code that is now running. Link-edit the load module, and replace DSNTIAR and DSNTIAM. Correct the error, and rerun the application program.

DSNT414I SQLERRM = xxxx, SQLCA ERROR MESSAGE INSERTION TEXT

Explanation: This message results from an SQL return code that is not recognized by DSNTIAR. SQLERRM contains error message text.

This message is issued by the following CSECT: DSNTIAR

System Programmer Response: Either the SQLCA area is invalid or the maintenance was not coordinated correctly. As a result, the SQL return code was added to the DB2 subsystem but not to the formatting routine.

An invalid SQLCA area is usually the result of one of the following:

- Calling the DSNTIAR formatting routine before an SQL statement initializes the area
- Overlaying the SQLCA area
- Passing the wrong address to the DSNTIAR routine.

If the maintenance was not coordinated correctly, the DSNTIAR and DSNTIAM CSECTs were probably not replaced in the code that is now running. Link-edit the load module, and replace DSNTIAR and DSNTIAM. Correct the error, and rerun the application program.

DSNT415I SQLERRP = xxxx, SQL PROCEDURE DETECTING ERROR

Explanation: The name of the procedure detecting the error is provided in the SQLERRP.

This message is issued by the following CSECT: DSNTIAR

System Programmer Response: (The SQL procedure detecting the error may be of help in diagnosing an error or warning.) Correct the error if there is one noted in other messages. Rerun the program or SQL statement.

DSNT416I SQLERRD = *xx,xx,xx,xx,xx,xx* SQL DIAGNOSTIC INFORMATION

Explanation: At least one of the six diagnostic fields is not the expected value. The expected values are:

- 00, 00, 00, 00, 00, 00 or
- 00, 00, 00, -1, 00, 00

The SQL diagnostic information for each of the six values is as follows:

1 DB2 unique internal relational data system code
2 DB2 internal data manager error code
3 One of the following:

1. Number of rows inserted, updated, or deleted following an INSERT, UPDATE, or DELETE statement

   Note: A '-1' in this field indicates that a mass delete of a table in a segmented table space was performed, wherein DB2 does not access nor count individual rows.

2. For SQLCODE —911 or —913, a reason code that indicates whether a deadlock or timeout occured.

   Note: The most common reason codes are:

   - 00C90088 — deadlock
   - 00C9008E — timeout

4 Reserved
5 Position or column of a syntax error for PREPARE or EXECUTE IMMEDIATE
6 DB2 internal buffer manager error code

This message is issued by the following CSECT: DSNTIAR

System Programmer Response: Refer to Appendix C of *SQL Reference* for further information on the contents of the SQLERRD fields. The SQL diagnostic information may be of help in diagnosing an error or in indicating the results of successful execution. If this error or warning should not occur, correct the error. Rerun the program or SQL statement.

DSNT417I SQLWARNn-n SQL WARNINGS

Explanation: At least one of the 11 warning values is not the expected value (a blank). A nonblank value in one of the 11 warning fields has the following meaning:

SQLWARN0	Any other warning code is set.
SQLWARN1	String truncation.
SQLWARN2	Null value(s) eliminated.
SQLWARN3	Number of host variables provided did not equal degree of the table.
SQLWARN4	No WHERE clause on UPDATE or DELETE.
SQLWARN5	Not a DB2 SQL statement.
SQLWARN6	Date or timestamp value adjusted.
SQLWARN7	Conversion of decimal number from precision 31 to precision 15 caused truncation of fractional digits.
SQLWARN8	Untranslatable character replaced with substitute.

SQLWARN9 Arithmetic exceptions have been ignored during processing of COUNT DISTINCT.

SQLWARNA At least one character field of the SQLCA is invalid due to a string translation error.

This message is issued by the following CSECT: DSNTIAR

User Response: The SQL warning information may be of help in diagnosing an error or in indicating the results of successful execution. If this warning should occur, correct the error and rerun the program or SQL statement.

DSNT418I SQLSTATE = sqlstate, SQLSTATE RETURN CODE

Explanation: The SQLSTATE is a return code that indicates the outcome of the most recently executed SQL statement. The execution of every SQL statement sets SQLSTATE to a five-digit code in the range of 00000 to 65535. This has no effect on the existing use of any other field in the SQLCA.

This message is issued by the following CSECT: DSNTIAR

User Response: For further information on the meaning of an SQLSTATE return code, see the “Section 2. SQL Return Codes” on page 2-1. If necessary, correct the SQL statement and return it.

DSNT419I WARNING - MAX REMOTE ACTIVE PREVIOUSLY SPECIFIED AS 0.

Explanation: You specified a value of 0 for the number of active database access threads on a previous panel. This value might be inconsistent with a DDF STARTUP OPTION of AUTO or COMMAND.

This message is issued by the following panel: DSNTIPR

Severity: 4 (warning)

System Action: The panel is redisplayed and the cursor is placed on the DDF STARTUP OPTION field.

User Response: No response is necessary if your intent is to have DDF started with no active database access threads allocated and DDF is used as a requester only. Press ENTER to continue. Otherwise, either change the DDF STARTUP OPTION to NO or MAX REMOTE ACTIVE to the number of threads you want.

DSNT420I YOU NEED AT LEAST 1 32K DS IF THE TEMP 32K SPACE IS GREATER THAN 0

Explanation: You entered zero for the TEMP 32K DATA SETS field on the SIZES panel. You need at least one TEMP 32K DATA SET if TEMP 32K SPACE on DSNTIPD is not zero.

This message is issued by the following panel: DSNTIPD

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Enter a value of one or greater for the TEMP 32K DATA SETS field or change the TEMP 32K SPACE value to zero.

DSNT421I YOU NEED AT LEAST 1 32K BUFFER FOR THE <*num32kds*> 32K DATA SETS

Explanation: You specified zero for the 32KB buffers. If field TEMP 32K DATA SETS on installation panel DSNTIPD is greater than zero, you need at least one 32KB buffer on installation panel DSNTIP2.

This message is issued by the following panel: DSNTIP2

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Enter a value of 1 or more for at least one of the buffer pools (BP32K - BP32K9) on panel DSNTIP2, or change the TEMP 32K DATA SETS value to zero.

DSNT422I THE ART TABLE NAME MUST BE DIFFERENT FROM THE CRT TABLE NAME

Explanation: You entered the same name for the Application Registration Table and the Object Registration Table on the Data Definition Control Support panel.

This message is issued by the following panel: DSNTIPZ

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Change either the APPL REGISTRATION TABLE field or the OBJT REGISTRATION TABLE field to make these two fields unique with respect to each other.

DSNT424I OUTPUT DATA SETS MUST BE DIFFERENT FROM THE INPUT DATA SETS

Explanation: You specified an output data set name that is the same as one of the input data set names built from the PREFIX and SUFFIX fields on the main panel DSNTIPA1.

This message is issued by the following panel: DSNTIPT

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Either change the data set name under the cursor or change the PREFIX or SUFFIX fields on panel DSNTIPA1.

DSNT425I ALL THREE OUTPUT DATA SETS MUST BE UNIQUE

Explanation: You specified the same name for two or more of the output data sets.

This message is issued by the following panel: DSNTIPV

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Change the data set name under the cursor or the data set field(s) that are the same as the one under the cursor.

DSNT426I ALL THREE DATA SETS ARE REQUIRED FOR OUTPUT

Explanation: You specified one or more output data sets and left one or more output data set fields blank.

This message is issued by the following panel: DSNTIPT

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: You must specify all or none of the output

data set fields. Leave blank all output data set fields if you do not want the installation CLIST to edit any CLISTs or JCL.

DSNT427I THE DATA SET OR MEMBER SPECIFIED COULD NOT BE LOCATED

Explanation: The input parameter member for the INPUT MEMBER NAME field or the DATA SET NAME(MEMBER) field for migration could not be found.

This message is issued by the following panel: DSNTIPA1

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Verify that you entered an existing data set and member in that data set. Also verify that the data set is cataloged.

DSNT428I WHEN USING TIMESTAMPS, THE PREFIX MUST BE <= preflen CHARACTERS LONG

Explanation: YOU HAVE ENTERED AN ARCHIVE LOG PREFIX LONGER THAN ALLOWED The archive log prefix names must not exceed 19 characters when the TIMESTAMP ARCHIVES value is YES and must not exceed 17 characters when the TIMESTAMP ARCHIVES value is EXT.

This message is issued by the following panel: DSNTIPH

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Reduce the length of the prefix or change the TIMESTAMP ARCHIVES value to NO.

DSNT429I THE SUM OF MAX USERS AND MAX REMOTE ACTIVE MUST BE LESS THAN OR EQUAL TO 2000

Explanation: The total number of threads determined by MAX USERS and MAX REMOTE fields is too large.

This message is issued by the following panel: DSNTIPE

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Reduce the MAX USERS field, or the MAX REMOTE field, or both.

DSNT430I THIS FIELD MAY ONLY BE FILLED IN FOR MIGRATE MODE

Explanation: You can only specify the FROM RELEASE or DATA SET NAME(MEMBER) fields for INSTALL TYPE of MIGRATE.

This message is issued by the following panel: DSNTIPA1

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Change the INSTALL TYPE to MIGRATE or blank out the field under the cursor.

DSNT431I DDF, MIXED DATA, OR DEF ENCODING SCHEME CONFLICTS WITH CODED CHAR SET

Explanation: You have entered an invalid EBCDIC or ASCII coded character set (CCSID) value for the DDF, MIXED DATA, or DEF ENCODING SCHEME value you specified. The following restrictions apply to these values:

- With a MIXED DATA value of 'YES', you must choose a valid mixed CCSID value for the EBCDIC CODED CHAR SET. The ASCII CODED CHAR SET must be a valid mixed value or zero.
- With a MIXED DATA value of 'NO', you must choose a valid SBCS CCSID value or zero for EBCDIC or ASCII CODED CHAR SETs.
- With a DDF value of 'AUTO' or 'COMMAND', you must choose a non-zero value for the EBCDIC CODED CHAR SET.
- With a DEF ENCODING SCHEME value of 'ASCII', you must choose non-zero values for EBCDIC and ASCII CODED CHAR SETs.

Refer to Appendix C of *Installation Guide* for a list of the best general CCSID for each country.

This message is issued by the following panels: DSNTIPF, DSNTIPR

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Correct either the DDF, MIXED DATA, or DEF ENCODING SCHEME value or the EBCDIC or ASCII CODED CHAR SET value to correct the incompatibility.

DSNT432I YOU CANNOT SPECIFY BOTH VS COBOL II AND COBOL/370 COMPILER LIBRARIES

Explanation: You have specified libraries for both VS COBOL II and COBOL/370 compilers. You must choose one or neither.

This message is issued by the following panel: DSNTIPU

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Delete the COBOL II COMPILER field, the COBOL/370 COMPILER field, or both.

DSNT433I MAX REMOTE ACTIVE MUST BE <= MAX REMOTE CONNECTED.

Explanation: The number of active database access threads cannot be larger than the number of concurrent database access threads.

This message is issued by the following panel: DSNTIPE

Severity: 8 (error)

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Reduce the MAX REMOTE ACTIVE field, increase the MAX REMOTE CONNECTED field, or both.

DSNT434I WARNING, DATA SETS MARKED WITH ASTERISKS EXIST AND WILL BE OVER-WRITTEN

Explanation: The data sets marked with asterisks already exist. If you continue, the installation process will delete the existing data set and allocate a new one for tailored job output.

This message is issued by the following panel: DSNTIPT

Severity: 4

User Response: You should:

1. Press ENTER to continue; the data set(s) will be deleted and reallocated OR
2. Press RETURN to leave the installation process; the data set(s) will not be deleted OR
3. Change the data set name(s); the new name will be checked for existence.

DSNT435I DSNT435I OVERRIDE VALUES ARE IN EFFECT

Explanation: Calculated values for EDMPOOL, SORTPOOL, or RIDPOOL on panel DSNTIPC were previously overridden. Installation uses any override values displayed.

Severity: 4

System Action: Override values are used instead of calculated values, when displayed.

User Response: No response is necessary if you want to use the override values. If you want to use the calculated values, erase the values in the override column.

DSNT436I REGION SIZE MAY BE TOO LARGE

Explanation: The numbers you specified produced a region size estimate of more than 5000KB. This region size estimate does not include the storage required for SWA because it is assumed that SWA has been placed above the line. If a larger private area is permitted, you should increase the region size on the DB2 start procedures. The region size calculation is shown in the DSNT485I through DSNT487I messages and is discussed in Section 2 of *Installation Guide* .

This message is issued by the following installation CLIST: DSNTINST

Severity: 4 (warning)

System Action: The CLIST continues.

User Response: Check the values entered for numbers of concurrent users and databases, buffers, and plan sizes. Check the available private region size. If this region size is not permitted, these numbers need to be reduced. If the size is permitted, this warning can be ignored.

Problem Determination: If you suspect an error in the process, set CONTROL(CONLIST) and invoke the CLIST. This produces tracing for error documentation.

DSNT437I REGION SIZE IS TOO LARGE

Explanation: The numbers you specified produced a region size estimate of more than 8000KB. This estimate does not include the storage required for SWA, because it is assumed that you placed SWA above the 16MB line. The region size calculation is discussed in Section 2 of *Installation Guide* .

This message is issued by the following installation CLIST: DSNTINST

Severity: 8 (error)

System Action: The CLIST continues, but does not produce edited jobs.

User Response: Check the numbers entered for numbers of concurrent users and databases, buffers, and plan sizes. One or more of these numbers needs to be reduced.

Problem Determination: If you suspect an error in the process, set CONTROL(CONLIST) and invoke the CLIST. This produces tracing for error documentation.

DSNT438I WARNING, IRLM LOCK MAXIMUM SPACE = irlmreg K, AVAILABLE SPACE = irlmav K

Explanation: You specified a maximum number of locks per user that could use a total space larger than that available to the IRLM, causing it to abend. It is not likely that all threads will have the maximum number of locks, but if the maximum exceeds the amount of space by a significant factor, the possibility of abends in the IRLM is increased.

If the CROSS MEMORY value from the DSNTIPJ installation panel is YES, the private region size is the space available for the IRLM. The available space is estimated as 60000K since extended private address space is used. If the CROSS MEMORY value is NO, then the MAXIMUM ECSA value space is available for the IRLM. The maximum space used is estimated as the MAX USERS value from the DSNTIPE panel times the number of LOCKS PER USER value on the DSNTIPJ panel times 250 bytes per lock.

This message is issued by the following installation CLIST: DSNTINST

Severity: 4 (warning)

System Action: The CLIST will continue.

User Response: Choose one of the following responses:

- Ensure that you can run with the overcommitment of lock address space, or
- Lower the value of the MAX USERS or LOCKS PER USER field.

DSNT439I IRLM NO LOCK ESCALATION OR NO USER MAXIMUM

Explanation: You specified the number 0 for:

- The number of table or table space locks that will cause lock escalation, or
- The number of locks that will terminate a DB2 user.

A lock escalation value of 0 turns off lock escalation and means that DB2 cannot use this means of conserving lock space. A user maximum of 0 means that the calculation noted in the DSNT438 message cannot be performed to see if the IRLM has sufficient address space for all users, since there is no maximum per user.

This message is issued by the following installation CLIST: DSNTINST

Severity: 4 (warning)

System Action: The CLIST will continue. This is only a warning.

User Response: Turn off lock escalation and/or user lock limiting.

DSNT440I TOTAL BP SIZE TOO LARGE

Explanation: The total size of a VIRTUAL or HIPER buffer pool is too large. For buffer pool type VIRTUAL, the maximum is 1.6GB. For buffer pool type HIPER, the maximum is 8GB.

This message is issued by the following panels: DSNTIP1, DSNTIP2

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Reduce one or more of the buffer pool sizes.

DSNT441I INVALID HIPERPOOL SIZE

Explanation: If a nonzero hiperpool value is specified, the corresponding virtual buffer pool value must also have a nonzero value. For example, if a nonzero value is specified for the BP1 hiperpool size, then the value for the BP1 virtual buffer pool size must be greater than zero.

This message is issued by the following panels: DSNTIP1, DSNTIP2

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Enter a value greater than zero for the virtual buffer pool size or reduce the value for the hiperpool size to zero.

DSNT442E ERROR, VIRTUAL STORAGE OF main EXCEEDS THE SYSTEM LIMIT OF 2 GIGABYTES

Explanation: The total of all virtual storage calculations exceeds the maximum amount possible for an address space.

This message is issued by the following CLIST: DSNTINST

Severity: 8 (error)

System Action: The installation CLIST returns to the initial panel without editing the installation jobs.

User Response: Respecify installation values that determine storage sizes so that the 2 GB limit is not exceeded.

DSNT443I VALUES MARKED WITH AN ASTERISK HAVE BEEN UPDATED

Explanation: An asterisk is placed before the description of fields which were generated by the DSNTINST CLIST. This message only appears when you update field(s) from a prior panel used to generate the fields on the current panel.

This message is issued by the following panels: DSNTIPA, DSNITPL

System Action: The panel is displayed.

User Response: Verify that the current value is what you want. If it is not, enter the desired value.

DSNT444I SCROLLING BACKWARD MAY CHANGE FIELDS MARKED WITH ASTERISKS

Explanation: The marked fields on the current panel are generated from fields on other panels. If you scroll backward, these fields may be updated to reflect new values from other panels. For example, the ARCHIVE PREFIX field is generated from the CATALOG ALIAS field on DSNTIPA2. Message DSNT443I will be displayed to inform you when fields are changed by the DSNTINST CLIST.

This message is issued by the following panels: DSNTIPA, DSNITPL

System Action: The panel is displayed.

User Response: No action required.

DSNT445I REMOTE LOCATION NAME MUST NOT BE THE SAME AS LOCAL LOCATION

Explanation: The name entered for the remote sample location was the same as the local location name.

This message is issued by the following installation panel: DSNTIPY

System Action: The panel is displayed.

User Response: Enter a remote location name or leave the field blank to indicate that the organization sample will only be executed locally.

DSNT446I SAMPLE LOCATION MUST BE BLANK IF LOCAL LOCATION IS BLANK

Explanation: In order to edit the remote sample jobs, both the DB2 LOCATION NAME (local location) on panel DSNTIPR and the REMOTE LOCATION must have valid names. If the DB2 LOCATION NAME is unknown, leave both fields blank and the remote sample jobs will not be edited.

This message is issued by the following panel: DSNTIPY

System Action: The panel is displayed.

User Response: Either scroll back to the DISTRIBUTED DATA FACILITY panel and enter a value for the DB2 LOCATION NAME, or enter a blank in the REMOTE LOCATION field on the job editing panel.

DSNT448I RECOMMEND REAL STORAGE = size K

Explanation: This is the estimated amount of real storage recommended to support the virtual storage sizes chosen.

The amount of real storage needed will vary greatly. Some customers will find that they need several times the estimate shown. For more information on storage calculations, refer to Section 2 of *Installation Guide* .

This message is issued by the following CLIST: DSNTINST

Severity: 0 (successful execution)

System Action: The CLIST continues.

User Response: Compare this recommended value with the actual available real storage.

DSNT449I NUMBER OF LOGS REDUCED FROM old-num TO MAXIMUM OF 31

Explanation: The number of active log data sets used in the DB2 release you are migrating from is greater than the new maximum number of data sets allowed for the current release of DB2. Installation job DSNTIJUZ will update your bootstrap data sets to contain only the last 31 data sets.

This message is issued by the following panel: DSNITPL

System Action: The value is reduced to the maximum of 31 and the panel is displayed.

User Response: Update any other fields on the panel and continue.

DSNT450I type ENTRY MUST BE EXACTLY TWO CHARACTERS

Explanation: These entries are used to complete SYS1.PARMLIB member names and must be exactly two characters. The type is:

APF AUTH	For the APF-authorized library list IEAAPFxx
LINK LIST	For the link list library concatenation LNKLSTxx
MVS SUBSYS	For the MVS subsystem list IEFSSNxx

This message is issued by the following installation CLIST: DSNTINST

Severity: 8 (error)

System Action: The CLIST will continue.

User Response: Check your entries for these fields on the MVS panel and make them exactly two characters. See job DSNTIJMV that was produced and correct the IEBUPDTE CHANGE statement.

DSNT451I WARNING-THE LOCAL DATE LENGTH OR LOCAL TIME LENGTH HAS BEEN INCREASED

Explanation: The LOCAL DATE LENGTH or LOCAL TIME LENGTH has been increased and a REBIND command must be issued for any dependent plans.

This message is issued by the following installation CLIST: DSNTINST

Severity: 4 (warning)

System Action: Processing continues.

User Response: Rebind all application plans that depend upon the length of the local format that was changed.

DSNT454I ERROR CODE = errcode, CNT = count

Explanation: An error was encountered during CLIST processing for reading the parameter member. Most of these errors are caused by having a mismatch between the level of the CLIST and that of the parameter member being read.

The 'errcode' is an error code defined for the CLIST. The error code values and associated meanings are found in *TSO/E CLISTS*.

The 'count' value is the number of parameter values already read.

This message is issued by the following installation CLIST: DSNTINST

System Action: The CLIST will terminate.

User Response: Be sure the parameter member and the CLIST are at the same level.

Problem Determination: If you suspect an error in the process, set CONTROL(CONLIST) and invoke the CLIST in batch, so that the tracing can be sent with the error documentation. You will also need the listing of the CLIST and the parameter member being read.

DSNT456I ERROR IN VARIABLE varname, VALUE IS value

Explanation: The variable named 'varname' does not have a valid value. Its current value is 'value'. Subsequent messages will describe the reason the value is invalid and the action taken by the CLIST.

If the error is in the CONTROL value, the value was specified when the CLIST was invoked. The value is not valid, and no additional tracing will be done. The permitted values are NONE, LIST, CONLIST, and SYMLIST. Each value produces more CLIST tracing information than those which precede it. If the error is in other values, the value was specified when the CLIST was invoked on the ISPF panels.

This message is issued by the following installation CLIST: DSNTINST

Severity: 8 (error)

System Action: The CLIST will continue, but will not produce jobs or parameter data.

User Response: Check the subsequent messages. Exit, then invoke the CLIST with a valid value for the variable.

Problem Determination: If you suspect an error in the process, set CONTROL(CONLIST) and invoke the CLIST in batch, so that the tracing can be sent with the error documentation. The CLIST itself and the parameter member read in should be sent as well.

DSNT457I The SUBSYSTEM NAME MUST BE DIFFERENT THAN THE PROC NAME

Explanation: Internal MVS restrictions require that the IRLM subsystem name be different than the procedure name.

This message is issued by the following panel: DSNTIPI

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Change either the SUBSYSTEM NAME or the PROC NAME so these fields are unique with respect to each other.

DSNT458I VALUE MUST BE NUMERIC

Explanation: The variable named in message DSNT456I must be an integer. Only digits are allowed, with no decimal point or fractions. If the value is a number suffixed by K or M, it is interpreted as the indicated number multiplied by 1024 or 1048676. If any other non-numeric character is present in the value, or if the K or M is not the final character, this message is produced.

This message is issued by the following installation CLIST: DSNTINST

Severity: 8 (error)

System Action: The CLIST will continue, but will not produce edited jobs or parameter data.

User Response: This CLIST will continue, but will not produce edited jobs. The value of the variable has been set to the value shown in message DSNT465I. You will need to reenter the output parameter and output data set prefix. Examine the value and reset it if needed.

DSNT459I VALUE IS TOO LOW, MINIMUM IS min

Explanation: The variable named in message DSNT456I must be larger than its current value. The minimum value allowed is 'min'.

This message is issued by the following installation CLIST: DSNTINST

Severity: 8 (error)

System Action: The CLIST will continue, but will not produce edited jobs. The CLIST resets the incorrect value to 'min'.

User Response: See message DSNT465I for the CLIST action.

DSNT460I VALUE IS TOO HIGH, MAXIMUM IS max

Explanation: The variable named in message DSNT456I must be smaller than its current value. The maximum value allowed is 'max'.

This message is issued by the following installation CLIST: DSNTINST

Severity: 8 (error)

System Action: The CLIST will continue, but will not produce edited jobs. The CLIST resets the incorrect value to 'max'.

User Response: See message DSNT465I for the CLIST action.

DSNT461I THE BUFFER POOL MAXIMUM IS LESS THAN THE MINIMUM VALUE ENTERED

Explanation: Buffer pool maximums must be greater than or equal to the minimum value for the same buffer pool.

This message is issued by the following panel: DSNTIPE

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Either reduce the minimum value or increase the maximum value for the indicated buffer pool buffer.

DSNT462I VALUE IS TOO LONG, MAXIMUM IS length CHARACTERS

Explanation: The variable named in message DSNT456I must be shorter than its current value. The maximum length allowed is 'length'.

This message is issued by the following installation CLIST: DSNTINST

Severity: 8 (error)

System Action: The CLIST will continue, but will not produce edited jobs. The CLIST resets the value to the default value.

User Response: See message DSNT465I for the CLIST action.

DSNT463I DATA SHARING FIELD MUST BE BLANK IN UPDATE MODE.

Explanation: This field is not relevant in Update mode and must be blank This message is issued by panel: DSNTIPA1

System Action: The panel is redisplayed and the cursor is placed on t field in error.

User Response: Replace the value with a blank.

DSNT464I VALUES PERMITTED ARE values

Explanation: The variable named in message DSNT456I must be one of the 'values' listed.

This message is issued by the following installation CLIST: DSNTINST

Severity: 8 (error)

System Action: The CLIST will continue, but will not produce edited jobs.

User Response: See message DSNT465I for the CLIST action.

DSNT465I VARIABLE varname SET TO value

Explanation: The variable, 'varname', named in message DSNT456I is in error. Possible reasons for the error are listed in messages: DSNT458I, DSNT459I, DSNT460I, DSNT462I, DSNT463I, DSNT464I.

This message is issued by the following installation CLIST: DSNTINST

System Action: The CLIST will continue, but will not produce edited jobs. The value has been set to the value shown.

User Response: Specify the output data again on the primary install panel. You will be able to see and change the value. If this value is not acceptable, change it, noting the limits.

DSNT466I Output member CANNOT BE DSNTIDVB OR DSNTIDXA

Explanation: The OUTPUT MEMBER NAME field must not be DSNTIDVB or DSNTIDXA. These two members are shipped with DB2 and must not be overwritten.

This message is issued by the following panel: DSNTIPA1

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Change the value of the field under the cursor.

Note: If the member you specify already exists, it will be overwritten.

DSNT467I OUTPUT MEMBER SHOULD BEGIN WITH DSNTID

Explanation: The output parameter member will be placed into *prefix*.SDSNSAMP. This data set already has a large number of members. To avoid replacing a member that you need, a naming convention with prefix 'DSNTID' is strongly suggested. The suffixes 'VB' and 'XA' are not allowed (see message DSNT466I).

This message is issued by the following installation CLIST: DSNTINST

Severity: 4 (warning)

System Action: The CLIST will continue.

User Response: Specify a different name for the output member.

DSNT468I ERROR(S) ENCOUNTERED, OUTPUT IS BYPASSED

Explanation: An error was detected earlier in this run. Because of the error, data set editing was not performed.

This message is issued by the following installation CLIST: DSNTINST

Severity: 8 (error)

System Action: The CLIST will continue, but will not produce edited jobs.

User Response: Correct the errors noted earlier, and specify the output prefix name again to produce the edited data.

DSNT469I INPUT PARAMETERS MUST BE READ BEFORE MIGRATION

Explanation: The INPUT MEMBER NAME on panel DSNTIPA1 must have a value to allow migration values to be read. This is to permit the new values to be initialized.

This message is issued by the following installation CLIST: DSNTINST

Severity: 8 (error)

System Action: The CLIST will return to the main install panel, DSNTIPA1.

User Response: Specify DSNTIDXA as the INPUT MEMBER NAME and specify the current value for the migration member.

DSNT470I WARNING, ONLY ONE VOLUME WAS SPECIFIED

Explanation: Only one volume serial number was specified on the install panel or CLIST invocation. This does not allow adequate recovery or performance unless it is intended to be a single volume test system.

This message is issued by the following installation CLIST: DSNTINST

Severity: 4 (warning)

System Action: The CLIST will continue.

User Response: If this subsystem is intended to be recoverable, more than one volume is needed. Rerun the installation tailoring process, specifying at least one more volume on the DSNTIPA2 panel. If this is just a single volume test system, be sure that you specify a single copy of the log data sets. The boot strap data sets are small and not active, so that two are recommended even on a single volume system.

DSNT471I BEGINNING PARAMETER INPUT MEMBER inmem

Explanation: The input parameter member, 'inmem', is being read. This data includes values for all of the installation parameters.

This message is issued by the following installation CLIST: DSNTINST

Severity: 0 (successful execution)

System Action: The CLIST will continue.

DSNT472I WORK FILE DATABASE NAME CANNOT START WITH DSNDB EXCEPT FOR DSNDB07

Explanation: The work file database name cannot start with the characters DSNDB unless the name is DSNDB07.

This message is issued by the following panel: DSNTIPK

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Change the name so that it does not start with DSNDB.

DSNT473I BEGINNING CHECK PHASE

Explanation: This message indicates the following:

- The values entered on the panels are being checked.
- Values which use the K or M suffix are being translated to numbers.

This message is issued by the following installation CLIST: DSNTINST

Severity: 0 (successful execution)

System Action: The CLIST will continue.

DSNT474I READING count, varname, datatype, minval, maxval, currentval

Explanation: The values are being read from the parameter member. The count, the variable name, the data type, the minimum value, the maximum value, and the current value are shown. This message occurs when the CONTROL keyword requests a trace.

This message is issued by the following installation CLIST: DSNTINST

Severity: 0 (successful execution)

System Action: The CLIST will continue.

DSNT475I CHECK count, varname, type, minval, maxval, currentval

Explanation: This message indicates the following:

- The values read in or entered on the panels are being checked.
- Values which use the K or M suffix are being translated to numbers.

The count, the variable name, the data type, the minimum value, the maximum value, and the current value are shown. This message occurs when the CONTROL keyword requests a trace.

This message is issued by the following installation CLIST: DSNTINST

Severity: 0 (successful execution)

System Action: The CLIST will continue.

DSNT476I BEGINNING PARAMETER OUTPUT MEMBER outmem

Explanation: The output parameter member named 'outmem' is being written. This data includes values for all the install parameters.

This message is issued by the following installation CLIST: DSNTINST

Severity: 0 (successful execution)

System Action: The CLIST will continue.

DSNT477I OUTPUT count, varname, type, minval, maxval, currentval

Explanation: The values entered on the panels are being written to the output parameter member. The count, the variable name, the data type, the minimum value, the maximum value, and the current value are shown. This message occurs when the CONTROL keyword requests a trace.

This message is issued by the following installation CLIST: DSNTINST

Severity: 0 (successful execution)

System Action: The CLIST will continue.

DSNT478I BEGINNING EDITED DATA SET OUTPUT

Explanation: The output jobs and data are being edited to tailor them. Edited JCL output was requested and no severe errors were encountered.

This message is issued by the following installation CLIST: DSNTINST

Severity: 0 (successful execution)

System Action: The CLIST will continue.

DSNT479I THE IRLM GROUP NAME AND DB2 GROUP NAME MUST BE DIFFERENT

Explanation: You entered an IRLM group name on panel DSNTIPJ that is the same as the DB2 group name entered on panel DSNTIPK. The names must be different.

This message is issued by the following panel: DSNTIPJ

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Either change the DB2 group name entered on panel DSNTIPK or the IRLM group name on panel DSNTIPJ.

DSNT480I NAME MUST BE 1-16 CHARS, BEGIN WITH A-Z, AND NOT INCLUDE #, @, OR $.

Explanation: The location name specified on panel DSNTIPR is invalid. The location name must be 1-16 alphanumeric characters, excluding the alphabetic extenders #, @ or $, and must begin with a letter.

This message is issued by panel: DSNTIPR

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Change the location name to meet the allowable criteria.

DSNT481I DSNTINST *data set* DATA SET SIZE MAY BE TOO SMALL

Explanation: The DSNTINST CLIST encountered an arithmetic overflow during calculation of this data set's size.

This message is issued by the following CSECT: DSNTINST

System Action: DSNTINST continues processing and uses 2147483647 for the result of the calculation that caused the overflow. Thus, the size of the data set might be too small.

User Response: Check the data set size in installation job DSNTIJIN. If it is too small, increase it.

DSNT482I TOO MANY CONCURRENTLY ALLOCATED DATA SETS, *opnds*

Explanation: The number (*opnds*) calculated for the number of concurrent databases, tables per database, and table spaces per database, is too large. The maximum number of data sets that can be allocated to an MVS address space is 10000.

The number of concurrently allocated data sets is calculated using the formula:

```
OPNDS = (NUMCONDB X NUMTABLE X NUMINDEX) +
(NUMCONDB X NUMTABSP)
```

Where	Represents
NUMCONDB	The maximum number of concurrently active databases (DATABASES on panel DSNTIPE)
NUMTABLE	The estimated average number of tables per database (TABLES on panel DSNTIPD)
NUMINDEX	The estimated average number of indexes per table (set to 2)
NUMTABSP	The estimated average number of table spaces per database (TABLE SPACES on panel DSNTIPD)

This message is issued by the following installation CLIST: DSNTINST

Severity: 4 (warning)

System Action: The CLIST reduces the value of NUMCONDB so that the calculated value for OPNDS is within the allowed range. CLIST processing continues.

User Response: Do one of the following:

- Accept the reduced value for NUMCONDB calculated by the CLIST.
- Reenter smaller values for NUMCONDB, NUMTABLE, or NUMTABSP on the SIZES and STORAGE SIZES panels. You can do this by either using the END key to go back to those panels or by running the CLIST again.

DSNT483I NAME MUST BE 1-8 CHARS AND MUST BEGIN WITH A-Z

Explanation: The DB2 data sharing group name specified on panel DSNTIPK or the IRLM data sharing group name specified on panel DSNTIPJ is invalid. The DB2 or IRLM group name must be 1-8 characters, and must begin with a letter.

This message is issued by panels: DSNTIPJ, DSNTIPK

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Change the group name to meet the allowable criteria.

DSNT484I MUST BE BLANK IF NOT USING CICS

Explanation: All fields on panel DSNTIP3 must be blank if you are not using CICS.

This message is issued by panel: DSNTIP3

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Remove the value from the field in error.

DSNT485I type SIZE = size K

Explanation: This is the estimated main storage size for part of the DB2 database address space. This is the most constrained address space. The 'type' can be BUFFER POOL, SORT POOL SIZE, RID POOL SIZE, EDMPOOL STORAGE, DATA SET STORAGE, CODE STORAGE, or WORKING STORAGE.

The storage for buffer pools, sort pools, rid pools, EDMPOOL, and code is above the 16MB line. Most of the main storage for data set control blocks is below the 16MB line and is included in the region size. Working storage includes storage above and below the 16MB line, but storage above the line is not included in the region. Refer to Section 2 of *Installation Guide* for more information regarding this calculation.

This message is issued by the following installation CLIST: DSNTINST

Severity: 0 (successful execution)

System Action: The CLIST continues.

DSNT486I TOTAL MAIN STORAGE = totregion K

Explanation: This is the estimated total region size. It includes storage above the 16MB line. Refer to Section 2 of *Installation Guide* for more details regarding this calculation.

This message is issued by the following installation CLIST: DSNTINST

Severity: 0 (successful execution)

System Action: The CLIST continues.

DSNT487I TOTAL STORAGE BELOW 16MB = region K (ASSUMING SWA IS ABOVE THE LINE)

Explanation: This message provides an estimate of the virtual storage required below the 16MB line to check for virtual storage constraints. This calculation presumes that you have moved the SWA for DB2 above the 16MB line. Refer to Section 2 of *Installation Guide* for details regarding this calculation.

This message is issued by the following installation CLIST: DSNTINST

Severity: 0 (successful execution)

System Action: The CLIST continues.

User Response: Check for virtual storage constraints. Your MVS should permit at least this amount of virtual storage below the 16MB line.

DSNT488I VOLUME voln WILL REQUIRE AT LEAST nn 4K BLOCKS

Explanation: This message states the number of 4KB blocks of space that will be required for the specified volume in order to install or migrate the current release of DB2.

Volume 'voln' is specified in the VOLUME SERIAL fields on install panel DSNTIPA2, or with the VOLSDATn input parameters to the Install CLIST. The message indicates how much space will be needed on the selected volume to install or migrate this release of DB2.

This message is issued by the following installation CLIST: DSNTINST

Severity: 0 (successful execution)

System Action: Processing continues.

User Response: Ensure that the volume has at least as much available storage as the message indicates it should have. If it does not, rerun the INSTALL CLIST specifying different volumes, or create more available space on the originally specified volume.

In order to convert the number of 4KB blocks required to the number of cylinders required, use the table below. Divide the number of 4KB blocks (in the DSNT488I message) by the number of 4KB blocks per cylinder (in the table) to get the number of cylinders required.

Device Type	4KB Blocks per Cylinder	4KB Blocks per Track
3330	57	3
3340	24	2
3350	120	4
3375	96	8
3380	150	10

These size estimates are for system data only. They do not include: user data, archive logs, image copies, or temporary work data sets other than the temporary database.

DSNT489I CLIST EDITING *dsname(member), explanation*

Explanation: The CLIST is editing the data set and member *dsname(member).* The *explanation* is the type of data being edited and has one of these values:

INSTALL JCL
Jobs that are edited and run as directed during the installation process.

MIGRATE JCL
Jobs that are edited and run as directed only during the migration process.

FALL BACK JCL
A job that is only run as directed when falling back to the previous release.

RECOVERY JCL
A job that is only run as directed during a recovery process. It deletes the DB2 data sets.

SAMPLE JCL
Jobs that are edited and run during installation verification to add the sample application.

SAMPLE DATA
Edited data that installation verification jobs require.

CLIST
Customized CLISTs to reflect your names used during the installation process.

This message is issued by the following installation CLISTs:

DSNTINST DSNTINS1 DSNTINS2

Severity: 0 (successful execution)

System Action: The CLIST continues.

DSNT490I SAMPLE DATA UNLOAD PROGRAM

Explanation: This is the header, indicating a normal start for the application program.

This message is issued by the following CSECT: DSNTIAUL

DSNT491I TOO MANY TABLES ENTERED (MAXIMUM OF 100 TABLES)

Explanation: The number of tables entered for unloading exceeded the maximum of 100 tables. The first 100 tables in the input should have been processed.

This message is issued by the following CSECT: DSNTIAUL

System Action: The application program is terminated.

User Response: Split the run into multiple runs, none with more than 100 tables.

Problem Determination: Check the application program input. Make sure there are no more than 100 tables.

DSNT492I SQL WARNING DURING SQL STATEMENT func, TABLE ttttttt

Explanation: The SQL statement may not be executed correctly. The function 'func' may be PREPARE, OPEN, FETCH, or CLOSE, indicating the type of SQL statement encountering the error. Table 'ttttttt' is the name of the table or view being unloaded.

This message is issued by the following CSECT: DSNTIAUL

System Action: The request may not be executed correctly.

User Response: Refer to “Section 2. SQL Return Codes” on page 2-1.

Problem Determination: Determine which SQL statement in the application program caused the warning and see if it is reproducible. Follow the diagnosis approach suggested for the warning.

DSNT493I SQL ERROR DURING SQL STATEMENT func, TABLE ttttttt

Explanation: The SQL statement may not be executed correctly. The function 'func' may be PREPARE, OPEN, FETCH, or CLOSE, indicating the type of SQL statement encountering the error. Table ttttttt is the name of the table or view being unloaded.

This message is issued by the following CSECT: DSNTIAUL

System Action: The request was not executed correctly.

User Response: Refer to “Section 2. SQL Return Codes” on page 2-1.

Problem Determination: Determine which SQL statement in the application program caused the error and see if it is reproducible. Follow the diagnosis approach suggested for the SQL return code.

DSNT494I ERROR DURING OPEN OF DDNAME SYSRECnn

Explanation: The ddname listed, where 'nn' ranges from 00 to 99, could not be successfully opened. A possible reason is that the DD statement to the data set was not present in the JCL.

This message is issued by the following CSECT: DSNTIAUL

System Action: The application program is terminated.

User Response: Check the JCL to ensure that this DD statement is provided and is able to be used for output.

Problem Determination: Make sure that the same number of DD statements and table names were provided.

DSNT495I SUCCESSFUL UNLOAD n ROWS OF TABLE ttttttt

Explanation: The message indicates that 'n' rows of table or view 'ttttttt' were unloaded. The 'n' rows were counted during the unload processing.

This message is issued by the following CSECT: DSNTIAUL

System Action: The request was executed successfully.

DSNT496I UNRECOGNIZED DATA TYPE CODE OF nnnnn

Explanation: The PREPARE returned an invalid data type code of decimal 'nnnnn'.

This message is issued by the following CSECT: DSNTIAUL

System Action: The next table is processed.

User Response: Notify the system programmer.

System Programmer Response: See the Problem Determination section.

Problem Determination: There is an error in the unload program or a new data type has been added. The recognized data types are fullword integer, halfword integer, fixed-length character, variable length character, packed decimal, floating-point, fixed-length graphic, variable length graphic, and long, variable length graphic.

DSNT497I RETURN CODE FROM MESSAGE ROUTINE DSNTIAR

Explanation: The message formatting routine detected an error.

This message is issued by the following CSECT: DSNTIAUL

System Action: The application program is terminated.

User Response: Notify the system programmer.

System Programmer Response: See the Problem Determination section.

Problem Determination: There is an error in the unload program. The return code from DSNTIAR is given in the MVS output of your job. When reporting this problem, have the return code, the application program listing, and JCL available.

DSNT498I ERROR, NO VALID COLUMNS FOUND

Explanation: The PREPARE returned data which did not produce a valid output record. The data was not recognized as valid, so the columns were not unloaded.

This message is issued by the following CSECT: DSNTIAUL

System Action: The next table is processed.

User Response: Notify the system programmer.

System Programmer Response: See the Problem Determination section.

Problem Determination: There is an error in the unload program. When reporting this problem, have the application program listing and its JCL available.

DSNT499I ERROR IN INPUT PARAMETER LIST

Explanation: The parameter list specified when DSNTIAUL or DSNTEP2 was invoked contains one or more invalid values.

This message is issued by the following CSECTs: DSNTIAUL DSNTEP2

System Action: The application program is terminated.

User Response: Notify the system programmer.

System Programmer Response: Check the parameter values entered when DSNTIAUL or DSNTEP2 was invoked. For DSNTIAUL, the correct parameter value is 'SQL'. This parameter indicates that DSNTIAUL input is in complete SQL statements terminated by a semicolon. For DSNTEP2, the correct parameter values are either 'ALIGN(LHS)', 'ALIGN(MID)', 'MIXED', or 'NOMIXED'. The first two parameter values represent the two output alignment options available in DSNTEP2 where 'ALIGN(LHS)' will align the output on the left margin and 'ALIGN(MID)' will center the output. The remaining two parameter values designate whether or not DSNTEP2 will recognize mixed character data where 'MIXED' means that it will and 'NOMIXED' means that it will not recognize mixed character data.

DSNT500I *csect-name* **RESOURCE UNAVAILABLE REASON** *reason* **TYPE** *type* **NAME** *name*

Explanation: The requested function requires a resource that is currently unavailable. In conjunction with other messages this message will identify the system action and the action that should be taken by the installation or operator.

'type' and 'name' identify the resource that is currently unavailable. The type code identifies the type, format, and content of the resource named.

Operator Response: Note the reason code, the type code, and the name. See the Problem Determination section for an explanation of the collected data.

Problem Determination: The reason the resource is unavailable is identified by a reason code. The reason codes that appear in this message are described in "Section 4. DB2 Codes" on page 4-1. Use Table 3 in "Appendix B. Problem Determination" on page X-5 to find the type of resource identified in the message.

If type is X'D00' or X'D01', the table name can be determined by using the following SQL statement:

```
SELECT CREATOR, NAME
FROM SYSIBM.SYSTABLES
WHERE DBID = dbid AND OBID = obid;
```

However, if the failing table has been dropped, then the above SELECT fails or possibly might return an incorrect name.

Collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 1.

DSNT501I *csect-name* **RESOURCE UNAVAILABLE**

```
CORRELATION-ID      = id1
CONNECTION-ID       = id2
LUW-ID              = id3
REASON              = reason
TYPE                = type
NAME                = name
```

Explanation: The requested function requires a resource that is currently unavailable. This message is issued with other messages that identify the system action and the action the installer or operator should take.

DB2 can recover from a resource not available in some cases and can complete successfully. One example is during setup of a performance enhancement during bind time for execution time. If DB2 recovers successfully, then no action is necessary.

For type=905, reason=00C90092, and name=IRLM, message DSNT501I is usually issued once. It is suppressed at the DB2 subsystem level until the IRLM out-of-storage condition is relieved.

id1 The correlation identifier of the thread associated with the requester of the resource.

id2 The connection identifier of the requester.

id3 The logical-unit-of-work identifier (LUW-ID) of the thread associated with the requester of the resource. An asterisk (*) indicates that the thread does not have a LUW-ID. If the LUW-ID is not an asterisk, the value is a logical-unit-of-work-id assigned to the thread. This is followed by an equal sign (=) and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

type The type of resource that is currently unavailable. The 'type' identifies the type, as well as the format and content, of the resource 'name'. Use Table 3 in "Appendix B. Problem Determination" on page X-5 to find the type of resource identified in the message.

name The name of the resource that is currently unavailable.

reason The reason code that tells why the resource is unavailable.

Operator Response: Note the 'reason' code, the 'type' code, and the 'name'.

Problem Determination: Collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 1.

DSNT502I ERROR IN DSNTIAUL SQL INPUT: statement

Explanation: The DSNTIAUL input SQL statement could not be prepared.

This message is issued by the following CSECT: DSNTIAUL

System Action: The application program terminates.

User Response: Notify the system programmer.

System Programmer Response: Check that the DSNTIAUL

input statement is a complete SQL statement, ending with a semicolon.

DSNT503I UNLOAD DATA SET *ddname* RECORD LENGTH SET TO *nnnnn*.

Explanation: If the ddname is SYSRECnn, the record length specified in the JCL for the data set is not large enough to contain an entire row of unloaded data, or the record length was not specified in the JCL.

If the ddname is SYSPUNCH, the record length specified in the JCL is not between 80 and 255, or the record length was not specified in the JCL.

This message is issued by the following CSECT: DSNTIAUL

System Action: DB2 sets the record length of the unload data set to the value specified in the message text.

DSNT504I UNLOAD DATA SET *ddname* BLOCKSIZE SET TO *nnnnn*.

Explanation: The block size for the SYSRECnn or SYSPUNCH data set was one of the following:

- Not specified in the JCL
- Set to zero in the JCL
- Less than the required record length
- Not an even multiple of the required record length

This message is issued by the following CSECT: DSNTIAUL

System Action: DB2 sets the block size of the unload data set to the value specified in the message text.

DSNT505I DSNTIAUL OPTIONS USED: 'nnn'.

Explanation: You specified these options when you invoked DSNTIAUL. 'SQL' is the only valid option.

Severity: 0 (informational)

This message is issued by the following CSECT: DSNTIAUL

DSNT506I INPUT STATEMENT WAS NOT SELECT * FROM A SINGLE TABLE. LOAD STATEMENT WILL NEED MODIFICATION.

Explanation: The SELECT statement used to request a table unload contained one of the following:

- A SELECT clause other than "SELECT * FROM"
- A FROM clause that does not contain exactly one table name

The table to be loaded is therefore not the same as the table from which the data is unloaded. DSNTIAUL is unable to determine the table name and all column names for the table to be loaded.

Severity: 4 (warning)

This message is issued by the following CSECT: DSNTIAUL

System Action: DSNTIAUL generates a LOAD statement containing the string 'TBLNAME' for the table name. Some column names may be blank.

User Response: Change the LOAD statement table name to the name of a table with the indicated column descriptions.

DSNT507I *csect-name* RECORD LENGTH NEEDED IS GREATER THAN MAXIMUM ALLOWED FOR TABLE *table-name*

Explanation: In order to unload table *table-name*, DB2 needs an output data set with a record length greater than the system maximum of 32760 bytes. This occurs when the table to be unloaded is in a 32KB page table space and contains a combination of long columns and a number of date, time, or timestamp columns.

Severity: 8 (error)

System Action: The application program is terminated.

DSNT508I WARNING - NONSTANDARD JOB CARD (*cardstat*), NO JOB CARDS WILL BE ADDED TO THE EDITED JOBS

Explanation: The job card you entered in field 3 of panel DSNTIPY contains one or more of the following errors:

- Less than 7 characters ('cardstat' = TOO SHORT)
- "//" missing as the first 2 characters ('cardstat' = MISSING //)
- Missing the word "JOB" ('cardstat' = MISSING "JOB"TOKEN)

This message is issued by the following installation CLIST: DSNTINST

System Action: The message is written to the screen, after all panels are displayed and before any job editing. No JCL is added to the edited jobs.

User Response: You can continue with job editing and manually add JCL to the edited jobs. Alternatively, you can repeat the installation process and make corrections to the job card entered on panel DSNTIPY.

DSNT510I WARNING - INPUT MEMBER *inmem* LEVEL IS *rel_ind*. LEVEL *curr_rel* IS REQUIRED. RETURN TO PANEL DSNTIPA1 TO CHANGE INPUT MEMBER

Explanation: The input member 'inmem' you entered in field 6 on panel DSNTIPA1 contains incorrect release indicator 'rel_ind'. It should contain the indicator for the current release ('curr_rel'). If your input member does not contain a release indicator, 'rel_ind' will be <null>. This probably indicates that you are using a down-level member.

This message is issued by the following installation CLIST: DSNTINST

System Action: The message is written to the screen, after display of panel DSNTIPA1.

User Response: Press ENTER to proceed to the next panel, and then PF3 to return to panel DSNTIPA1 in order to enter an input member with the correct release indicator.

DSNT511I FIELDS 2 AND 5 MUST BE UNIQUE FOR EACH NEW MEMBER INSTALLED

Explanation: This warning message is issued to remind you that the IRLM SUBSYSTEM and IRLM PROC names must be unique for each new member installed within a DB2 data sharing group. The installation process does not check for uniqueness of these names within a group.

This message is issued by the following panel: DSNTIPI

User Response: Enter unique names in these fields for each member of a DB2 data sharing group.

DSNT512I DSNT512I WARNING: ENTER UNIQUE NAMES FOR LUNAME AND LOCATION NAME

Explanation: This warning message is issued to remind you that you must enter values for DB2 LOCATION NAME and DB2 NETWORK LUNAME fields.

LUNAME is used to uniquely identify this DB2 subsystem within the network and to uniquely identify trace records for correlation of accounting records. The NETWORK LUNAME must be unique within the network. The installation process does not check for uniqueness of this name within a data sharing group.

The LOCATION NAME must be unique within the network, but must be the same on all members within a DB2 data sharing group.

This message is issued by the following panel: DSNTIPR

User Response: Enter unique names in these fields.

DSNT513I FIELD 2 MUST BE UNIQUE FOR EACH NEW MEMBER INSTALLED

Explanation: This warning message is issued to remind you that the DB2 PROC NAME field on panel DSNTIPX or the RESYNC PORT field on panel DSNTIP5 must be unique for each new member installed within a DB2 data sharing group. The installation process does not check for uniqueness of these values within a group.

This message is issued by the following panels: DSNTIPX and DSNTIP5

User Response: Enter unique values in these fields for each member of a DB2 data sharing group.

DSNT514I FIELDS 2 AND 3 MUST BE UNIQUE FOR EACH NEW MEMBER INSTALLED

Explanation: This warning message is issued to remind you that the MEMBER NAME and WORK FILE DB NAME must be unique for each new member installed within a DB2 data sharing group. The installation process does not check for uniqueness of these names within a group.

This message is issued by the following panel: DSNTIPK

User Response: Enter unique names in these fields for each member of a DB2 data sharing group.

DSNT515I FIELD 7 MUST BE UNIQUE FOR EACH NEW MEMBER INSTALLED

Explanation: This warning message is issued to remind you that the MEMBER IDENTIFIER field on panel DSNTIPJ or the DSNZPARM NAME field on panel DSNTIPO must be unique for each new member installed within a DB2 data sharing group. The installation process does not check for uniqueness of these values within a group.

This message is issued by the following panels: DSNTIPJ and DSNTIPO

User Response: Enter unique values in these fields for each member of a DB2 data sharing group.

DSNT516I FIELDS 1, 2, AND 4 MUST BE UNIQUE FOR EACH NEW MEMBER INSTALLED

Explanation: This warning message is issued to remind you that the SUBSYSTEM NAME, COMMAND PREFIX, and SUBSYSTEM SEQUENCE fields must be unique for each new member installed within a DB2 data sharing group. The installation process does not check for uniqueness of these values within a group.

This message is issued by the following panel: DSNTIPM

User Response: Enter unique values in these fields for each member of a DB2 data sharing group.

DSNT518I THE VALUES FOR DRDA PORT AND RESYNC PORT CANNOT BE THE SAME

Explanation: You entered the same value for DRDA PORT and RESYNC PORT. The values for these fields must be different.

This message is issued by the following panel: DSNTIP5

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Change either the DRDA PORT or the RESYNC PORT value so that they are different.

DSNT519I IF YOU SPECIFY EITHER DRDA OR RESYNC PORT, BOTH MUST BE SPECIFIED

Explanation: You entered a value for either DRDA PORT or RESYNC PORT, but not the other. If either DRDA PORT or RESYNC PORT is specified, both must be specified.

This message is issued by the following panel: DSNTIP5

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Either enter a value for the null field, or blank out both DRDA PORT and RESYNC PORT.

DSNT522I *csect-name* **REQUIRED TCP/IP SUPPORT NOT AVAILABLE**

Explanation: The DB2 BSDS indicated that TCP/IP access was required, but the required TCP/IP interfaces were not available on this system. The required TCP/IP interfaces are provided by OS/390 Release 3.

System Action: DDF startup terminates abnormally.

System Programmer Response: Take one of the following actions:

- Install OS/390 Release 3 or later, so that the required TCP/IP interfaces are available.
- Use the change log inventory utility (DSNJU003) to deactivate DB2's TCP/IP support, by specifying PORT=0 and RESPORT=0 on the DDF statement.

DSNT601I THE DESCRIPTOR FOR type name DOES NOT EXIST IN DBD01

Explanation: This message is issued for multiple-line WTO. The database, table space, or index space 'name' is in the DB2 catalog but a descriptor for the object does not exist in the DBD01 table space of database DSNDB01. This error can be produced when one of the following is true:

- The Release 3 catalog has been migrated into Version 2.

There is an object in the Version 2 catalog but there is not a descriptor for the object in the Version 2 directory (DBD01).

- The user did not completely restore the DBD01 table space during a recovery process.
- There is a DB2 logic error.

In the message, 'type' is either 'DATABASE' or 'SPACE' and 'name' is the eight character name of the database, table space, or index space.

This message is issued by the following CSECT: DSNTDMUL

System Action: The process continues normally.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNT602I NO SPACES FOUND

Explanation: This message is issued for multiple line WTO. It is produced when a DISPLAY DB(name) SPACENAM(...) is entered and no spaces were found to satisfy the request. SPACENAM(...) might have been entered as a range, a subset, or a list of spaces.

This message is issued by the following CSECT: DSNTDMUL

DSNT603I spacetype name NOT type

Explanation: This message is issued for multiple-line WTO. It is produced when no table space or index space listed in the DISPLAY DB(...) SPACENAM(...) satisfies your request.

spacetype TABLESPACE if the space is a table space or INDEXSPACE if the space is an index space.

name The name of the space.

type A character string that indicates the type of request specified. The string is a list of the following, delimited by 'OR':

- 'ACTIVE' if the keyword ACTIVE is specified
- 'RESTRICTED' if the keyword RESTRICT is specified.

This message is issued by the following CSECT: DSNTDMUL

System Action: Message DSNT301I or DSNT302I is produced if no object is found and the keywords ACTIVE and RESTRICT are omitted.

DSNT604I NO INFORMATION AVAILABLE

Explanation: This message is issued for multiple line WTO. It is produced when there is no LOCK or USE information available. When DISPLAY DB(name) SPACENAM(...) is entered, and SPACENAM(...) is a list of spaces, this message indicates that no table spaces or index spaces whose names are listed have LOCK or USE information available. If DISPLAY DB(name) SPACENAM(...) is entered, and SPACENAM(...) is a range or a subset of spaces, no table spaces and index spaces within the specified database have LOCK or USE information available. This message is produced only when the keywords USE and LOCKS are specified.

This message is issued by the following CSECT: DSNTDMUL

DSNT694I DATABASE name CANNOT BE STOPPED. IT CONTAINS THE DDL REGISTRATION TABLES

Explanation: The database specified in the message cannot be stopped because it contains the application and object registration tables. Install SYSADM or install SYSOPR authority is needed to stop the database.

This message is issued by the following CSECT: DSNTDMSG

System Action: The database specified in the message is not stopped.

User Response: Reissue the command with the proper authority.

DSNT695I TABLESPACE name CANNOT BE STOPPED. IT CONTAINS A DDL REGISTRATION TABLE

Explanation: The table space specified in the message cannot be stopped because it contains an application or object registration table. Install SYSADM or install SYSOPR authority is needed to stop the table space.

This message is issued by the following CSECT: DSNTDMSG

System Action: The table space specified in the message is not stopped.

User Response: Reissue the command with the proper authority.

DSNT696I INDEXSPACE name CANNOT BE STOPPED. IT IS DEFINED ON A DDL REGISTRATION TABLE

Explanation: The index space specified in the message cannot be stopped because it is defined on an application or object registration table. Install SYSADM or install SYSOPR authority is needed to stop the index space.

This message is issued by the following CSECT: DSNTDMSG

System Action: The index space specified in the message is not stopped.

User Response: Reissue the command with the proper authority.

DSNT700I table-name IS THE ACTIVE RESOURCE LIMIT SPECIFICATION TABLE

Explanation: This is a response message to the DISPLAY RLIMIT command. The resource limit facility (governor) is currently active and is using table 'table-name' to determine resource limits.

This message is issued by the following CSECT: DSNTCDIS

System Action: The system continues normal processing.

User Response: See Operator Response.

Operator Response: To have the governor active while utilizing a different resource limit specification table, issue the START RLIMIT command specifying the ID of the desired table. If you do not want the facility to be active, issue the STOP RLIMIT command.

System Programmer Response: May be used to resolve questions about what table is being used.

DSNT701I RESOURCE LIMIT FACILITY IS INACTIVE

Explanation: This is a response message to the DISPLAY RLIMIT command. It results whenever the governor is not active.

This message is issued by the following CSECT: DSNTCDIS

System Action: Normal processing continues.

User Response: See Operator Response.

Operator Response: If you want to activate the governor, specify the ID of the resource limit specification table to be used and issue the START RLIMIT command.

System Programmer Response: If the facility is already active (that is, a DSNT703 message was previously received), verify that the DSNT703 message appeared *before* the DISPLAY RLIMIT command was entered. If uncertain, reissue the DISPLAY RLIMIT command. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5.

DSNT702I RESOURCE LIMIT FACILITY HAS BEEN STOPPED. WAS USING table-name

Explanation: This message is the normal response for a STOP RLIMIT command. Table 'table-name' was being used to determine resource limits.

This message is issued by the following CSECT: DSNTCSTP

System Action: The governor is stopped.

System Programmer Response: May be used to resolve questions about what table was being used.

DSNT703I RESOURCE LIMIT FACILITY IS ALREADY INACTIVE. STOP LIMIT COMMAND IS IGNORED

Explanation: A STOP RLIMIT command was entered but the resource limit facility was already stopped. The command is ignored.

This message is issued by the following CSECT: DSNTCSTP

System Action: The system continues normal processing.

DSNT704I table-name HAS BEEN STARTED FOR THE RESOURCE LIMIT FACILITY

Explanation: This message is the normal response for a START RLIMIT command. Table 'table-name' is currently being used to determine resource limits.

This message is issued by the following CSECT: DSNTCSRS

System Action: The governor has started utilizing the specified table.

System Programmer Response: May be used to resolve questions about what table is being used.

DSNT705I *csect-name* DATABASE *name* CANNOT BE STOPPED. IT CONTAINS AN ACTIVE RESOURCE LIMIT SPECIFICATION TABLE

Explanation: Database *name* cannot be stopped because it contains an active resource limit specification table.

System Action: The database is not stopped.

Operator Response: If the database must be stopped, either stop the resource limit facility (STOP RLIMIT), or switch it to use a resource limit specification table that is not in the database (START RLIMIT,ID=xx). In a DB2 data sharing environment, you must either stop the resource limit facility on all members of the DB2 data sharing group or switch it to use a resource limit specification table that is not in the database.

DSNT706I table-name DOES NOT EXIST. START LIMIT COMMAND FAILED

Explanation: The START RLIMIT command has been entered but failed because table 'table-name' does not exist.

This message is issued by the following CSECT: DSNTCSRC

System Action: The START RLIMIT command is ignored.

User Response: See Operator Response.

Operator Response: Verify that the 1 or 2 characters following DSNRLST are what was intended to be entered as the ID on the START RLIMIT command. If not, reenter the command specifying the proper ID. If the ID appears correct, contact the system programmer.

System Programmer Response: DB2 was unable to find the specified table in the catalog. Verify that the FULLY QUALIFIED name is the one expected. The table name is built by appending the 1 or 2 character ID specified on the START RLIMIT command to the authorization ID.DSNRLST. The authorization ID is determined from the DSNZPARMs used when starting the subsystem.

If everything appears to be in order, from a TSO terminal with the proper authorization, enter the following SQL statement:

```
SELECT * FROM SYSIBM.SYSTABLES WHERE NAME=DSNRLSTxx
   AND CREATOR=authorization ID
```

Where

DSNRLSTxx	Table-name starting with the DSNRLST
authorization ID	Table-name up to but not including the period.

If an entry is found, save the output and if you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items:

- Console output showing the failing START command
- The output of the SELECT command.

DSNT707I START RLIMIT COMMAND FAILED. COLUMN column-name IN TABLE table-name IS INCORRECTLY DEFINED. THE COLUMN DEFINITION IS attribute WITH LENGTH length AND NULL ATTRIBUTE null-attribute. THE COLUMN DEFINITION SHOULD BE attribute WITH LENGTH length AND NULL ATTRIBUTE null-attribute

Explanation: The START RLIMIT command has been

entered but failed because TABLE 'table-name' does not have the proper column definition for a resource limit specification table. The current column definition is given as well as the proper column definition.

This message is issued by the following CSECT: DSNTCSRC

System Action: The START RLIMIT command is ignored.

User Response: See Operator Response.

Operator Response: Verify that the 1 or 2 characters following DSNRLST are what was intended to be entered as the ID on the START RLIMIT command. If not, reenter the command specifying the proper ID. If the ID appears to be correct, contact the system programmer.

System Programmer Response: TABLE 'table-name' does not have the proper column definition for a resource limit specification table. Compare the current table column definition to the proper column definition given in the message.

Problem Determination: Collect the console output showing the failing START command.

DSNT708I INDEX index-name DOES NOT EXIST. START RLIMIT COMMAND FAILED

Explanation: The START RLIMIT command has been entered but failed because INDEX DSNARLxx does not exist for the corresponding resource limit specification table, DSNRLSTxx.

This message is issued by the following CSECT: DSNTCSRC

System Action: The START RLIMIT command is ignored.

User Response: See Operator Response.

Operator Response: Verify that the 1 or 2 characters following DSNRLST are what was intended to be entered as the ID on the START RLIMIT command. If not, reenter the command specifying the proper ID. If the ID appears to be correct, contact the system programmer.

System Programmer Response: The resource limit specification table DSNRLSTxx does not define the required index DSNARLxx. Create the required index and reissue the START RLIMIT command.

Problem Determination: Collect the console output showing the failing START command.

DSNT709I new-table-name NOW ACTIVE. old-table-name WAS OLD RESOURCE LIMIT SPECIFICATION TABLE

Explanation: A START RLIMIT command was entered while the facility was already active. The facility remains active and switches from using the old table name to the new one.

This message is issued by the following CSECT: DSNTCSRS

User Response: Notify the system programmer.

Operator Response: Notify the system programmer.

DSNT710I table-name ALREADY ACTIVE. START LIMIT COMMAND IGNORED

Explanation: A START RLIMIT command was entered and the governor is already active utilizing the specified table. The command is ignored.

This message is issued by the following CSECT: DSNTCSTR

System Action: The governor continues to use table 'table-name'.

User Response: See Operator Response.

Operator Response: Verify that the ID specified on the START RLIMIT command was the one desired. If not, reenter the command specifying the correct ID. If it is correct, no action is needed since the facility is already active and is using the desired table.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5.

DSNT711I COLUMN column-name IS MISSING IN TABLE table-name. SHOULD BE DEFINED AS attribute WITH LENGTH length AND NULL INDICATOR OF null-attribute

Explanation: The START RLIMIT command has been entered but failed because COLUMN 'column-name' in resource limit specification table 'table-name' is not defined. The proper column definition is given in the message.

This message is issued by the following CSECT: DSNTCSRC

System Action: The START RLIMIT command is ignored.

User Response: See Operator Response.

Operator Response: Verify that the 1 or 2 characters following DSNRLST are what was intended to be entered as the ID on the START RLIMIT command. If not, reenter the command specifying the proper ID. If the ID appears to be correct, contact the system programmer.

System Programmer Response: TABLE 'table-name' does not have COLUMN 'column-name' defined. Use ALTER TABLE to define the column as specified in the message.

Problem Determination: Collect the console output showing the failing START command.

DSNT712I INDEX index-name IS NOT FOR TABLE table-name. START RLIMIT COMMAND FAILED

Explanation: The START RLIMIT command has been entered but failed because INDEX 'index-name' is not defined for resource limit specification table 'table-name'.

This message is issued by the following CSECT: DSNTCSRC

System Action: The START RLIMIT command is ignored.

User Response: See Operator Response.

Operator Response: Verify that the 1 or 2 characters following DSNRLST are what was intended to be entered as the ID on the START RLIMIT command. If not, reenter the command specifying the proper ID. If the ID appears to be correct, contact the system programmer.

System Programmer Response: INDEX 'index-name' is not defined in resource limit specification table 'table-name'. resource limit specification table DSNRLSTxx does not define the required index DSNARLxx. The last two characters of the table name correspond to the last two characters of the index. Drop the existing DSNARLxx index and create the correct index in the resource limit specification Table.

Problem Determination: Collect the console output showing the failing START command.

DSNT713I INDEX index-name IS NOT UNIQUE. START RLIMIT COMMAND FAILED

Explanation: The START RLIMIT command has been entered but failed because INDEX 'index-name' in the resource limit specification table is not defined as a UNIQUE index.

This message is issued by the following CSECT: DSNTCSRC

System Action: The START RLIMIT command is ignored.

User Response: See Operator Response.

Operator Response: Verify that the 1 or 2 characters following DSNRLST are what was intended to be entered as the ID on the START RLIMIT command. If not, reenter the command specifying the proper ID. If the ID appears to be correct, contact the system programmer.

System Programmer Response: INDEX 'index-name' in resource limit specification table is not UNIQUE. Redefine it as unique.

Problem Determination: Collect the console output showing the failing START command.

DSNT714I INDEX index-name IS INCORRECTLY DEFINED. START RLIMIT COMMAND FAILED

Explanation: The START RLIMIT command has been entered but failed because INDEX 'index-name' in resource limit specification table 'table-name' is not properly defined.

This message is issued by the following CSECT: DSNTCSRC

System Action: The START RLIMIT command is ignored.

User Response: Contact the system programmer.

Operator Response: Contact the system programmer.

System Programmer Response: INDEX 'index-name' in the resource limit specification table does not have the proper definition. Refer to Section 5 (Volume 2) of *Administration Guide* for an example to define the resource limit specification table.

Problem Determination: Collect the console output showing the failing START command.

DSNT715E ERROR reason-code READING table-name. default WILL BE RESOURCE LIMIT FOR CORRELATION-ID correlation-id, CONNECTION-ID connection-id, LUW-ID luw-id =token

Explanation: An error occurred while the resource limit specification table 'table-name' was being read. The limit is determined from the default specified in the system parameters. This default can be:

NOLIMIT No limit applies.
NORUN Zero time limit.
integer The limit to be used.

The reason code that defines the read error is included in the message text, as are the 'connection-ID', 'correlation-ID', and the logical-unit-of-work identifier (LUW-ID) of the thread. An LUW-ID of an '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input. Correlation IDs beginning with '0nn', where 'nn' is a number from 01 to 28, identify system agents.

This message is issued by the following CSECT: DSNTCGET

System Action: Processing continues using the system-defined default.

Operator Response: Notify the system programmer.

System Programmer Response: This is an I/O error. Investigate the problem indicated by the reason code and preceding messages. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5.

DSNT716E AN ERROR OCCURRED ESTABLISHING A RESOURCE LIMIT FOR CORRELATION-ID correlation-id, CONNECTION-ID connection-id, LUW-ID luw-id =token. limit WILL BE USED AS THE LIMIT

Explanation: An internal error occurred while the resource limit for the specified requester was being established. The 'limit' is determined from the default specified in the system parameters. This default can be:

NOLIMIT No limit applies.
NORUN Zero time limit.
integer The limit to be used.

A logical-unit-of-work identifier (LUW-ID) of '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input. Correlation IDs beginning with '0nn', where 'nn' is a number from 01 to 28, identify system agents.

This message is issued by the following CSECT: DSNTCGET

System Action: Processing continues using the system-defined default.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5.

DSNT717I *csect-name* **TABLE SPACE** *name* **CANNOT BE STOPPED. IT CONTAINS AN ACTIVE RESOURCE LIMIT SPECIFICATION TABLE**

Explanation: Table space *name* cannot be stopped because it contains an active resource limit specification table.

System Action: The table space is not stopped.

Operator Response: If the table space must be stopped, either stop the resource limit facility (STOP RLIMIT), or switch it to use a resource limit specification table that is not in the table space (START RLIMIT,ID=xx). In a DB2 data sharing environment, you must either stop the resource limit facility on all members of the DB2 data sharing group or switch it to use a resource limit specification table that is not in the table space.

DSNT718I *csect-name* **INDEX SPACE** *name* **CANNOT BE STOPPED. IT IS DEFINED ON AN ACTIVE RESOURCE LIMIT SPECIFICATION TABLE**

Explanation: Index space *name* cannot be stopped because it contains an index on an active resource limit specification table.

System Action: The index space is not stopped.

Operator Response: If the index space must be stopped, either stop the resource limit facility (STOP RLIMIT), or switch it to use a different resource limit specification table that does not have an index in the index space (START RLIMIT,ID=xx). In a DB2 data sharing environment, you must either stop the resource limit facility on all members of the DB2 data sharing group or switch it to use a different resource limit specification table that does not have an index in the index space.

DSNT719I TABLE table-name CANNOT BE READ. START RLIMIT COMMAND FAILED

Explanation: TABLE 'table-name' cannot be accessed. This message may be preceded by related error messages that explain why the table cannot be accessed.

This message is issued by the following CSECT: DSNTCSRC

System Action: The START RLIMIT command failed.

User Response: See Operator Response.

Operator Response: TABLE 'table-name' cannot currently be accessed for reading. In the case of a deadlock or timeout, reissue the START RLIMIT command.

DSNT720I INDEX index-name NEEDS TO BE ASCENDING

Explanation: The START RLIMIT command was entered but failed because the named index defined for the resource limit specification table is not defined properly. All the index columns need to be ascending.

This message is issued by the following CSECT: DSNTCSRC

System Action: The system ignores the START RLIMIT command.

User Response: Contact the system programmer.

Operator Response: Contact the system programmer.

System Programmer Response: The named index defined on the resource limit specification table does not have the proper definition.

Problem Determination: Collect the console output showing the failing START command.

DSNT721I *csect-name* **DATABASE** *name* **CANNOT BE STARTED WITH ACCESS (UT). IT CONTAINS AN ACTIVE RESOURCE LIMIT SPECIFICATION TABLE**

Explanation: Database *name* cannot be started with access (UT) because it contains an active resource limit specification table.

System Action: The START DATABASE command is ignored.

Operator Response: If the database must be started with access (UT), either stop the resource limit facility (STOP RLIMIT), or switch it to use a resource limit specification table that is not in the database (START RLIMIT,ID=xx). In a DB2 data sharing environment, you must either stop the resource limit facility on all members of the DB2 data sharing group or switch it to use a resource limit specification table that is not in the database.

DSNT722I *csect-name* **TABLE SPACE** *name* **CANNOT BE STARTED WITH ACCESS (UT). IT CONTAINS AN ACTIVE RESOURCE LIMIT SPECIFICATION TABLE**

Explanation: Table space *name* cannot be started with access (UT) because it contains an active resource limit specification table.

System Action: The START DATABASE command is ignored.

Operator Response: If the table space must be started with access (UT), either stop the resource limit facility (STOP RLIMIT), or switch it to use a resource limit specification table that is not in the table space (START RLIMIT,ID=xx). In a DB2 data sharing environment, you must either stop the resource limit facility on all members of the DB2 data sharing group or switch it to use a resource limit specification table that is not in the table space.

DSNT723I *csect-name* **INDEX SPACE** *name* **CANNOT BE STARTED WITH ACCESS (UT). IT IS DEFINED ON AN ACTIVE RESOURCE LIMIT SPECIFICATION TABLE**

Explanation: Index space *name* cannot be started with access (UT) because it contains an index on an active resource limit specification table.

System Action: The START DATABASE command is ignored.

Operator Response: If the index space must be started with access (UT), either stop the resource limit facility (STOP RLIMIT), or switch it to use a different resource limit specification table that does not have an index in the index space (START RLIMIT,ID=xx). In a DB2 data sharing environment, you must either stop the resource limit facility on all members of the DB2 data sharing group or switch it to use a resource limit specification table that does not have an index in the index space.

DSNT724E *csect-name* **ERROR** *reason-code* **IN READING RESOURCE LIMIT SPECIFICATION TABLE** *table-name***. FOR AUTHORIZATION ID** *auth-id* **RUNNING THREAD WITH CORRELATION ID** *correlation-id***, CONNECTION ID** *connection-id***, AND LUWID** *luw-id***, USE OF** *operation-name* **IS NOT GOVERNED.**

Explanation: An error occurred reading resource limit specification table 'table-name'. 'Auth-id' is assumed to be allowed to perform 'operation-name'. 'Operation-name' is BIND or PARALLEL PROCESSING.

The reason code defining the read error is included in the message text as well as the connection ID, correlation ID, and logical unit of work (LUW) ID of the thread. An LUW-ID '*' indicates that the request originated at this site. If not an '*', the LUW-ID is assigned to the allied thread at the requesting site. Correlation IDs beginning with '0nn', where 'nn' is a number from 01 to 28, identify system agents.

System Action: If the 'operation-name' is BIND, processing continues if the 'auth-id' is authorized to perform the BIND. If the 'operation-name' is PARALLEL PROCESSING, query parallelism is not disabled and can be used if the value of the CURRENT DEGREE special register is 'ANY'.

User Response: Notify the system programmer.

System Programmer Response: Investigate the problem indicated by the reason code and preceding messages. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Operator Response: Notify the system programmer.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

DSNT725E AN ERROR OCCURRED WHILE GOVERNING BIND OPERATIONS OF auth-id RUNNING WITH CORRELATION-ID correlation-id, CONNECTION-ID connection-id, LUW-ID luw-id. auth-id IS ALLOWED TO PERFORM BIND OPERATIONS

Explanation: An internal error occurred while determining whether or not 'auth-id' is allowed to perform bind operations. It is assumed that 'auth-id' is allowed to perform bind operations.

An LUW-ID '*' indicates that the request originated at this site. If not an '*', the LUW-ID is assigned to the allied thread at the requesting site. Correlation IDs beginning with '0nn' where 'nn' is a number from 01 to 28, identify system agents.

This message is issued by the following module: DSNTCAUT

System Action: Processing occurs assuming the authorization ID is allowed to perform bind operations.

User Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Operator Response: Notify the system programmer.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

DSNT726I *csect-name* **DATABASE** *name* **AND ANY SPACE IT CONTAINS CANNOT BE STARTED WITH ACCESS (UT). IT IS THE ACTIVE COMMUNICATIONS DATABASE**

Explanation: The database specified in the message cannot be started with access (UT) because it is the active communications database. In addition, spaces within the active communications database cannot be started with access (UT).

System Action: The START DATABASE command is ignored.

Operator Response: If the database or any space within it must be started with access (UT), you must stop the distributed data facility (STOP DDF). In a DB2 data sharing environment, you must stop the distributed data facility on all members of the DB2 data sharing group.

DSNT735I object name CANNOT BE STARTED. IT CONTAINS OR IS DEFINED ON THE DDL REGISTRATION TABLE(S)

Explanation: The object specified in the message cannot be started because it contains or is defined on the DDL registration table(s). Install SYSADM or install SYSOPR authority is needed to start the object.

In the message, 'object' is either:

- DATABASE if the specified database contains the application and object registration tables
- TABLESPACE if the specified table space contains an application or object registration table
- INDEXSPACE if the specified index space is defined on an application or object registration table

This message is issued by the following CSECT: DSNTDCST

System Action: The object specified in the message is not started.

User Response: Reissue the command with the proper authority.

DSNT736I *csect-name* **STOP DATABASE ASYNCHRONOUS PROCESSING COMPLETED.**

Explanation: Asynchronous processing for the STOP DATABASE command completed.

System Action: Asynchronous processing for the STOP DATABASE command is complete.

System Programmer Response: No action is required.

DSNT800I *csect-name* **DB2 CANNOT IDENTIFY TO IRLM. IRLM CANNOT CONNECT TO ITS DATA SHARING GROUP. THE LOCK STRUCTURE THAT IRLM ATTEMPTED TO ACCESS WAS** *strname***.**

Explanation: IRLM failed to connect to the IRLM data sharing group. This message accompanies abend reason code 00E30806.

System Action: DB2 terminates abnormally with reason code 00E30806.

System Programmer Response: Some possible reasons why IRLM could not connect to its data sharing group are:

- The lock structure is not properly defined in the active MVS CFRM administrative policy. The lock structure name is a concatenation of the DB2 data sharing group name and the string 'LOCK1' separated by an underscore (_). For example, if the DB2 data sharing group name is DSNCAT, DSNCAT_LOCK1 is the lock structure name.

  Ensure that the lock structure is properly defined in the active CFRM policy. The name of the lock structure that IRLM attempted to access is given in this message. IRLM issues message DXR138E to indicate that the lock structure definition could not be accessed in the active CFRM policy.
- IRLM could not connect the lock structure. The reason for the connect failure is given in IRLM message DXR135E.
- IRLM could not join its data sharing group. The reason for the join failure is given in IRLM message DXR134E.
- IRLM joined the wrong group. The set of IRLMs that are connected to a given lock structure must all be members of the same group. Ensure that the GROUP parameter is correctly specified in the IRLM startup procedure. If you give an incorrect group name, IRLM connects the lock structure, and then times out waiting for responses from other connectors. IRLM issues message DXR133I for the timeout.

DSNT801I ACTION A (ADD) DOES NOT ALLOW GENERIC DISPLAY (% IN DATA FIELD).

Explanation: You have to specify a specific data item in the DATA field.

This message is issued by the following panel: DSN8SSH

System Action: The panel is redisplayed, and the cursor is placed on the field in error.

User Response: Enter specific data in the DATA field.

DSNT802I ONLY ACTION D (DISPLAY) IS ALLOWED FOR DEPARTMENT STRUCTURE.

Explanation: You cannot add, update, or erase a department structure. You can only display it.

This message is issued by the following panel: DSN8SSH

System Action: The panel is redisplayed, and the cursor is placed on the field in error.

User Response: Change the ACTION field to D, or change the OBJECT field to DE or EM.

DSNT803I *csect-name* **DB2 CANNOT IDENTIFY TO IRLM. THE REQUESTED FUNCTION LEVEL IS NOT SUPPORTED.**

Explanation: An attempt was made to identify to an IRLM that does not support the level of function DB2 needs. This message accompanies abend reason code 00E30800.

System Action: DB2 terminates abnormally with reason code 00E30800.

System Programmer Response: DB2 Version 4 requires IRLM Version 2.1. DB2 Version 4 will not run with any earlier release of IRLM. Ensure that the STEPLIB statement in your IRLM startup procedure is referencing the correct IRLM code library.

DSNT804I *csect-name* **THERE ARE MODIFY LOCKS OWNED BY THIS DB2 THAT HAVE BEEN RETAINED**

Explanation: When DB2 disconnected from IRLM during DB2 shutdown, IRLM indicated that there were still outstanding modify locks. These locks were retained by IRLM. The retained locks continue to protect the resources on which they are held from requests from other DB2s in the data sharing group. That is, IRLM rejects any lock request from another DB2 that is incompatible with the retained state of the lock. The locks are retained until the terminating DB2 subsystem is restarted and the resources on which the locks are held are recovered.

System Action: DB2 continues with its shutdown processing.

System Programmer Response: No response is necessary.

DSNT805I NAME TYPE PART STATUS LPL PAGES

Explanation: This message indicates the beginning of a set of messages used to display information as a result of a DISPLAY DATABASE command when the keyword LPL is specified. This message contains the headings of the display. (The message appears in one continuous line across the screen, not as shown above.) This message is always followed by one or more DSNT806I messages containing the column data. Refer to message DSNT806I for a description of the data these headings identify.

This message is issued by the following CSECT: DSNTDMUL

DSNT806I *space type part status LPL pages*

Explanation: This message contains the display information resulting from a DISPLAY DATABASE command when the keyword LPL is specified. It contains the column data describing the status of a table space or index space in the database listed in the preceding DSNT362I message. This message is always preceded by its column headings message DSNT805I. The message number for this message is not displayed.

The message fields have the following meanings:

space The table space name or index space name.

type TS for a table space or IX for an index space.

part The partition number. It is blank for a nonpartitioned table space or index space.

status One or more of the following, delimited by commas. The maximum length is 18 characters:

- CHKP The table space is in check pending status.
- COPY An image copy is required for this object (table space or data set within this table space). STOP is also displayed. If the image copy is required because DB2 encountered a problem during RESTART, STOPE is displayed instead of STOP.
- GRECP The object (a table space, a table space partition, index space, or index space partition) is marked recovery pending because of the failure of a group buffer pool. This status value appears only on

spaces. It does not apply to databases. See *Data Sharing: Planning and Administration* for information about resolving this restricted status.

LPL — The object has pages or ranges of pages that are unavailable because of logical or physical damage.

LSTOP — The logical partition is stopped.

RECP — The table space or index space is in recovery pending status. The member must be restarted to restore full access to the data. For logical partitions, the RECP status can appear as RECP*. RECP* indicates that the entire index is inaccessible to SQL applications, however only the logical partition needs to be recovered.

RO — The database, table space, or index space is started for read activity only.

RW — The database, table space, or index space is started for read and write activity.

STOP — The database, table space, or index space is stopped.

STOPE — DB2 implicitly stopped the table space or index space because of an internal inconsistency. A DSNT500I or DSNT501I message is issued at time of error detection to indicate the inconsistency.

STOPP — A stop is pending or is in process for this database, table space, or index space.

UT — The database, table space, or index space is started for utility processing only.

UTRO — Although the table space or index space is started as RW, a utility is in process and only RO access is allowed.

UTRW — The table space or index space is started as RW and a utility is in process.

UTUT — Although the table space or index space is started as RW, a utility is in process and only UT access is allowed.

LPL pages — The pages in the specified *space* that are unavailable because of logical or physical damage.

This message is issued by the following CSECT: DSNTDMUL

DSNT807I *csect-name* **IRLM PURGE OF RETAINED LOCKS FAILED. RETURN CODE =** *retcode* **SUB-CODE =** *subcode*

Explanation: DB2 issued a PURGE request to IRLM to purge retained locks for this DB2. The PURGE request did not complete successfully. This message shows the return code and subcode from IRLM.

This message is issued by the following CSECT: DSNTRSTE

System Action: DB2 abends with reason code 00E30808. Restart processing is terminated.

System Programmer Response: Refer to the IRLM codes.

DSNT809E *csect-name* **FEEDBACK FROM IRLM IDENTIFY INDICATED IRLM DID NOT CONNECT TO THE LOCK STRUCTURE**

Explanation: DB2 identified to IRLM, but cannot continue because IRLM did not connect to the lock structure. Global locking is ignored. This message accompanies abend reason code 00E30809.

System Action: DB2 abnormally terminates with reason code 00E30809.

System Programmer Response: This condition happens if you are running DB2 in data sharing mode, but the associated IRLM is running with local scope (SCOPE=LOCAL in the IRLM startup procedure). If you are running DB2 in data sharing mode, ensure that the associated IRLM startup procedure specifies SCOPE=GLOBAL. Conversely, if you are not running DB2 in data sharing mode, ensure that the associated IRLM startup procedure specifies SCOPE=LOCAL.

DSNT810E *csect-name* **DB2 CANNOT IDENTIFY TO IRLM. AN INVALID LOCK STRUCTURE NAME WAS DETECTED.**

Explanation: DB2 could not identify to IRLM because of an invalid lock structure name. This message accompanies abend reason code 00E30807.

System Action: DB2 startup terminates abnormally with reason code 00E30807.

System Programmer Response: This condition happens if you are not running DB2 in data sharing mode, but the associated IRLM is running with global scope (SCOPE=GLOBAL in the IRLM startup procedure). If you are not running DB2 in data sharing mode, ensure that the associated IRLM startup procedure specifies SCOPE=LOCAL. Conversely, if you are running DB2 in data sharing mode, ensure that the associated IRLM startup procedure specifies SCOPE=GLOBAL.

DSNT811E *csect-name* **DB2 CANNOT IDENTIFY TO IRLM. REQUEST VIOLATES ONE DB2 PER IRLM RULE.**

Explanation: DB2 could not identify to IRLM because another DBMS is already identified to the IRLM. This message accompanies abend reason code 00E30802.

System Action: DB2 abends with reason code 00E30802.

System Programmer Response: IRLM Version 2.1 enforces a one to one (1:1) mapping between IRLM and DB2. Multiple DBMS subsystems can no longer use the same IRLM. Ensure that:

- Each DB2 subsystem is associated with its own IRLM subsystem.
- The correct IRLM procedure name and subsystem name are specified in the DB2 system parameters.

DSNT812I –MEMBER NAME *member-name*

Explanation: This message is issued with messages DSNT389I, DSNT394I or DSNT396I for each thread in a data sharing environment. This additional line reports the member name of the DB2 subsystem accessing this object.

If the characters '(CO)' follow the member name, then this member is the castout owner for the page set or partition. The castout owner for a page set or partition is the DB2 member responsible for doing all of the castout I/O for that page set or partition.

The message number and subsystem recognition character are not included in this message.

DSNT813I ---- *status(es)* *page(s)*

Explanation: This message follows message DSNT389I, DSNT392I, DSNT394I, DSNT396I or DSNT806I to display more statuses, or more pages that are in the logical page list (LPL).

LPL pages can be in two formats, single pages (represented by the page number) or a range of pages (represented by the starting page number followed by a dash and the ending page number in the range).

The message number and subsystem recognition character are not included in this message because this message is part of a DISPLAY DATABASE data line.

DSNT814I NON-LOCAL INFORMATION UNAVAILABLE FOR *object = name*

Explanation: One member of the DB2 data sharing group was unable to obtain information from another member for one of these reasons:

- Overflow of the maximum buffer area sent to the DB2 subsystem running the DISPLAY. This buffer area contains the DISPLAY information.
- Problems occurred while requesting DISPLAY DB information from peer DB2 subsystems.

Terms pertinent to this message:

object	Either DATABASE or SPACE
name	The name of the DATABASE or SPACE

User Response:

- Issue DISPLAY GROUP to see if any DB2 members are down or unresponsive and then reissue the DISPLAY DATABASE command.
- Specify individual database names or space names instead of specifying '*'.

DSNU... Messages

The severity values shown for the utility messages that follow are returned as the job-step condition code from the job step during which the message is issued. If additional messages having higher severity values are issued during the same job step, the higher value is reflected as the job-step condition code.

Severity values have the following meanings:

0	Informational	No error occurred
4	Warning	A condition was detected; the user might need to take further action
8	Error	An error was detected and processing could not continue

DSNU000I *csect-name* **OUTPUT START FOR UTILITY, UTILID =** *uuuuuuu*

Explanation: This message marks the start of output for the given utility job. The utility ID used to identify the utility job is 'uuuuuuu'.

Severity: 0 (informational)

System Action: Utility processing continues.

DSNU001I *csect-name***- RELEASE DEPENDENT MODULE** *module-name* **WAS NOT FOUND**

Explanation: The system could not find the specified module in the indicated library (private library, job library, or link library).

System Action: The utility job is abended.

User Response: Ensure that the load module library is indicated correctly and that the indicated library contains the requested program. If the indicated library does not contain the requested program, contact the system programmer.

System Programmer Response: The last three characters of the module name indicate the DB2 release level of the subsystem identified in the parameters passed to DSNUTILB. However, LOAD could not find the release dependent utility module for that release in the indicated library. This is probably a maintenance problem.

DSNU002I *csect-name* **- COULD NOT LOAD RELEASE DEPENDENT MODULE** *module-name* **CODE=code REASON=reason**

Explanation: During the load of 'module-name', MVS returned the indicated system completion code and reason.

System Action: The utility job is abended.

User Response: Refer to the appropriate MVS publication.

DSNU005I *csect-name input record*

Explanation: This message displays the utility statements as they were provided as input to the utility parser. An additional error message follows this message and identifies why the utility statement caused a parser error.

Severity: 8 (error)

System Action: Utility processing is not initiated. No SYSIBM.SYSUTIL record is created.

User Response: Correct the input error, and resubmit the job. Do not restart the job.

DSNU006I *csect-name* **DB2 SYSTEM** *system-name* **HAS NOT BEEN STARTED**

Explanation: Utility startup processing has been unable to connect to the indicated DB2 subsystem, because a -START DB2 command has not been issued for that subsystem.

Severity: 8 (error)

System Action: Utility processing is terminated without invoking the requested utility or utilities.

User Response: Correct your JCL to specify the correct subsystem-name on the EXEC statement, and resubmit the job. Otherwise, contact the system programmer to determine when the subsystem will be available for processing.

Operator Response: Contact the system programmer to determine if a -START DB2 command should be issued for the indicated subsystem.

System Programmer Response: Have the operator issue a -START DB2 command for the indicated subsystem.

Problem Determination: DB2 must be started in order to execute DB2 utilities.

DSNU007I *csect-name* **DB2 SYSTEM** *system-name* **DOES NOT EXIST**

Explanation: Utility startup processing has been unable to connect to the indicated DB2 subsystem, because it does not exist on this system.

Severity: 8 (error)

System Action: Utility processing is terminated without invoking the requested utility or utilities.

User Response: Correct your JCL to specify the correct subsystem-name on the EXEC statement, and resubmit the job. Contact your system programmer if you are not sure which DB2 subsystem you should specify.

System Programmer Response: Ensure that the correct DB2 subsystem has been started via the -START DB2 command.

Problem Determination: DB2 must be started in order to execute DB2 utilities.

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DSNU008I *csect-name* **SPECIFIED USER FAILED VALIDITY CHECK**

Explanation: Utility startup processing has been unable to connect to DB2, because the user failed the connection validity check.

Severity: 8 (error)

System Action: Utility processing is terminated without invoking the requested utility or utilities.

User Response: Contact the system programmer for assistance with your installation's security checking.

System Programmer Response: Locally defined RACF or equivalent security system connection authorization have denied the user access to DB2. Permit DB2 connection authorization if this user should be allowed access.

DSNU009I *csect-name* **SPECIFIED USER NOT AUTHORIZED FOR DB2 UTILITIES**

Explanation: Utility startup processing for the user indicated on the job statement failed, because the user is not authorized to execute DB2 utilities.

Severity: 8 (error)

System Action: Utility processing is terminated without invoking the requested utility or utilities.

User Response: Contact your system programmer for assistance with your installation's security checking.

System Programmer Response: If the USER specified something on the job statement that is incorrect, correct it, and resubmit the job. Use the SQL GRANT command to give the user the desired authority.

DSNU010I *csect-name* **UTILITY EXECUTION COMPLETE, HIGHEST RETURN CODE =** *rr*

Explanation: The utility completed processing with a return code of `'rr'`. This indicates that no terminating error was detected.

Severity: 0 (informational) or 4 (warning)

System Action: In most cases, the SYSIBM.SYSUTIL record for this job step is deleted from SYSIBM.SYSUTIL. However, if the utility used was REORG and UNLOAD(PAUSE), the SYSIBM.SYSUTIL record remains intact so that REORG can be restarted at the RELOAD phase.

User Response: If the return code (`'rr'`) is 0, no response is required.

If the return code (`'rr'`) is 4, the utility output should be examined for other messages.

DSNU012I *csect-name* **UTILITY EXECUTION TERMINATED, HIGHEST RETURN CODE =** *rr*

Explanation: The utility execution was terminated. An error was detected that would not allow processing to continue. The return code has a value of 8.

Severity: 8 (error)

System Action: Utility processing is terminated.

User Response: Examine utility output for other error messages.

DSNU013I *csect-name* **JOB WITH DUPLICATE UTILID FOUND IN SYSUTIL**

Explanation: An entry with the same qualifier was found in the SYSIBM.SYSUTIL table. The current job did not specify restart.

System Action: The utility job is abended with reason code `X'00E40018'`.

User Response: If the job was intended to restart the utility, RESTART should be added to the EXEC parameters. If the job was intended to rerun the utility, the -TERM utility command should be used to delete the entry that has the same qualifier from the SYSIBM.SYSUTIL table. If the job had no relation to the SYSIBM.SYSUTIL entry job, a new qualifier should be used.

DSNU014I *csect-name* **JOB WITH DUPLICATE UTILID CURRENTLY EXECUTING**

Explanation: A job with the same qualifier was found to be executing.

System Action: The utility job is abended with reason code `X'00E40018'`.

User Response: If the job with the same qualifier that is currently executing is correct, either wait for the job to complete before using the same qualifier, or use another qualifier. If the job currently executing is incorrect, the -TERM command can be used to terminate it, and the failing job can be resubmitted. Do not -TERM UTILITY a utility job step that is currently active in REORG beyond the UNLOAD phase.

DSNU015I *csect-name* **JOB WITH UTILID NOT FOUND IN SYSUTIL FOR RESTART**

Explanation: A utility job was submitted to restart a utility job that had previously failed. The SYSIBM.SYSUTIL entry for the specified qualifier provided was not found.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Use the -DISPLAY utility command to determine the correct qualifier. The job can then be resubmitted.

DSNU016I *csect-name* **UTILITY BATCH MEMORY EXECUTION ABENDED, REASON=X0***rrr*

Explanation: The utility batch address space has abended. If `X'0rrr'` is four characters in length (that is, `X'00C1'`), the abend was a system `X'rrr'` abend. If `X'0rrr'` is four characters in length and system abend `X'000'` was indicated, a user abend was issued. If `X'0rrr'` is eight characters in length, the abend was a system `X'04E'` abend, and `X'0rrr'` is an abend reason code.

System Action: The utility job is abended. The SYSIBM.SYSUTIL entry for the job is retained in the SYSUTIL table.

User Response: Consult the system programmer to obtain information on failure analysis. If the cause of the failure is correctable, the utility job can be restarted. If the error cannot be corrected, the -TERM command should be used to delete the failing job's utility id from SYSIBM.SYSUTIL.

System Programmer Response: If a system abend was encountered (4 characters), refer to the appropriate MVS publication. If an abend reason code was encountered (8 charac-

ters), refer to *Utility Guide and Reference* for problem determination.

DSNU017I *csect-name* **UTILITY DATABASE SERVICES MEMORY EXECUTION ABENDED, REASON=X0***rrr*

Explanation: The database services address space has abended. If X'0rrr' is four hexadecimal digits in length (for example, X'00C1'), the abend was an MVS X'rrr' abend. If X'0rrr' is eight hexadecimal digits in length, the abend was a DB2 subsystem X'04E' abend, and X'0rrr' is an abend reason code.

System Action: The utility job is abended. The entry for the job is retained in the SYSIBM.SYSUTIL table.

User Response: Consult with the system programmer to obtain information about failure analysis. If the cause of the failure is correctable, the utility job can be restarted. If the error cannot be corrected, the -TERM command should be used to delete the failing job's utility id from SYSIBM.SYSUTIL.

System Programmer Response: If an MVS system abend was encountered (4 hexadecimal digits), refer to the appropriate MVS publication. If an abend reason code was encountered (8 hexadecimal digits), look up the reason code in "Section 4. DB2 Codes" on page 4-1, and if you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU018I *csect-name* **JOB IS NOT RESTARTABLE DUE TO -START ACCESS FORCE COMMAND**

Explanation: A utility job was submitted to restart a utility job that previously failed. Although the SYSIBM.SYSUTIL entry for the specified qualifier was found, the job is not restartable because of a -START ACCESS FORCE command. The -START ACCESS FORCE command deleted the utility-in-process state of one or more (but not all) target objects in the job.

System Action: The utility job is abended with reason code X'00E40018'.

User Response: If the specified qualifier is correct, use the -TERM UTILITY command to terminate the utility and resubmit the job as a nonrestartable job. If the -TERM UTILITY command fails, use the -START ACCESS FORCE command to force ALL target objects (table spaces and indexes) in the job. When the last object is forced, the SYSIBM.SYSUTIL record is deleted. If the qualifier is incorrect, correct it and restart the job.

DSNU019I *csect-name* **THIS UTILITY IS NOT ALLOWED AT A DB2 TRACKER SITE**

Explanation: An attempt was made to execute a utility that is not allowed at the tracker site. The DB2 subsystem is a tracker site if the subsystem parameter TRKRSITE is set to YES. The only utilities that can execute at a tracker site DB2 are:

- REPORT utility
- RECOVER INDEX (or REBUILD INDEX) utility
- RECOVER TABLESPACE utility without the TORBA, TOLOGPOINT, or TOCOPY options
- DIAGNOSE utility

Severity: 8 (error)

System Action: The utility jobstep terminates with RC8.

User Response: Contact the system programmer.

System Programmer Response: Verify whether this DB2 subsystem is indeed used as a remote site tracker system. If not, stop the DB2 subsystem and restart it with TRKRSITE=NO.

DSNU020I *csect-name* **JOB STEP INCOMPLETE**

Explanation: The REORG utility was invoked with the UNLOAD PAUSE option. This causes the immediate suspension of the job after the unload phase completes. Subsequent utilities that are invoked in the same job step are not run.

Severity: 4 (warning)

System Action: Further utility processing is terminated.

User Response: Resubmit the job with the RESTART(PHASE) parameter after the desired user action has been taken with the unload data set.

Problem Determination: Refer to *Utility Guide and Reference* for a description of the REORG utility and the UNLOAD PAUSE option.

DSNU024I *csect-name* **PARM FIELD ERROR** *parm-field*

Explanation: An error was detected in the PARM field on the EXEC statement. 'parm-field' was the input parameter field.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Correct the indicated parameter on the EXEC DD statement, and resubmit the job.

Problem Determination: Refer to *Utility Guide and Reference* for parameter requirements.

DSNU028I *csect-name* **UNABLE TO CONNECT TO DB2, REASON=X***reason code*

Explanation: A connection to the DB2 subsystem failed. 'reason-code' is the DB2 reason code that was returned.

Severity: 8 (error)

System Action: The utility job is terminated.

User Response: Check the subsystem ID specified in the EXEC DD statement. If it is correct, the subsystem was not ready for processing. Ask the system programmer when the requested subsystem will again be available for processing.

DSNU030I *csect-name* **UNABLE TO ALLOCATE dsn, RC=rr, REASON=ccc**

Explanation: The utility was unable to allocate a necessary image copy data set. 'dsn' is the data set name that the utility attempted to dynamically allocate. 'rr' is the return code from the MVS dynamic allocation service, and 'ccc' is the reason code associated with the return code.

System Action: The utility proceeds along one or the following paths:

If the data set was an incremental image copy data set, the utility proceeds as if it and any later incremental image copies did not exist.

If the data set was a full image copy data set, the utility attempts to use the most recent prior full image copy data set.

The allocation failure may create other problems that will cause the utility to fail. This is indicated by other messages.

User Response: If the job fails, contact the system programmer.

System Programmer Response: If the utility fails because of the allocation error (as shown by a subsequent message), correct the error, then resubmit the job.

Problem Determination: Refer to the appropriate MVS publication for a complete description of the possible return and reason codes from dynamic allocation.

DSNU031I *csect-name* **UNABLE TO UNALLOCATE** *dsn*, **RC=***rr*, **REASON=***ccc*

Explanation: The recover utility was unable to unallocate an image copy data set. The data set name that the utility attempted to unallocate is 'dsn'. The return code from the MVS dynamic unallocation service is 'rr'. The reason code associated with the return code is 'ccc'.

System Action: The unallocation error is ignored and the utility execution continues.

Problem Determination: Refer to *MVS/ESA Programming: Authorized Assembler Services Guide* for a complete description of the possible return and reason codes from dynamic allocation.

DSNU032E I/O ERROR ON WORKFILE, *xxxxxx*

Explanation: An I/O error was encountered on a necessary OS/VS data set. 'xxxxxx' is a message that describes the error and the data set in error. This message is returned to the DB2 utility by SVC 68 (SYNADAF) from BSAM. The data set may have been needed for an unload data set, image copy data set, or load or reorganization work file data set. The utility is stopped at the beginning of the phase that used the OS/VS data set.

This message is issued by the following CSECT: DSNUGSDA

System Action: The utility job is abended. The utility job step is in the stopped state.

Operator Response: Except in the case of an unload data set during the RELOAD phase, the job can be restarted if an undamaged output data set is provided.

Problem Determination: Refer to the appropriate MVS publication for the format of the error message.

DSNU034I DATA SET TYPE INVALID FOR DDNAME 'dddddddd'

Explanation: A required DD statement with DDNAME='dddddddd' was found to have a data set type which is not valid for this application.

This message is issued by the following CSECTs:

DSNUBCKB DSNUKDIN DSNUK001 DSNURILD DSNURULD

Severity: 8 (error)

System Action: The utility is terminated with a return code 8.

User Response: The data set must be capable of storing intermediate data that can be retrieved by DB2. Check that the data set is not specified as type DUMMY, SYSIN, or SYSOUT. If you require assistance in specifying a valid data set type, consult the system programmer.

System Programmer Response: Correct the JCL and resubmit the job.

DSNU035I *csect-name* **UNABLE TO FIND DD CARD FOR DDNAME, 'dddddddd'**

Explanation: A DD statement with ddname = 'dddddddd' was expected, but not found.

Severity: 8 (error)

System Action: The utility is terminated with a return code 8.

User Response: If the DDNAME is one you submitted, review and correct it. If the DDNAME was not provided by you, but by the system, consult the system programmer.

System Programmer Response: Correct the JCL and resubmit the job.

DSNU036I *csect-name* **UNABLE TO OPEN DCB FOR DDNAME** *dddddddd*

Explanation: The DCB associated with DDNAME 'dddddddd' could not be opened.

System Action: The utility job is abended with a reason code of X'00E40070'. The utility job step is in the stopped state.

User Response: If the ddname is one you submitted, review and correct it. If the ddname was not provided by you but by the system, consult the system programmer.

System Programmer Response: Correct the job control language and resubmit the job.

DSNU037I *csect-name* **- RECFM=U FOR DDNAME** *dddddddd*

Explanation: A data set to be used by the utility has an undefined record format RECFM=U. All data sets must be fixed or variable, blocked or unblocked.

System Action: The utility job is abended with a reason code of X'00E40070'. The utility job step is in the stopped state.

Operator Response: Notify the system programmer.

System Programmer Response: Ensure that no data sets involved in the utility job have RECFM=U. Resubmit the job after ending the stopped utility by the TERM UTILITY command, or do a RESTART(PHASE) of the stopped utility.

DSNU038I *csect-name* **BLOCK SIZE FOR DCB, DDNAME** *dddddddd*, **IS TOO SMALL, MUST BE AT LEAST** *bbbbb* **BYTES**

Explanation: The data set with DDNAME 'dddddddd' has a block size that is too small to accommodate a record that needs to be written.

System Action: The utility job is abended with a reason code of X'00E40079'. The utility job step is left in the stopped state.

User Response: Delete the data set in error. Change the JCL so that the block size for the data set with DDNAME 'dddddddd' is at least 'bbbbb' bytes. Resubmit the utility job with the RESTART(PHASE) option.

DSNU039I *csect-name* **- LRECL=0 FOR DDNAME** *ddddddd*

Explanation: A data set to be used by the DB2 utility has a record length of zero after OPEN. All data sets with a record format of fixed or fixed blocked must have a valid record length greater than zero.

System Action: The utility job is abended with reason code X'00E40070'. The utility job step is left in the stopped state.

User Response: If the DDNAME is for a data set that you submitted, review and correct it. It might be necessary to provide a valid LRECL in the DCB parameter in the JCL. If the DDNAME was not provided by you but by the system, consult the system programmer.

Operator Response: Notify the user or system programmer.

System Programmer Response: Correct the data set definition, or add DCB information to the JCL. Do a RESTART(PHASE) of the stopped utility, or resubmit the job after issuing a -TERM UTILITY command for the stopped utility.

DSNU040I *csect-name* **ERROR ACCESSING DDNAME** *ddname***, DECB=Xhex string**

Explanation: An error has occurred during BSAM access of a utility temporary file identified by 'ddname'. The DECB indicating the error is given as a hexadecimal string.

System Action: The executing utility issues an X'04E' abend with abend reason code '00E40071' following this message.

User Response: Refer to the information given in the Problem Determination section of this message. Correct the problem. Either issue the -TERM command to terminate the utility job and resubmit it, or specify the RESTART parameter and resubmit it.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to release the resources claimed by the stopped utility (this may not be necessary).

Problem Determination: The DECB provided contains the ECB in the first four bytes. The first byte of the ECB contains status bits that indicate the cause of the error. Refer to the appropriate MVS publication for the meaning of the status bits.

DSNU041I *csect-name* **INVALID CONCATENATED DATA SET FOR DDNAME** *ddddddd*

Explanation: A non-input concatenated data set was detected. Only input data sets can be concatenated.

System Action: The utility job abended with reason code X'00E40070'. The utility job step is in the stopped state.

Operator Response: Notify the system programmer.

System Programmer Response: Remove the concatenated data sets from the data set with DDNAME 'ddddddd'. Resubmit the job after ending the stopped utility with the TERM UTILITY command, or restart the utility at the beginning of the stopped phase by using RESTART(PHASE).

DSNU042I *csect-name* **SORT PHASE STATISTICS. NUMBER OF RECORDS=***n* **ELAPSED TIME=***hh/mm/ss*

Explanation: This message provides statistics on the SORT phase of a utility. The number of records sorted, 'n', and the duration of the SORT phase in hours, minutes, and seconds are provided. Counters are valid up to four billion.

Severity: 0 (informational)

System Action: The system continues to process normally.

DSNU044I *csect-name* **ERROR FROM SORT COMPONENT RC=***n***, UTILITY STOPPED**

Explanation: A nonzero return code 'n' was returned from an MVS sort. Error messages from sort are printed on the UTPRINT data set.

System Action: The executing utility job is placed in the stopped state.

User Response: Determine the cause of the error. If the error can be corrected, the utility may be restarted from the beginning of the sort phase by using the RESTART(PHASE) option. If the error is such that the utility cannot complete, the -TERM command should be issued to remove the stopped utility from the system. The -TERM utility option should rarely be exercised when the stopped utility is REORG.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to release the resources claimed by the stopped utility (this may not be necessary).

Problem Determination: This abend is accompanied by abend reason code X'00E40005', and an SVC dump is requested. In most cases, error messages from MVS sort identify the problem and the dump is not needed. If sort is unable to open the UTPRINT data set, only the message and the abend are provided. For example, if the UTPRINT DD statement is omitted, correct the problem with UTPRINT, and resubmit the job.

DSNU046I *csect-name* **UTILITY STATEMENT IS TOO LONG OR TOO COMPLEX**

Explanation: The utility command and associated control statements have caused internal fields to exceed DB2 subsystem limits.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Reduce the size or complexity of the utility statement where possible. For example, a LOAD into several tables may be broken up into a separate load statement for each table or the size of comparison fields for 'when', 'continueif', and 'nullif' operands may be reduced in size.

Problem Determination: Refer to *Utility Guide and Reference* for correct operand definitions.

DSNU047I *csect-name* **A REQUIRED DD CARD IS MISSING DDNAME=***missing-ddname*

Explanation: The DB2 utility being executed requires a data set to continue processing. The DDNAME for the missing data set is provided.

Severity: 8 (error)

System Action: Utility processing terminates.

Operator Response: Notify the system programmer.

System Programmer Response: Correct the JCL to include the indicated DD statement. Refer to *Utility Guide and Reference* for information about required DD statements.

DSNU048I *csect-name* **INVALID OPERAND FOR KEYWORD** *kkkkkkkk*

Explanation: The utility parser has determined that the operand specified for keyword 'kkkkkkkk' is invalid.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Correct the operand in error, and resubmit the utility job. Refer to *Utility Guide and Reference* for correct operand definitions.

DSNU049I *csect-name* **- INVALID OPERAND** *oooooooo* **FOR KEYWORD** *kkkkkkkk*

Explanation: The utility parser has determined that operand 'oooooooo' cannot be specified for keyword 'kkkkkkkk'. This includes a negative value following the keywords MAXRO or DELAY.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Correct the operand in error, and resubmit the utility job. Refer to *Utility Guide and Reference* for proper option specifications.

DSNU050I *csect-name utility-statement*

Explanation: This message echoes the utility statement that was input from SYSIN.

Severity: 0 (informational)

System Action: Utility processing continues.

DSNU051I *csect-name* **INSUFFICIENT OPERANDS FOR KEYWORD** *kkkkkkkk*

Explanation: An operand that is required when the keyword 'kkkkkkkk' is specified was omitted.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Correct the operand specification, and resubmit the job. Refer to *Utility Guide and Reference* to determine the correct set of operands for 'kkkkkkkk'.

DSNU052I *csect-name* **KEYWORD kkk INCOMPATIBLE WITH OTHER KEYWORDS OR OPERANDS**

Explanation: The specified keyword 'kkk' cannot be used with other keywords or operands.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Refer to the *Utility Guide and Reference* for the right syntax for the specified keyword.

DSNU053I *csect-name* **FIELD** *cccccccc* **NOT FOUND**

Explanation: Either the column name specified, 'cccccccc', was not found in the catalog as a valid column name for the table being processed, or a WHEN keyword field name was not found in the field name list.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Correct the LOAD utility statement, and resubmit the job.

Problem Determination: Valid column names can be found in the SYSIBM.SYSCOLUMNS table.

DSNU054I *csect-name* **TABLESPACE** *ssssssss* **NOT FOUND**

Explanation: The operand of the TABLESPACE keyword, 'ssssssss', did not specify an existing table space name.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Correct the table space name and/or database name, and resubmit the job.

Problem Determination: Valid table space names can be found in the SYSIBM.SYSTABLESPACE catalog table.

DSNU055I *csect-name* **INDEX** *iiiiiiii* **NOT FOUND**

Explanation: The index name specified, 'iiiiiiii', was invalid.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Correct the index name, and resubmit the job.

Problem Determination: Valid index names can be found in the SYSIBM.SYSINDEXES catalog table.

DSNU056I *csect-name* **TABLE** *tttttttt* **NOT FOUND**

Explanation: A utility specified a table name '*tttttttt*', but the table does not exist.

Severity: 8 (error)

System Action: The error is sufficient to terminate further processing of the utility job step. The utility job step is terminated, and resources are released to their prior state.

User Response: Correct the table name and/or database name, and resubmit the utility job step.

Problem Determination: The correct table names can be found by querying the SYSIBM.SYSTABLES catalog table.

DSNU057I *csect-name* **DATABASE** *database-name* **NOT FOUND**

Explanation: The operand of the DATABASE keyword, 'database-name', did not specify an existing database name.

Severity: 8

System Action: The error is sufficient to terminate further processing of the utility job step. The utility job step is terminated, and resources are released to their prior state.

User Response: Correct the database name and resubmit the utility job step.

Problem Determination: The correct database names can be found by querying the SYSIBM.SYSDATABASE catalog table.

DSNU058I *csect-name utility-name* **UTILITY NOT ALLOWED AGAINST AN OBJECT IN RECOVERY PENDING STATE**

Explanation: An attempt has been made to execute a utility against an object that is in RECOVERY PENDING STATE. CHECK, COPY, MODIFY, LOAD, QUIESCE, REORG, and RUNSTAT are not allowed.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Remove the object from the RECOVERY PENDING STATE by using either LOAD REPLACE, RECOVER, or REPAIR against the object. Resubmit the job.

System Programmer Response: Determine which of the three utilities, LOAD REPLACE, RECOVER, or REPAIR, should be used to remove the object from the RECOVERY PENDING STATE.

DSNU059I *csect-name utility-name* **UTILITY NOT ALLOWED TO RUN ON A ROSHARE READ DATABASE**

Explanation: An attempt was made to execute a utility on a ROSHARE READ database. Only the RUNSTATS, DIAGNOSE, and REPAIR DBD utilities are allowed to run on read-only shared databases.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Resubmit the utility job on the owning system, if necessary.

DSNU060I *csect-name* **USER** *userid* **NOT AUTHORIZED FOR** *util-name* **UTILITY ON DATABASE** *dbase-name*

Explanation: User 'authorization ID' attempted to execute utility 'util-name' against an object in database 'dbase-name'. The user was either not authorized to execute utilities for the named database, or the user's authorization did not include this utility.

Severity: 12 (error)

System Action: Utility processing is not initiated.

User Response: Ensure that the correct database was specified. If the specification is correct, consult the system programmer concerning authorization.

System Programmer Response: Determine why the user was denied access. Either the authorization should be corrected, or another authorized user should invoke the utility.

Problem Determination: The following catalog tables can be examined to determine who has proper authority: SYSIBM.SYSUSERAUTH, SYSIBM.SYSDBAUTH, or SYSIBM.SYSRESAUTH.

DSNU061I *csect-name* **USER** *userid* **NOT AUTHORIZED, UTILID=***utilid*

Explanation: The named user issued a utility command and was not authorized to do so.

The -TERM UTILITY command can only be issued by:

- The submitter of the utility job.
- Users with SYSOPR, SYSADM, or SYSCTRL authority.
- Users with DBADM, DBCTRL, or DBMAINT authority over every database used by the utility.

  Even for users with sufficient database authority, the TERM UTILITY command will fail in these situations:

  – The user issued the command before the utility determined what databases it would access.

  – The utility job included the DIAGNOSE, REPORT, or STOSPACE utility. Those utilities must be terminated by the submitter of the job or by a holder of SYSOPR, SYSCTRL, or SYSADM authority.

Any user can issue a -DISPLAY UTILITY command.

System Action: The -TERM UTILITY request for utility identifier *utilid* is rejected.

User Response: Take the appropriate action:

- Wait to allow the utility to identify the databases it will access; then reissue the command.
- Obtain the required authorization and reissue the command.
- Have another user with proper authorization issue the command.

DSNU062I *csect-name util-name* **UTILITY MAY NOT BE RUN ON OBJECT** *qualifier.object-name*

Explanation: An attempt was made to execute utility 'util-name' against object 'qualifier.object-name'. This is not allowed. The named object cannot be processed by the named DB2 utility.

Severity: 8 (error)

System Action: The utility job is terminated.

User Response: Remove the invalid utility control statements and resubmit the job.

DSNU064I *csect-name* **UTILITY NOT ALLOWED AGAINST SYSTEM DATABASE**

Explanation: An attempt was made to execute a utility against database DSNDB01 or DSNDB06. The following utilities are not allowed against DSNDB01:

LOAD
REORG TABLESPACE against SYSUTILX (allowed against other DSNDB01 table spaces)
CHECK DATA

REPAIR DBD
RUNSTATS
MODIFY STATISTICS

The following utilities are not allowed against DSNDB06:

LOAD (except SYSIBM.SYSSTRINGS)
CHECK DATA
REPAIR DBD

Severity: 8 (error)

System Action: Execution of the utility job is stopped.

User Response: Remove the invalid utility control statements and resubmit the job.

DSNU065I *csect-name* **UTILITY NOT ALLOWED AGAINST A WORK FILE**

Explanation: An attempt has been made to execute a utility against database DSNDB07. Utilities are not allowed against work files.

Severity: 8 (error)

System Action: Execution of the utility job is stopped.

User Response: Remove the invalid utility control statement(s) and resubmit the job.

DSNU066I *csect-name* **OPERAND** *oooooo* **NOT ALLOWED FOR** *uuuuuu* **UTILITY against** *tttttt* **TABLE**

Explanation: An attempt was made to specify the REPLACE option when executing the LOAD utility on a DB2 catalog table. It is not permissible to replace existing rows in a DB2 catalog table. Rows can only be added to the existing rows in a DB2 catalog table.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Correct the operand, and resubmit the job.

DSNU070I *csect-name* **KEYWORD OR OPERAND** *x* **INVALID WITH** *y*

Explanation: The use of KEYWORD or OPERAND 'x' is inconsistent with KEYWORD or OPERAND 'y'.

Severity: 8 (error)

System Action: The control statement in error is rejected and processing is halted.

User Response: Correct the control statement in error and resubmit the job.

DSNU071I *csect-name* **KEYWORD** *x* **REQUIRES KEYWORD** *y*

Explanation: When keyword 'x' is specified, keyword 'y' must also be specified.

Severity: 8 (error)

System Action: The control statement in error is rejected and processing is halted.

User Response: Correct the control statement in error, and resubmit the job.

DSNU072I *csect-name* **INVALID KEYWORD(S) SPECIFIED FOR TABLESPACE LIST**

Explanation: The specified keyword cannot be included in a list of table spaces.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Remove the specified keyword from the list of table spaces.

DSNU073I *csect-name* **- KEYWORD 'wwwww' IGNORED**

Explanation: The keyword, 'wwwww' is no longer supported.

Severity: 0 (informational)

System Action: Utility processing proceeds.

Problem Determination: Refer to *Utility Guide and Reference* for the current syntax.

DSNU078I *csect-name* **INVALID DBCS IDENTIFIER** *iiii*

Explanation: The DBCS identifier iiii is invalid. Reason codes are:

101	An odd number of bytes exists between the shift-out and the shift-in
102	No shift-in was found at the end of the identifier
103	DBCS blanks X'4040' are not allowed
104	There are no characters between the shift-out and the shift-in
105	Shift-out can not be the first byte of the DBCS character between the shift-out and the shift-in.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Correct the DBCS identifier and resubmit the job.

Problem Determination: Refer to Chapter 3 of *SQL Reference* to determine the correct syntax for DBCS identifiers.

DSNU079I *csect-name* **UNBALANCED PARENS IN CONTROL STATEMENT**

Explanation: The utility parser has determined that there is an unbalanced parenthesis in the input string.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Determine the location of the missing parenthesis and insert it. The utility job can then be resubmitted.

Problem Determination: Refer to *Utility Guide and Reference* to determine the correct syntax for option specification.

DSNU080I *csect-name* **NO UTILITY STATEMENTS WERE EXECUTED**

Explanation: The SYSIN data set did not contain any text. The system might have processed the end of file prematurely, or this job requires that the utility statements be skipped.

Severity: 4 (warning)

System Action: Processing continues.

User Response: Provide at least one utility statement, if none now exists, or verify that this job executes no utility statements.

DSNU081I *csect-name* **OPERAND 'oooooooo' EXCEEDS KEYWORD 'kkkkkkkk' MAXIMUM LENGTH**

Explanation: The utility parser has determined that operand 'oooooooo' exceeds the maximum length for keyword 'kkkkkkkk'.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Correct the operand, and resubmit the job.

Problem Determination: Refer to *Utility Guide and Reference* to determine the correct operand specification.

DSNU082I *csect-name* **INVALID KEYWORD** *kkkkkkkk*

Explanation: The given keyword was not recognized within the context of this control statement.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Correct the keyword, and resubmit the job.

DSNU083I *csect-name* **INVALID HEXADECIMAL OPERAND** *hhhhhhhh*

Explanation: The utility parser has determined that the operand 'hhhhhhhh' is invalid as a hexadecimal operand. It either contains a character that is not hexadecimal or has an odd number of characters.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Correct the keyword, and resubmit the job.

DSNU084I *csect-name* **INVALID GRAPHIC OPERAND** *gggg*

Explanation: The utility parser has determined that the operand 'gggg' is invalid as a hexadecimal operand. The graphic operand is either missing one or both of the shift characters or is not an even number of characters.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Correct the utility statement, and resubmit the job.

DSNU085I *csect-name* **INVALID SPECIAL CHARACTER OPERAND** *ssss*

Explanation: The utility parser has determined that the operand 'ssss' is invalid as a special character operand. For a special character operand to be invalid, it must have either a shift-out or a shift-in character and be missing the corresponding shift character, or not have an even number of characters between the shift-out, shift-in characters.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Correct the utility statement, and resubmit the job.

DSNU086I *csect-name ttttt* **I/O ERRORS ON SPACE=** *ddddddd***. DATA SET NUMBER=** *nnn***. I/O ERROR PAGE RANGE=** *aaaaaa, bbbbbb***.**

Explanation: I/O errors were detected on the named table space. 'ttttt' is either 'READ' or 'WRITE'. 'nnn' is the data set number. 'aaaaaa' is the first damaged page and 'bbbbbb' is the last damaged page of the data set.

Severity: 0 (informational)

System Action: Processing continues, but the pages within the error range are no longer accessible.

System Programmer Response: Determine the appropriate level of recovery, and invoke the recovery utility. If user-defined data sets are being used and full data set or table space RECOVER is to be used, then, prior to invoking the RECOVER utility, the table space must be stopped, new data set(s) defined, and the table space restarted. If the data set is part of a ROSHARE READ database, determine whether it was a link or DASD failure. It there was a link failure, then fix the link, and issue a -START DATABASE with the ACCESS(FORCE) parameter. If the error was caused by a DASD failure, then correct the problem from the system on which the database was defined as ROSHARE OWNER.

Problem Determination: Refer to Section 4 (Volume 1) of *Administration Guide* for a discussion of database recovery procedures.

There may be an IOS message on the MVS console SYSLOG indicating the type of I/O error that occurred. If an IOS message was issued, follow the Problem Determination directions for the message.

DSNU087I *csect-name* **INVALID OPERAND TYPE FOR KEYWORD** *kkkkkkkk - oooooooo*

Explanation: The utility parser has determined that the operand 'oooooooo' is the wrong type for the keyword 'kkkkkkkk'. An example of such an error would be a decimal operand where only a hexadecimal operand is allowed.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Correct the keyword, and resubmit the job.

Problem Determination: Refer to *Utility Guide and Reference* to determine valid operand types for the designated keyword.

DSNU088I *csect-name* **INVALID CHARACTER OPERAND** *cccccccc*

Explanation: The utility parser has determined that the operand 'cccccccc' is invalid as a character operand.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Correct the keyword, and resubmit the job.

Problem Determination: Refer to *Utility Guide and Reference* for correct specification of the character operand.

DSNU089I *csect-name* **OPERAND** *oooooooo* **IS TOO LONG**

Explanation: The utility parser has determined that the operand 'oooooooo' is too long for the keyword specified.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Correct the keyword, and resubmit the job.

Problem Determination: Refer to *Utility Guide and Reference* for correct operand length specification.

DSNU090I *csect-name* **DDNAME** *nnn* **IS INVALID FOR KEYWORD** *kkk*

Explanation: The DDNAME 'nnn' was used as an improper input of the specified keyword 'kkk' or from one of the reserved ddnames: SYSIN, SYSPRINT, UTPRINT, SORTWKnn, SORTLIB.

Severity: 8 (error)

System Action: Processing terminates.

User Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU091I *csect-name* **DDNAME** *nnn* **IS A DUPLICATE**

Explanation: The DDNAME 'nnn' was used as operand in the input statement more than once.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Change the ddname to a different one.

DSNU092I *csect-name* **NUMBER OF OPERANDS FOR KEYWORD** *kkk* **EXCEEDS MAXIMUM**

Explanation: The keyword 'kkk' contains more than the maximum number of operands.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Refer to *Utility Guide and Reference* for the limit on the number of operands for the specified keyword.

DSNU094I *csect-name* **KEYWORD 'wwwww' IS DUPLICATED**

Explanation: The keyword 'wwwww' is not allowed twice.

Severity: 8

System Action: The control statement in error is rejected and the processing is halted.

User Response: Correct the control statement in error, and resubmit the job.

DSNU095I *csect-name* **UTILITY** *uuuuuuuu* **INCONSISTENT WITH LAST INVOCATION**

Explanation: This message can occur when a utility job step is restarted and a utility statement was modified, added or deleted from SYSIN.

Severity: 8 (error)

System Action: Utility processing is terminated. The utility job step remains in SYSIBM.SYSUTIL in the stopped state.

User Response: Restart the utility job with the statements in the same order as they were in when the job was first run. If a statement was modified, change the statement back to the format in the original invocation and restart the job. Utility statements should not be altered for restart.

DSNU096I *csect-name* **OPERAND** *oooooooo* **INCONSISTENT WITH LAST INVOCATION**

Explanation: When the utility job step was restarted, the indicated operand was found to be inconsistent with the restart point.

System Action: The restart of utility processing is not initiated.

User Response: To restart, restore the operand to its prior definition. If this is not acceptable, terminate the utility job step, take corrective action, and resubmit the job.

Operator Response: An operator with SYSOPR authority can terminate the utility job step (this may not be necessary). A REORG utility that is beyond the UNLOAD phase should rarely be terminated.

Problem Determination: Refer to *Utility Guide and Reference* for operand definitions. Refer to Section 4 (Volume 1) of *Administration Guide* for a discussion of utility restart constraints.

DSNU097I *csect-name - input* **WILL BE REQUIRED SYNTAX IN FUTURE RELEASES**

Explanation: The identified 'input' is not required in this release, but it will be part of the required syntax in future releases.

Severity: 4 (warning)

System Action: Utility processing continues.

Programmer Response: Refer to *Utility Guide and Reference* for the current syntax.

DSNU099I *csect-name* **- IRLM '***req-type***' REQUEST FAILED, IRLM RETURN CODE = X'***return-code***' IRLM REASON CODE = X'***reason-code***'**

Explanation: The request to the IRLM to obtain or release a lock failed for the reasons specified in *return-code* and *reason-code*. In a non data-sharing environment, the requested lock is the utility serialization lock. In a data sharing environment, the requested lock is the utility serialization lock, the utility identifier lock, or the utility execution lock. The IRLM return and reason codes are documented in "Section 5. IRLM Messages and Codes" on page 5-1. The type of request is indicated by *req-type*.

System Action: Utility and command processing terminates.

User Response: Refer to the IRLM messages and codes section for problem determination and the appropriate action. Restart the utility by specifying the RESTART parameter, or terminate the utility with the -TERM command and then resubmit the job. If this message was received during the -DIS UTIL, -TERM UTIL, or -START DATABASE ACCESS(FORCE) command, then the command can be reissued.

System Programmer Response: Determine the cause of the IRLM error and take appropriate action.

Problem Determination: Obtain the system console log output, dump, and SYS1.LOGREC information. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU100I *csect-name* **USERID =** *userid* **MEMBER =** *member-name* **UTILID =** *utilid* **PROCESSING UTILITY STATEMENT** *statement-number* **UTILITY =** *utility-name* **PHASE =** *utility-phase* **COUNT =** *object-count* **STATUS = STOPPED**

Explanation: This message is issued in response to a DISPLAY UTILITY command. The utility job with identifier *utilid* stopped during processing. In a data sharing environment, *member-name* identifies the DB2 member. In a non data-sharing environment, *member-name* is blank. At the time of the request, *object-count* records or pages were processed. If the utility job step is restarted with the RESTART(PHASE) option, it begins with phase *utility-phase*.

However, not all utilities have phases. Those that do have phases are restarted from the beginning of that phase.

The utility stopped for one of these reasons:

- The REORG utility stopped in response to its UNLOAD(PAUSE) option. The utility is stopped in the RELOAD phase.
- The utility is stopped because of a DB2 subsystem failure or cancelation (for example, a STOP DB2 command).

COUNT indicates the number of pages or records processed in a utility phase. COUNT has different meanings for different utilities. For utilities not mentioned below, ignore this field.

- For CHECK INDEX, LOAD, RECOVER INDEX, and REORG: number of records processed (log records for the LOG phase of REORG),or 0 (for the SWITCH or BUILD2 phase of REORG).
- For COPY, MERGECOPY, RECOVER(restore phase), and RUNSTATS: number of pages processed.
- For STOSPACE: number of table spaces or indexes processed.

Counters are valid up to four billion.

Severity: 0 (informational)

System Action: DB2 waits for directions to either restart or terminate the utility.

User Response: If you have the required authority, restart or terminate the utility job step.

To restart the job step, you must have authority to run the indicated utility and to complete any other utility functions in the utility job step.

To terminate the utility with the -TERM UTILITY command, you must be the originator or have SYSOPR or SYSADM authority.

Operator Response: If necessary, and if you have SYSOPR authority, you can issue the -TERM UTILITY command to release the resources claimed by the stopped utility.

DSNU103I *csect-name* **- UNABLE TO ACCESS SYSUTIL TABLE AT THIS TIME**

Explanation: An -ALTER UTILITY, -DISPLAY UTILITY, or -TERM UTILITY command was issued at the same time that the DSNDB01.SYSUTILX table space was the object of an active utility job. The utility job might be holding locks that would cause a deadlock condition to occur.

Severity: 8 (error)

System Action: The command processing is terminated.

User Response: Enter the command again. This message is issued in response to each command until the utility action on the DSNDB01.SYSUTILX table space completes.

DSNU104I *csect-name* **- DSNDB01.SYSUTILX IN A PENDING STATE PROHIBITS FURTHER PROCESSING**

Explanation: The -ALTER UTILITY, -TERM UTILITY, or -DISPLAY UTILITY command was issued when the DSNDB01.SYSUTILX table space was in a pending state, which prohibits further processing. The pending state was either copy or recovery pending.

Severity: 8 (error)

System Action: Command processing is terminated.

User Response: Notify the system programmer so that the pending condition can be resolved.

System Programmer Response: Issue a -DISPLAY DATABASE command to determine the state of the DSNDB01.SYSUTILX table space. If the state is copy pending, do a full image copy. If the state is recovery pending, use the RECOVER utility to recover DSNDB01.SYSUTILX. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU105I *csect-name* **- USERID=***userid* **MEMBER=***member-name* **UTILID=***utilid* **PROCESSING UTILITY STATEMENT** *n* **UTILITY=***utility-name* **PHASE=***phase-name* **COUNT=***n* **STATUS=***status*

Explanation: This message is issued in response to a DISPLAY UTILITY command.

It is also issued by the REORG utility if the user specified SHRLEVEL REFERENCE or CHANGE and DB2 *estimates* that

the switch phase will not start by the deadline specified by the DEADLINE phrase.

This message gives the user an estimate of how much processing the utility completed. The *utility-name* utility in the utility job step identified by *utilid* was executing in phase *utility-phase* at the time the -DISPLAY UTILITY request was made. In a data sharing environment, *member-name* identifies the DB2 member. In a non-data-sharing environment, *member-name* is blank.

COUNT *n* is the number of pages or records processed in a utility phase. COUNT has different meanings for different utilities. For utilities not mentioned below, ignore this field.

- For CHECK INDEX, LOAD, RECOVER INDEX, and REORG: number of records processed (log records for the LOG phase of REORG), or 0 (for the SWITCH or BUILD2 phase of REORG).
- For COPY, MERGECOPY, RECOVER(restore phase), and RUNSTATS: number of pages processed
- For STOSPACE: number of table spaces or indexes processed.

Counters are valid up to four billion.

Severity: 0 (informational)

System Action: The message reflects the state of DB2 at the time of the -DISPLAY UTILITY command or the time when DB2 estimated that the switch phase in the REORG utility with SHRLEVEL REFERENCE or CHANGE would not start by the deadline specified by the DEADLINE phrase.

If this message was issued for -DISPLAY UTILITY, the system continues processing. A subsequent -DISPLAY UTILITY command reflects that processing.

DSNU106I *csect-name utility-name* **UTILITY, MEMBER =** *member-name* **UTILID =** *utilid* **TERMINATING**

Explanation: This message is issued in response to a DISPLAY UTILITY command. The *utility-name* utility in the utility job step identified by *utilid* was in the process of terminating at the time the DISPLAY UTILITY request was issued. The utility is terminating in response to a previous TERM UTILITY request.

In a data sharing environment, *member-name* identifies the DB2 member. In a non data-sharing environment, *member-name* is blank.

Severity: 0 (informational)

System Action: The system is stopping the utility and releasing all resources associated with the utility. After the utility terminates, DB2 can reuse the utility identifier.

DSNU107I *csect-name* **MEMBER NAME** *member-name* **IS NOT A MEMBER OF THIS DATA SHARING GROUP.**

Explanation: This message is issued by the DISPLAY UTILITY command when an invalid *member-name* is encountered in the member list.

Severity: 4

System Action: The DISPLAY UTILITY command ignores the invalid *member-name* and continues to process the next member name specified.

User Response: Correct the member name and reissue the command.

DSNU108I *csect-name* **DATA SHARING ENVIRONMENT IS NOT ACTIVE, MEMBER KEYWORD NOT APPLICABLE.**

Explanation: This message is issued by the DISPLAY UTILITY command when the MEMBER keyword is specified, but data sharing is not active.

Severity: 4

System Action: The DISPLAY UTILITY command ignores the MEMBER keyword and its associated parameters, but continues processing.

User Response: Make sure data sharing is active before issuing the DISPLAY UTILITY command with the MEMBER keyword.

DSNU109I *csect-name* **UTILITY** *utilid* **CAN ONLY BE TERMINATED BY MEMBER =** *member-name*

Explanation: The -TERM UTILITY or -ALTER UTILITY command cannot terminate or alter the utility job with identifier *utilid*, because it belongs to member *member-name* of the DB2 data sharing group. Activeutility jobs can be terminated or altered only from the system on which they were running.

Severity: 8 (error)

System Action: If this message was issued for the -TERM UTILITY command, the command ignores the *utilid* and continues to process the next utilid, if any. If this message was issued for the -ALTER UTILITY command, the command is rejected, and further processing of the command is ended.

User Response: Make sure the *utilid* identifies the utility you want to terminate or alter. If it does, issue the command from the DB2 member identified in the message.

DSNU110I *csect-name* **UTILID =** *uuuu* **INVALID**

Explanation: This message is issued in response to an invalid specification of a UTILID on an -ALTER UTILITY, -DISPLAY UTILITY, or -TERM UTILITY command.A UTILID is a 1- to 16-byte alphanumeric token that can contain any number of periods.

Severity: 8 (error)

System Action: The -ALTER UTILITY, -DISPLAY UTILITY, or -TERM UTILITY command is rejected. Further processing of the command is ended.

User Response: Review the UTILID provided in the message to determine why it does not conform to the syntax rules of a utility identifier token, and reissue the request.

DSNU112I *csect-name* **- NO AUTHORIZED UTILITY FOUND FOR UTILID =** *utilid*

Explanation: This message is issued in response to an -ALTER UTILITY, -DISPLAY UTILITY, or -TERM UTILITY command. DB2 has no record of the utility job identified by the utility identifier *utilid*. The *utilid* might not be correct, or the utility might have already terminated.

Severity: 4 (warning)

System Action: The system rejects the -ALTER UTILITY, -DISPLAY UTILITY, or -TERM UTILITY request for the indicated utility job.

User Response: Verify that the utility identifier of the utility job to be altered, displayed, or terminated was correctly entered. To view all currently valid identifiers, issue the -DISPLAY UTILITY (*) or (partial-utility-id*) command.

DSNU114I *csect-name* **UTILITY COMMANDS SUB-SYSTEM FAILURE, REASON=X***code*

Explanation: This message indicates an abend has occurred in the utility commands subsystem.

System Action: The command abends. In the case of the -TERM command, termination actions taken previously under this command are backed out.

User Response: Prior messages and/or the SVC dump identify the failure. If the condition can be corrected, the command may be reissued.

Problem Determination: In most cases, the failure is not user related. In some cases, prior messages indicate a user error that may be corrected. The problem may be as simple as SYSIBM.SYSUTIL being temporarily locked by another command or a utility job. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU115I *csect-name utility-name* **UTILITY WITH UTILID =** *utilid* **CAN ONLY BE TERMINATED BY A MEMBER WITH THE SAME RELEASE =** *release*

Explanation: Command TERM UTILITY cannot terminate the utility job with identifier *utilid* because it belongs to a member with a release level identified in the message. Some utilities can be terminated only from a member of the DB2 data sharing group with the same release level.

Severity: 4 (warning)

System Action: Command TERM UTILITY is rejected for the indicated utility job.

User Response: Make sure the *utilid* identifies the utility you want to terminate. If it does, issue command TERM UTILITY from a member with a release level identified in the message in the DB2 data sharing group.

DSNU161I *csect-name utility-name* **UTILITY WITH UTILID =** *util-id* **CAN NOT BE TERMINATED AT THE DB2 TRACKER SITE**

Explanation: Certain utilities can not be terminated at the tracker site because the target objects might be left in an unpredictable state. The next recovery cycle should cause the utilities to resolve. These utilities can not be terminated at the tracker site:

- COPY
- LOAD
- REORG
- REPAIR

Severity: 8 (error)

System Action: The utility is not terminated.

User Response: Notify the system programmer.

System Programmer Response: Monitor the status of these utilities after the next tracker site recovery cycle.

DSNU160I *csect-name - utility-name* **UTILITY, UTILID =** *utilid* **REQUESTED TO TERMINATE, PHASE =** *utility-phase* **WAS ACTIVE**

Explanation: This message is issued in response to a -TERM UTILITY command. It acknowledges that the request for termination was received and verified. At the time the -TERM UTILITY request was received, utility 'utility-name' was ACTIVE in the utility job step identified by UTILID 'utilid'.

System Action: DB2 has accepted the request to terminate the indicated utility job step. The utility terminates at its next cleanup point.

User Response: This message is an acknowledgement that the request has been accepted and is in progress.

DSNU164I *csect-name ccccccc* **UTILITY, UTILID =** *uuuu* **ALREADY TERMINATING**

Explanation: This message is in response to a -TERM UTILITY command. It indicates that the utility job step indicated by UTILID 'uuuuu' has already been requested to terminate and is in the process of doing so now.

Severity: 0 (informational)

System Action: DB2 is currently in the process of terminating the indicated utility job step. Upon completion, all resources will have been released to their prior state, and all tracking of the indicated UTILID will have been removed. At that point, the UTILID is available for reuse.

User Response: This message indicates that either the request was redundant, or someone else is also interested in the termination of the subject utility job step.

DSNU166I *csect-name utility-name* **UTILITY, UTILID =** *uid* **NOT EXECUTING, CLEANUP COMPLETE**

Explanation: This message is in response to a -TERM UTILITY command. The 'utility-name' utility identified by UTILID 'uid' was found to be stopped at the time of the request to terminate.

Severity: 0 (informational)

System Action: Cleanup is performed for the indicated stopped utility. All resources held by the utility are freed and all storage of the utility job is deleted. The utility job is no longer restartable.

System Programmer Response: Resources held by this utility may have prevented applications, commands, and other utilities from executing. These have been freed, so that the inhibited tasks may now be performed.

DSNU170I *csect-name* **UTILITY JOB TERMINATED BY TERM COMMAND**

Explanation: A -TERM UTILITY command was issued for this utility job step.

Severity: 8 (error)

System Action: The executing utility terminates processing and frees all held resources. All storage of the utility job has been deleted. Therefore, the job is not restartable. Subsequent utilities in the same job step are not executed.

User Response: All or portions of the utility job step can be resubmitted as needed.

DSNU172I *csect-name* **UTILITY JOB TERMINATED BY STOP DB2 COMMAND**

Explanation: A -STOP DB2 command was issued during execution of the utility job step.

Severity: 8 (error)

System Action: The executing utility stops processing but continues to hold resources. Subsequent utilities in the same job step are not executed. The storage of the utility job is retained. Therefore, the utility job step is restartable.

User Response: Following a -START DB2 command, the utility job step may be restarted. Alternatively, the utility may be terminated using the -TERM UTILITY command and resubmitted as a new job. A REORG utility that has passed the UNLOAD phase should rarely be terminated.

DSNU180I *csect-name* **UTILITY IS NOT COMPATIBLE WITH THE** *utility-name* **UTILITY, UTILID =** *uid*, **OBJECT =** *spacename.object-name*.

Explanation: Certain utilities cannot process the same table or index space at the same time. The message identifies the objects for which the incompatibility occurred.

These objects might be target objects of the utilities, or they might be catalog or directory table spaces that are updated by the utilities. For example, DSNDB06.SYSCOPY is updated by LOAD.

Severity: 8 (error)

System Action: The starting utility is not initiated, and further utility processing in that utility job step is terminated.

User Response: Use -DISPLAY UTILITY with the provided 'uid' to determine when the utility that caused your utility to be rejected is completed. Refer to Section 5 (Volume 2) of *Administration Guide* for a discussion of which utilities are mutually compatible.

DSNU181I *csect-name* **RESTART NOT ALLOWED FOR** *utility-name* **UTILITY**

Explanation: An attempt was made to restart the named utility. DB2 does not allow this utility to be restarted.

System Action: Utility processing is abended. Abend reason code 00E40018 might be issued.

User Response: Issue the -TERM UTIL command to terminate the utility job and then rerun the job without the RESTART parameter.

System Programmer Response: If necessary, take actions to prevent access to the table space before terminating the utility.

DSNU182I *csect-name utility-name* **MUST BE THE ONLY UTILITY IN SYSIN**

Explanation: The submitted utility control statements contain a utility on the table space DSNDB01.SYSUTILX. This table space is integral to controlling the execution of utilities. Control over previous or subsequent utilities in the job step would be lost if the utility were allowed to execute. Therefore, the identified utility must be the only utility in a job step.

This message is also issued if you recover the SYSUTILX indexes, DSNLUX01 and DSNLUX02, or table space DSNDB01.DBD01 and include other utility control statements in the same job step.

Severity: 8 (error)

System Action: Work performed by utilities in the same utility job step prior to the starting utility persist. The utility identified and subsequent utilities are not allowed to execute, and the utility job step is placed in the stopped state.

User Response: Terminate the utility execution that received this message using the -TERM UTILITY command. Submit a subsequent job step containing only the identified utility. Execute additional utilities, if any, in a separate job step.

DSNU183I *csect-name - utility-name* **UTILITY NOT COMPATIBLE WITH OTHER ACTIVE UTILITIES**

Explanation: The utility identified by 'utility-name' is executing against table space DSNDB01.SYSUTILX. This table space is integral to controlling the execution of utilities. Control over other utilities running at the same time would be lost if the utility were allowed to execute. Therefore, the identified utility must be executed alone. There must be no other active DB2 utilities in the system.

Severity: 8 (error)

System Action: Utility execution is terminated.

User Response: Rerun the utility when there are no other utilities executing. Use the -DISPLAY UTILITY command to see what utilities are ACTIVE. Utilities in the STOPPED state are allowed.

DSNU184I *csect-name* **DO NOT RECOVER OBJECT** *obj-qual.obj-name* **UNTIL THE NEXT TRACKER SITE RECOVERY CYCLE**

Explanation: This message is issued when DB2 detects an inconsistency relating to a utility's status on object 'obj-qual.obj-name' at the tracker site. This event can happen if the SYSUTIL record for the utility either does not exist or reflects incorrect information about the status of the utility.

Severity: 8 (error)

System Action: ABEND04E with RC00E40009 is issued by the utility.

User Response: Notify the system programmer.

System Programmer Response: Wait for the next recovery cycle to recover the object named in this message. If the object named in this message is a catalog or directory object, you cannot recover this object, or any other objects in the list of catalog and directory objects, or any user data or indexes. Wait until the next recovery cycle to do the recovery.

DSNU200I *csect-name* **- ERROR RANGE ON TABLE SPACE** *database.tablespace-name* **PROHIBITS PROCESSING**

Explanation: The utility encountered an error range on the identified table space or partition, which prohibits it from continuing.

Severity: 8 (error)

System Action: The utility fails serialization and terminates.

User Response: Correct the error range for the table space by running RECOVER ERROR RANGE. Then resubmit the original failing utility.

DSNU201I *csect-name* **- ERROR RANGE ON INDEX** *creator.index-name* **PROHIBITS PROCESSING**

Explanation: The utility encountered an error range on the identified index space or partition which prohibits it from continuing.

Severity: 8 (error)

System Action: The utility fails serialization and terminates.

User Response: Identify the incorrect error range by issuing the DISPLAY command for the index. Run the RECOVER INDEX utility to restore the index or index partition that has the error range. Then resubmit the original failing utility.

DSNU202I *csect-name* **- RECOVERY PENDING ON TABLE SPACE** *database.tablespace-name* **PROHIBITS PROCESSING**

Explanation: An attempt was made to execute a utility against a table space that is in a recovery pending state.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Remove the table space from the recovery pending state by using either LOAD REPLACE, RECOVER, or REPAIR against the object. LOAD REPLACE with KEEPDICTIONARY is not allowed on a table space (with compression active) in the recover pending state. Resubmit the job.

System Programmer Response: Determine which of the three utilities, LOAD REPLACE, RECOVER, or REPAIR, should be used to remove the object from the recovery pending state.

DSNU203I *csect-name* **- RECOVERY PENDING ON INDEX** *creator.index-name* **PROHIBITS PROCESSING**

Explanation: An attempt was made to execute a utility against an index that is in a recovery pending state.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Remove the table space from the recovery pending state by using RECOVER INDEX against the index. Resubmit the job.

DSNU204I *csect-name* **- PAGESET RECOVERY PENDING ON INDEX** *creator.name* **PROHIBITS PROCESSING**

Explanation: An attempt was made to execute a utility against a logical partition of an index when the index is in PAGESET recovery pending state,

Severity: 8 (error)

System Action: Utility processing terminates.

User Response: Remove the index space from PAGESET recovery pending state by running the RECOVER INDEX utility against the entire index, not just a single logical partition. Resubmit the job.

DSNU205I *csect-name* **- LOGICAL ERROR RANGE (LOGICAL PAGE LIST) ON TABLE SPACE** *database.tablespace-name* **PROHIBITS PROCESSING**

Explanation: The utility cannot continue because it encountered a logical error range (logical page list) on the identified table space or partition.

Severity: 8 (error)

System Action: The utility terminates.

User Response: Use the -START DATABASE command to correct the logical error range (LPL) for the table space. Then resubmit the original failing utility.

DSNU206I *csect-name* **- LOGICAL ERROR RANGE (LOGICAL PAGE LIST) ON INDEX** *creator.index-name* **PROHIBITS PROCESSING**

Explanation: The utility cannot continue because it encountered a logical error range (logical page list) on the identified index space or partition.

Severity: 8 (error)

System Action: The utility terminates.

User Response: Issue the -DISPLAY command for the index to identify the logical error range (LPL). There are two ways to restore the index or index partition that has the LPL before resubmitting the original failed utility.

- Issue the START DATABASE command to clear the LPL status, then run the RECOVER INDEX utility.
- Run the RECOVER INDEX utility to recover the entire non-partitioning index (NPI).

DSNU207I *csect-name* **- GROUP BUFFER POOL RECOVERY PENDING ON TABLE SPACE** *database.tablespace-name* **PROHIBITS PROCESSING**

Explanation: You cannot execute a utility on a table space that is in a group buffer pool recovery pending status.

Severity: 8 (error)

System Action: Utility processing does not start.

User Response: Use the -START DATABASE command to remove the table space from the group buffer pool recovery pending status. Then resubmit the job.

DSNU208I *csect-name* **- GROUP BUFFER POOL RECOVERY PENDING ON INDEX** *creator.index-name* **PROHIBITS PROCESSING**

Explanation: You cannot execute a utility on an index that is in a group buffer pool recovery pending (GRECP) status.

Severity: 8 (error)

System Action: Utility processing does not start.

User Response: Run the RECOVER INDEX utility on the index to remove the table space from the group buffer pool recovery pending status. Then resubmit the job.

DSNU231I *csect-name* **DICTIONARY WITH** *n* **ENTRIES HAS BEEN SUCCESSFULLY BUILT FROM** *m* **ROWS FOR TABLE SPACE** *table-space-name*

Explanation: A compression dictionary was built for the specified table space. This message is issued during the RELOAD phase of the LOAD utility and at the end of the UNLOAD phase of the REORG utility.

The variable 'n' is the number of dictionary entries: 512, 1024, 2048, 4096, or 8192. 'n' depends on the number of rows being loaded or reorganized.

'm' is the number of rows used to build the dictionary.

Counters are valid up to four billion.

Severity: 0 (informational)

System Action: Processing continues.

User Response: None is required.

DSNU232I *csect-name* **KEEPDICTIONARY REQUESTED BUT COMPRESS ATTRIBUTE NOT DEFINED FOR TABLE SPACE** *table-space-name*

Explanation: The KEEPDICTIONARY option was specified in the LOAD or REORG TABLESPACE utility statement. This keyword should only be used with table spaces that have the COMPRESS YES attribute. Otherwise, it is ignored. The COMPRESS column of SYSIBM.SYSTABLEPART contains the current compression status.

Severity: 4 (warning)

System Action: Processing continues. If the dictionary exists, it is erased if LOAD REPLACE or REORG is specified.

User Response: None is required.

DSNU233I *csect-name* **COMPRESSION DICTIONARY DOES NOT EXIST FOR TABLE SPACE** *table-space-name*

Explanation: The KEEPDICTIONARY option was specified in the LOAD or REORG TABLESPACE utility statement for a table space that does not have a compression dictionary.

Severity: 4 (warning)

System Action: Processing continues. A dictionary is built for the table space.

User Response: None is required.

DSNU234I *csect-name* **COMPRESSION REPORT FOR TABLE SPACE** *table-space-name*

noncmpbytes KB WITHOUT COMPRESSION
cmpbytes KB WITH COMPRESSION
percsave PERCENT OF THE BYTES SAVED FROM COMPRESSED DATA ROWS
pctrowcomp PERCENT OF THE LOADED ROWS WERE COMPRESSED
noncmppages PAGES REQUIRED WITHOUT COMPRESSION
cmppages PAGES REQUIRED WITH COMPRESSION
auncmprowlen BYTES FOR AVERAGE UNCOMPRESSED ROW LENGTH
avgcmprowlen BYTES FOR AVERAGE COMPRESSED ROW LENGTH
pagesave PERCENT OF THE DB2 DATA PAGES SAVED USING COMPRESSED DATA

Explanation: The data in the table space was compressed. This message is issued at the end of the RELOAD phase for the LOAD and REORG utility. The statistics that follow apply only to the data that was loaded or reorganized. For example, RESUME(YES) reports statistics only on the additional rows that were loaded, not what was previously in the table space.

The compression statistics follow:

noncmpbytes The total number of uncompressed KB (where KB = 1024 bytes) for the loaded or reorganized data rows (including the row prefix). This number was rounded to the nearest KB.

cmpbytes The total number of compressed KB for the loaded or reorganized data rows (including the row prefix). This number was rounded to the nearest KB.

percsave The percentage of bytes saved from the loaded or reorganized data rows as a result of compression.

The values above reflect only the number of bytes for the data row and the respective row prefix (6 bytes). DB2 page and dictionary page overhead is not included.

pctrowcomp The percentage of the rows that were compressed within the total number of rows that were loaded or reorganized. The stored length and the external length of a row was compared to determine if the row was compressed. If an EDITPROC is involved, its effect on the length of the row is considered in the calculation.

noncmppages The estimated number of DB2 pages required by the uncompressed data rows that were loaded or reorganized. Space required for PCTFREE and FREEPAGE is included. This number was rounded up to the next integer.

cmppages The estimated number of DB2 pages required by the compressed data rows that were loaded or reorganized. Space required for PCTFREE and FREEPAGE is included. Dictionary pages are also included unless a LOAD RESUME(YES) was run. This number was rounded up to the next integer.

auncmprowlen Average uncompressed row length.

avgcmprowlen Average compressed row length.

pagesave An estimate of the percentage of DB2 pages saved by compressing the loaded or reorganized data rows.

Severity: 0 (informational)

System Action: Processing continues.

User Response: None is required.

DSNU235I *csect-name* **THE COMPRESSION DICTIONARY WAS NOT BUILT FOR TABLE SPACE** *table-space-name*

Explanation: There is insufficient data to build a compression dictionary. For the LOAD utility, the input data set is empty or all of the input records were discarded. For the REORG TABLESPACE utility, the table space is empty. The data was not compressed.

Severity: 4 (warning)

System Action: Processing continues.

User Response: The input data set must contain data in order to build a compression dictionary while running the LOAD utility. Ensure that the input records are not discarded by the WHEN clause or conversion errors. For the REORG TABLESPACE utility, the table space must be populated with data in order to build a compression dictionary.

DSNU236I *csect-name* **DICTIONARY FOR TABLE SPACE** *table-space-name* **HAS BEEN ERASED.**

Explanation: The compression dictionary of the specified table space was erased.

The COMPRESS attribute of the table space is NO, and there are no active rows in this table space. In this case, the LOAD RESUME NO utility erases the dictionary.

Severity: 0 (informational)

System Action: Processing continues.

User Response: None is required.

DSNU241I *csect-name* **DICTIONARY WITH** *n* **ENTRIES HAS BEEN SUCCESSFULLY BUILT FROM** *m* **ROWS FOR TABLE SPACE** *table-space-name*, **PARTITION** *part-num*

Explanation: A compression dictionary was built for the specified partition of the table space. This message is issued during the RELOAD phase of the LOAD utility and at the end of the UNLOAD phase of the REORG utility.

The variable 'n' is the number of dictionary entries: 512, 1024, 2048, 4096, or 8192. 'n' depends on the number of rows being loaded or reorganized.

'm' is the number of rows used to build the dictionary.

Counters are valid up to four billion.

Severity: 0 (informational)

System Action: Processing continues.

User Response: None is required.

DSNU242I *csect-name* **KEEPDICTIONARY REQUESTED BUT COMPRESS ATTRIBUTE NOT DEFINED ON TABLE SPACE** *table-space-name*, **PARTITION** *part-num*

Explanation: The KEEPDICTIONARY option was specified in the LOAD or REORG TABLESPACE utility statement. This keyword should only be used with table space partitions that have the COMPRESS YES attribute. Otherwise, it is ignored. The COMPRESS column of SYSIBM.SYSTABLEPART contains the current compression status.

Severity: 4 (warning)

System Action: Processing continues. If the dictionary exists, it is erased if LOAD REPLACE or REORG is specified.

User Response: None is required.

DSNU243I *csect-name* **COMPRESSION DICTIONARY DOES NOT EXIST FOR TABLE SPACE** *table-space-name*, **PARTITION** *part-num*

Explanation: The KEEPDICTIONARY option was specified in the LOAD or REORG TABLESPACE utility statement for a table space partition that does not have a compression dictionary.

Severity: 4 (warning)

System Action: Processing continues. A dictionary is built for the table space partition.

User Response: None is required.

DSNU244I *csect-name* **COMPRESSION REPORT FOR TABLE SPACE** *table-space-name*, **PARTITION** *part-num*

noncmpbytes	KB WITHOUT COMPRESSION
cmpbytes	KB WITH COMPRESSION
percsave	PERCENT OF THE BYTES SAVED FROM COMPRESSED DATA ROWS
pctrowcomp	PERCENT OF THE LOADED ROWS WERE COMPRESSED
noncmppages	PAGES REQUIRED WITHOUT COMPRESSION
cmppages	PAGES REQUIRED WITH COMPRESSION
auncmprowlen	BYTES FOR AVERAGE UNCOMPRESSED ROW LENGTH
avgcmprowlen	BYTES FOR AVERAGE COMPRESSED ROW LENGTH
pagesave	PERCENT OF THE DB2 DATA PAGES SAVED USING COMPRESSED DATA

Explanation: The data in the table space partition was compressed. This message is issued at the end of the RELOAD phase for the LOAD and REORG utility. The statistics that follow apply only to the data that was loaded or reorganized. For example, RESUME(YES) reports statistics only on the additional rows that were loaded, not what was previously in the table space.

The compression statistics follow:

noncmpbytes	The total number of uncompressed KB (where KB = 1024 bytes) for the loaded or reorganized data rows (including the row prefix). This number was rounded to the nearest KB.
cmpbytes	The total number of compressed KB for the loaded or reorganized data rows (including the row prefix). This number was rounded to the nearest KB.
percsave	The percentage of bytes saved from the loaded or reorganized data rows as a result of compression.

The values above reflect only the number of bytes for the data row and the respective row prefix (6 bytes). DB2 page and dictionary page overhead is not included.

pctrowcomp The percentage of the rows that were compressed within the total number of rows that were loaded or reorganized. The stored length and the external length of a row was compared to determine if the row was compressed. If an EDITPROC is involved, its effect on the length of the row is considered in the calculation.

noncmppages The estimated number of DB2 pages required by the uncompressed data rows that were loaded or reorganized. Space required for PCTFREE and FREEPAGE is included. This number was rounded up to the next integer.

cmppages The estimated number of DB2 pages required by the compressed data rows that were loaded or reorganized. Space required for PCTFREE and FREEPAGE is included. Dictionary pages are also included unless a LOAD RESUME(YES) was run. This number was rounded up to the next integer.

| auncmprowlen Average uncompressed row length.

| avgcmprowlen Average compressed row length.

pagesave An estimate of the percentage of DB2 pages saved by compressing the loaded or reorganized data rows.

Severity: 0 (informational)

System Action: Processing continues.

User Response: None is required.

DSNU245I *csect-name* **THE COMPRESSION DICTIONARY WAS NOT BUILT FOR TABLE SPACE** *table-space-name***, PARTITION** *part-num*

Explanation: There is insufficient data to build a compression dictionary. For the LOAD utility, the input data set is empty or all of the input records were discarded. For the REORG TABLESPACE utility, the partition is empty. The data was not compressed.

Severity: 4 (warning)

System Action: Processing continues.

User Response: The input data set must contain data in order to build a compression dictionary while running the LOAD utility. Ensure that the input records are not all being discarded by the WHEN clause or conversion errors. For the REORG TABLESPACE utility, the partition must be populated with data in order to build a compression dictionary.

DSNU246I *csect-name* **DICTIONARY FOR TABLE SPACE** *table-space-name***, PARTITION** *part-num* **HAS BEEN ERASED.**

Explanation: The compression dictionary of the specified partition of the table space was erased.

The COMPRESS attribute of the table space partition is NO, and there are no active rows in this partition. In this case, the LOAD RESUME NO utility erases the dictionary.

Severity: 0 (informational)

System Action: Processing continues.

User Response: None is required.

DSNU250I *csect-name* **UNLOAD PHASE COMPLETE, ELAPSED TIME =** *hh/mm/ss*

Explanation: The UNLOAD phase of the REORG utility completed normally. The time that elapsed between the beginning of the REORG utility and the completion of the UNLOAD phase was hh/mm/ss, hours, minutes, and seconds, respectively.

Severity: 0 (informational)

System Action: Action subsequent to this message depends on the UNLOAD option of the REORG utility statement:

- If the UNLOAD option is CONTINUE, execution of the utility continues into the RELOAD phase.
- If the UNLOAD option is PAUSE, execution of the utility is stopped at the beginning of the RELOAD phase.
- If the UNLOAD option is ONLY, the REORG utility is finished. Processing continues to the next utility in the utility job step, or, if there are no more utility statements, the utility job step terminates normally.

User Response: The user's response depends on the UNLOAD option in the REORG utility statement.

- If the UNLOAD option is CONTINUE, no user response is required. The message is informational only.
- If the UNLOAD option is PAUSE, the REORG utility is stopped in the reload phase. To complete the REORG process, the user must explicitly restart the utility job step using the RESTART(PHASE) option.
- If the UNLOAD option is ONLY, the REORG utility has completed, and the requested output is on the data set identified by the DD statement of the UNLDDN REORG utility statement option.

Operator Response: The operator's response depends on the UNLOAD option of the REORG statement:

- If the UNLOAD option is CONTINUE, no operator response is required. The execution of the REORG utility is proceeding.
- If the UNLOAD option is PAUSE, further processing is dependent upon restarting the utility job step with the RESTART(PHASE) option. Until that time, resources are held exclusively by the REORG utility job step.
- If the UNLOAD option is ONLY, the REORG utility processing is complete. The data set defined by the DD statement nominated by the UNLDDN option is available for installation disposition.

DSNU251I *csect-name* **UNLOAD PHASE STATISTICS. NUMBER OF RECORDS =** *mmmmmm* **FOR** *ttttttt* **PART** *nn*

Explanation: This message is issued at the completion of the
UNLOAD phase of the REORG utility. It gives the number of
records that were unloaded 'mmmmmm' for the indicated par-
tition 'nn' of table space 'ttttttt'. The count can indicate the
| amount of processing. Counters are valid up to four billion.

Severity: 0 (informational)

System Action: Only valid table records are unloaded.
Dropped table record counts are not reported.

User Response: The record count represents the current
cardinality of the indicated partition. Consider invoking the the
RUNSTATS utility and then rebinding the involved PLANs if

this value differs greatly from the SYSTABLE.CARD value so
that the SQL optimizer can bring the PLANs up to date.

DSNU252I *csect-name* **UNLOAD PHASE STATISTICS. NUMBER OF RECORDS =** *mmmmmm* **FOR** *tttttttt*

Explanation: This message is issued at the completion of the UNLOAD phase of the REORG utility. It gives the number of records that were unloaded 'mmmmmm' for the indicated table space 'tttttttt'. Counters are valid up to four billion.

Severity: 0 (informational)

System Action: Only valid table records are unloaded. Dropped table record counts are not reported.

User Response: Record count represents the current cardinality of the indicated table. Invocation of the RUNSTATS utility and a subsequent rebinding of the involved PLANs should be considered if this value differs greatly from the SYSTABLE.CARD value, so that the SQL optimizer can bring the PLANs up to date.

Operator Response: Count can be indicative of the amount of processing remaining.

DSNU254I *csect-name* **- RECORD COUNTS INCONSISTENT FOR** *pppppppp* **PHASE, NUMBER OF RECORDS EXPECTED =** *nnnnnnnn***, NUMBER OF RECORDS PROCESSED =** *aaaaaaaa*

Explanation: This message is issued during the 'pppppppp' phase for the REORG utility to report the condition where the number of records 'nnnnnnnn' passed to the current phase is not equal to the number of records 'aaaaaaaa' processed in this phase. Counters are valid up to four billion.

Severity: 4 (warning)

System Action: Processing continues if UNLOAD PAUSE option was used.

User Response: Check if unload data set was altered by user. Determine if the inconsistent record counts between the unload and reload phases is a potential problem. If it is an internal DB2 problem, report to system programmer.

System Programmer Response: Determine the failing environment. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: If the unload data set was manipulated by user during restart process, make sure it was handled properly. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

DSNU255I *csect-name* **- KEY COUNT INCONSISTENT FOR** *pppppppp* **PHASE, NUMBER OF KEYS EXPECTED =** *nnnnnnnn***, NUMBER OF KEYS PROCESSED =** *aaaaaaaa***.**

Explanation: This message is issued during the 'pppppppp' phase for the LOAD or REORG utility to report the condition where the number of keys, 'nnnnnnnn', passed to the current phase is not equal to the number of keys, 'aaaaaaaa', processed in this phase. One or more of the affected indexes may be inconsistent. Counters are valid up to four billion.

Severity: 8 (error)

System Action: Processing stops and all indexes are placed in recover pending state.

User Response: TERM the utility and re-access the indexes by running REPAIR utility to reset the recover-pending states on indexes. Run the CHECK INDEX utility to determine if any of the affected indexes are inconsistent. Inconsistent indexes may be recovered by the RECOVER INDEX utility.

System Programmer Response: Determine the failing environment. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: If the working data set was manipulated by the user during the restart process, make sure it was handled properly. Refer to *Utility Guide and Reference*.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU256I *csect-name* **INVALID PARTITION SPECIFICATION**

Explanation: This message is issued by the utility in response to an invalid PART option specification.

A PART option is invalid if it is specified for a nonpartitioned table space, or if the indicated PART integer is not pertinent to the partitions existing for the indicated table space.

The utility job step is terminated.

Severity: 8 (error)

System Action: The error is sufficient to terminate further processing of the utility job step. The utility job step is terminated, and resources are released to their previous state.

User Response: Determine the correct partition specification for the table space that was the subject of the specified control utility statement, and resubmit the utility job step. Examine the SYSIBM.SYSTABLESPACE in the DB2 catalog for the correct range of partition numbers for the table space.

DSNU257I *csect-name* **UNABLE TO RESTART BUILD PHASE**

Explanation: Restarting in the BUILD PHASE of the LOAD utility with the RESUME(YES) option or the REORG utility with the PART option is not permitted.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Recover all indexes within the table space which were left in a recover pending state when the LOAD or REORG utility failed.

Problem Determination: Refer to *Utility Guide and Reference* and Section 2 (Volume 1) of *Administration Guide* for a discussion of LOAD and reorganization restarting constraints.

DSNU258I *csect-name* **BUILD PHASE STATISTICS. NUMBER OF INDEXES =** *mmm*

Explanation: This message is issued at normal completion of the BUILD phase of the LOAD or REORG or RECOVER INDEX utility. The number of indexes that were updated is indicated as 'mmm'.

Severity: 0 (informational)

System Action: The BUILD phase of either the LOAD or REORG or RECOVER INDEX utility is completed. Upon completion of the utility job step, they are available for REFERENCE processing.

DSNU259I *csect-name* **BUILD PHASE COMPLETE, ELAPSED TIME =** *hh/mm/ss*

Explanation: This message is issued at the normal completion of the BUILD phase of the REORG, LOAD, and RECOVER INDEX utilities. The time that has elapsed between the beginning of the phase and the completion of this phase was 'hh' hours, 'mm' minutes, and 'ss' seconds.

System Action: Processing continues to the next phase of the LOAD or REORG or RECOVER INDEX utility. If this is the last phase, processing continues to the next utility statement in the utility job step, if any.

DSNU260I *csect-name* **TABLE SPACE IS EMPTY**

Explanation: This message is issued as a warning when RECOVER INDEX(ALL) or REORG TABLESPACE are executed on an empty table space.

This message is also issued when COPY detects that the first space map page in the table space or partition is missing. This is an error condition that may be caused by a delete and redefine of the data set outside of DB2, or by a previous DB2 failure that occurred on the data set.

Severity: 4 (warning) or 8 (error)

System Action: For RECOVER INDEX or REORG TABLESPACE, the return code of 4 will allow the next utility function in the job step, if any, to be initiated.

For COPY, the table space or partition being copied will be placed in recover pending status. The return code of 8 will prohibit further utility processing in the job step.

User Response: Notify the system programmer if the return code is 8. If the return code is 4, no action is required.

System Programmer Response: If the return code is 8, the table space or partition being copied should be recovered with the RECOVER utility.

DSNU270I *csect-name - table-name, column-name* **IN VIOLATION OF INSTALLATION DEFINED FIELD PROCEDURE** *procedure-name. function-code, return-code, reason-code, message-token*

Explanation: An installation-supplied field procedure has returned an error during encoding for LOAD or decoding for REORG. See SQLCODE -681 for more detail.

Severity: 8 (error)

System Action: The utility will issue a system '04E' abend with a reason code of '00E40336'.

User Response: Request the dump produced as a result of the error to the system programmer so that the cause of the error can be determined and corrected.

System Programmer Response: Examine the field procedure to determine why an error return code was generated. Refer to *Utility Guide and Reference* for more information.

DSNU272I *csect-name* **- FIELD PROCEDURE** *procedure-name* **COULD NOT BE LOADED**

Explanation: An installation supplied field procedure could not be loaded during encoding for LOAD or decoding for REORG. See SQLCODE -682 for more detail.

Severity: 8 (error)

System Action: The utility will terminate with a return code of 8.

User Response: Take the job output to the system programmer.

System Programmer Response: Determine why the field procedure could not be loaded.

DSNU280I *csect-name* **- ERROR=X'reason-code' FROM EDIT ROUTINE** *procedure-name* **FOR** *table-name*

Explanation: The edit routine provided by your installation has returned an error during the load of a record into the table indicated. The reason code is set by the edit routine.

Severity: 8 (error)

System Action: The LOAD or REORG utility will receive ABEND04E RC00E40323.

User Response: Correct any errors in the input data. Ensure that the edit routine provided is correct. The utility can be restarted or terminated.

System Programmer Response: Verify that the edit routine is correct.

DSNU281I *csect-name* **RECORD** *(n)* **OF TABLE** *table-name* **VIOLATING VALID ROUTINE** *validproc-name***, ERROR=X'reason-code'**

Explanation: The validation exit routine provided by your installation blocked the load of record 'n' into TABLE 'table-name'. The reason-code was set by the exit routine.

Severity: 4 (warning)

System Action: The LOAD utility continues to process the following input record.

User Response: Check the error input records against the error reason code returned from the validation procedure. Refer to *Utility Guide and Reference* for a definition of LOAD input field column specifications.

System Programmer Response: Verify that the validation routine is correct.

DSNU282I *csect-name* **UNABLE TO RESTART AT LAST CHECKPOINT WITH DDNAME** *'ddddddd'*

Explanation: The data set with DDNAME 'ddddddd' is a concatenated data set and the utility can be restarted only at the beginning of the phase (RESTART PHASE), not at the last checkpoint (RESTART CURRENT).

Severity: 8

System Action: The utility will issue a system '04E' abend with a reason code of '00E40323'.

User Response: Change the RESTART option to RESTART PHASE and resubmit the job step.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

DSNU291I MAXIMUM COMPOSITE UNLOAD RECORD SIZE TOO LARGE FOR SORT. SORTDATA KEYWORD IS IGNORED.

Explanation: The SORTDATA keyword was specified for a REORG utility job. However, the largest possible record in the table space, prefixed by the largest key, produces a composite record that is too large to be processed by the SORT component. The SORTDATA keyword is ignored.

This message is issued by the following CSECT: DSNURFIT

Severity: 0

System Action: Processing continues normally.

User Response: If you must use SORTDATA for the table space, try reducing the size of either the largest record or key field by redefining the table. In some cases, changing a field from LONG VARCHAR to VARCHAR with a specified maximum length might help.

Problem Determination: This problem should only occur on a table space with a 32KB page size. Analyze the requirement for maximum data length in VARCHAR and LONG VARCHAR columns to see if a shorter length can be specified. It might be necessary to remove the SORTDATA keyword from the utility statement.

DSNU292I *csect-name* **- -ALTER UTILITY CANNOT APPLY TO THIS UTILITY, REASON=***c*

Explanation: The -ALTER UTILITY command only applies to a job that is executing REORG with SHRLEVEL REFERENCE or CHANGE. In addition, if -ALTER UTILITY specifies MAXRO, LONGLOG, or DELAY, the job must be executing REORG with SHRLEVEL CHANGE.

1 The job is not executing REORG with SHRLEVEL REFERENCE or CHANGE.

2 -ALTER UTILITY specifies MAXRO, LONGLOG, or DELAY, but the job is executing REORG with SHRLEVEL REFERENCE.

Severity: 8 (error)

System Action: -ALTER UTILITY does not execute.

User Response: Apply -ALTER UTILITY to a job that is executing the proper utility.

DSNU293I *csect-name* **- REORG WITH SHRLEVEL REFERENCE OR CHANGE CANNOT APPLY TO THE** *name* **TABLE SPACE**

Explanation: REORG with SHRLEVEL REFERENCE or CHANGE cannot operate on the following catalog and directory table spaces: DSNDB06.SYSDBASE, DSNDB06.SYSDBAUT, DSNDB06.SYSGROUP, DSNDB06.SYSPLAN, DSNDB06.SYSVIEWS, and DSNDB01.DBD01.

Severity: 8 (error)

System Action: REORG does not execute.

User Response: Execute REORG with SHRLEVEL NONE.

DSNU294I *csect-name* **- LARGEST COMPOSITE RECORD IS TOO BIG FOR REORG WITH SHRLEVEL CHANGE**

Explanation: SHRLEVEL CHANGE was specified for a REORG utility job, and the table has a clustering index. However, the largest possible record in the table space, prefixed by the largest key, produces a composite record that is too large to be processed by the SORT component. See the computation of the length under REORG in the *Utility Guide and Reference*. If the largest possible composite record to be sorted exceeds 32760 bytes in length, which is the maximum record size for a BSAM data set, REORG cannot operate if SHRLEVEL CHANGE is specified.

Severity: 8 (error)

System Action: REORG does not execute.

User Response: Execute REORG with SHRLEVEL NONE or REFERENCE. If you must use SHRLEVEL CHANGE for the table space, try reducing the size of either the largest record or key field by redefining the table. In some cases, changing a field from LONG VARCHAR to VARCHAR with a specified maximum length might help.

Problem Determination: This problem should only occur on a table space with a 32KB page size. Analyze the requirement for maximum data length in VARCHAR and LONG VARCHAR columns to see whether a shorter length can be specified.

DSNU295I *csect-name* **- IN UTILTERM PHASE OF REORG WITH SHRLEVEL REFERENCE OR CHANGE, DATA SET** *name* **COULD NOT BE DELETED, DFP REASON CODE =** *rrrrrrrr*

Explanation: For the area (table space or partition) being reorganized, REORG with SHRLEVEL REFERENCE or CHANGE unloads data from the original data sets and reloads data into shadow data sets. REORG then exchanges the names of the original and shadow data sets. The original name of a data set is in the form "catname.DSNDBx.dbname.psname.I0001.Annn." The shadow name of a data set is in the form "catname.DSNDBx.dbname.psname.S0001.Annn." REORG uses such data sets for indexes as well as data.

If a data set is DB2-managed, the utilterm phase of REORG deletes the shadow data set, which was the original data set. This message indicates that the shadow data set *name* could not be deleted. *rrrrrrrr* indicates the DFP reason code.

Severity: 4 (warning)

System Action: REORG continues execution, but it does not delete the specified data set.

User Response: Try to delete the data set. If you cannot delete it, notify the system programmer.

System Programmer Response: Look up the DFP reason code, and try to determine why the data set could not be deleted.

DSNU296I *csect-name* **- IN REORG WITH SHRLEVEL REFERENCE OR CHANGE, DATA SET** *name* **DOES NOT EXIST, CONTEXT=***c*

Explanation: For the area (table space or partition) being reorganized, REORG with SHRLEVEL REFERENCE or CHANGE unloads data from the original data sets and reloads data into shadow data sets. REORG then exchanges the names of the original and shadow data sets, using temporary names during the renaming. The original name of a data set is in the form "catname.DSNDBx.dbname.psname.I0001.Annn." The shadow name of a data set is in the form "catname.DSNDBx.dbname.psname.S0001.Annn." The temporary name of a data set is in the form "catname.DSNDBx.dbname.psname.T0001.Annn." REORG uses such data sets for indexes as well as data.

During its initialization, REORG cannot execute if:

- data sets with the temporary names already exist ,
- DB2-managed data sets with the shadow names already exist
- user-managed data sets with the shadow names do not already exist

To exchange the names of the original and shadow data sets, REORG performs the following renaming:

1 In the switch phase, it renames the original data set from the original name to the temporary name

2 In the switch phase, it renames the shadow data set from the shadow name to the original name

3 In the utilterm phase, it renames the original data set from the temporary name to the shadow name (for user-managed data sets). It deletes the temporary for DB2-managed data sets.

If either a -TERM UTILITY command is issued, or the REORG switch phase is restarted after REORG has begun renaming data sets, the names revert back to their original form prior to the utilterm phase of REORG:

4 The original data set from the shadow name to the temporary name

5 The shadow data set from the original name to the shadow name

6 The original data set from the temporary name to the original name

The context code indicates the specific type of error:

1

During the switch phase of REORG, on rename 1, REORG detected that a data set with an original name does not exist. This error condition can arise for a DB2-managed or user-managed data set.

During the switch phase restart or a -TERM UTILITY during the switch phase, on rename 4, REORG detected that a data set with an original name does not exist. This error condition can arise for a DB2-managed or user-managed data set.

2

During the switch phase of REORG, on rename 2, REORG detected that a data set with a shadow name does not exist. This error condition can arise for a DB2-managed or user-managed data set.

During the switch phase restart or a -TERM UTILITY during the switch phase, on rename 5, REORG detected that a data set with a shadow name does not exist. This error condition can arise for a DB2-managed or user-managed data set.

3

During the utilterm phase of REORG, on rename 3, REORG detected that a data set with a temporary name does not exist. This error condition can arise for a user-managed data set.

During switch phase restart or a -TERM UTILITY during the switch phase, on rename 6, REORG detected that a data set with a temporary name does not exist. This error condition can arise for DB2-managed or user-managed data sets.

Severity: 4 (warning) or 8 (error)

System Action: For context codes 1 or 2, utility processing is abended. ABEND reason code 00E4031B is issued. The object is left in a recovery pending state. For context code 3, the utility job step that caused the function to be requested continues with no renaming. The utility job is placed in the stopped state. The object is left in a recovery pending state, and a message will be issued. For context codes 1, 2, or 3, the following messages are issued:

- If the data set is part of a nonpartitioned table space, the object is the table space, and the message is DSNU562I.
- If the data set is part of a partition of a table space, the object is the partition, and the message is DSNU560I.
- If the data set is part of a nonpartitioned index, the object is the index, and the message is DSNU557I.
- If the data set is part of a partition of a partitioned index, the object is the partition of the index, and the message is DSNU559I.

User Response:

For context codes 1 or 2, execute the RECOVER TABLESPACE or RECOVER INDEX utility.

For context code 3 do nothing.

For context code 4, 5, or 6, execute the RECOVER TABLESPACE or RECOVER INDEX utility.

DSNU297I *csect-name* **COMPOSITE RECORD SIZE TOO LARGE FOR** *table-name*

Explanation: The size of the record that would be unloaded for REORG DISCARD or REORG UNLOAD EXTERNAL is greater than the largest allowed data set logical record length (32760 bytes).

Severity: 8 (error)

System Action: The utility will terminate with a return code of 8.

User Response: If you are attempting to discard records during REORG, you will have to use SQL to DELETE the records prior to the REORG. If you are attempting to unload

records in an external format, you will have to use an applica-
tion.

Problem Determination: This problem will most likely occur
only on a table with BLOB, CLOB, or DBCLOB columns.

DSNU298I *csect-name* **- RESTART NOT ALLOWED IN** *phase-name* **PHASE OF REORG UTILITY WITH SHRLEVEL CHANGE**

Explanation: An attempt was made to restart the REORG utility with SHRLEVEL CHANGE in the *phase-name* phase. DB2 does not allow you to restart the REORG utility with SHRLEVEL CHANGE in that phase.

Severity: 8 (error)

System Action: Utility processing abends. Abend reason code 00E40018 or 00E40310 might be issued.

User Response: Issue the -TERM UTILITY command to terminate the utility job; then rerun the job without the RESTART parameter.

System Programmer Response: If necessary, take actions to prevent access to the table space or partition before terminating the utility.

DSNU299I csect-name - COLUMN 'column-name' REQUIRES INVALID TRANSLATION FROM CCSID *ccsid* **TO** *ccsid*

Explanation: The LOAD utility was asked to translate an input value to a different coded character set, but the particular translation is not described in the SYSSTRINGS catalog table. The first *ccsid* identifies the coded character set of the input value, and the second *ccsid* identifies the coded character set to which it must be translated.

Severity: 8 (error)

System Action: Further utility processing is terminated.

User Response: If the CCSIDs are correct, the only corrective action is to provide for the translation by inserting a row into SYSSTRINGS. For an SBCS translation, the row must contain a translate table or the name of a user-provided translate procedure. For a DBCS translation, the row must contain the name of a user-provided translate procedure.

If the CCSIDs are incorrect, correct the CCSID specification on the LOAD statement and resubmit the job.

DSNU300I *csect-name* **(RE)LOAD PHASE COMPLETE, ELAPSED TIME =** *hh/mm/ss*

Explanation: The reload phase of the REORG or LOAD utility has completed normally. The elapsed time for the execution was 'hh' hours, 'mm' minutes, and 'ss' seconds.

DSNU301I *csect-name* **- KEYWORD 'SORTDATA' SPECIFIED AND/OR KEYWORD 'NOSYSREC' WAS SPECIFIED BUT NO CLUSTERINGINDEX EXISTS, KEYWORD IS IGNORED**

Explanation: The 'SORTDATA' keyword was specified or the 'NOSYSREC' keyword was specified for a REORG utility job, or implied by the use of SHRLEVEL CHANGE. But it was found that no clustering index existed for the table space being reorganized. The keyword is ignored and processing continues normally.

This message is issued by the following CSECT: DSNURFIT

Severity: 0

System Action: Processing continues normally.

User Response: If a clustering index was expected to be found for the table space being reorganized, determine the reason the index could not be found.

Operator Response: None

System Programmer Response: None

Problem Determination: Probably a user error. Determine if a cluster index should be defined on one of the tables in the table space being reorganized. If so, define the cluster index; otherwise, remove the 'SORTDATA' and/or 'NOSYSREC' keyword from the utility statement if necessary.

DSNU302I *csect-name* **(RE)LOAD PHASE STATISTICS. NUMBER OF INPUT RECORDS PROCESSED =** *nnnnnnnn*

Explanation: This message is issued at the normal completion of the RELOAD phase of the REORG utility and the LOAD phase of the LOAD utility.

It indicates the number of records processed from the input record data set (that is, the data set identified either by the JCL DD statement identified in the UNLDDN option for REORG or the INDDN option for LOAD). Counters are valid up to four billion.

Severity: 0 (informational)

System Action: The LOAD or REORG utility completes the phase in which the records are (re-)introduced into the DB2 database. This is also the last phase of the utility unless there are some indexes that need to be built and/or updated.

User Response: The user can verify that the number of records (re-)loaded is consistent with expectations. For example, in REORG it matches the total number of records unloaded. For LOAD, it matches the number of records submitted minus the number of records reported rejected.

DSNU303I *csect-name* **(RE)LOAD PHASE STATISTICS. NUMBER OF RECORDS=** *nnnnnn* **FOR TABLE** *table-name* **PART=***part-number*

Explanation: This message is issued at the normal completion of the RELOAD phase of the REORG utility and the LOAD phase of the LOAD utility.

It indicates the number of records loaded into PART 'part-number' of 'table-name' from the source record data set. This data set is identified by the JCL DD statement in the UNLDDN option for REORG, or the INDDN option for LOAD.

This message is repeated for each INTO TABLE PART clause in the LOAD utility statement or each TABLESPACE PART clause in the REORG utility statement.

Severity: 0 (informational)

System Action: The LOAD or RELOAD phase maintains a separate count for each table part. Rejected rows are not included in the count. Each count is reported as a separate message at the end of the LOAD or RELOAD phase.

The user can verify the number of records loaded or reloaded into the table part. In REORG, it should match the number of records unloaded for that table part. In LOAD, it should match the number of records processed.

DSNU304I *csect-name* **(RE)LOAD PHASE STATISTICS. NUMBER OF RECORDS =** *nnnnnn* **FOR TABLE** *table-name*

Explanation: This message is issued at the normal completion of the RELOAD phase of the REORG utility and the LOAD phase of the LOAD utility.

It indicates the number of records loaded into TABLE 'table-name' from the source record data set (that is, the data set identified by the JCL DD statement identified in the UNLDDN option for REORG, or the INDDN option for LOAD).

This message is repeated for each TABLE loaded by the current REORG or LOAD utility statement.

If the LOAD or REORG was restarted in a LOAD or RELOAD phase from the last commit point (i.e., the 'RESTART' parm was specified), 'nnnnnn' indicates the number of records loaded after the restart. Counters are valid up to four billion.

Severity: 0 (informational)

System Action: The LOAD or RELOAD phase maintains a separate count for each table populated by this phase. Rejected rows are not included in the count. Each count is reported as a separate message at the end of the LOAD or RELOAD phase.

The user can verify that the number of records (re-)loaded into the table is consistent with expectations. For example, in REORG it matches the number of records unloaded for that table. For LOAD, it matches the number of records processed.

DSNU305I *csect-name* **- TABLE=***table-name* **HAS AN INCOMPLETE TABLE DEFINITION**

Explanation: Table 'table-name' does not have an index defined to enforce the uniqueness of its primary key.

Severity: 8 (error)

System Action: Processing stops. No table in the table space is loaded.

User Response: The user can resubmit the LOAD job after either:

- Creating a unique index over the table's primary key
- Dropping the definition of the table's primary key.

Problem Determination: Issue SQL SELECT against the catalog to determine which indexes and relations exist against 'table-name'. Determine whether uniqueness of the primary key has been guaranteed through omission or through faulty definition of an index.

DSNU306I *csect-name* **- UNABLE TO DRAIN WRITERS FROM** *object-type object-name*

Explanation: The utility was unable to drain the writers from an object because the resource was unavailable. The object is identified by type and name. Message DSNT500I tells why the resource was unavailable. If the QUIESCE utility issues this message, DSNT500I is not issued, but message DSNT501I might be issued.

Severity: 8 (error)

System Action: Utility processing terminates.

Problem Determination: Refer to message DSNT500I or DSNT501I.

DSNU307I *csect-name* **PARENT TABLE** *parent-table-name* **OF** *table-name* **IN RELATIONSHIP** *relationship-name* **HAS AN INCOMPLETE TABLE DEFINITION**

Explanation: The 'table-name' identifies the target table of the job for the LOAD utility or the dependent table to be checked by the CHECK DATA utility. The 'parent-table-name' identifies the parent table of the target table for the LOAD utility or the dependent table for the CHECK DATA utility in RELATIONSHIP 'relationship-name'. The primary index of PARENT TABLE 'parent-table-name' has been dropped.

This message is repeated for each incompletely defined parent table in each relationship where the target table is a child.

Severity: 8 (error)

System Action: The LOAD and CHECK DATA utilities stop further processing. No data is loaded by the LOAD utility and no relationships are checked by the CHECK DATA utility.

User Response: Check the existence of the primary index and its parent tables identified by RELATIONSHIP 'relationship-name'.

Problem Determination: If the incompletely defined tables were targets of the LOAD job, message DSNU305I has been issued for each such table. Refer to the catalog to determine if any tables in the table space that were not targets of the LOAD job are incompletely defined.

DSNU308I *csect-name* **INDEX KEY LIST RECORD LENGTH EXCEEDS MAXIMUM KEY BUFFER SIZE**

Explanation: The length of the index key list that will be built in the Data Base Services address space while loading a data record may be larger than the maximum key buffer size. The LOAD statement may be too complex.

Severity: 8 (error)

System Action: Utility processing is terminated.

User Response: Examine the preceding DSNU650I INTO TABLE statements. The key size and number of indexes affected by each INTO TABLE statement are accumulative. The combination of these elements may produce a list of index keys, including header bytes, that is too large to be contained within the maximum size buffer area during the load of each input data record. It may be necessary to reduce the number of INTO TABLE statements or to drop some of the indexes that are affected by the load.

DSNU309I *csect-name* **NOT ALL REQUIRED UNIQUE INDEXES HAVE BEEN DEFINED FOR TABLE** *table-name*

Explanation: The table 'table-name' was created with unique index requirements. Not all of these indexes have been defined.

Severity: 8

System Action: Processing stops. No table in the table space is loaded.

User Response: The user may resubmit the LOAD job after either:

- Creating all the required unique indexes, or
- Dropping the table and re-creating it without the unique index requirements.

Problem Determination: Determine which unique indexes need to be created. Determine if the uniqueness requirement for the table is valid.

DSNU310I *csect-name* **RECORD 'n' WILL BE DISCARDED DUE TO** *field-name* **CONVERSION ERROR FOR** *table-name*

Explanation: The load utility found the input data provided for a field to be incorrect. The corresponding input data set record 'n' will be placed in the DISCARDS data set.

Severity: 4 (warning)

System Action: The input data set record is noted and will be discarded in the DISCARD phase. The LOAD utility continues to process additional records in the input data set.

User Response: Following the completion of the current LOAD utility invocation, examine the record in the DISCARDS data set. Correct the error in the discarded input data. Submit a RESUME(YES) LOAD invocation with the DISCARDS data set as the input data set. Refer to *Utility Guide and Reference* for a definition of LOAD input field column specifications.

DSNU311I *csect-name* **RECORD 'n' WILL BE DISCARDED DUE TO INVALID** *field-name* **COLUMN SPECIFICATION**

Explanation: The load utility calculated the location of an input data value using the field specifications supplied and VARCHAR length fields present within the input data set record. The calculated position for the field was determined to be incorrect.

Severity: 4 (warning)

System Action: The input data set record number is noted and will be discarded in the DISCARD phase. The LOAD utility continues to process additional records in the input data set.

User Response: Following the completion of the current LOAD utility invocation, examine the record in the DISCARDS data set. Correct the error in the discarded input data, if one exists. Otherwise, correct the input field specification. Submit a RESUME(YES) LOAD invocation, which uses the DISCARDS data set and the verified LOAD utility statement and field specifications. Refer to *Utility Guide and Reference* for a definition of LOAD input field column specifications.

DSNU312I *csect-name* **RECORD 'n' WILL BE DISCARDED DUE TO ERROR = X'reason-code' FROM EXIT ROUTINE** *procedure-name* **FOR** *table-name*

Explanation: The exit routine provided by your installation blocked the load of record 'n' into the table indicated. The reason-code was set by the exit routine.

Severity: 4 (warning)

System Action: The input data set record number is noted and will be discarded in the DISCARD phase. error is placed in the DISCARDS data set. The LOAD utility continues to process additional records in the input data set.

User Response: Following the completion of the current LOAD utility invocation, examine the record in the DISCARDS data set. Correct the error in the discarded input data, if one exists. Ensure that the exit routine provided is correct. Submit a RESUME(YES) LOAD invocation, which uses the DISCARDS data set and the verified LOAD utility statement and field specifications. Refer to *Utility Guide and Reference* for a definition of LOAD input field column specifications.

System Programmer Response: Verify that the validation routine is correct.

DSNU313I *csect-name* **RECORD 'n' WILL BE DISCARDED DUE TO PART OR HIGH KEY VALUE SPECIFICATION(S)**

Explanation: The discarded record does not belong to any of the partitions being loaded. For a LARGE table space, this might be because the key is higher than the high key value specified for the last partition.

Counters are valid up to four billion.

Severity: 4 (warning)

System Action: The input data set record number is noted and will be discarded in the DISCARD phase. The LOAD utility continues to process additional records in the input data set.

User Response: Following the completion of the current LOAD utility invocation, examine the record in the DISCARDS data set. Correct the error in the discarded input data, if one exists. Submit a RESUME(YES) LOAD invocation with the DISCARDS data set as the input data set. Refer to Section 2 of *Utility Guide and Reference* for a definition of LOAD input field column specifications.

System Programmer Response: Verify that the validation routine is correct.

DSNU314I *csect-name* **RECORD 'n' WILL BE DISCARDED DUE TO WHEN SPECIFICATION(S)**

Explanation: The discarded record satisfies none of the WHEN selection expressions provided.

Severity: 4 (warning)

System Action: The input data set record is noted and will be discarded in the DISCARD phase. The LOAD utility continues to process additional records in the input data set.

User Response: Following the completion of the current LOAD utility invocation, examine the record in the DISCARDS data set. Correct the error in the discarded input data, if one exists. Submit a RESUME(YES) LOAD invocation with the DISCARDS data set as the input data set. Refer to *Utility Guide and Reference* for a definition of LOAD input field column specifications. If FORMAT UNLOAD was specified on the load statement, the WHEN specifications are built internally. This ensures that the rows are loaded back into the same object from which they were unloaded. Refer to *Utility Guide and Reference* for a description of the FORMAT UNLOAD option of LOAD.

DSNU315I *csect-name* **RECORD 'n' WILL BE DISCARDED DUE TO UNEXPECTED ERROR**

Explanation: The LOAD of input data set record number 'n' was attempted but was not successful due to an unexpected error.

Severity: 8 (error)

System Action: If the error was caused because a resource was not available, a DSNT500I message will be issued.

The utility step will be abended with a system X'04E' and an abend reason code of '00E40318'. If a DSNT500I message is

not issued, an SVC dump will be requested. A SYSABEND dump of batch storage is also requested.

User Response: If a DSNT500I message was issued, refer to the description under that message number. If the unavailable resource becomes available, the utility step is restartable.

If there is no DSNT500I message, the error is an unexpected internal error and you should consult your system programmer.

Operator Response: An operator with SYSOPR authority can issue a TERM UTIL to free any held resources if that is necessary.

System Programmer Response: Refer to *Command Reference* for information about the TERM UTIL command. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU316I *csect-name* **- UNABLE TO DRAIN WRITERS FROM** *object-type object-name* **PART** *part-num*

Explanation: The utility was unable to drain the class of writers from a partition of an object because the resource was unavailable. The partition is identified by object type (object-type), object name (object-name), and partition number (part-num). Message DSNT500I tells why the resource was unavailable.

Severity: 8 (error)

System Action: Utility processing terminates.

Problem Determination: Refer to message DSNT500I.

DSNU317I *csect-name* **DISCARD LIMIT HAS BEEN REACHED**

Explanation: The DISCARDS limit specified on the LOAD utility statement was reached.

Severity: 8 (error)

System Action: Processing abends to allow users to increase the discard limit and restart the utility.

User Response: Increase the discard limit and restart the utility. Otherwise -TERM the utility. Review the file of input records provided to LOAD and review table definitions to determine why the number of records discarded exceeds expectations.

Problem Determination: See user response.

DSNU318I *csect-name* **RECORD 'n' WILL BE DISCARDED DUE TO INVALID** *field-name* **COLUMN SPECIFICATION FOR** *table-name*

Explanation: The load utility calculated the location of an input data value using the field specifications supplied and VARCHAR length fields present within the input data set record 'n'. The calculated position for the field was determined to be incorrect.

Severity: 4 (warning)

System Action: The input data set record number is noted and will be discarded in the DISCARD phase. The LOAD utility continues to process additional records in the input data set.

User Response: Following the completion of the current LOAD utility invocation, examine the record in the DISCARDS data set. Correct the error in the discarded input data, if one exists. Otherwise, correct the input field specification. Submit a RESUME(YES) LOAD invocation, which uses the DISCARDS data set and the verified LOAD utility statement and field specifications. Refer to *Utility Guide and Reference* for a definition of LOAD input field column specifications.

DSNU319I *csect-name* **RESUME(YES) WAS SPECIFIED FOR EMPTY PARTITION** *nn***. RESUME(NO) IS ASSUMED**

Explanation: This message is issued in response to a LOAD utility request containing a partition level RESUME(YES) option. The RESUME(YES) option implies that the specified partition 'nn' is populated, but in this case it was not. The message alerts the invoker to this fact, and continues as if RESUME(YES) was not specified.

Severity: 4 (warning)

System Action: The LOAD utility, in attempting to honor the RESUME(YES), found the partition was empty, ignored the option, and continued as if RESUME(NO) was specified.

User Response: The user is alerted to the fact that the requested partition was empty rather than populated as the RESUME LOAD option implied.

DSNU320I *csect-name* **RESUME(YES) WAS SPECIFIED FOR AN EMPTY TABLESPACE**

Explanation: RESUME(YES) was specified within the LOAD utility statement. However, the RESUME(YES) option implies that the specified table space is populated.

Severity: 4 (warning)

System Action: Processing continues. The LOAD utility, in attempting to honor the RESUME(YES), found the table space empty, so ignored the option, and proceeded as if RESUME(NO) was specified. If this table is currently defined as COMPRESS YES, a dictionary is not built.

User Response: The user is alerted to the fact that the requested table space was empty rather than populated as the RESUME LOAD option implied. Use the RESUME(NO) option if you want a compression dictionary built.

DSNU321I *csect-name* **CHECK PENDING STATE OF TABLESPACE** *tsp* **PROHIBITS PROCESSING**

Explanation: The requested utility cannot be run against a table space or table space partition in a check pending state.

Severity: 8 (error)

System Action: Processing terminates after the check pending states of all target table spaces or partitions of the utility are analyzed.

User Response: Remove the named table space or partition from its check pending state by using the CHECK DATA or REPAIR utility. If you want more information on the extent of questionable data in the table space, query the SYSTABLES and SYSTABLEPART catalog tables.

DSNU322I *csect-name* **DEFERRED STATUS OF TABLE SPACE** *database-name.table-space-name* **PROHIBITS PROCESSING**

Explanation: The requested utility cannot be run against a table space or table space partition in a deferred state.

Severity: 8 (error)

System Action: Processing terminates after the deferred state of all target table spaces or table space partitions of the utility are analyzed.

User Response: To remove the deferred state, use the RECOVER TABLESPACE, LOAD REPLACE utility, or -START DATABASE command with ACCESS(RW) or ACCESS(RO). If you want more information on the status of the table space, use the -DISPLAY DATABASE command.

DSNU323I *csect-name* **COLUMN** *ccc* **IS OMITTED**

Explanation: The column 'ccc' is a nonnullable column and is not being loaded. Field specifications must include all nonnullable columns. The identified column name was missing from the field specification.

Severity: 8 (error)

System Action: Further utility processing is terminated.

User Response: Determine if the input data contains the nonnullable column as a field. If it does, change the field specification to include it. If the input data does not contain the nonnullable column as a field, determine which is in error, the input data or the column specification. Make the corresponding correction. Resubmit the job if that is still appropriate.

System Programmer Response: Corrective procedures may require that a table be dropped and created again. Refer to Section 2 (Volume 1) of *Administration Guide* for a discussion of how this can be accomplished. Refer to *Utility Guide and Reference* for a discussion of field specification constraints with regard to nonnullable columns.

DSNU324I *csect-name* **DEFERRED STATUS OF INDEX SPACE** *creator-name.index-name* **PROHIBITS PROCESSING**

Explanation: The requested utility cannot be run against an index space or index space partition in a deferred state.

Severity: 8 (error)

System Action: Processing terminates after the deferred state of all target index spaces or index partitions of the utility are analyzed.

User Response: The deferred state can be removed through recovery of the index space or the physical index partition. It can also be removed by the -START DATABASE command with ACCESS(RW) or ACCESS(RO). The RECOVER INDEX utility can be run at either the index space or index partition level. If more information on the status of the index space is required, use the -DISPLAY DATABASE command.

DSNU325I *csect-name* **- AN INVALID SQL/DS FORMAT RECORD WAS ENCOUNTERED**

Explanation: The LOAD utility detected an invalid SQL/DS format record type.

Severity: 8 (error)

System Action: Utility execution is terminated.

User Response: Correct the input data and resubmit the job. Data that has been transmitted from an SQL/DS unload disk data set in a VM/370 system may have extra block descriptors and record descriptors at the beginning of each record. Ensure that this situation does not exist.

Problem Determination: Refer to Section 2 (Volume 1) of *Administration Guide* for additional information regarding loading data from SQL/DS and resubmitting a partially completed load step.

DSNU326I *csect-name* **- USER NOT AUTHORIZED FOR LOAD REPLACE ON TABLESPACE**

Explanation: The indicated user attempted to use the REPLACE option of LOAD, and it will reset to empty all tables in the table space before loading data. This option requires load authorization on each table in the table space, but the user did not have authority for one or more tables.

Severity: 12 (severe error)

System Action: When LOAD REPLACE validation encounters the first nonauthorized table in the table space, the job step is terminated.

User Response: Obtaining the LOAD on DATABASE privilege for the database will allow you to proceed using the REPLACE option. The other alternative is to first delete all rows from the tables which are to be loaded, and then use the RESUME option instead of the REPLACE option.

DSNU327I *csect-name* **TABLE** *b* **IS NOT IN SAME TABLESPACE AS TABLE** *a*

Explanation: All tables that are the subject of a single LOAD utility statement must belong to the same table space.

Severity: 8 (error)

System Action: Further utility processing is terminated.

User Response: Remove the INTO TABLE control statement that specifies TABLE 'b' from the current LOAD request. If the data is to be loaded into TABLE 'b', create another LOAD utility statement that contains the INTO TABLE control statement for TABLE 'b' and resubmit the job.

DSNU328I *csect-name* **CANNOT PROCESS THE NON-EMPTY PARTITION** *nn* **WITH RESUME(NO). PROCESSING TERMINATES**

Explanation: The partition level RESUME keyword either specified or defaulted to a value of NO, which requires the partition to be empty. However, the LOAD command named partition 'nn', which was not empty.

Severity: 8 (error)

System Action: Further utility processing is terminated.

User Response: Determine why the assumption of an empty partition was wrong. This may require consultation with the system programmer. Either remove the current partition's rows

using an SQL DELETE, or change the LOAD option to RESUME YES. Resubmit the job. Refer to *Utility Guide and Reference* for a description of the partition-level RESUME option of LOAD.

System Programmer Response: Determine whether the partition should be empty. If it should, use SQL DELETE to empty it. Otherwise, instruct the user to use the RESUME(YES) option for that partition.

DSNU329I *csect-name* **- FIELD** *field-name* **IS NOT DEFAULTABLE**

Explanation: You specified a NULLIF or DEFAULTIF field specification option for:

- A column defined to be not nullable or not defaultable
- A field with no column counterpart.

Severity: 8 (error)

System Action: The utility abends to allow restart.

User Response: Determine whether the field specification refers to the correct column. If it does, remove the NULLIF option from the field specification, and restart the job. Alternatively, TERM the utility. Refer to *Utility Guide and Reference* for LOAD NULLIF option constraints.

DSNU330I *csect-name* **TABLESPACE IS NOT EMPTY**

Explanation: The RESUME keyword either specified or defaulted to a value of 'NO', which requires an empty table space. However, the LOAD command named a table space that was not empty.

Severity: 8 (error)

System Action: Further utility processing is terminated.

User Response: Determine why the assumption of an empty table space was wrong. This may require consultation with the system programmer. Either remove the current table(s) rows using an SQL DELETE, or change the LOAD option to RESUME YES. Resubmit the job. Refer to *Utility Guide and Reference* for a definition of the RESUME option of LOAD.

System Programmer Response: If the table space is used by more than one application, determine whether the table space should be empty. If it should be, use SQL DELETE to make it empty. Otherwise, instruct the user to use the RESUME(YES) option.

DSNU331I *csect-name* **FIELD LISTS ARE NOT ALLOWED WITH FORMAT KEYWORD**

Explanation: LOAD field specifications are incompatible with the FORMAT option.

Severity: 8 (error)

System Action: Further utility processing is terminated.

User Response: Determine whether the field specifications or the FORMAT option is correct. Eliminate whichever is incorrect, and resubmit the job. Refer to *Utility Guide and Reference* for a definition of the LOAD FORMAT option constraints.

DSNU332I *csect-name* **- INPUT VALUE X'hex-data' OUT OF RANGE FOR COLUMN 'column-name'**

Explanation: The LOAD utility detected a numeric value outside of the range of permissible values for the column in the DB2 table. A loss of significant digits results if the LOAD process continues. The input data type is SMALL INTEGER, INTEGER, DECIMAL, or FLOAT and is displayed in hexadecimal.

Severity: 8 (error)

System Action: Further utility processing is terminated unless DISCARD processing is active.

User Response: Correct the input data and resubmit the job. Make sure that the 'field specification' on the LOAD statement is consistent with the table definition and the input data. This might mean changing:

- The table definition
- The LOAD statement
- The input data.

Refer to *Utility Guide and Reference* to determine input constraints. Refer to Section 2 (Volume 1) of *Administration Guide* for information on resubmitting a partially completed LOAD step.

DSNU333I *csect-name* **- INPUT VALUE 'ebcdic-data' OUT OF RANGE FOR COLUMN 'column-name'**

Explanation: The LOAD utility detected a numeric value outside the range of permissible values for the column in the DB2 table. A loss of significant digits results if the LOAD process continues. The input data type is INTEGER EXTERNAL, DECIMAL EXTERNAL, or FLOAT EXTERNAL.

Severity: 8 (error)

System Action: Further utility processing is terminated.

User Response: Correct the input data and resubmit the job. Make sure that the 'field specification' on the LOAD statement is consistent with the table definition and the input data. This might mean changing:

- The table definition
- The LOAD statement
- The input data.

Refer to *Utility Guide and Reference* to determine input constraints. Refer to Section 2 (Volume 1) of *Administration Guide* for information on resubmitting a partially completed LOAD step.

DSNU334I *csect-name* **INPUT FIELD** *ffffffff* **INVALID FOR** *ttttttt***, ERROR CODE** *cc*

Explanation: The LOAD utility found the input data provided for field ffffffff in table ttttttt to be incorrect. The error code cc, if present, identifies the problem. Possible error codes are:

01 Input numeric value is out of the range for the table column.

02 Input numeric field contains invalid numeric data.

03 There was an error converting input numeric data to floating-point data.

04 Input packed decimal data is in error.

05 Input is too long for a date column.

06 Input is too short for a date column.

07 Input is too long for a time column.

08 Input is too short for a time column.

09 Input is too long for a time stamp column.

10 Input is too short for a time stamp column.

11 Input character field is too long for the table column.

12 Input variable character field is too long for the table column.

13 Input is out of range for the date/time column.

14 Input is invalid for the date/time column.

15 Input length is incorrect for numeric column.

16 Input contains a blank character.

17 Input is too long for a graphic column.

18 Input is invalid for a graphic column.

19 Input is too long for the table column after a required CCSID conversion.

20 Input contained an invalid code point for a required CCSID conversion.

21 Input does not conform to the rules for valid data for a required CCSID conversion.

22 Input causes an error during CCSID conversion. An example of this type of error would be an error in a user exit routine.

Severity: 8 (error)

System Action: Further utility processing is terminated.

User Response: Correct the input data and resubmit the job. Make sure that the 'field specification' on the LOAD statement is consistent with the table definition and the input data. This might mean changing:

- The table definition
- The LOAD statement
- The input data.

Refer to *Utility Guide and Reference* to determine input constraints. Refer to Section 2 (Volume 1) of *Administration Guide* for information on resubmitting a partially completed LOAD step.

DSNU335I *csect-name* **INPUT FIELD 'fffffff' NOT ENTIRELY WITHIN INPUT RECORD**

Explanation: The LOAD utility found that the input field 'fffffff' extends beyond the end of the input record.

If DISCARDS processing is active, the message severity is 4 (warning).

Severity: 4 (warning) or 8 (error)

System Action: For fixed length records, with no VARCHARs included, the length needed by the LOAD utility can be calculated before processing. In this case, when the LOAD utility determines that no records can be loaded because ALL of the INTO TABLE statements require input longer than the defined lengths, the LOAD job terminates on the first record without discarding any records. Further utility processing with mixed or non-fixed length records is terminated unless DISCARDS processing is active.

User Response: Correct the input data and resubmit the job. Make sure that the 'field specification' on the LOAD statement is consistent with the table definition and the input data. This might mean changing:

- The table definition
- The LOAD statement
- The input data.

Refer to *Utility Guide and Reference* to determine input constraints. Refer to Section 2 (Volume 1) of *Administration Guide* for information on resubmitting a partially completed LOAD step.

DSNU336I *csect-name* **INVALID nullif SPECIFICATION FOR INPUT FIELD fffffff**

Explanation: The LOAD utility found the 'nullif' field specification to be incorrect.

Severity: 8 (error)

System Action: Further utility processing is terminated.

User Response: Correct the 'nullif' specification and resubmit the job. Refer to *Utility Guide and Reference* for a description of 'nullif' field selection options and Section 2 (Volume 1) of *Administration Guide* for information on resubmitting a partially completed LOAD step.

DSNU337I *csect-name* **RECORD(n), CONCATENATED CONTINUEIF RECORD IS TOO LARGE**

Explanation: The CONTINUEIF option was specified during LOAD to concatenate multiple physical records into one logical record for loading. The resultant concatenated record is too large to be processed. The maximum length allowed is 32767 bytes. Counters are valid up to four billion.

Severity: 8

System Action: When discard processing is specified, the input data set logical record is noted and will be discarded in the DISCARD phase. The LOAD utility continues to process additional records in the input data set, and the severity level is 4. When discard process is not specified, the severity is 8 and the LOAD utility will terminate.

User Response: When discard processing is specified, following the completion of the current LOAD utility invocation, examine the record in the DISCARDS data set. Correct the error in the discarded input data, and submit a RESUME(YES) LOAD invocation with the DISCARDS data set as the input data set. When discard processing is not specified: correct the error in the input data set and rerun the job.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items: “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

DSNU338I *csect-name* **INVALID COLUMN SPECIFICATION FOR** *column name*

Explanation: The LOAD utility found the dynamically determined column location for an input field to be incorrect.

Severity: 8 (error)

System Action: The utility abends to allow restart.

User Response: Correct the input field specification or the input data and restart the job. Alternatively, TERM the utility.

DSNU339I *csect-name* **INVALID CONTINUEIF SPECIFICATION**

Explanation: The CONTINUEIF clause of a LOAD utility extends beyond the end of the input record.

Severity: 8 (error)

System Action: The LOAD utility is terminated.

User Response: Correct the CONTINUEIF clause. The column specification must be reduced and/or the value being compared must be shortened. The value being compared must be entirely within the input record.

DSNU340I *csect-name* **- ERROR LOADING INDEX, DUPLICATE KEY, INDEX=***index-name***, TABLE=***table-name***, RID OF INDEXED ROW=***rid-of-indexed-row***, RID OF NON-INDEXED ROW=***rid-of-non-indexed-row*

Explanation: A duplicate key was found while building the indicated index during the BUILD phase of the REORG or RECOVER INDEX utility. This violates the uniqueness rule for that index.

Severity: 8 (error)

System Action: All duplicate index entries of the indicated index are reported and the index is in RECOVERY PENDING status. Duplicate rows are present in the indexed table.

Utility processing continues with any other utility functions within the utility job step.

User Response: Duplicate rows are present in the indexed table. The system programmer should be informed, so that any applications that are dependent upon the uniqueness of the table rows are not initiated until corrective action has been taken.

Operator Response: Notify the system programmer.

System Programmer Response: Steps should be taken to inhibit any further processing until the index is repaired. If the nonunique keys are correct, DROP and recreate the index as nonunique. If the records with duplicate keys should not be in the table, use REPAIR DELETE to remove the erroneous rows. Use the RID values provided in this message as input to the REPAIR utility. After the duplicate data rows are removed or the unique index has been dropped, issue the -DISPLAY DATABASE command with RESTRICT against the target database. Use the RECOVER INDEX utility to recover any indexes that are in the RECOVER PENDING state. CHECK INDEX can be run to verify that the data and indexes are consistent.

Problem Determination: Use REPAIR LOCATE RID DUMP to view the records with duplicate keys. SQLSELECT may fail due to the inconsistent index. Use CHECK INDEX to check the validity of the index.

DSNU341I *csect-name* **- IMAGE COPY MUST BE TAKEN BEFORE REORG CAN BE RUN ON A DB2 CATALOG OR DIRECTORY TABLE SPACE**

Explanation: The DB2 catalog or directory table space being reorganized does not have an image copy that the RECOVER utility can use to recover the table space to currency. Before running the REORG utility, you must run the COPY utility to create an image copy. This prevents having to recover the DB2 catalog or directory table space to a prior point in time if a problem occurs during REORG processing.

Severity: 8

System Action: Processing terminates

User Response: Run the COPY utility to create an image copy of the DB2 catalog or directory table space. If more than one catalog or directory table space is to be reorganized, consider using the QUIESCE and COPY utilities for the set of table spaces to be reorganized.

Use the REPORT utility to view the recovery information related to the table space. The output from the REPORT utility should indicate either the absence of an image copy, or the presence of a REORG LOG NO SYSCOPY record.

DSNU342I *csect-name* **ERROR LOADING INDEX, ERROR = X***reason-code***, INDEX =** *index-name*

Explanation: The LOAD, REORG or RECOVER INDEX utility encountered a processing error, which it could not correct, while extending the index identified by 'index-name'. Refer to “Section 4. DB2 Codes” on page 4-1 for an explanation of the code given in 'reason-code'.

Severity: 8 (error)

System Action: The building of index entries for the indicated index is not completed. An SVC dump of the database services address space is requested for diagnostic purposes. The extension of other indexes associated with the tables being loaded is attempted. Any subsequent attempt to use the index directly or indirectly will cause the invoker to abend.

User Response: If the indexed table is used by more than one application, the system programmer should be informed so that applications that insert rows into, or delete rows from, the table or use the index directly are inhibited until corrective action is taken.

Normal corrective action would be to use the RECOVER INDEX utility option to reconstruct the index after the processing problem identified by the reason code has been resolved. Alternatively, the index can be dropped and then created again, unless the index in question is the partitioning index.

Operator Response: The table space in question might need to be stopped and started for utility-only processing to inhibit attempted application use of the defective index.

System Programmer Response: If the index is used by more than one application, applications that either insert rows into, or delete rows from, the indexed table or use the index to access rows must be inhibited from executing. One way to accomplish this is to place the table space in question under utility only processing control via the -START and -STOP DATABASE commands until the RECOVER INDEX utility is executed.

Alternatively, the index can be dropped. Application execution can then proceed, and the index can be created again (unless the index was the partitioning index). If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem. for failure analysis procedures. Refer to “Section 4. DB2 Codes” on page 4-1 to determine the processing error indicated by the reason code. For a discussion of how a table can be dropped and created again, or what to do if a partitioning index is damaged, refer to the discussion of LOAD processing in Section 2 (Volume 1) of *Administration Guide*.

DSNU343I *csect-name* **- BUILD PHASE STATISTICS.** *nnn* **DUPLICATE KEY ERRORS ENCOUNTERED**

Explanation: The count of duplicate key errors encountered during processing is 'nnn'.

Severity: 4 (warning) or 8 (error)

System Action: Processing continues. For the LOAD utility, the records causing the duplicate key errors will be deleted in a subsequent phase.

DSNU344I *csect-name* **- UNIQUE INDEX KEY DUPLICATES KEY OF INDEXED ROW AT RID** *rrrr* **INDEX =** *index-name* **TABLE =** *table-name* **RECNO =** *input-dataset-record-number* **RID = ***duprid*

Explanation: The input data set record indicated was loaded into table 'table-name' at RID 'duprid', but it causes a unique index violation for index 'index-name'. It duplicates the key value of a record already in the table at RID 'rrrr'. Counters are valid up to four billion.

Severity: 4 (warning)

System Action: Processing continues. No index entry is created for the record at RID 'duprid'. The record will be deleted in a subsequent phase of processing.

DSNU345I *csect-name* **UNIQUE INDEX KEY DUPLICATES KEY FROM INPUT DATASET RECORD** *iiii* **LOADED AT RID** *rrrr* **INDEX =** *index-name* **TABLE =** *table-name* **RECNO =** *recno* **RID = ***duprid*

Explanation: Input data set record 'recno' was loaded into table 'table-name' at RID 'duprid', but it causes a unique index violation for index 'index-name'. It duplicates the key value of another record in the load job: the record loaded at RID 'rrrr' from input data set record 'iiii'. Counters are valid up to four billion.

Severity: 4 (warning)

System Action: Processing continues. Index entries are not created for either record. Both records will be deleted in a subsequent phase of processing.

DSNU346I csect-name RECORD(n), CONCATENATED SQL/DS RECORD IS TOO LARGE

Explanation: A LOAD utility was executing with FORMAT SQL/DS input data. Multiple spanned segments of the input data were concatenated into one logical record for loading. The resultant concatenated record is too large to be processed. The maximum length allowed is 32764 bytes.

Severity: 4 or 8

System Action: When discard processing is specified, the input data set logical record is noted and is discarded in the DISCARD phase. The LOAD utility continues to process additional records in the input data set and the severity is 4. When discard processing is not specified, the severity is 8 and the LOAD utility terminates.

User Response: When discard processing is specified, examine the records in the DISCARDS data set after the LOAD utility completes. Correct the error in the discarded input data. Then run the LOAD utility with the RESUME YES option using the DISCARDS data set as input. When discard processing is not specified, correct the error in the input data set and rerun the job.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

DSNU347I *csect-name* **DEADLINE =** *yyyy-mm-dd-hh.mm.ss.mmmmmm*

Explanation: This message applies only to REORG with SHRLEVEL REFERENCE or CHANGE. It supplements message DSNU105I, which can appear for any utility (including REORG).

This message is issued in response to a -DISPLAY UTILITY command.

It is also issued by the REORG utility if the user specified SHRLEVEL REFERENCE or CHANGE and DB2 estimates that the switch phase will not start by the deadline specified by the DEADLINE phrase.

This message indicates the most recently specified values of the DEADLINE parameter to REORG. For this parameter, a previous invocation of the -ALTER UTILITY command might have specified a value. If no previous invocation of -ALTER UTILITY has specified a value, then the most recently specified value is the value that was specified with the invocation of the REORG utility.

yyyy-mm-dd-hh.mm.ss.mmmmmm indicates a timestamp, according to the most recently specified value of DEADLINE.

Severity: 0 (informational)

System Action: The message reflects the state of DB2 at the time of the -DISPLAY UTILITY command or the time when DB2 *estimated* that the switch phase would not start by the deadline specified by the DEADLINE phrase.

If this message was issued for -DISPLAY UTILITY, the system continues processing. If an -ALTER UTILITY command is then executed, a subsequent -DISPLAY UTILITY command would reflect the results (if any) of the -ALTER UTILITY command.

DSNU348I *csect-name* **BUILD PHASE STATISTICS. NUMBER OF KEYS =** *nnnnnnnn* **FOR INDEX** *index-name* **PART** *part-num*

Explanation: This message is issued by the BUILD phase of the RECOVER INDEX utility to report the total number of index key entries used to build the indicated index partition. Counters are valid up to four billion.

Severity: 0 (informational)

System Action: This message indicates the number of index key entries submitted to the DB2 data manager to build the indicated index partition. Both unique and nonunique key entries are counted. Rejected key entries are not counted.

User Response: The user can verify that the number reported is consistent with expectations.

DSNU349I *csect-name* **BUILD PHASE STATISTICS. NUMBER OF KEYS =** *nnnnnnnn* **FOR** *index-name*

Explanation: This message is issued by the BUILD phase of the LOAD, REORG or RECOVER INDEX utility. The message is repeated for each index built by the LOAD, REORG or RECOVER INDEX utility. It indicates the total number of index key entries used to build the indicated index. Counters are valid up to four billion.

Severity: 0 (informational)

System Action: This message indicates the number of index key entries that were submitted to the DB2 data manager to build the indicated index. Both unique and nonunique key entries are counted. Rejected key entries are not counted.

User Response: The user can verify that the number reported is consistent with expectations. For example, the user can determine if it matches the number of records loaded for the table indexed by the indicated index.

DSNU350I *csect-name* **- EXISTING RECORDS DELETED FROM TABLESPACE**

Explanation: A LOAD utility execution, in which REPLACE was specified, has deleted all records from the specified table space.

Severity: 0 (informational)

System Action: Processing continues.

DSNU351I *csect-name* **- '***reorg-option***' OPTION IS NOT APPLICABLE FOR A DB2 CATALOG OR DIRECTORY TABLE SPACE. THE OPTION IS IGNORED.**

Explanation: The identified option does not apply when reorganizing one of the following DB2 catalog or directory table spaces:

DSNDB06.SYSDBASE
DSNDB06.SYSDBAUT
DSNDB06.SYSGROUP
DSNDB06.SYSPLAN
DSNDB06.SYSVIEWS
DSNDB01.DBD01

These table spaces are processed differently than other table spaces and, consequently, do not make use of the specified *reorg-option*.

Severity: 4 (warning)

System Action: The option is ignored and processing continues.

User Response: None is required. However, you can remove the option from the utility input statement.

DSNU352I EXISTING RECORDS DELETED FROM TABLESPACE PARTITION x

Explanation: A LOAD utility execution, in which PART 'x' REPLACE was specified, has deleted all data records from partition 'x'. Index records over partition 'x' will be deleted in a subsequent phase of processing.

This message is issued by the following CSECT: DSNURWUT

Severity: 0 (informational)

System Action: Processing continues.

DSNU353I *csect-name* **RECORD '***n***' WILL BE DISCARDED DUE TO CHECK CONSTRAINT** *constraint-name* **VIOLATION ON TABLE** *table-name*

Explanation: The discarded record violates the check constraint named *constraint-name* defined on table *table-name*. The record is not loaded and is discarded during the DISCARD phase. Counters are valid up to four billion.

Severity: 4 (warning)

System Action: The LOAD utility continues to process additional records in the input data set.

User Response: After the LOAD utility completes, examine the record in the DISCARDS data set. Correct the error in the discarded input data. Submit a RESUME(YES) LOAD job with the DISCARDS data set as the input data set.

DSNU354I *csect-name* **RECORD '***n***' VIOLATES CHECK CONSTRAINT** *constraint-name* **ON TABLE** *table-name*

Explanation: The LOAD utility cannot load record *n* into table *table-name* because the check constraint *constraint-name* would be violated. The record is not loaded. Counters are valid up to four billion.

Severity: 8 (error)

System Action: Processing terminates. An abend is requested so that the LOAD can be restarted after the error condition is corrected.

User Response: Find the failing record in the input data set, correct the condition that caused the check constraint to be violated, and restart the LOAD utility. You can optionally include a SYSDISC DD statement in the JCL input to hold copies of records that are not loaded.

DSNU355I *csect-name* **INDEXVAL PHASE STATISTICS - *nnn* DUPLICATE KEY ERRORS CORRECTED BY DELETING *rrr* DATA ROWS**

Explanation: This message reports the results of the INDEXVAL phase of the LOAD utility. Data rows which were added during the LOAD or RELOAD phase of this LOAD utility invocation have been deleted because they caused unique index violations in the BUILD phase. A total of 'rrr' data rows were deleted to correct 'nnn' unique index violations.

Unique index violations are counted in one of two ways. An input data set record which has a value for a uniquely indexed column that duplicates a value that existed in the index prior to the LOAD job is counted as one duplicate key error. Two input data set records which have like values for a uniquely indexed column are counted as two unique index errors (that is, each of the two input data set records is in error).

Severity: 4 (warning)

System Action: Processing continues.

User Response: Compare the number of duplicate key errors corrected in the INDEXVAL phase to the number of duplicate key errors detected in the BUILD phase (reported by message DSNU343I). If the counts are unequal, notify the system programmer.

If the counts are equal, following the LOAD utility execution, examine the discards file or the LOAD error summary to determine which input data set records caused the unique index vio-

lations. Revise the input records so they will not introduce duplicate values into unique indexes and reapply the input records to the table space. Alternatively, if appropriate, make the index nonunique and reapply the rejected records to the table space.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5.

DSNU356I *csect-name* **INDEXVAL PHASE COMPLETE, ELAPSED TIME =** *hh/mm/ss*

Explanation: The INDEXVAL phase of the LOAD utility has completed normally. The elapsed time for the execution was 'hh' hours, 'mm' minutes, and 'ss' seconds.

Severity: 0 (informational)

DSNU357I *csect-name* **- 'LOG NO' OPTION REQUIRED FOR DB2 CATALOG AND DIRECTORY TABLE SPACES**

Explanation: The LOG NO option must be specified when reorganizing a DB2 catalog or directory table space.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Add the LOG NO option to the utility input statement.

DSNU358I *csect-name* **- 'UNLOAD ONLY' OPTION NOT VALID FOR DB2 CATALOG OR DIRECTORY TABLE SPACE**

Explanation: The UNLOAD ONLY option is not permitted for DB2 catalog or directory table spaces.

Severity: 8

System Action: Processing terminates.

User Response: Determine the purpose for using the UNLOAD ONLY option. There might be alternative ways of accomplishing the required function (for example, the UNLOAD PAUSE option).

DSNU359I KEYWORD 'SORTKEYS' SPECIFIED BUT NO INDEX OR FOREIGN KEYS EXIST, KEYWORD IS IGNORED

Explanation: The 'SORTKEYS' keyword was specified for a LOAD or REORG utility job; however, it was found that no index and no foreign keys were defined for any of the tables being loaded or reorganized. The keyword is ignored and processing continues normally.

Severity: 0 (informational)

System Action: Processing continues normally.

User Response: If an index or foreign keys were expected to be found for the table or tables being loaded or reorganized, determine the reason the index or foreign keys could not be found.

Problem Determination: Probably a user error. Determine if an index should be defined on any of the tables in the table space, or if foreign keys should be defined. If so, define the index or foreign keys; otherwise, remove the 'SORTKEYS' keyword from the utility statement if necessary.

DSNU360I *csect-name* **- IN REORG WITH SHRLEVEL REFERENCE OR CHANGE, DATA SET** *name* **EXISTS, CONTEXT=***c*

Explanation: For the area (table space or partition) being reorganized, REORG with SHRLEVEL REFERENCE or CHANGE unloads data from the original data sets and reloads data into shadow data sets. REORG then exchanges the names of the original and shadow data sets, using temporary names during the renaming. The original name of a data set is in the form "catname.DSNDBx.dbname.psname.I0001.Annn." The shadow name of a data set is in the form "catname.DSNDBx.dbname.psname.S0001.Annn." The temporary name of a data set is in the form "catname.DSNDBx.dbname.psname.T0001.Annn." REORG uses such data sets for indexes as well as data.

During its initialization, REORG cannot execute if:

- data sets with the temporary names already exist ,
- DB2-managed data sets with the shadow names already exist
- user-managed data sets with the shadow names do **not** already exist

To exchange the names of the original and shadow data sets, REORG performs the following renaming:

1 In the switch phase, it renames the original data set from the original name to the temporary name

2 In the switch phase, it renames the shadow data set from the shadow name to the original name

3 In the utilterm phase, it renames the original data set from the temporary name to the shadow name (for user-managed data sets). It deletes the temporary for DB2-managed data sets.

If a -TERM UTILITY command is issued after any renaming, or a restart of the REORG switch phase occurs after any renaming, the data set names revert back to their original form prior to the renaming:

4 The original data set from the shadow name to the temporary name

5 The shadow data set from the original name to the shadow name

6 The original data set from the temporary name to the original name

The context code indicates the specific type of error:

1 During the switch phase of REORG, on rename 1, REORG detected that a data set with a temporary name already exists. This error condition can arise for a DB2-managed or user-managed data set.

2 During the switch phase of REORG, on rename 2, REORG detected that a data set with an original name already exists. This error condition can arise for a DB2-managed or user-managed data set.

3 During the utilterm phase of REORG, on rename 3, REORG detected that a data set with a shadow name already exists. This error condition can arise for a user-managed data set.

4 During switch phase restart or a -TERM UTILITY during the switch phase, on rename 4, it was detected that a data set with a temporary name already exists. This error condition can arise for a DB2-managed or user-managed data set.

5 During switch phase restart or a -TERM UTILITY during the switch phase, on rename 5, it was detected that a data set with a shadow name already exists. This error condition can arise for a DB2-managed or user-managed data set.

6 During switch phase restart or a -TERM UTILITY during the switch phase, on rename 6, it was detected that a data set with an original name already exists. This error condition can arise for a DB2-managed or user-managed data set.

8 During initialization of REORG, REORG detected that a data set with a temporary name already exists. This error condition can arise for a DB2-managed or user-managed data set.

Severity: 8 (error)

System Action: For context code 1, or 2, the utility job step that caused the function to be requested abends with code 00E4031B. The utility job is placed in the stopped state.

For context code 3, the utility job step that caused the function to be requested continues without performing this renaming.

For context code 4, 5, or 6, the object is left in a recovery pending state, -TERM UTILITY continues to undo renaming, and a message is issued. The objects and messages are as follows:

- If the data set is part of a nonpartitioned table space, the object is the table space, and the message is DSNU562I.
- If the data set is part of a partition of a table space, the object is the partition, and the message is DSNU560I.
- If the data set is part of a nonpartitioned index, the object is the index, and the message is DSNU557I.
- If the data set is part of a partition of a partitioned index, the object is the partition of the index, and the message is DSNU559I.

For context code 8, REORG does not execute.

User Response: For context code 1 or 2, you can choose between these actions:

- Delete the data set; then RESTART the utility.
- TERM the utility. Delete the data set before trying to execute REORG again with SHRLEVEL REFERENCE or CHANGE.

For context code 3, if you want to perform the renaming, delete the data set with the shadow name and then perform the renaming.

For context code 4, 5, or 6, execute the RECOVER TABLESPACE or RECOVER INDEX utility; then delete the shadow and temporary data sets (if they still exist).

For context code 8, delete the data set and then execute
REORG.

DSNU361I *csect-name* **FOREIGN KEY HAS NO PRIMARY KEY FOR RELATIONSHIP=***r1* **INPUT RECORD NUMBER=***nnnn***, RID=X'rrrr'**

Explanation: Input record 'nnnn' caused a row to be loaded into table 'table' at RID 'rrrr' with no primary key for the relationship with the name 'r1'. Counters are valid up to four billion.

Severity: 4 (warning)

System Action: Processing continues.

User Response: None required. The constraint violation described will be rectified later in processing.

DSNU362I *csect-name* **- IN REORG WITH SHRLEVEL CHANGE, LOG HAS BECOME SHORT, BUT MAXRO IS DEFER, MEMBER=***member-name***, UTILID=***utilid*

Explanation: In execution of the REORG utility with SHRLEVEL CHANGE, if the value of MAXRO is DEFER, and the actual time for an iteration and the estimated time for the next iteration are both less than 5 seconds, then DB2 adds a 5 second pause to the next iteration. This pause limits the utility's consumption of processor time.

Within an execution of REORG, the first time that this situation occurs, DB2 produces this message, which announces the pause. On all later occurrences of this situation, DB2 still adds the pause, but DB2 sends the message only if DB2 has *not* sent the message (for this execution of REORG) within the past 30 minutes. This is a WTO message; it is sent to the console, but it is not an action message. It is not sent to SYSPRINT.

In a data sharing environment, *member-name* identifies the DB2 member. In a non-data-sharing environment, *member-name* is blank. *utilid* identifies the utility job step.

Severity: 0 (informational)

System Action: REORG continues execution, with a 5 second pause. If the conditions in the explanation above continue to be true, DB2 will continue adding 5 second pauses.

User Response: If you have been planning to wait for an appropriate time to execute the -ALTER UTILITY command to choose the value of MAXRO and thus cause REORG to finish, now might be an appropriate time. However, you are not required to take any action.

Operator Response: If you have been planning to wait for an appropriate time to execute the -ALTER UTILITY command to increase the value of MAXRO and thus cause REORG to finish, now might be an appropriate time. However, you are not required to take any action.

DSNU363I *csect-name* **- ENFORCE PHASE STATISTICS - RELATIONSHIP** *r1* **FOREIGN KEYS CHECKED=***n* **CONSTRAINT VIOLATIONS ENCOUNTERED=***m*

Explanation: This message provides statistics for the enforce phase of the load utility. For relationship 'r1', the number of foreign keys checked is 'n'. The number of constraint violations found is 'm'.

Severity: 0 (informational)

System Action: Processing continues.

DSNU365I *csect-name* **- USER** *auth-id* **DOES NOT HAVE AUTHORITY ON REORG MAPPING TABLE**

Explanation: The REORG utility was run with SHRLEVEL CHANGE and a mapping table, but user *auth-id* does not have authority to delete, insert, select, and update in the mapping table specified in the utility statement.

Severity: 8 (error)

System Action: Further utility processing is terminated.

User Response: Obtain authorization to delete, insert, select, and update in the mapping table specified in the utility statement.

DSNU366I *csect-name* **- REORG MAPPING TABLE HAS WRONG COLUMNS**

Explanation: A mapping table was specified for a utility job executing REORG with SHRLEVEL CHANGE. However, the table has the wrong set of columns. This message can arise for any parameters of CREATE TABLE that are missing from, added to, or different from the CREATE TABLE statement that appears for the mapping table in the REORG section of *Utility Guide and Reference*.

Severity: 8 (error)

System Action: REORG does not execute.

User Response: Create a mapping table with the correct set of columns, and no other columns, as specified under REORG in *Utility Guide and Reference*. Execute REORG.

DSNU367I *csect-name* **- ENFORCE PHASE STATISTICS -** *n* **ROWS DELETED FROM TABLE** *t*

Explanation: This message reports the results of the ENFORCE phase of the LOAD utility. Data rows added during the RELOAD phase of the LOAD utility have been deleted because they contained foreign keys which did not have a corresponding primary key. A total of `'n'` data rows were deleted from table `'t'`.

Primary errors may cascade and remove additional records. The count is the sum of both primary and secondary constraint violations. Counters are valid up to four billion.

Severity: 4 (warning)

System Action: Processing continues.

User Response: Determine why no primary key exists for the deleted record.

Problem Determination: All primary errors are accompanied by a DSNU361I message which identifies the relationship and input record which does not have a primary key value. The report phase will report all secondary errors and indicate the primary error record which caused this record to be deleted.

The relevant parent table can be found by querying the SYSIBM.SYSRELS catalog table. The relevant columns can be found by querying the SYSIBM.SYSFOREIGNKEYS catalog table.

DSNU368I *csect-name* **- REORG MAPPING TABLE HAS WRONG INDEX**

Explanation: A mapping table was specified for a utility job executing REORG with SHRLEVEL CHANGE. However, the table has the wrong index. This message can arise for any parameters of CREATE INDEX that are missing from, added to, or different from the CREATE INDEX statement that appears for the mapping table in the REORG section of *Utility Guide and Reference*. It can also arise for the existence of any other indexes on the mapping table.

Severity: 8 (error)

System Action: REORG does not execute.

User Response: Create a mapping table with the correct index, and no other indexes, as specified under REORG in *Utility Guide and Reference*. Execute REORG.

DSNU369I *csect-name* **- ENFORCE PHASE COMPLETE, ELAPSED TIME =** *hh/mm/ss*

Explanation: The ENFORCE phase of the LOAD utility has completed normally. The elapsed time for the execution was `'hh'` hours, `'mm'` minutes, and `'ss'` seconds.

Severity: 0 (informational)

DSNU370I *csect-name* **- THE LOCAL FORMAT OPTION HAS BEEN USED WITH A DATE OR TIME AND NO LOCAL EXIT HAS BEEN INSTALLED.**

Explanation: The Installation Application Programming Defaults Panel indicated that an exit for date or time was supplied, but the exit supplied by DB2 was not replaced.

Severity: 8 (error)

System Action: The statement cannot be executed.

User Response: Contact the system programmer about installation of the date or time exit.

System Programmer Response: To replace the DB2-supplied exit routine, an SMP USERMOD must be applied. If an SMP USERMOD is undesirable, the replacement module may be linked into a user library either included in the MVS LINKLIST or concatenated to the STEPLIB in the started task JCL for *ssnm*DBM1 (*ssnm* is the subsystem name).

DSNU371I *csect-name* **- REORG MAPPING TABLE'S TABLE SPACE MUST BE SEGMENTED**

Explanation: REORG with SHRLEVEL CHANGE specified a mapping table for a table space that is not segmented. The table space that contains the mapping table must be segmented.

Severity: 8 (error)

System Action: REORG does not execute.

User Response: Specify a mapping table that is in a table space that is segmented.

DSNU372I *csect-name* **- CANNOT REORGANIZE REORG MAPPING TABLE'S TABLE SPACE**

Explanation: REORG with SHRLEVEL CHANGE specified a mapping table that resides in the table space that is being reorganized. The table space that contains the mapping table must not be the table space that is being reorganized.

Severity: 8 (error)

System Action: REORG does not execute.

User Response: Specify a mapping table that is not in the table space that is being reorganized.

DSNU373I *csect-name* **- IN -ALTER UTILITY OR REORG WITH SHRLEVEL REFERENCE OR CHANGE, DEADLINE HAS ALREADY OCCURRED, CONTEXT=***c*

Explanation: If a deadline is specified in the -ALTER UTILITY command or the REORG utility with SHRLEVEL REFERENCE or CHANGE, the deadline cannot occur before the time of execution of the -ALTER UTILITY or REORG that specified the deadline. Context codes are:

1 The error occurred on -ALTER UTILITY.

2 The error occurred on REORG.

Severity: 8 (error)

System Action: -ALTER UTILITY or REORG does not execute.

User Response: Execute -ALTER UTILITY or REORG with no deadline or with a deadline that has not already occurred. If you want to terminate an execution of REORG, use the -TERM UTILITY command.

DSNU374I *csect-name* **- REORG WITH SHRLEVEL REFERENCE or CHANGE HAS BEEN TERMINATED, REASON=***c*

Explanation: REORG with SHRLEVEL REFERENCE or CHANGE has been terminated.

1 REORG with SHRLEVEL CHANGE specified LONGLOG TERM, and at the end of an iteration of log processing, the number of log records that the next iteration would process is not sufficiently lower than the number that the previous iterations processed.

2 DB2 estimated that the switch phase of REORG with SHRLEVEL REFERENCE or CHANGE would not start by the deadline specified in the DEADLINE phrase.

Severity: 8 (error)

System Action: REORG terminates.

User Response: For reason code 1, attempt a new invocation of reorganization later, perhaps when you expect that the application workload is lower or the maximum desired amount of time for applications to have read-only access is longer.

For reason code 2 on SHRLEVEL CHANGE, attempt a new invocation of reorganization later, perhaps when you expect to have a longer time available, you expect that the application workload is lower, or you expect that the maximum desired amount of time for applications to have read-only access is longer. For reason code 2 on SHRLEVEL REFERENCE, attempt a new invocation of reorganization later, perhaps when you expect to have a longer time available.

DSNU375I *csect-name* **DISCARD PHASE STATISTICS - *nnn* INPUT DATA SET RECORDS DISCARDED**

Explanation: Input data set records were rejected by the LOAD utility for one or several reasons. The rejected records have been placed in a discards data set. The number of records rejected is 'nnn'. Message DSNU399I summarizes the errors causing the records to be rejected.

Severity: 4 (warning)

System Action: Processing continues.

User Response: Examine the LOAD error summary and decide which of the discarded records, if any, should be corrected and reapplied to the table space.

DSNU376I *csect-name* **DISCARD PHASE COMPLETE, ELAPSED TIME =** *hh/mm/ss*

Explanation: The DISCARD phase of the LOAD utility has completed normally. The elapsed time for the execution was 'hh' hours, 'mm' minutes, and 'ss' seconds.

Severity: 0 (informational)

DSNU377I *csect-name* **- IN REORG WITH SHRLEVEL CHANGE, THE LOG IS BECOMING LONG, MEMBER=***member-name***, UTILID=***utilid*

Explanation: During log processing for REORG with SHRLEVEL CHANGE, the number of log records that the next iteration will process is not sufficiently lower than the number that the previous iterations processed. This situation means that during reorganization, the log is not being read quickly enough to catch up to the application writing the log. This is a WTO message; it is sent to the console, but it is not an action message. It is also sent to SYSPRINT.

DB2 refrains from taking the action specified in the LONGLOG phrase if any one of the following events occurs for this execution of REORG before the delay expires:

- An -ALTER UTILITY command is issued.
- A -TERM UTILITY command is issued.
- DB2 estimates that the time to perform the next iteration will be less than or equal to the time specified in the MAXRO phrase.
- REORG terminates for any reason (including the deadline).

member-name Identifies the DB2 member in a data sharing environment. Blank in a non-data-sharing environment.

utilid Identifies the utility job step.

Severity: 4 (warning)

System Action: After a delay (specified by the DELAY phrase of the REORG utility or the -ALTER UTILITY command), REORG performs the action specified by the LONGLOG phrase of the REORG utility or the -ALTER UTILITY command.

User Response: No action is required. However, if the action specified by the LONGLOG phrase is not desired, the operator (or a user-written program that is triggered by the message) can take an action. For a list of possible actions, see the description of LONGLOG in the REORG section of *Utility Guide and Reference*.

Operator Response: No action is required. However, if the action specified by the LONGLOG phrase is not desired, the

operator (or a user-written program that is triggered by the message) can take an action. For a list of possible actions, see the description of LONGLOG in the REORG section of *Utility Guide and Reference*.

DSNU378I *csect-name* **- REORG WITH SHRLEVEL NONE HAS INAPPROPRIATE NOSYSREC KEYWORD, REASON=***c*

Explanation: REORG with SHRLEVEL NONE allows the following combinations of the SORTDATA and NOSYSREC keywords:

- Neither keyword
- SORTDATA alone (without NOSYSREC)
- SORTDATA NOSYSREC

These combinations do not trigger this message. However, NOSYSREC alone (without SORTDATA) is inappropriate and does trigger this message, with a reason code of 1.

Also, for REORG with SHRLEVEL NONE, if you specify UNLOAD PAUSE or UNLOAD ONLY, NOSYSREC is inappropriate and triggers this message with a reason code of 2. If the two conditions (omission of SORTDATA and inclusion of UNLOAD PAUSE or ONLY) are both true, NOSYSREC triggers this message with a reason code of 2.

Severity: 8 (error)

System Action: REORG does not execute.

User Response: Specify an invocation of REORG with appropriate parameters. Specifically, for reason code 1, if you want to execute REORG with SHRLEVEL NONE, add SORTDATA and/or remove NOSYSREC. For reason code 2, if you want to execute REORG with SHRLEVEL NONE, remove NOSYSREC, UNLOAD PAUSE, or UNLOAD ONLY.

DSNU379I *csect-name* **- ALTER UTILITY, UTILID =** *utilid***: SWITCH PHASE IN REORG HAS ALREADY STARTED, NO ALTER IS PERFORMED**

Explanation: The -ALTER UTILITY command was applied to a job that is executing REORG with SHRLEVEL REFERENCE or CHANGE. However, nothing was altered, because REORG had already started its switch phase.

Severity: 4 (warning)

System Action: ALTER UTILITY has no effect.

DSNU380I *csect-name* **TABLESPACE** *database.tablespace-name* **PARTITION** *part-num* **IS IN COPY PENDING**

Explanation: An image copy is required to establish a new base from which the table space partition can be recovered. Otherwise, the results of running the RECOVER utility on that table space partition are unpredictable.

If the RECOVER TABLESPACE utility with the keyword TOCOPY is being used, the START_RBA or START_LRSN value of the associated full image copy might be outside the available recovery information. To verify this, look at the REPORT utility output. The RECOVER TABLESPACE utility will process the TOCOPY keyword and put the recovering object in copy pending status.

Severity: 4 (warning)

User Response: Take an image copy of the associated table space partition. If the message was issued after the COPY utility failed, correct all specified errors for the associated table space before attempting another image copy of that table space.

DSNU381I *csect-name* **TABLESPACE** *database.tablespace-name* **IS IN COPY PENDING**

Explanation: This message is issued after:

- A LOAD or REORG utility with the LOG(NO) option left the associated table space in an unrecoverable state.
- An image copy failed because broken pages were detected or an image copy was terminated.
- A partial recovery finished successfully.
- A MODIFY RECOVERY left the associated table space in an unrecoverable state.

  If the RECOVER TABLESPACE utility with keyword TOCOPY is being used, the START_RBA or START_LRSN value of the associated full image copy might be outside the available recovery information. To verify this, look at the REPORT utility output. The RECOVER TABLESPACE utililty will process the TOCOPY keyword and put the recovering object in copy pending status.

An image copy is required to establish a new base from which the table space can be recovered. Otherwise, the results of running the RECOVER utility on that table space are unpredictable.

Severity: 4 (warning)

User Response: Take an image copy of the associated table space. If the message was issued after the COPY utility failed, correct all specified errors for the associated table space before attempting another image copy on that table space.

DSNU382I *csect-name* **- REORG UTILITY, UTILID =** *utilid* **REQUESTED TO ALTER, PHASE =** *utility-phase*

Explanation: This message is issued in response to an -ALTER UTILITY command. It acknowledges that the request for alteration was received and verified. At the time the -ALTER UTILITY request was received, REORG was in the utility job step identified by UTILID *utilid*.

Severity: 0 (informational)

System Action: DB2 has accepted the request to alter the indicated utility job step. The utility alters its parameter values.

User Response: This message is an acknowledgement that the request has been accepted and is in progress.

DSNU383I *csect-name* **CURRENT ITERATION NUMBER =** *nnnnnn* **WRITE ACCESS ALLOWED IN CURRENT ITERATION =** *www* **ITERATION BEFORE PREVIOUS ITERATION: ELAPSED TIME =** *ha:ma:sa* **NUMBER OF LOG RECORDS PROCESSED =** *nnnnna* **PREVIOUS ITERATION: ELAPSED TIME =** *hb:mb:sb* **NUMBER OF LOG RECORDS PROCESSED =** *nnnnnb* **CURRENT ITERATION: ESTIMATED ELAPSED TIME =** *hc:mc:sc* **ACTUAL ELAPSED TIME SO FAR =** *hd:md:sd* **ACTUAL NUMBER OF LOG RECORDS BEING PROCESSED =** *nnnnnd* **CURRENT ESTIMATE FOR NEXT ITERATION: ELAPSED TIME =** *he:me:se* **NUMBER OF LOG RECORDS TO BE PROCESSED =** *nnnnne*

Explanation: This message applies only during the LOG phase of REORG with SHRLEVEL CHANGE. It supplements message DSNU105I which can appear in any phase (including the LOG phase).

This message is issued in response to a -DISPLAY UTILITY command.

It is also issued by the REORG utility if the user specified SHRLEVEL REFERENCE or CHANGE and DB2 estimates that the switch phase will not start by the deadline specified by the DEADLINE phrase. This message provides the user with an estimate of how far the REORG utility has proceeded in the indicated utility job step.

nnnnnn The current iteration number

www 'YES' or 'NO' according to whether write access is allowed in the current iteration of log processing

For the iteration before the previous iteration:

ha:ma:sa The elapsed time for the iteration

nnnnna The number of log records processed in the iteration.

These values are 00:00:00 and 0 if the current iteration number is 1 or 2.

For the previous iteration:

hb:mb:sb The corresponding information.

nnnnnb The corresponding information.

These values are 00:00:00 and 0 if the current iteration number is 1.

For the current iteration:

hc:mc:sc The estimated elapsed time

hd:md:sd The elapsed time so far

nnnnnd The actual number of log records being processed

For the next iteration:

he:me:se The currently estimated elapsed time

nnnnne The currently estimated number of log records to be processed

Severity: 0 (informational)

System Action: The message reflects the state of DB2 at the time of the -DISPLAY UTILITY command or the time when DB2 estimated that the switch phase would not start by the deadline specified by the DEADLINE phrase.

If this message was issued for -DISPLAY UTILITY, the system continues processing. A subsequent -DISPLAY UTILITY command reflects that processing.

DSNU384I *csect-name* **- MAXRO =** *aaaaaaaaaa* **SECONDS LONGLOG =** *llllllll* **DELAY =** *bbbbbbbbbb* **SECONDS**

Explanation: This message applies only to REORG with SHRLEVEL CHANGE. It supplements message DSNU105I, which can appear for any utility (including REORG).

This message is issued in response to a -DISPLAY UTILITY command.

It is also issued by the REORG utility if the user specified SHRLEVEL CHANGE and DB2 estimates that the switch phase will not start by the deadline specified by the DEADLINE phrase.

This message indicates the most recently specified values of certain parameters to REORG. For each such parameter, a previous invocation of the -ALTER UTILITY command might have specified a value. If no previous invocation of -ALTER UTILITY has specified a value, the most recently specified value is the value that was specified with the invocation of the REORG utility.

aaaaaaaaaa A number of seconds, according to the most recently specified value of MAXRO. A value of "DEFER" denotes that the log file will be deferred indefinitely.

llllllll “CONTINUE,” “TERM,” or “DRAIN” according to the most recently specified value of LONGLOG

bbbbbbbbbb A number of seconds, according to the most recently specified value of DELAY

Severity: 0 (informational)

System Action: The message reflects the state of DB2 at the time of the -DISPLAY UTILITY command or the time when DB2 estimated that the switch phase would not start by the deadline specified by the DEADLINE phrase.

If this message was issued for -DISPLAY UTILITY, the system continues processing. If an -ALTER UTILITY command is then executed, a subsequent -DISPLAY UTILITY command reflects the results (if any) of the -ALTER UTILITY command.

DSNU385I *csect-name* **- LOG PHASE COMPLETE, ELAPSED TIME =** *hh/mm/ss*

Explanation: This message is issued at the normal completion of the LOG phase of the REORG utility. The time that has elapsed between the beginning and the completion of this phase was:

hh hours
mm minutes
ss seconds

Severity: 0 (informational)

System Action: Processing continues to the next phase of the REORG utility.

DSNU386I *csect-name* **- LOG PHASE STATISTICS. NUMBER OF ITERATIONS =** *iiiiiiii***, NUMBER OF LOG RECORDS =** *rrrrrrrr*

Explanation: This message is issued at the normal completion of the LOG phase of the REORG utility.

iiiiiiii The number of iterations of log processing that were performed. This number includes one or more iterations during which applications have read/write access plus one final iteration during which applications have read-only access.

rrrrrrrr The number of log records that were read.

Application of some of these log records might be unnecessary. Therefore, the LOG phase might apply only a subset of these log records to the shadow copy of the table space or partition.

Severity: 0 (informational)

System Action: The LOG phase of the REORG utility is completed.

DSNU387I *csect-name* **- SWITCH PHASE COMPLETE, ELAPSED TIME =** *hh/mm/ss*

Explanation: This message is issued at the normal completion of the switch phase of the REORG utility. The time that has elapsed between the beginning and the completion of this phase was:

hh hours
mm minutes
ss seconds

Severity: 0 (informational)

System Action: Processing continues to the next phase of the REORG utility.

DSNU388I *csect-name* **- BUILD2 PHASE COMPLETE, ELAPSED TIME =** *hh/mm/ss*

Explanation: This message is issued at the normal completion of the BUILD2 phase of the REORG utility. The time that has elapsed between the beginning and the completion of this phase was:

hh hours
mm minutes
ss seconds

Severity: 0 (informational)

System Action: Processing continues to the next utility statement in the utility job step, if any.

DSNU389I *csect-name* **- BUILD2 PHASE STATISTICS. NUMBER OF NONPARTITIONED INDEXES =** *mmm*

Explanation: This message is issued at the normal completion of the BUILD2 phase of the REORG utility.

mmm The number of nonpartitioned indexes whose RIDs were corrected.

Severity: 0 (informational)

System Action: The BUILD2 phase of the REORG utility is completed.

DSNU390I *csect-name* **INVALID CONVERSION FOR FIELD** *cccccccc*

Explanation: The input field type for column, 'cccccccc', is incompatible with its data type (as found in the catalog).

Severity: 8 (error)

System Action: Utility processing is terminated.

User Response: Correct the error, and resubmit the job. Refer to *Utility Guide and Reference* for compatible data types.

DSNU396I *csect-name* **REPORT PHASE COMPLETE, ELAPSED TIME =** *hh/mm/ss*

Explanation: The REPORT phase of the LOAD utility has completed normally. The elapsed time for the execution was 'hh' hours, 'mm' minutes, and 'ss' seconds.

Severity: 0 (informational)

DSNU398I *csect-name* **UNEXPECTED PROCESSING ERROR, REASON=X00E40318, ON TABLE** *tttttttt*

Explanation: When attempting to load a record into table 'tttttttt', an error was encountered. Refer to “Section 4. DB2 Codes” on page 4-1 for an explanation of reason code '00E40318'.

Severity: 8 (error)

System Action: If the error was caused by a resource not being available, a DSNT500I message is issued.

The utility step is abended with a system X'04E' with an abend reason code of '00E40318'. If a DSNT500I message is not issued, an SVC dump is requested. A SYSABEND dump of batch storage is also requested.

The utility step is left in the stopped state.

User Response: If a DSNT500I message was issued, refer to its description under that message number in this manual. If the unavailable resource becomes available, the utility step is restartable.

If a DSNT500I message is not issued, the error is an internal error. Notify the system programmer.

Operator Response: An operator with SYSOPR authority can issue a TERM UTIL to free any held resources (this may not be necessary).

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU399I *csect-name* **- LOAD UTILITY ERROR SUMMARY REPORT**

Explanation: This message summarizes errors detected during the load job. Figure 7 shows the format of the report. It is issued only if unique index or referential constraint violations were detected.

```
ERROR     INPUT    Discard   ERROR  TABLE   FIELD/FANSET  RELATED
SEVERITY  RECORD   Heading   TYPE   NAME    NAME          ERROR

sev       idsrn    ddsrn     type   name1   name2         idsrn2
 .         .        .         .      .       .             .
 .         .        .         .      .       .             .
```

Figure 7. LOAD Utility Error Summary Report

The report contains one line for each error. The errors are listed first by error severity and within that by *idsrn*.

The *Discard Heading* is either DISCARD RECORD or blank, depending on whether discard processing is in effect.

The report fields have the following meanings:

sev The severity of the error reported on this line:

Severity	Type of Error	Explanation
1	Primary	Primary referential integrity errors and all nonreferential integrity errors.
2	Secondary	Secondary referential integrity errors (that is, errors that result from a primary referential integrity error in an ancestor).

idsrn The relative record number in the input data set of the record causing the error reported on this line.

ddsrn The relative record number in the input data set of the record causing the error reported on this line, if discard processing is in effect. Otherwise, *ddsrn* is blank.

type A description of the type of error reported on this line, as follows:

Conversion
Field specification
Validation
Part Specification
Unexpected
Column specification
Referential integrity
Check constraint
Duplicate key.

name1 The name of the table for which the record causing the error was targeted, if this information is pertinent for the type of error reported on this line. Otherwise, *name1* is blank. This field has nonblank values for the following error types:

Conversion
Validation
Column specification
Referential integrity (primary).
Check constraint

name2 The name of the field or fanset involved in the error reported on this line, if this information is pertinent for the type of error reported. Otherwise, *name2* is blank. This field contains a field name for the following types of errors:

Conversion
Field specification
Column specification.

For primary referential integrity errors, *name2* is a relationship name. For check constraint errors, *name2* is a check constraint name.

idsrn2 The input data set record number of a related error. For duplicate key errors, it gives the input data set record number of the record whose key is duplicated. For secondary referential integrity errors, it gives the input data set record number of the record whose primary referential integrity error cascaded to cause this secondary error. For other types of errors, this field is unused.

Severity: 4 (warning)

System Action: Processing continues.

DSNU400I *csect-name* **IMAGE COPY COMPLETE. NUMBER OF PAGES=***nnnnnn***, AVERAGE PERCENT FREE SPACE PER PAGE =** *ff.ff***, PERCENT OF CHANGED PAGES =** *pp.pp***, ELAPSED TIME=** *hh/mm/ss*

Explanation: This message is issued in response to the normal completion of the image copy (COPY) utility. It can also be issued from LOAD or REORG if a full image copy has been requested during a table space load or reorganization.The statistics apply to pages included in the scope of the COPY request. This can either be a full table space (DSNUM(ALL)) or a partition of a table space (DSNUM(integer)). All the pages in the table space or partition can be copied (FULL(YES)), or only the changed pages can be copied (FULL(NO)). The message variables are:

ff.ff The average percentage of free space within the copied pages. This indicates the amount of change activity that can occur without significant impairment of reference performance.

nnnnnn The number of pages written out.

Image copies produced during LOAD or REORG will have more pages written than a full image copy produced by running the COPY utility on the same table space, because some pages will be written more than once.

pp.pp The percentage of changed pages. This indicates the amount of change activity that occurred since the last image copy or reorganization. The percentage of changed pages is obtained by dividing the number of changed pages by the number of pages in the table space. Preformatted pages consisting of all zeros are included in the count of pages scanned. Since these preformatted pages are not copied to the output data set, the number of pages scanned is usually larger than the number of pages copied.

When this message is issued for image copies produced during LOAD or REORG, this percentage will always be reported as 100%, because the utility is resetting and reformatting the entire table space.

Counters are valid up to four billion.

System Action: The COPY, LOAD or REORG utility completed normally. Processing continues to the next utility statement in the utility job step. If there are no more utility statements, the utility job step terminates normally, and the resources are released to their prior availability state. The UTILID of the utility job step becomes available for reuse.

User Response: Reported statistics could suggest that either a RUNSTATS or REORG utility should be run on the table space.

DSNU401I *csect-name* **CONCURRENT COPY COMPLETE, ELAPSED TIME=** *hh***:***mm***:***ss*

Explanation: The DFSMS Concurrent Copy utility completed normally.

Severity: 0 (informational)

System Action: Processing continues to the next utility statement in the utility job step. If there are no more utility statements, the utility job step is normally terminated, and the resources are released to their prior availability state. The utility identifier (UTILID) of the utility job step becomes available for reuse.

User Response: No action is required.

DSNU402I *csect-name* **INCREMENTAL IMAGE COPY DISALLOWED FOR REQUESTED TABLESPACE, FULL IMAGE COPY WILL BE TAKEN**

Explanation: An incremental image copy for a table space or data set was requested. However, a full image copy is required. Possible reasons include:

- The request was for one of the DB2-maintained table spaces DSNDB01.DBD01, DSNDB06.SYSCOPY, or DSNDB01.SYSUTILX.

- A LOAD or REORG utility was run on the table space or data set with no subsequent full image copy.
- No full image copy was found for the requested sites.
- Copy pending status was set for the requested table space or data set.
- The request was for an entire table space, but the most recent image copy for the table space is on the data set level.
- The previous image copy is a DFSMS concurrent copy.

The request for an incremental image copy is ignored, and a full image copy is taken.

Severity: 4 (warning)

System Action: The request to take an incremental image copy is treated as a request to take a full image copy.

User Response: The capacity of the target image copy data set might not be sufficient if its size was established assuming an incremental image copy. If this condition occurs, terminate and then resubmit the job step.

DSNU403I *csect-name* **- FULL AND INCREMENTAL COPIES OF THE SAME TABLESPACE ON THE SAME TAPE DISALLOWED DDNAME** *ddname*

Explanation: The COPY utility has been invoked to take an incremental image copy of a TABLESPACE. The specified output data set is on a tape which contains another FULL or INCREMENTAL image copy of the same TABLESPACE. This is not allowed.

Severity: 8 (error)

System Action: The utility will terminate with a return code of 8, and will not take the image copy or update the SYSCOPY table.

User Response: Change the VOLSER for the image copy output data set or use the MODIFY RECOVERY utility to delete SYSIBM.SYSCOPY records which are no longer needed for the same TABLESPACE and tape volume.

Problem Determination: Use the SQL SELECT command to look at the SYSIBM.SYSCOPY table. If the conflicting image copy data sets on the output tape are no longer needed, use MODIFY RECOVERY to eliminate the related SYSIBM.SYSCOPY records. If the data sets are still needed, you must place the new image copy on a different tape or you must take a FULL image copy.

DSNU404I *csect-name* **LOCAL SITE AND RECOVERY SITE INCREMENTAL IMAGE COPIES ARE NOT SYNCHRONIZED**

Explanation: No incremental image copy can be made if

1. The incremental image copy is requested only for a site other than the current site.
2. The incremental image copies are requested for both sites but the most recent full image copy was made only for the current site.
3. The incremental image copies are requested for both sites and the most recent full image copies were made for both sites, but between the most recent full image copy and current request, all incremental image copies were made for current site only.

Severity: 8(error)

System Action: The utility will terminate with a return code of 8, and will not take the image copy or update the SYSCOPY table.

User Response: Take another full image copy of the TABLESPACE for both LOCAL site and RECOVERY site or change the request to make incremental image copy only for current site.

DSNU406I FULL IMAGE COPY SHOULD BE TAKEN FOR BOTH LOCAL SITE AND RECOVERY SITE.

Explanation: The requested full image is for one site only but history shows that there were image copies taken for both local site and recovery site and the table space is in copy pending status, or point in time recover has been done on the table space, or the table space is in copy pending status and the requested full image copy is for a site other than the current site. Be aware of the following situations:

1. If the requested copy is made for current site, then the other site can only do point in time recovery.
2. If the requested copy is for the site other than the current site, then the TABLESPACE will be in the same state as before COPY has been made.

Severity: 4 (warning)

System Action: COPY, LOAD, or REORG utility will continue to process the image copy.

User Response: Take another full image copy of the TABLESPACE for both LOCAL site and RECOVERY site to guarantee the correct recovery on both sites or check DSNZPARM to ensure that the current site is the site at which the image copy is being taken.

DSNU407I *csect-name* **- DATA SET ALREADY USED FOR PREVIOUS IMAGE COPY**

Explanation: A COPY, LOAD, or REORG utility has been invoked to take an image copy to a data set which is a duplicate of one already recorded in SYSCOPY. If the specified data set is cataloged, a matching DSNAME exists. If the specified data set is not cataloged, a matching DSNAME, DSVOLSER, and FILESEQNO exists.

Severity: 8 (error)

System Action: The utility will terminate with a return code of 8, and will not take the image copy or update the SYSCOPY table.

User Response: Change the name of the data set or use MODIFY utility to delete the old SYSCOPY record containing the duplicate data set.

DSNU408I *csect-name* **-** *dsn* **EXISTS WITH -VOLUME=***vol***, FILE SEQUENCE-NUMBER=***fseq***, RBA=***rba***|***lrsn***, DATE=***date***, TIME=***time***

Explanation: If this message is issued after DSNU403I, it provides information from the SYSCOPY catalog table about the previously created image copy of the table space. If this message is issued after DSNU407I, it provides information from the SYSCOPY table about the duplicate data set that was detected during image copy processing.

For copies to DASD or MSS, *fseq* is 0; for copies of cataloged data sets, *vol* is (CATG).

Severity: 8 (error)

System Action: The utility terminates with return code 8 and does not take the image copy or update the SYSCOPY table.

User Response: Use the information provided to change the name of the data set or to locate the duplicate SYSCOPY record for deletion with the MODIFY RECOVERY utility.

DSNU409I *csect-name* **NO** *hardware-or-software* **SUPPORT FOR TABLE SPACE** *database-name.tablespace-name* **DSNUM** *dsnum*

Explanation: This message is issued by the COPY or RECOVER utility for one of the following reasons.

- The COPY utility was invoked to take a DFSMS concurrent copy of a table space that resides on a device with no hardware or software support for the DFSMSdss DUMP command with the CONCURRENT option.
- The RECOVER utility invoked the DFSMSdss RESTORE command without the supporting software.

If the object is an entire table space, 'DSNUM *dsnum*' is not displayed.

Severity: 4 (for RECOVER) or 8 (for COPY)

System Action: The RECOVER utility falls back to the previous image copy data set and continues. The COPY utility job terminates.

User Response: If a list of table spaces is specified in the COPY job, remove the table space that has no hardware or software support from the list. Resubmit the job or use the DB2 COPY utility instead of the DFSMS Concurrent Copy utility.

DSNU410I *csect-name* **TABLESPACE OR DATA SET CONTAINED NO CHANGED PAGES**

Explanation: An incremental image copy (COPY option FULL(NO)), which copies only changed pages, was requested. However, no changed pages were found.

Severity: 4 (warning)

This message reflects a warning condition that did not prevent subsequent processing.

System Action: This message indicates normal completion of the image copy utility. Processing continues to the next utility statement in the utility job step, if any. If there are no more utility statements, the utility job step is normally terminated, and the resources are released to their prior availability state. The UTILID of the utility job step becomes available for reuse.

Because no output was produced, the SYSIBM.SYSCOPY catalog table remains unchanged.

The requester may want to determine why the apparent assumption that a change occurred was not true.

Operator Response: The target copy data set identified by the DD statement nominated by the COPY COPYDDN option was not required. It was not tracked in the DB2 catalog table SYSIBM.SYSCOPY. It need not be kept for subsequent re-call.

DSNU411I *csect-name* **UNABLE TO LOGICALLY COMPLETE TABLE SPACE** *database-name.tablespace-name* **DSNUM** *dsnum*, **RETURN CODE** *return-code* **REASON CODE** *reason-code*

Explanation: The DFSMSdss DUMP command with the CONCURRENT option encountered an error during the initialization of the target object being copied. The return code and reason code are from the DFSMSdss DUMP command.

If the object is an entire table space, 'DSNUM *dsnum*' is not displayed.

Severity: 8

System Action: The utility job terminates.

User Response: See the return code and reason code in *DFSMS/MVS: Administration Reference for DFSMSdss* to determine the problem. Resubmit the job after resolving the problem.

DSNU412I *csect-name* **UNABLE TO PHYSICALLY COMPLETE TABLE SPACE** *database-name.tablespace-name* **DSNUM** *dsnum*, **RETURN CODE** *return-code*

Explanation: The DFSMSdss DUMP command with the CONCURRENT option encountered an error during the backup process. The return code is from the DFSMSdss DUMP command.

If the object is an entire table space, 'DSNUM *dsnum*' is not displayed.

Severity: 8

System Action: The utility job terminates.

User Response: See the return code description in *DFSMS/MVS: Administration Reference for DFSMSdss* to determine the problem. Resubmit the job after resolving the problem, or use the DB2 Copy utility instead of the DFSMS Concurrent Copy utility for the failed table space.

DSNU413I *csect-name* **- CONCURRENT COPY SUCCESSFUL FOR TABLE SPACE** *database-name.tablespace-name* **DSNUM** *dsnum*

Explanation: The DFSMS Concurrent Copy utility completed normally for the named object. This message is repeated for every copied table space in the list.

If the object is an entire table space, 'DSNUM *dsnum*' is not displayed.

Severity: 0 (informational)

System Action: Processing continues to the next object in the list. If there are no more objects, the utility ends normally with message DSNU401I.

User Response: No action is required.

DSNU414I *csect-name* **UNABLE TO RETRIEVE LRSN FOR TABLE SPACE** *database-name.tablespace-name* **DSNUM** *dsnum*

Explanation: This message is issued by the DB2 COPY utility when an error is encountered during the retrieval of a log record sequence number (LRSN).

This error can occur in these situations:

- Another DB2 in a data sharing group terminated abnormally while trying to update the table space.
- A failure occurred while trying to communicate with other DB2s in the data sharing group.

If the object is an entire table space, 'DSNUM *dsnum*' is not displayed.

Severity: 8

System Action: The utility job terminates.

User Response: Issue a -DISPLAY DATABASE command with the USE option to determine if any other DB2 systems hold a retained lock on the table space (status = RSTRT). If so, you must restart that DB2 system before the COPY job can be successfully run.

DSNU415I *csect-name* **INVALID OUTPUT BLOCK SIZE SPECIFIED DDNAME** *ddname*

Explanation: Valid block sizes for an image copy or mergecopy data set are multiples of 4KB and less than the device limitation.

Severity: 8 (error)

System Action: Utility processing is terminated.

User Response: Correct the JCL statement, or use the default. Resubmit the request in a new utility job step. Refer to *Utility Guide and Reference* for a discussion of image copy and work data set constraints.

DSNU416I *csect-name* **THE OUTPUT IMAGE COPY DATA SET CANNOT BE PARTITIONED. DDNAME** *ddname*

Explanation: The use of partitioned image copy data sets is restricted. The COPY, MERGECOPY, LOAD, or REORG utility job that was submitted has a partitioned output image copy data set, specified by the COPYDDN ddname or RECOVERYDDN ddname parameter.

Severity: 8 (error)

System Action: Utility processing is terminated. The image copy will not be taken or the merge will not be done, and the SYSIBM.SYSCOPY table will not be updated.

User Response: Correct the utility job by specifying a non-partitioned data set as the output image copy data set.

DSNU417I *csect-name* **THE NUMBER OF VOLUMES USED BY THE IMAGE COPY DATA SET** *data-set-name* **HAS REACHED THE LIMIT**

Explanation: The image copy data set reached the limit of 255 volumes and another volume is required.

Severity: 8 (error)

System Action: The utility job is terminated.

User Response: You might want to use the DSNUM option of the COPY utility to identify a partition or data set within the table space to be copied, or specify a partition number to be loaded or reorganized if the copy is being produced from a LOAD or REORG.Refer to *Utility Guide and Reference* for a description of the COPY utility and the DSNUM option, and descriptions of the LOAD and REORG utilities and the PART option.

DSNU418I *csect-name* **DATA SET LEVEL IMAGE COPY DISALLOWED FOR REQUESTED TABLE SPACE**

Explanation: An image copy at the data set level was requested. However, it is not allowed for one of the following reasons:

- The table space is in copy pending status.
- The table space is not suitable for image copy at the data set level.

A copy of the entire table space is required.

Severity: 8 (error)

System Action: The COPY utility completes unsuccessfully with return code 8.

System Programmer Response: You must take a full image copy of the entire table space by specifying the DSNUM ALL option with the COPY utility.

DSNU419I *csect-name* **UTILITY CANNOT PROCESS A TABLE SPACE WITH MIXED SPECIFIC AND NONSPECIFIC VOLUME IDS.**

Explanation: The requested table space is defined using a DB2 storage group with the mixed specific and nonspecific volume IDs. A specific volume ID is represented by a string with a maximum of 6 characters. A nonspecific volume ID is represented by an asterisk (*).

Severity: 8 (error)

System Action: The utility completes unsuccessfully with return code 8.

System Programmer Response: Use the ALTER STOGROUP command to change the storage group to contain only specific or nonspecific volume IDs and rerun the job.

DSNU420I *csect-name* **INCORRECT SHARE LEVEL SPECIFIED FOR TABLE SPACE** *database-name.tablespace-name* **DSNUM** *dsnum*

Explanation: When copying a table space that is not recoverable, the share level (SHRLEVEL) must be REFERENCE.

If the object is an entire table space, 'DSNUM *dsnum*' is not displayed.

Severity: 8 (error)

System Action: Utility processing is terminated.

User Response: Correct the SHRLEVEL to REFERENCE, and resubmit the COPY utility in a new utility job step. Refer to *Utility Guide and Reference* for a discussion of COPY utility constraints.

DSNU421I *csect-name* **START OF DFSMS MESSAGES**

Explanation: This message indicates the beginning of the DFSMS messages; DSNU422I indicates the end.

System Action: No action is required, but subsequent DFSMS messages might require action. See the DFSMS message manual.

DSNU422I *csect-name* **END OF DFSMS MESSAGES**

Explanation: This message indicates the end of the DFSMS messages; DSNU421I indicates the beginning.

System Action: No action is required, but preceding DFSMS messages might require action. See the DFSMS message manual.

DSNU423I *csect name* **CANNOT TAKE CONCURRENT COPY WITH SHRLEVEL CHANGE OPTION FOR TABLE SPACE WITH 32K PAGE SIZE**

Explanation: The DFSMS Concurrent Copy utility is serialized at the extent level. The 32KB page size might span more than one extent. This might cause the output data set to contain inconsistent data.

Severity: 8 (error)

System Action: The COPY utility completes unsuccessfully with return code 8.

System Programmer Response: You must take a concurrent copy with the SHRLEVEL REFERENCE option or a DB2 image copy if you prefer the SHRLEVEL CHANGE option.

DSNU424I *csect-name* **INCOMPATIBLE MAINTENANCE DETECTED. REFERENCE APAR NUMBER** *apar* **DO THE FOLLOWING:**

Explanation: This message indicates that there is a maintenance incompatibility detected across restart. This message is followed by the actions the user should take to resolve the incompatibility.

apar — The number of the APAR with closing text that describes the incompatibility.

System Action: Utility execution is abended.

User Response: Refer to the action text in the message.

System Programmer Response: Refer to the APAR closing text.

DSNU440I

Explanation: This message gives statistical information about the results of running the COPY utility. It applies to a table space, partition, or data set, and is based on the information in the space page map at the time the utility is executed. The output contains the following information:

DBNAME — The name of the database to which the table space belongs.

TSNAME — The table space specified in the utility statement.

DSNUM — The partition or data set number of the table space. The value is ALL if information is about the entire table space.

4KB or 32KB PAGES — The total number of 4KB or 32KB pages in the partition, data set, or entire table space. This value includes preformatted pages that contain all zeroes.

EMPTY PAGES — The total number of empty pages in the data set of the segmented table space, or entire segmented table space. Empty pages can result from deletes, or are pages that are not yet formatted. They are not copied by the utility.

CHANGED — The number of pages in the partition, data set, or table space that were changed since the last time an image copy was created. If an incremental image copy is taken, this value is the number of pages that are copied.

PERCENT CHANGED — The percent of changed pages in the table space, data set, or partition specified.

ICTYPE — The type of image copy recommended for the partition, data set, or table space specified. ICTYPE is based on the comparison between the percent of changed pages and the change limit values. ICTYPE values:

- I — If the percent of changed pages is greater or equal to the low CHANGELIMIT value and less than the high CHANGELIMIT value. An incremental image copy is recommended, or COPY takes one if the REPORTONLY option is not specified.
- F — If the percent of changed pages is equal to or greater than the high CHANGELIMIT value. A full image copy is recommended, and COPY takes one if the REPORTONLY option is not specified.
- NONE — If no pages were changed. An image copy is not recommended, and COPY does not take one.
- blank — For the partition or data set if DSNUM ALL is specified, or if CONCURRENT is specified and the percent of changed pages is less than the CHANGELIMIT value.

Severity: 0 (informational)

System Action: Utility processing continues

User Response: If the message indicates, “INFORMATION CANNOT BE DETERMINED” for a table space, partition, or data set, examine the utility output for the DSNU441I message which lists the page numbers of the broken pages. See message DSNU441I for further instructions on repairing pages.

DSNU441I csect-name BROKEN PAGE FOUND DBNAME = dbname TSNAME = tsname DSNUM = dsnum PAGE = page

Explanation: The COPY utility found a broken space map page.

dbname — The name of the database to which the table space belongs.

tsname — The table space containing the broken page.

dsnum — The partition or data set number of the table space containing the broken page.

page — The hexadecimal page number of the broken page.

Severity: 8 (error)

System Action: Utility execution continues.

User Response: The data sets identified are in an indeterminate state. Use RECOVER, RECOVER PAGE, or the REPAIR utility to correct the broken page. Refer to Section 3 of *Diagnosis Guide and Reference*.

DSNU443I csect-name type CHANGE LIMIT MET

Explanation: The COPY utility is indicating whether the percent of changed pages in the specified table space, partition, or data set meets the CHANGELIMIT values. *type* values:

NO — If no CHANGELIMIT met.

INCREMENTAL — If the percent of changed pages is greater than the low CHANGELIMIT value and less than the high CHANGELIMIT value.

FULL — If the percent of changed pages is greater than or equal to the the high CHANGELIMIT value.

Severity: The return codes are:

1 (informational) — If no CHANGELIMIT was met.

2 (informational) — If the percent of changed pages is greater than the low CHANGELIMIT and less than the high CHANGELIMIT value.

3 (informational) — If the percent of changed pages is greater than or equal to the high CHANGELIMIT value.

System Action: Utility processing continues.

User Response: If the REPORTONLY option is specified and the result of this job step is not used to conditionally execute other job steps, examine the utility messages for this table space, partition, or data set to determine if it has changed to such a degree that an image copy or other step should be performed.

DSNU445I csect-name ictype IMAGE COPY WILL BE TAKEN

Explanation: The COPY utility is indicating whether the percent of changed pages in the table space meets the change limit value, and whether an image copy will be taken. *ictype* values:

NO — If no CHANGELIMIT value met.

INCREMENTAL — If the percent of changed pages is greater than the low CHANGELIMIT value and less than the high CHANGELIMIT value.

FULL — If the percent of changed pages is greater than or equal to the high CHANGELIMIT value.

Severity: 0 (informational)

System Action: Utility processing continues. An image copy is taken if a change limit is met. If the low CHANGELIMIT value is met, then an incremental copy is taken. If the high CHANGELIMIT value is met, then a full image copy is taken.

DSNU446I csect-name - CHANGELIMIT REPORT INFORMATION UNAVAILABLE FOR REQUESTED TABLE SPACE, A FULL IMAGE COPY MUST BE TAKEN

Explanation: The changelimit dataset statistical information was requested, but is unavailable. A full image copy is required. Possible reasons are as follows:

- The request was for one of the DB2-maintained table spaces: DSNDB01.DBD01, DSNDB06.SYSCOPY, or DSNDB01.SYSUTILX.
- A LOAD or REORG utility was run on the table space or data set with no subsequent full image copy.
- No full image copy was found for the requested sites.
- Copy pending status was set for the requested table space or data set.
- The request was for an entire table space, but the most recent image copy for the table space is on the data set level.
- The previous image copy is a DFSMS concurrent copy.

The statistical information report will not be generated. If REPORTONLY was omitted, then a FULL image copy is taken.

Severity: 4 (warning)

System Action: The request for CHANGELIMIT without REPORTONLY is treated as a request to take a full image copy. The request for CHANGELIMIT with REPORTONLY will not generate the report.

User Response: If REPORTONLY is specified, then submit a job to take a full image copy.

DSNU454I *csect-name* **COPY MERGE COMPLETE. NUMBER OF COPIES =** *iiiii*, **NUMBER OF COPIES MERGED =** *cccccc*, **TOTAL NUMBER OF PAGES MERGED =** *ttttt*, **ELAPSED TIME =** *hh/mm/ss*

Explanation: This message marks the normal completion of the MERGECOPY utility. The variables are:

iiiii — The number of copies found.

cccccc — The number of image copies that were merged. The number merged can be less than the number found if a work data set was not specified using the MERGECOPY WORKDDN option.

ttttt — The total number of pages that were merged.

The merged incremental copies were consolidated either into a single new incremental image copy or into a new full image copy, depending upon the MERGECOPY NEWCOPY option.

The DB2 catalog table SYSIBM.SYSCOPY was updated to reflect the results.

This message may indicate that prior data set entries were deleted and, consequently, that backup data set resources were freed.

Severity: 0/4 (informational/warning)

System Action: Processing continues to the next utility statement in the utility job step, if any. If there are no more utility statements, the utility job step is normally terminated, and the resources are released to their prior availability state. The UTILID of the utility job step becomes available for reuse.

User Response: You can review the reported statistics to assess the effectiveness of performing incremental image copies. You can examine the SYSIBM.SYSCOPY catalog table to review the incremental and full image copies that are subject to DB2 recovery.

The full or incremental image copy data set identified by the DD statement specified in the COPYDDN option was recorded in SYSIBM.SYSCOPY. DB2 assumes that the image copy data set is now available for subsequent recovery. Ensure that the data set is available for recovery.

DSNU458I *csect-name* **NO IMAGE COPIES TO MERGE**

Explanation: This message is issued in response to a MERGECOPY request. The MERGECOPY utility was invoked to merge existing incremental image copies. However, in checking the DB2 catalog table SYSIBM.SYSCOPY, no incremental image copies were found.

Severity: 4 (warning)

A severity 4 condition is given to alert the invoker that processing did not proceed as defined. However, processing is proceeding; nothing was encountered that would invalidate further processing.

System Action: This message indicates the completion of the MERGECOPY utility. Processing continues to the next utility statement in the utility job step, if any. If there are no more utility statements, the utility job step is normally terminated, and the resources that were held become available for REFERENCE processing. The UTILID of the utility job step becomes available for reuse.

The requester may want to determine why the assumption that incremental copies existed was not true.

Operator Response: The target copy data set identified by the DD statement nominated by the MERGECOPY COPYDDN option was not required. It was not tracked in the DB2 catalog table SYSIBM.SYSCOPY. It need not be kept for subsequent re-call.

DSNU459I SYSCOPY P RECORD ENCOUNTERED, PIT RBA = xxxxxx

Explanation: The utility encountered a SYSCOPY P record which requires that the SYSCOPY record at the given RBA or LRSN be used. The utility properly traverses the SYSCOPY records following this SYSCOPY P record.

This message is issued by the following CSECT: DSNUYAS2

Severity: 0 (informational)

User Response: For further information on how the SYSCOPY records are traversed, see Section 4 (Volume 1) of *Administration Guide*.

DSNU460I *csect-name* **IMAGE COPIES INCONSISTENT. MERGECOPY REQUEST REJECTED**

Explanation: MERGECOPY was requested for an entire table space. However, the most recent image copy for the associated table space was on the data set level. In addition, if the associated table space was partitioned, this might indicate that any or all of its partitions were being reorganized or loaded without logging after the MERGECOPY starting point. The MERGECOPY starting point is the most recent full image copy for the entire table space.

Severity: 4 (warning)

A severity 4 condition is given to alert the user that processing did not proceed as defined. However, processing is proceeding; nothing was encountered that would invalidate further processing.

System Action: This message indicates the completion of the MERGECOPY utility. Processing continues to the next utility statement in the utility job step, if any. If there are no more utility statements, the utility job step is normally terminated, and the resources that were held become available for REFERENCE processing. The UTILID of the utility job step becomes available for reuse.

No output was produced and the SYSIBM.SYSCOPY catalog table remains unchanged.

User Response: A full image copy of the associated table space should be taken. However, if it is preferred that a recovery be done on the data set level, a MERGECOPY job should be submitted by specifying 'DSNUM(data set number)' for each data set for which MERGECOPY is required.

DSNU461I *csect-name* **PRIMARY FULL COPY DATA SET NOT FOUND, BACKUP WILL BE USED INSTEAD**

Explanation: The primary full image copy cannot be found. The backup full image copy will be located and used for the merge process.

Severity: 0 (informational)

User Response: If the MERGECOPY utility can use the backup full image copy, the utility continues to process. If no backup full image copy can be used, the utility terminates.

DSNU462I *csect-name* **MERGECOPY DISALLOWED FOR REQUESTED TABLE SPACE**

Explanation: MERGECOPY was requested for table space DSNDB01.DB01, DSNDB01.SYSUTIL, or DSNDB06.SYSCOPY. MERGECOPY is not permitted for one of the following reasons:

- Only full image copies are allowed on these DB2-maintained tables.
- There is no record of the full image copies in the SYSIBM.SYSCOPY catalog; the copy information is in the DB2 log.

Severity: 8 (error)

System Action: Further utility processing is terminated.

System Programmer Response: Refer to Section 4 (Volume 1) of *Administration Guide* for more information about MERGECOPY utility constraints.

DSNU463I *csect* **- THE** *xxxxxxx* **IMAGE COPY DATA SET** *data-set-name* **WITH DATE=***dddddd* **AND TIME=***ttttt***, IS PARTICIPATING IN MERGECOPY.**

Explanation: This informational message indicates the image copy that is used in the merge process. The variables have the following meanings:

xxxxxxxx	PRIMARY or BACKUP, indicating a primary or backup image copy
data-set-name	The image copy data set name
dddddd	The image copy date
ttttt	The image copy time

Severity: 0 (informational)

User Response: The utility continues to process normally.

DSNU464I **THIS IS A** *sitetype; outputtype* **WITH NEWCOPY NO IS NOT ALLOWED.**

Explanation: The 'NEWCOPY NO' option to create incremental image copies is not supported for the current site. This error can be caused by:

- Running the MERGECOPY utility at *sitetype* LOCALSITE, but selecting the RECOVERYDDN with the 'NEWCOPY NO' option.
- Running the MERGECOPY utility at *sitetype* RECOVERYSITE, but selecting the COPYDDN with the 'NEWCOPY NO' option.

Severity: 8 (error)

System Action: The command cannot be executed.

User Response: Correct the error and resubmit the job. Refer to *Utility Guide and Reference* for detailed information.

DSNU470I **DSNDB01.SYSUTILX CANNOT BE INCLUDED IN A LIST OF TABLE SPACES.**

Explanation: This message is issued by the running utility when DSNDB01.SYSUTILX is found in a table space list of a utility job statement.

This message is issued by the following CSECTs: DSNUQUIA, DSNUKINP

Severity: 8(error)

System Action: The utility job terminates.

User Response: Remove DSNDB01.SYSUTILX from the table space list or run the utility on DSNDB01.SYSUTILX separately.

DSNU471I *csect-name* **- COPY PENDING ON TABLESPACE** *databasename.tablespacename* **PROHIBITS PROCESSING**

Explanation: An attempt was made to execute a utility against a table space. Either the table space was in copy pending state or DSNDB06.SYSCOPY was in copy pending state.

Severity: 8 (error)

System Action: Utility processing is terminated.

User Response: Remove the table space from the copy pending state and resubmit the job.

Problem Determination: Refer to Section 4 (Volume 1) of *Administration Guide* for a discussion of the database recovery function.

DSNU472I *csect-name* **- TABLESPACE** *tablespace-name* **HAS WRITE ERROR RANGE OR IS IN DEFERRED RESTART.**

Explanation: The attempt to externalize table space 'tablespace-name' pages to the media has failed.

Severity: 4 (warning)

System Action: QUIESCE still continues but you cannot make an image copy of the table space. Processing continues for all indexes within the table space and continues to the next table space in the tablespace-list, if any.

User Response: Run DISPLAY DATABASE to determine what exception state, if any, would prevent image copy on the table space.

Problem Determination: Refer to Section 4 (Volume 1) of *Administration Guide* for a discussion of the database recovery function.

DSNU473I *csect-name* **- UNABLE TO EXTERNALIZE TABLESPACE** *tablespace-name* **PAGES**

Explanation: The attempt to externalize TABLESPACE 'tablespace-name' pages to the media has failed.

Severity: 4 (warning)

System Action: QUIESCE still continues but the table space cannot be volume-dumped.

Problem Determination: The problem may be an I/O error.

DSNU474I *csect-name* **- QUIESCE AT RBA** *rrrrrrrrrrr* **AND AT LRSN** *xxxxxxxxxx*

Explanation: This message displays the log RBA and LRSN at the time of the quiesce. This value is unique for all quiesced table spaces in the list and is recorded in the START_RBA column of the SYSCOPY catalog table entry for each quiesced table space in the list.

Severity: 0 (informational)

System Action: Processing continues.

DSNU475I *csect-name* **- QUIESCE UTILITY COMPLETE, ELAPSED TIME=***ttttt*

Explanation: The message marks the normal completion of the QUIESCE utility. The elapsed clock time that the QUIESCE utility uses is shown by 'ttttt'.

Severity: 0 (informational)

System Action: Processing continues to the next utility statement in the utility job step, if any. If there are no more utility statements, the utility job step is normally terminated, and the resources are released to their prior available state. The UTILID of the utility job step becomes available for reuse.

DSNU476I *csect-name* **- INDEX** *index-name* **HAS WRITE ERROR RANGE OR IS IN DEFERRED RESTART**

Explanation: The attempt to externalize index 'index-name' pages to the media failed.

This message is issued by the following CSECT: DSNUQUIA

Severity: 4 (warning)

System Action: QUIESCE processing continues.

User Response: Issue the DISPLAY DATABASE command to determine the exception state,

Problem Determination: Refer to Section 4 (Volume 1) of *Administration Guide* for a discussion of the database recovery function.

DSNU477I *csect-name* **- QUIESCE SUCCESSFUL FOR TABLESPACE=***tablespace-name*

Explanation: The QUIESCE for TABLESPACE 'tablespace-name' and all of its indexes were successful. This message will be repeated for every quiesced table space in list.

Severity: 0 (warning)

System Action: All data and indexes held in the main buffer for the table space have been written out to the media if no message DSNU473 or DSNU479 were issued earlier. A SYSCOPY record of ICTYPE 'Q' has been recorded in SYSCOPY catalog table for the table space. The START-RBA value in this SYSCOPY record is unique for all table spaces in list. This RBA value will be printed in the message DSNU474 following this message. Processing continues to the next table space in the table space list, if any.

DSNU478I *csect-name* **- INDEX** *index-name* **HAS PENDING STATE**

Explanation: Index 'index-name' has a PENDING state.This message is repeated for all PENDING stated indexes in a table space.

Severity: 8 (error)

System Action: QUIESCE stops processing but continues to check all table spaces and indexes for any additional table space or index that has a PENDING state. There is no update in SYSCOPY table for any table space in the list.

User Response: Issue the DISPLAY DATABASE command to look at the utility status byte in the DBA table for a specified PENDING state.

Problem Determination: Refer to Section 4 (Volume 1) of *Administration Guide* for a discussion of the database recovery function.

DSNU479I *csect-name* **- UNABLE TO EXTERNALIZE INDEX** *index-name* **PAGES**

Explanation: The attempt to externalize index 'index-name' pages to the media has failed.

Severity: 4 (warning)

System Action: QUIESCE still continues but the table space cannot be volume-dumped.

Problem Determination: The problem may be an I/O error.

DSNU480I *csect-name* **- UNABLE TO EXTERNALIZE TABLESPACE** *tablespace-name* **PARTITION** *partition-number* **PAGES**

Explanation: The attempt to externalize TABLESPACE 'tablespace-name' PARTITION 'partition-number' pages to the media failed.

Severity: 4 (warning)

System Action: QUIESCE still continues, but the table space cannot be volume-dumped.

Problem Determination: The problem might be an I/O error.

DSNU481I *csect-name* **- QUIESCE SUCCESSFUL FOR TABLESPACE=** *tablespace-name* **PARTITION=***partition-number*

Explanation: The QUIESCE for TABLESPACE 'tablespace-name' PARTITION 'partition-number' and all of its indexes of the specified partition was successful. This message is repeated for every quiesced table space in the list.

Severity: 0 (warning)

System Action: All data and indexes held in the main buffer for the partition were written to the media if message DSNU480 or DSNU482 was not issued earlier. A SYSCOPY record of ICTYPE 'Q' was recorded in the SYSCOPY catalog table for the table space. The START-RBA value in this SYSCOPY record is unique for all table spaces in the list. This RBA value is printed in message DSNU474 following this message. Processing continues to the next table space in the table space list, if any.

DSNU482I *csect-name* **- UNABLE TO EXTERNALIZE INDEX index-name PARTITION partition-number PAGES**

Explanation: The attempt to externalize index 'index-name' 'partition-number' pages to the media failed.

Severity: 4 (warning)

System Action: QUIESCE still continues, but the table space cannot be volume-dumped.

Problem Determination: The problem might be an I/O error.

DSNU483I *csect-name* **- TABLESPACE tablespace-name PARTITION partition-number HAS WRITE ERROR RANGE OR IS IN DEFERRED RESTART.**

Explanation: The attempt to externalize table space 'tablespace-name' partition 'partition-number' pages to the media failed.

Severity: 4 (warning)

System Action: QUIESCE still continues, but you cannot make an image copy of the table space or partition. Processing continues for the index partition and all nonpartitioned indexes within the table space, and then proceeds to the next table space in the table space list, if any.

User Response: Issue DISPLAY DATABASE to determine what exception state, if any, would prevent image copy on the table space or partition.

Problem Determination: Refer to Section 4 (Volume 1) of *Administration Guide* for a discussion of the database recovery function.

DSNU484I *csect-name* **- INDEX** *index-name* **PARTITION** *partition-number* **HAS WRITE ERROR RANGE OR IS IN DEFERRED RESTART**

Explanation: The attempt to externalize index 'index-name' pages partition 'partition-number' pages to the media failed.

Severity: 4 (warning)

System Action: QUIESCE processing continues.

User Response: Issue DISPLAY DATABASE to determine the exception state.

Problem Determination: Refer to Section 4 (Volume 1) of *Administration Guide* for a discussion of the database recovery function.

DSNU500I *csect-name* **RECOVERY COMPLETE, ELAPSED TIME =** *hh/mm/ss*

Explanation: This message is issued at the normal completion of the RECOVER utility. The time that elapsed since the beginning of the RECOVER utility to its completion was 'hh' hours, 'mm' minutes, and 'ss' seconds.

Severity: 0/4 (informational/warning)

System Action: This message indicates the normal completion of the RECOVER utility. Processing continues to the next utility statement in the utility job step, if any. If not, the utility job step is normally terminated, and the resources held become available for further processing. The UTILID of the utility job step becomes available for reuse.

User Response: The recovered data is now available for further processing.

Operator Response: The recovered resources are available for further processing.

DSNU501I *csect-name* **A PAGE HAS BEEN STOPPED DURING RECOVERY. SEE PREVIOUS DSNI012 MESSAGE**

Explanation: This message is issued at the normal completion of the RECOVER utility if the data manager subcomponent cannot apply all the log records for the page because of an inconsistent DB2 log.

Severity: 4 (warning)

System Action: This message indicates that the RECOVER utility completed normally except for the page (or pages) indicated by the previous DSNI012 messages. The data manager subcomponent marked the pages as broken. All other pages were recovered successfully. Log apply stopped at the point of the inconsistency in the DB2 log for that page.

User Response: For information about using the REPAIR utility to apply changes that should have been made by the log record in error, refer to *Utility Guide and Reference*. Then, if you were recovering to the current point in time, resubmit the RECOVER job, specifying 'PAGE(page-number) CONTINUE'. This causes DB2 to retrieve the page from DASD and apply log records starting after the faulty one.

DSNU502I *csect-name* **PAGE** *page number* **WAS NOT FOUND IN ANY IMAGE COPY DATA SET**

Explanation: The page specified for 'RECOVER page' was not found in any image copy data sets.

This is an informational message only. It does not indicate termination of processing.

Severity: 0 (informational)

System Action: The RECOVER utility continues processing. The assumption is that the page was inserted after the last image copy was made. The page is reset and recovered from the log, starting at the log RBA recorded in the SYSCOPY record for the last image copy data set.

DSNU503I *csect-name* **PAGE** *page-number* **IS WITHIN PHYSICAL ERROR RANGE**

Explanation: The page specified for 'RECOVER page' is within the physical error range of the table space partition or data set. 'RECOVER page' cannot be effective in this case, because the page would still be within the physical error range and therefore inaccessible to the user.

Severity: 8 (error)

System Action: The RECOVER utility terminates with return code 8. No changes are made to the table space.

User Response: Resubmit the RECOVER utility specifying 'error range'.

DSNU504I *csect-name* **MERGE STATISTICS, NUMBER OF COPIES =** *cc*, **NUMBER OF PAGES MERGED =** *nnnnnn*, **ELAPSED TIME =** *hh/mm/ss*

Explanation: This message is issued at the completion of the MERGE process for the MERGECOPY or RECOVER utility. The message indicates the number of image copies currently processed ('cc') and the total number of pages that were merged ('nnnnnn'). The same page can be obtained from more than one incremental image copy. MERGE is repeated for MERGECOPY if all of the input image copy data sets cannot be allocated and a temporary work data set has been specified.

For the RECOVER utility, MERGE is executed whether or not there are incremental image copies participating. In this case, the number of copies ('cc') is one.

The elapsed time of the MERGE is 'hh/mm/ss', hours, minutes, and seconds, respectively. Counters are valid up to four billion.

System Action: The MERGECOPY or RECOVER utility continues processing; this message is for information only.

User Response: The statistics are indicative of the processing required. For MERGECOPY, it could indicate that next time more input image copy data sets should be allocated. For example, if there was more than one MERGE pass then this message will be issued more than once. For both MERGECOPY and RECOVER, it could indicate that more frequent invocation of MERGECOPY is appropriate.

DSNU505I *csect-name* **PAGE** *page-number* **IS BEYOND END OF TABLESPACE**

Explanation: A page number was found to be beyond the end of the table space or beyond the end of the current data set.

Severity: 8 (error)

System Action: The RECOVER utility terminates with ABEND 04E reason code 00E40100. If RECOVER PAGE was specified, then the utility terminates with return code 8 and no changes are made to the table space.

User Response: Check that the image copy data set(s) in use during the RECOVER contain valid pages. If running RECOVER with the PAGE option, then resubmit the utility with the correct page specified.

DSNU506I *csect-name* **ALLOCATION OR OPEN FAILED FOR IMAGE COPY DATA SET. DSNAME=** *data-set-name***.**

Explanation: The RECOVER utility attempted to use the indicated full or incremental image copy data set. The attempt was unsuccessful, because an allocation or open failure occurred. This message is informational only. It does not indicate termination of processing.

Severity: 0 (informational)

System Action: The RECOVER utility continues processing, searching for a prior image copy data set.

DSNU507I *csect-name* **NO USABLE BACKUP FOR RECOVER**

Explanation: The RECOVER utility determined that a backup was required but not found. The utility encountered one of the following situations:

- An error occurred while processing the oldest available full image copy data set. This might be the only full image copy data set available.
- While scanning backward through the SYSCOPY table, a LOAD LOG(NO) or REORG log(NO) record type was found.

Any of the following is acceptable as a backup:

- A full image copy.
- A LOAD LOG(YES).
- A REORG LOG(YES).
- For RECOVER PAGE, an incremental image copy that contains the specified page.
- A 'no record found' return from the first request for a SYSCOPY record indicates that the object was entirely populated by 'inserts'. The object will be recovered from the DB2 log if its entire history lies within the scope of the log, that is, archive log data sets containing updates for the object have not been deleted.

Severity: 8 (error)

System Action: The RECOVER utility terminates.

User Response: Re-create the object that was to be recovered.

DSNU508I *csect-name* **IN FALL BACK PROCESSING TO PRIOR FULL IMAGE COPY**

Explanation: One of the following occurred:

- The RECOVER utility could not allocate the most recent full image copy data set. The prior full image copy is used.

  Accompanying messages indicate why the image copy data set could not be allocated.
- PAGE or ERROR RANGE was specified and the recoverable point identified an image copy that was created by the DFSMSdss DUMP command with the CONCURRENT option. Such an image copy cannot be used to process PAGE or ERROR RANGE. A prior recoverable point is located.

System Action: The RECOVER utility continues processing, searching for the prior image copy.

DSNU509I *csect-name* **- NO ERROR RANGE TO RECOVER**

Explanation: The RECOVER utility was invoked to recover the existing ERROR RANGE. However, no ERROR RANGE was found.

Severity: 4 (warning)

System Action: This message indicates the completion of the RECOVER ERROR RANGE utility. Processing continues to the next utility statement in the utility job step. If there are no more utility statements, the utility job step is normally terminated.

DSNU510I *csect-name* **NO GOOD FULL IMAGE COPY DATA SET FOR RECOVERY**

Explanation: It is not possible to locate a good image copy data set from which to recover. Either no back level image copy exists, or an I/O error occurred while reading the back level image copies. The return code that accompanies this message is 0 or 8 under the following conditions:

- The return code is 0 if a full image copy is not found in the SYSCOPY table during RECOVER initialization or during fall back processing. However, a LOG(YES) event was detected and recover continues from the log.
- The return code is 8 if the RECOVER utility is in fall back mode and no base recoverable point (a full image copy or LOG(YES) event) was found in the SYSCOPY table. Further utility processing is terminated.

Severity: 0 (informational) or 8 (error)

System Action: If the return code is 0, processing continues. If the return code is 8, further utility processing is terminated.

User Response: Notify the system programmer if the return code is 8. If the return code is 0, no action is required.

Operator Response: If the return code is 8, the table space in question should be started for utility-only processing (if it is not in this state already) until corrective action is taken. If the return code is 0, no action is required.

System Programmer Response: If the return code is 8, the data must be repaired so that an image copy can be taken. An internal error might be involved, and system support might be required. If the return code is 0, no action is required. Refer to Section 4 (Volume 1) of *Administration Guide* for a discussion of database recovery procedures.

DSNU511I *csect-name* **RECOVERY INFORMATION INDICATES THAT TABLE SPACE** *database-name.tablespace-name* **DSNUM** *dsnum* **IS NOT IN A RECOVERABLE STATE**

Explanation: The requested recovery of a table space would result in recovery entirely from the log. Because the table space is also in copy pending status, recovery might fail in log apply in these situations:

- A previous MODIFY utility job deleted the last recoverable point indicated in the SYSCOPY catalog table.
- A previous MODIFY utility job deleted all SYSCOPY entries.

In either case, the MODIFY utility leaves the table space in copy pending status and the RECOVER utility is unable to determine the reliability of recovery from the log.

Severity: 8 (error)

System Action: The RECOVER utility terminates with return code 8.

User Response: Determine the recoverability status of the table space. SYSCOPY information is probably not useful as no recoverable point (FULL IMAGE COPY, REORG LOG(YES) or LOAD REPLACE LOG(YES)) was found by the RECOVER utility. User information might be the only indication about recoverability.

To allow RECOVER to execute, copy pending status must be turned off. It is safest to make a full image copy before attempting the recovery. Then run the RECOVER utility with the TORBA or TOLOGPOINT option.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

DSNU512I *csect-name* **DATA SET LEVEL RECOVERY IS REQUIRED FOR TABLE SPACE** *tablespace-name*

Explanation: Recovery was requested for an entire table space. However, there is an image copy made for a specific data set associated with the object. Hence, the table space must be recovered by data set.

Severity: 8 (error)

System Action: RECOVER completes unsuccessfully with a return code of 8.

User Response: Terminate the current RECOVER job. Then, submit a RECOVER job by specifying 'DSNUM(data set number)' for each data set for which recovery is required. Refer to *Utility Guide and Reference* for a discussion of RECOVERY utility constraints.

DSNU513I *csect-name* **RECOVER UTILITY LOG APPLY RANGE IS RBA|LRSN** *xxx* **TO RBA|LRSN** *yyy*

Explanation: The RECOVER utility issues this message one or more times to display the entire log range before applying updates.

Severity: 0 (informational)

System Action: Processing continues.

User Response: Refer to Section 4 (Volume 1) of *Administration Guide* for a discussion of database recovery procedures.

DSNU514I *csect-name* **RECOVERY DATA DOES NOT PERMIT TABLE SPACE RECOVERY OF TABLESPACE** *tablespace-name* **DSNUM** *dsnum*

Explanation: Recovery was requested for an entire table space. However, the most recent activity on the entire table space was a REORG LOG (NO) or a LOAD LOG (NO). If full image copies have been taken at the data set level since then, recover the table space on the data set level.

Severity: 8 (error)

System Action: RECOVER completes unsuccessfully with a return code of 8.

User Response: Submit a recover job by specifying DSNUM (data set number) for each data set requiring recovery. Refer to *Utility Guide and Reference* for a discussion of RECOVERY utility constraints.

DSNU515I *csect-name* **THE IMAGE COPY DATA SET** *dsn* **WITH DATE=***icdate* **AND TIME=***ictime* **IS PARTICIPATING IN RECOVERY**

Explanation: This message is issued by the RECOVER utility for each participating image copy data set before it opens the data set and begins the rebuild process. If an error occurs while processing, the utility searches for a new recoverable point.

This message is routed to SYSOUT.

Severity: 0 (informational)

System Action: RECOVER processing continues.

User Response: Refer to *Utility Guide and Reference* for a discussion of RECOVERY utility constraints.

DSNU516I *csect-name* **NO FULL IMAGE COPY AFTER LOAD LOG(NO) OF TABLESPACE** *tablespace-name* **DSNUM** *dsnum*

Explanation: RECOVERY was requested for a data set of a table space. However, a full image copy was not taken after a table space LOAD or REORG without logging. The table space is in an unrecoverable state.

Severity: 8 (error)

System Action: RECOVER completes unsuccessfully with a return code of 8.

User Response: The associated data set is in an unrecoverable state. Notify the system programmer for corrective action.

System Programmer Response: The data must be repaired so that a full image copy can be taken. Refer to Section 4 (Volume 1) of *Administration Guide* for a discussion of database recovery procedures.

DSNU517I *csect-name* **- SYSCOPY RECORD DELETED BY MODIFY UTILITY. DSN=***dsn***, VOL=SER=***nnn***, FILESEQNO=***fff***

Explanation: This message is repeated for each volume of a multivolume data set that is deleted.

The variables have the following meanings:

dsn The name of the image copy data set whose record was removed from the SYSCOPY table by the MODIFY utility.
nnn The serial number of the volume containing the data set.
fff The tape file sequence number. It will be zero for DASD data sets.

Severity: 0 (informational)

System Action: The MODIFY utility continues its termination processing.

System Programmer Response: Because DB2 no longer has any knowledge of the image copy data set, you may delete it and reuse the space. If the last full image copy was deleted, ensure that another one is taken as soon as possible.

DSNU518I *csect-name* **PAGE** *page-number* **IS A BROKEN PAGE**

Explanation: A broken page, 'page number', was detected during execution of an image copy utility. The copy step is terminated and the broken page is not copied to the output data set.

Severity: 8 (error)

System Action: COPY utility completes successfully with a return code of 8.

User Response: The associated data set is in an unrecoverable state. Notify the system programmer for corrective action.

System Programmer Response: Use either the RECOVER, RECOVER PAGE, or REPAIR utility to correct the broken page. Refer to Section 4 (Volume 1) of *Administration Guide*. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU519I *csect-name* **TOCOPY DATA SET NOT FOUND**

Explanation: The data set specified with the keywords TOCOPY, TOVOLUME, or TOSEQNO cannot be found in the SYSCOPY table for the object to be recovered.

This may be caused by a mismatch in granularities. If the RECOVER specifies a particular DSNUM, the data set specified with the TOCOPY keyword may be for an image copy of this DSNUM or of the entire table space. However, if the RECOVER is for the entire table space, the specified data set must be for an image copy of the entire table space.

This may also be caused if TOVOLUME is specified for a cataloged data set.

RECOVER TOCOPY can issue DSNU519I even if the data set information was correct but the data set was not for this site. For example, if DB2 is specified as LOCASITE, the user makes image copies for LOCALSITE and RECOVERSITE. Then, when entering the TOCOPY data set information, the user enters a RECOVERYSITE data set. The result is that RECOVER will issue DSNU519I and quit with a return code of 8.

Severity: 8 (error)

System Action: RECOVER processing is terminated.

User Response: Correct the input and resubmit the RECOVER job.

DSNU520I *csect-name* **RECOVER TO A PRIOR POINT IN TIME MIGHT LEAVE TABLE SPACE** *table-space-name* **INCONSISTENT**

Explanation: RECOVER DSNUM to a previous point in time (for example, using the TOLOGPOINT option) was specified for a nonpartitioned table space. You might have recovered a data set that has different compression characteristics than the replaced data set. For example, the data set to which you recovered might have been compressed with a different dictionary.

Severity: 4 (warning)

System Action: Processing continues.

User Response: The table space might be in an inconsistent state. If the dictionary was not built with the data set that was just recovered, the results are unpredictable and might jeopardize all the data in the entire table space.

Recover all of the data sets in the table space to the same point in time. Do not ignore this message unless all data sets in this table space were recovered to the same point in time. Otherwise, the state of this nonpartitioned table space is inconsistent and unpredictable.

DSNU521I *csect-name* **- RECOVER UTILITY FAILED. UNABLE TO READ REQUIRED LOG RECORDS.**

Explanation: Recovery was requested for a table space or a data set of a table space. An attempt was made to apply changes from the DB2 log, but the necessary log records could not be read from the log data set. This message is accompanied by message DSNI007I.

Severity: 8 (error)

System Action: The RECOVER utility completes unsuccessfully with return code 8.

User Response: Consult the system programmer for corrective action.

Operator Response: Provide the console listing of the DSNI007I message for the system programmer.

System Programmer Response: Run the print log map (DSNJU004) utility. Find the data set that contains the requested RBA or LRSN from the output of the utility.

Problem Determination: If no listed data set contains the required RBA or LRSN, one of the following might have occurred:

- The data set was deleted from the bootstrap data set (BSDS) by the change log inventory (DSNJU003) utility. Rerun the utility to insert the missing data set name. DB2 must be stopped to run this utility.
- The BSDS was damaged. The BSDS can be restored using the dump and the most recent archive log data set. Run the change log inventory (DSNJU003) tility to supply changes that occurred during and after the last offload operation. Changes can be determined from the operator's console listing.

If a listed log data set contains the required RBA or LRSN, this message is preceded by one or more DSNJxxx error messages. See the explanation of those messages for the appropriate action.

DSNU523I *csect-name* **- RECOVER UTILITY FAILED. NO FULL IMAGE COPY WAS AVAILABLE AND THE FIRST LOG RECORD WAS NOT THE REQUIRED INITIALIZATION RECORD.**

Explanation: RECOVER was requested for a table space or a data set of a table space and no image copy was available. Recovery was attempted from the log and failed due to missing data set initialization records. Specifically, the log records which format space map and header pages were missing.

Severity: 8 (error)

System Action: RECOVER completes unsuccessfully with a return code of 8.

User Response: The associated data set has been reset to an empty state. Notify system programmer for corrective action.

System Programmer Response: Use the problem determination information given below to determine if a user error has occurred. If possible, correct the error and resubmit the RECOVER utility job for this table space or data set. Refer to Section 4 (Volume 1) of *Administration Guide* for a discussion of possible recovery procedures.

Problem Determination: This message was preceded by message DSNU513I which identifies the log RBA range being applied. Run the print log map (DSNJU004) utility for the table space in question over the indicated log RBA range.

This will show what log records are present and may assist in determining if a log data set has been damaged or deleted, or if the BSDS has been damaged. If damage to table space DSNDB01.SYSLGRNX is suspected, recover it and attempt the earlier failing recovery again.

DSNU524I *csect-name* **INVALID DATA SET OR PARTITION NUMBER num SPECIFIED FOR TABLESPACE** *dbname.tspname*

Explanation: An invalid number was specified for the data set or partition of the database and table space named in the utility statement.

Severity: 8 (error)

System Action: Further utility processing terminates.

User Response: Correct the data set/partition number, or verify that the database/table space name is specified correctly. Then resubmit the utility statement in a new utility job step. Refer to *Utility Guide and Reference* for a description of the particular utility options.

DSNU525I *csect-name* **RECOVERY DATA DOES NOT PERMIT TABLESPACE RECOVERY OF TABLESPACE** *tablespace-name* **DSNUM** *dsnum*

Explanation: Recovery was requested for an entire table space. However, the object is not recoverable at the table space level for one of the following reasons:

- The table space was recovered to a point in time (for example, TOLOGPOINT was specified), which required fall back processing. However, no subsequent image copy was taken to establish a base for recovery.
- A partition of the table space was recovered to a point in time after the last full image copy of the table space was taken.

Severity: 8 (error)

System Action: The RECOVER utility completes unsuccessfully with return code 8.

User Response: Submit the RECOVER job with DSNUM specified for each data set for which recovery is required. Refer to *Utility Guide and Reference* for information about the RECOVER utility.

DSNU526I *csect-name* **- NO FULL IMAGE COPY AFTER PARTIAL RECOVERY OF TABLESPACE** *tablespace-name* **DSNUM** *dsnum*

Explanation: Recovery was requested for a data set of a table space. However, an earlier point-in-time recovery (for example, using the TOLOGPOINT option) was specified and no subsequent image copy was taken to establish a base for recovery. The table space is in a nonrecoverable state.

Severity: 8 (error)

System Action: The RECOVER utility completes unsuccessfully with return code 8.

User Response: The associated data set is in a nonrecoverable state. Consult the system programmer for corrective action.

System Programmer Response: You can use the RECOVER utility with the TOCOPY, TORBA, or TOLOGPOINT option to force recovery to an earlier point in time. You can use the DSN1COPY utility to restore the data set to an earlier image copy. Refer to Section 4 (Volume 1) of *Administration Guide* for a discussion of database recovery procedures.

DSNU527I *csect-name* **DB2 OBJECT RECOVERED TO AN INDETERMINATE POINT**

Explanation: The image copy data set specified with the TOCOPY keyword of the RECOVER utility was one of the following:

- An image copy dataset made with the SHRLEVEL CHANGE option. In this mode, changes might have been made to the object while image copy was in progress. If a change was made to a page before image copy processed the page, the update will be in the copy data set. If a change was made to a page after image copy processed it, the change will not appear in the copy data set. The data set may contain partial updates from some transactions.
- An image copy dataset made during the LOAD REPLACE utility. An image copy produced during LOAD REPLACE will not contain updates made to the table space to correct unique index violations during the INDEXVAL phase or referential constraint violations during the ENFORCE phase. Therefore, it is not recommended as a recovery point.

When this message is issued, indexes on the table space are placed in recover pending status and dependent table spaces, if any, are placed in check pending status. The indexes placed in recover pending are identified by message DSNU557I, and the dependent table spaces placed in check pending are identified by message DSNU563I.

Severity: 4 (warning)

System Action: The utility terminates normally.

User Response: Based on the explanation above, determine if the recovery is satisfactory. Recover the indexes identified by message DSN557I in the job output. Run CHECK DATA on the table spaces identified by message DSN563I to correct any referential constraint violations.

Refer to Section 4 (Volume 1) of *Administration Guide* for a discussion of database recovery procedures.

DSNU528I NO FULL IMAGE COPY WAS AVAILABLE AND THERE ARE NO UPDATES TO APPLY FROM THE DB2 LOG FOR TABLESPACE *tablespace-name* **DSNUM** *dsnum*

Explanation: Recovery was requested for a table space or a data set of a table space and no image copy was available. If *dsnum* is 0, then recovery was requested at the table space level. Recovery was attempted from the log, but no log records were applied because no SYSLGRNX records corresponding to the recovery scope were found.

This message is issued by the following CSECT: DSNUCALA

Severity: 8 (error)

System Action: The associated data set was reset to an empty state and the data set was placed in RECOVER PENDING status. If RECOVER was processing a TABLESPACE list, only the associated data set was reset to an empty state but all data sets in the list were placed in RECOVER PENDING status.

User Response: If the TORBA or TOLOGPOINT option was specified, use the information in the problem determination section to verify that it is a valid RBA or LRSN. Correct the error and resubmit the RECOVER utility for the table space.

System Programmer Response: Use the information in the problem determination section to determine if a user error occurred. Correct the error and resubmit the RECOVER utility for the table space. Also refer to Section 4 (Volume 1) of *Administration Guide* for a discussion of possible recovery procedures.

Problem Determination: Execute the REPORT RECOVERY utility for the table space at the appropriate table space or data set level (that is, DSNUM). The output shows the recovery points (SYSCOPY records) and the update log ranges (SYSLGRNX records) that exist for the table space.

DSNU529I *csect-name* **INVALID SPECIFICATION OF TORBA =** *xxx*

Explanation: 'xxx' is the log RBA specified for the RECOVER utility TORBA keyword. The RBA is not within the scope of the log.

Severity: 8 (error)

System Action: The RECOVER utility terminates with a return code of 8 without making any changes to the object to be recovered. If the table space is storage group defined, it has not been reset.

User Response: Correct the input and resubmit the job. Refer to Section 4 (Volume 1) of *Administration Guide* for a discussion of database recovery procedures.

Problem Determination: The listing produced by the print log map (DSNJU004) utility will show the current extent of the DB2 log.

DSNU530I *csect-name* **DATA SET ALREADY USED FOR PREVIOUS IMAGE COPY**

Explanation: One or more of the recovery keywords TOCOPY, TOVOLUME or TOSEQNO were specified and more than one data set was found which satisfied these criteria.

Severity: 8 (error)

System Action: RECOVER completes unsuccessfully with a return code of 8.

User Response: Two or more DSNU531I messages will follow this message providing more information about each duplicate data set. Select the correct data set from the DSNU531I messages and rerun the RECOVER job specifying a unique combination of TOCOPY, TOVOLUME and TOSEQNO.

DSNU531I *csect-name - dsn* **EXISTS WITH - VOLUME=***vol***, FILE SEQUENCE NUMBER=***fseq***, RBA=***rba***, DATE=***date***, TIME=***time*

Explanation: This message is issued two or more times to document the duplicate data sets detected by the RECOVER utility during TOCOPY processing. See the explanation for message DSNU530I.

Severity: 8 (error)

System Action: RECOVER completes unsuccessfully with a return code of 8.

User Response: Use the information provided in all of the DSNU531I messages to determine the correct data set for this recovery. 'rba', 'date' and 'time' are provided for each data set to assist in the selection. The DSNU531I message for the data set you select will provide the correct 'vol' and 'fseq' values to be specified on the TOVOLUME and TOSEQNO keywords respectively. Rerun the RECOVER job specifying TOCOPY and TOVOLUME(vol). Include the TOSEQNO(fseq) keyword if it is necessary to distinguish an unique data set.

DSNU532I *csect-name* **- RECOVER DATABASE** *database* **TABLESPACE** *tablespace* **DSNUM** *dsnum* **START**

Explanation: This message is used to separate the RECOVER messages for different table spaces when there is more than one table space to be recovered by a single RECOVER job.

This message is routed to SYSPRINT.

Severity: 0 (informational)

System Action: RECOVER processing continues.

DSNU533I *csect-name* **- DUPLICATE TABLESPACE NAMES EXIST IN THE TABLESPACE-LIST**

Explanation: The RECOVER or COPY utility found a duplicate table space or partition of a table space in the table space list.

Severity: 8 (error)

System Action: The utility job terminates.

User Response: Correct the table space list and resubmit the job.

DSNU534I *csect-name* **TARGET RECOVERY POINT IS NOT A QUIESCE POINT**

Explanation: The RECOVER utility attempted to recover to a point in time (for example, using the TOLOGPOINT option) and cannot recover the table space set for one of the following reasons:

- The table space set is not being recovered to a quiesce point.
- Not all table spaces in the table space set have the same quiesce point.
- A table space in the set contains a dependent table with a referential constraint that was defined after the specified quiesce point.

Severity: 4 (warning)

User Response: Recover the table space set to a quiesce point. If the table space set is consistent, use the REPAIR NOCHECKPEND utility or the -START DATABASE FORCE command to reset the check pending status.

DSNU535I *csect-name* **- FOLLOWING TABLESPACES RECOVER TO A QUIESCE POINT**

Explanation: This message will be issued by the RECOVER utility when it determines that a table space set (that is, referentially related table spaces) is being recovered to a quiesce point. All table spaces in the table space set will be listed after this message heading.

Severity: 0 (informational)

System Action: No action is taken.

DSNU536I *csect-name* **- RELATIONSHIP** *r* **ON TABLE** *t* **CREATED AFTER QUIESCE POINT**

Explanation: The relationship named 'r' was created on the dependent table, 't', after the quiesce point used for recovering to a point in time. The table space in which 't' resides is set to check pending beginning with the first record of 't'.

Severity: 4 (warning)

System Action: No action is taken.

User Response: Refer to Section 2 (Volume 1) of *Administration Guide* for the failure analysis procedure for the check pending state.

DSNU537I *csect-name* **- DIRECTORY OR CATALOG TABLESPACE IS NOT ALLOWED IN THE TABLESPACE-LIST**

Explanation: The RECOVER or COPY utility found a directory or catalog table space in the table space list. You cannot recover a catalog or directory table space as part of a list of table spaces. Catalog and directory objects must be recovered in a particular order because the recovery of some objects depends on information derived from others.

Severity: 8 (error)

System Action: The utility job terminates.

User Response: Remove the directory and catalog table space names from the table space list and recover them individually in the order documented in Section 4 (Volume 1) of *Administration Guide*. Then submit the RECOVER or COPY job again with the rest of the table spaces in the list.

DSNU538I RECOVER ERROR RANGE OF DSN=dataset name ON VOLUME=volser FROM CCHH=X'cccchhhh' TO CCHH=X'cccchhhh' CONTAINS PHYSICAL ERROR

Explanation: This message indicates that the error range involved in the error range recover 'dataset name' is the data set which has the physical error. The data set resides on DASD volume 'volser' and the error range is from track address X'cccchhhh' to track address X'cccchhhh'.

If the error range of a data set covers more than one extent or more than one volume, then there will be one message per extent per volume.

This message is issued by the following CSECT: DSNUCRV0

Severity: 8 (error)

System Action: Physical I/O error is detected during error range recover, processing terminated with return code 8.

System Programmer Response: A DSNU086 message is issued to the console by DB2 while running error range recovery; this indicates that the physical error is not recovered. User must run ICKDSF or equivalent service utility to recover the physical error then re-run the error range recover again.

Problem Determination: Use the information provided by this message to run ICKDSF and then run error range recover again.

DSNU539I *csect-name* **- RECOVER PROCEEDS AT THE site-type SYSTEM**

Explanation: This is an informative message to tell users that the RECOVER process is occurring at the RECOVERY SITE system and/or the TRACKER SITE system. The utility still continues.

Severity: 0 (informational)

DSNU540I *csect-name* **DYNAMIC ALLOCATION FOR DATA SET** *data-set-name* **WILL WAIT FOR UNIT TO BECOME AVAILABLE**

Explanation: A request to dynamically allocate a data set for a BATCH UTILITY job was refused because a unit was not available. The request was repeated after setting an indicator in the dynamic allocation parameter list to cause the job to wait until a unit becomes available.

Severity: 0 (informational)

System Action: Processing continues after a unit becomes available and is allocated.

DSNU541I UNABLE TO ALLOCATE THE PRIMARY COPY DATASET, BACKUP COPY IS USED

Explanation: If RECOVER or MERGECOPY has an allocation error in the primary copied data set, it will locate the backup copied data set in that same system (local or recovery). The utility continues.

This message is issued by the following CSECT: DSNUBCR3

Severity: 0 (informational)

DSNU542I *csect-name* **- UNABLE TO OPEN THE PRIMARY COPY DATASET** *dataset-name***, BACKUP COPY IS USED**

Explanation: If RECOVER or MERGECOPY has an open error in the primary copied data set, it will deallocate that copied data set and try to allocate the backup copied data set in that same system (local or recovery). The utility continues.

Severity: 0 (informational)

DSNU543I *csect-name* **- I/O ERROR READING PAGE** *page_number* **IN THE PRIMARY COPY DATASET** *dataset-name***, BACKUP COPY IS USED**

Explanation: If RECOVER or MERGECOPY has an I/O error when reading a page, with the specified page number, from the primary copied data set, it will locate the backup copied data set in that same system (local or recovery) and continue reading pages starting from the page number in error.

Severity: 0 (informational)

DSNU544I *csect-name* **- UNABLE TO OPEN THE COPY DATASET** *dataset-name***, RC=** *reason-code*

Explanation: RECOVER was unable to open the data set 'dataset-name'. because of 'reason-code' from the open abend. The 'reason-code' is taken from field SDWAABCC in the SDWA.

Severity: 0 (informational)

System Action: The RECOVER utility continues processing, searching for the prior image copy or applying log records.

DSNU545I *csect-name* **- I/O ERROR READING PAGE** *page-number* **IN THE COPY DATASET** *dataset-name*

Explanation: An I/O error was detected while reading page 'page-number' from copy dataset 'dataset-name'. The message is issued when 1) The data set is the primary copy data set and there is no backup data set. 2) Open error is from the backup copy data set.

Severity: 0 (informational)

System Action: The RECOVER utility continues processing, searching for the prior image copy or applying log records.

DSNU546I LOGONLY RECOVER CANNOT PROCEED BETWEEN BEGINNING RBA '*xxxxxxxxxxx***' AND ENDING RBA '***yyyyyyyyyyy***' ON DSNUM** *dsnum* **BECAUSE A NON-RECOVERABLE EVENT HAS BEEN ENCOUNTERED FROM SYSIBM.SYSCOPY WHICH HAS DBNAME=***database-name* **TSNAME=***tablespace-name* **DSNUM=***dsnum* **ICTYPE=***x* **START_RBA=X'zzzzzzzzzzzz'.**

Explanation: A nonrecoverable event (for example, LOAD LOG(NO), REORG LOG(NO)) occurred within the log range between the beginning log RBA or LRSN and ending log RBA or LRSN for the RECOVER LOGONLY utility.

This message is issued by the following CSECT: DSNUCASA

Severity: 8 (error)

System Action: The RECOVER utility completes unsuccessfully with return code 8.

System Programmer Response: Find a proper prior point in time as a target recovery point and rerun the RECOVER utility job with the TORBA, TOCOPY, or TOLOGPOINT option. For a discussion of database recovery procedures, refer to Section 4 (Volume 1) of *Administration Guide* .

DSNU547I LOGONLY RECOVER CANNOT PROCEED BECAUSE THE STARTING RBA=X'xxxxxxxxxxxx' IN THE HEADER PAGE PGNO=X'xxxxxx' FOR TABLESPACE=*database-name.tablespace-name* **IS INVALID.**

Explanation: One of the following occurred:

- The data set was restored from an earlier release backup that does not have a starting RBA or LRSN in the header page.
- The TORBA or TOLOGPOINT option is specified to an RBA or LRSN that is lower than the starting RBA or LRSN in the header page.

This message is issued by the following CSECT: DSNUCAIN

Severity: 8 (error)

System Action: The RECOVER utility job terminates with return code 8.

System Programmer Response: Use the RECOVER utility without the LOGONLY option, if possible, or change the RBA or LRSN of the TORBA or TOLOGPOINT option to a valid RBA or LRSN value.

DSNU548I DBID=X'xxxx' and PSID=X'xxxx' IN THE HEADER PAGE OF TABLESPACE=database.tablespace DSNUM=n DO NOT MATCH THE DB2 CATALOG.

Explanation: The DBID and PSID in the header page do not match the DB2 catalog. It is likely that the wrong data sets were restored. For simple or segmented table space, n is always 0. For a partitioned table space, n is the partition number.

This message is issued by the following CSECT: DSNUCAIN

Severity: 8 (error)

System Action: The RECOVER utility job terminates with return code 8.

System Programmer Response: Find the correct data sets and rerun the job.

DSNU549I RECOVER TABLESPACE=*database-name.tablespace-name* **DSNUM=***dsnum* **USES ONLY DB2 LOGS STARTING FROM LOGPOINT=X'xxxxxxxxxxxx'.**

Explanation: The RECOVER utility issues one message for each DB2 object (table space or partition) that uses only DB2 logs to recover. In a non data-sharing environment, the LOGPOINT value is specified by an RBA; in a data sharing environment it is specified by an LRSN.

This message is issued by the following CSECT: DSNUCALA

Severity: 0 (informational)

System Action: RECOVER utility processing continues.

DSNU550I *csect-name* **INDEX NAME=** *index-name* **IS EMPTY**

Explanation: While attempting to RECOVER the indicated index, it was determined that the table upon which the index is based is empty.

Severity: 4 (warning)

System Action: Utility processing proceeds to the next utility request, if any.

DSNU551I *csect-name* **INDEX NAME=** *index-name* **PART=***part-num* **IS EMPTY**

Explanation: While attempting to RECOVER the indicated index partition, it was determined that the partition upon which the specified index partition is based is empty.

Severity: 4 (warning)

System Action: Utility processing proceeds to the next utility request, if any.

DSNU552I *csect-name* **RECOVER CANNOT PROCEED BECAUSE THE** *starting/ending* **LOGPOINT** *xxx* **IS NOT WITHIN THE RECOVERY RANGE OF** *xxx* **AND** *xxx* **FOR TABLESPACE** *database_name.table_space_name* **DSNUM=***dsnum*

Explanation: The starting or ending LOGPOINT found for this recovery job is outside the available recovery information. A LOGPOINT value is an RBA or LRSN. RECOVER TABLESPACE cannot process this request on table space *table_space_name* in database *database_name*. DSNUM is not shown if the entire table space is being recovered.

Severity: 8

System Action: The RECOVER TABLESPACE utility terminates.

User Response: Use the recovery information that is available from the REPORT utility. Execute the RECOVER utility within the available recovery range.

DSNU553I *csect-name* **INVALID PARTITION NUMBER=***nnnn* **SPECIFIED FOR INDEX NAME=***iiii*

Explanation: An invalid partition number nnnn was specified for index iiii in the utility statement.

Severity: 8 (error)

System Action: Further utility processing is terminated.

User Response: Correct the partition number or verify that the index name is specified correctly, and resubmit the utility statement in a new utility job step. Refer to *Utility Guide and Reference* for a description of the particular utility options.

DSNU554I *csect-name* **- DUPLICATE INDEX NAMES EXIST IN THE SPECIFIED INDEX NAME LIST**

Explanation: When attempting to CHECK or RECOVER the indicated indexes, it was determined that duplicate index names were specified in the index name list.

Severity: 8 (error)

System Action: The utility job terminated.

User Response: Correct the index-name(s) in the index name list and resubmit the job.

DSNU555I *csect-name* **UNLOAD PHASE STATISTICS, NUMBER OF RECORDS=***xxxx*

Explanation: This message is issued at the normal completion of the UNLOAD phase of the RECOVER INDEX utility. It gives the number of records that were unloaded (xxxx) for the specified table space. Counters are valid up to four billion.

Severity: 0 (informational)

DSNU557I *csect-name* **- INDEXSPACE=** *indexspace-name* **IS IN RECOVERY PENDING STATE**

Explanation: If the RECOVER TABLESPACE utility issued this message, the corresponding table space to this index was recovered to a point in time with keyword TOCOPY, TOLOGPOINT, or TORBA. Thus, the index was placed in recovery pending status.

If the RECOVER INDEX utility issued this message, the index is in recovery pending status. Either duplicate index entries existed during the BUILD phase of the RECOVER INDEX, or invalid KEY/RIDs, which do not belong to the partition of the cluster index, were detected. The duplicate index entries or invalid KEY/RID entries must be resolved before starting the RECOVER INDEX utility again to recover the index and remove the index from recovery pending status.

If the REORG utility with SHRLEVEL REFERENCE or CHANGE (or -TERM UTILITY) issued this message, the index is in recovery pending status. During the renaming of a data set during REORG, either a data set with the source name did not yet exist or a data set with the target name already existed.

Severity: 4 (warning) or 8 (error)

User Response: If the RECOVER TABLESPACE or REORG utility (or -TERM UTILITY) issued this message, use the RECOVER INDEX utility to recover this index.

If the RECOVER INDEX utility issued this message, take one of the following actions:

- Resolve the duplicate index entries or invalid keys and rerun the RECOVER INDEX utility.
- Use the REPAIR SET NORCVRPEND utility or the START DATABASE FORCE command to reset the recovery pending status. However, these two options will not correct the index.

DSNU558I *csect-name* **ALL INDEXES OF TABLESPACE=** *table space-name* **ARE IN RECOVERY PENDING**

Explanation: The RECOVER TORBA, TOLOGPOINT, or TOCOPY utility issues this message to inform the user of the state of all indexes belonging to the recovered table space. All indexes were put in recovery pending status to prevent data and index inconsistency. All indexes should be recovered before they are used.

System Action: The RECOVER utility completed successfully.

Severity: 4 (warning)

User Response: Recover all indexes of the recovered table space.

DSNU559I *csect-name* **- INDEX=** *creator.index-name* **PART=** *partition number* **IS IN RECOVERY PENDING STATE**

Explanation: If the RECOVER TABLESPACE utility issued this message, one partition of a partitioned table space is being recovered to a point in time with keyword TOCOPY, TOLOGPOINT, or TORBA. The corresponding index for that partition was placed in recovery pending status.

If the RECOVER INDEX utility issued this message, the index or the partition of a cluster index is in recovery pending status. Either duplicate index entries existed during the BUILD phase of the RECOVER INDEX or INDEX PART, or invalid KEY/RIDs, which do not belong to the partition of the cluster index, were detected. The duplicate index entries or invalid KEY/RID entries must be resolved before starting the RECOVER INDEX utility again to recover the index and remove the index from recovery pending status.

If the REORG utility with SHRLEVEL REFERENCE or CHANGE (or -TERM UTILITY) issued this message, one partition of a partitioned index was placed in recovery pending status. During the renaming of a data set during REORG, either a data set with the source name did not yet exist or a data set with the target name already existed.

Severity: 4 (warning) or 8 (error)

User Response: If the RECOVER TABLESPACE or REORG utility (or -TERM UTILITY) issued the message, recover this index with the RECOVER INDEX utility.

If the RECOVER INDEX utility issued this message, take one of the following actions:

- Resolve duplicate index entries or invalid keys and rerun the RECOVER INDEX utility.
- Use the REPAIR SET NORCVRPEND utility or START DATABASE FORCE command to reset the recovery pending status. However, these two options will not correct the index.

DSNU560I *csect-name* **- TABLESPACE=** *database.tablespace* **PART=** *partition number* **IS IN RECOVERY PENDING STATE**

Explanation: The table space partition of a table space on which the utility was running is in recovery pending status. A RECOVER TABLESPACE at the partition level is required.

Severity: 4 (warning)

System Action: No action is taken.

User Response: Take one of the following actions:

- Run the RECOVER TABLESPACE utility on the table space partition.
- Run the LOAD REPLACE utility on the table space partition.
- Use the REPAIR SET NORCVRPEND utility or the START DATABASE FORCE command to reset the recovery pending status. However, these two options will not correct the table space.

DSNU561I *csect-name* **- TABLESPACE** *database.tablespace-name* **PARTITION** *part-number* **IS IN CHECK PENDING**

Explanation: This message is issued to report the check pending state of the specified table space partition.

Severity: 4 (warning)

User Response: Run the CHECK DATA utility against the table space to guarantee usability of the table space. Correct all errors reported by the CHECK DATA utility that put the table space in check pending state before attempting to use the table space again.

DSNU562I *csect name* **- TABLESPACE** *database.tablespace* **IS IN RECOVERY PENDING**

Explanation: The table space against which the utility was running is in recovery pending status. A RECOVER TABLESPACE is required.

Severity: 4 (warning)

System Action: No action is taken.

User Response: Take one of the following actions:

- Run the RECOVER TABLESPACE utility on the table space.
- Run the LOAD REPLACE utility on the table space.
- Use the REPAIR SET NORCVRPEND utility or the START DATABASE FORCE command to reset the recovery pending status. However, these two options will not correct the table space.

DSNU563I *csect name* **- TABLESPACE** *database.tablespace-name* **IS IN CHECK PENDING**

Explanation: This message is issued to report the check pending state of the specified table space.

Severity: 4 (warning)

User Response: Run the CHECK DATA utility against the table space to guarantee usability of the table space. Correct all errors reported by the CHECK DATA utility that put the table space in check pending state before attempting to use the table space again.

DSNU564I *csect* **- RESTART NOT ALLOWED FOR TABLE SPACE** *tablespace-name* **DSNUM** *dsnum*

Explanation: Restart of the RECOVER TABLESPACE utility is not allowed for one of the following reasons:

1. During the RESTORE phase, access to image copies failed. Therefore, RECOVER determined an earlier point of recovery to search for available image copies. RECOVER might not be able to recreate the original failures for restart.
2. The utility uses the LOGONLY option and was previously restarted with RESTART(CURRENT). It cannot now be started with RESTART(PHASE).

Severity: 8 (error)

System Action: The utility job terminates. If RECOVER acts on a list of table spaces, the restarted job terminates with the first table space for which restart is not allowed.

User Response: For case 1, execute REPORT RECOVERY on the table space and also collect the output from the previous execution of RECOVER TABLESPACE. Using those two outputs and the console log, determine the reason for the failure during the RESTORE phase. Correct the reason for the failure, if necessary. Reissue RECOVER TABLESPACE without RESTART.

For case 2, restart the utility with RESTART(CURRENT) or restore the data sets and rerun the RECOVER job from the beginning.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1,

DSNU565I *csect-name* **CHECK CONSTRAINT** *constraint-name* **ON TABLE** *table-name* **WAS CREATED AFTER THE TARGET RECOVERY POINT**

Explanation: The check constraint *constraint-name* was created on table *table-name* after the target recovery point. The target recovery point is the specified time or RBA in the point-in-time recovery. The associated table space was placed in check pending status because the RECOVER utility cannot determine whether check integrity was maintained. Data in the table might have constraint violations.

Severity: 4 (warning)

System Action: RECOVER processing continues.

User Response: Refer to Section 2 (Volume 1) of *Administration Guide* for information about resolving the check pending status.

DSNU566I *csect-name* **RESTORE FROM DATA SET** *data-set-name* **COMPLETED, ELAPSED TIME =** *hh*:*mm*:*ss*

Explanation: This message is issued at the successful completion of the RESTORE phase of the RECOVER utility when the DFSMSdss RESTORE command is issued. The *data-set-name* identifies the DFSMS concurrent copy that was being restored. The elapsed time of the RESTORE is shown in hours, minutes, and seconds.

System Action: RECOVER utility processing continues.

User Response: No action is required.

DSNU567E *csect-name* **AN ERROR HAS BEEN ENCOUNTERED WHILE ACCESSING THE BSDS - RETURN CODE =** *rc*, **REASON CODE =** *rsn*

Explanation: Access to the BSDS failed. The *rc* is a 1-byte VSAM return code; *rsn* is a 1-byte VSAM reason code

Severity: 8

System Action: The utility terminates.

System Programmer Response: See the appropriate VSAM publication for a description of the VSAM return and reason codes. Take corrective action based on the information in those codes.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 85.

DSNU569I *csect-name* **RESTORE FROM DATA SET** *data-set-name* **FAILED WITH RETURN CODE** *return-code*

Explanation: This message is issued in the RESTORE phase of the RECOVER utility. The DFSMSdss RESTORE command was issued to restore the DFSMS concurrent copy named *data-set-name*. The return code is from DFSMSdss RESTORE.

Severity: 4 (warning)

System Action: The RECOVER utility searches for the next recoverable point. DFSMSdss issues ADR messages to the job output to indicate the reason for the return code.

User Response: You might want to investigate why this DFDSS RESTORE command failed. Collect any console messages. Look up the return code and any ADR messages in the appropriate DFSMSdss manual.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 85,

DSNU571I *csect-name* **ALL** *site* **SYSCOPY RECORDS FOR TABLESPACE=***tablespace-name* **PARTITION=***part-num* **HAVE BEEN DELETED**

Explanation: The MODIFY RECOVERY utility deleted all of the SYSCOPY table records for the specified table space or partition. Any related SYSLGRNX rows are deleted if DSNUM ALL is specified. The `'part-num'` of specified table space is no longer recoverable at the `'site'`. The `'site'` can be `'LOCALSITE'` or `'RECOVERYSITE'`.

Severity: 4 (warning)

System Action: Utility processing continues.

System Programmer Response: The `'part-num'` of specified table space is no longer recoverable at the `'site'` after this message is received. Use the COPY utility to create one or more copies for the `'site'` to establish a base for future recovery.

DSNU572I *csect-name* **ALL** *site* **SYSCOPY RECORDS FOR TABLESPACE=***tablespace-name* **HAVE BEEN DELETED**

Explanation: The MODIFY RECOVERY utility deleted all of the SYSCOPY table records for the specified table space. Any related SYSLGRNX rows are deleted if DSNUM ALL is specified. The table space is no longer recoverable at the 'site'. The 'site' can be 'LOCALSITE' or 'RECOVERYSITE'.

Severity: 4 (warning)

System Action: Utility processing continues.

System Programmer Response: The table space is no longer recoverable at the 'site' after this message is received. Use the COPY utility to create one or more copies for the 'site' to establish a base for future recovery.

DSNU573I *csect-name* **NO BACKUP COPIES FOUND FOR THIS TABLESPACE OR DATASET**

Explanation: The MODIFY RECOVERY utility was unable to locate any SYSCOPY records older than the specified AGE or prior to the specified DATE. No records have been deleted.

Severity: 4 (warning)

System Action: Processing completes normally.

DSNU575I *csect-name* **- MODIFY COMPLETED SUCCESSFULLY**

Explanation: This message reports the successful completion of the MODIFY utility. The requested cleanup of old SYSIBM.SYSCOPY entries was completed.

Severity: 0 (informational)

System Action: The MODIFY utility completed normally.

DSNU577I *csect-name* **MODIFY HAS NOT DELETED ALL SYSCOPY RECORDS AS REQUESTED.**

Explanation: If MODIFY RECOVERY is invoked with a partition-number (DSNUM), and the table space level recoverable point is older than the user specified DATE or AGE, all SYSCOPY records after the table space level recoverable point cannot be deleted.

Severity: 4 (warning)

System Action: Processing continues normally.

DSNU578I *csect-name* **SYSLGRNX INFORMATION FOR MEMBER** *member-name*

Explanation: In the data sharing environment, the SYSLGRNX records reported with DSNU513 are grouped by the respective member name. Each group member has header message DSNU578 to identify the member. This message precedes DSNU513.

System Action: The RECOVER TABLESPACE utility continues with the LOGAPPLY phase.

DSNU579I *csect-name* **RECOVER UTILITY LOG APPLY AT LOGPOINT** *xxx*

Explanation: This message shows the progress of the LOGAPPLY phase of the RECOVER utility. The highest LOGPOINT that was applied is *xxx*. The value of logpoint is RBA in a non data-sharing environment and LRSN in a data sharing environment.

System Action: The LOGAPPLY phase continues normally.

DSNU580I *csect-name* **REPORT UTILITY COMPLETE, ELAPSED TIME=***hh/mm/ss*

Explanation: The message is issued at the normal completion of the REPORT utility. The time that elapsed since the beginning of the REPORT utility to its completion was 'hh' hours, 'mm' minutes, and 'ss' seconds.

Severity: 0 (informational)

System Action: This message indicates the normal completion of the REPORT utility. Processing continues to the next utility statement in the utility job step, if any. If not, the utility job step is normally terminated, and the resources held become available for further processing. The UTILID of the utility job step becomes available for reuse.

DSNU581I *csect-name* **REPORT RECOVERY TABLESPACE** *dbname.tsname*

Explanation: The message is issued at the beginning of reporting the recover information for a table space.

Severity: 0 (informational)

System Action: Utility processing continues.

DSNU582I *csect-name* **REPORT RECOVERY TABLESPACE** *dbname.tsname* **SYSCOPY ROWS**

Explanation: This is the header message for the SYSCOPY section of the REPORT RECOVERY output. This section displays the SYSCOPY rows for the table space or table space partition as specified in the REPORT RECOVERY input statement. The fields in the SYSCOPY row are:

- TIMESTAMP
- ICTYPE
- DSNUM
- FILESEQNO
- START_RBA
- SHRLEVEL
- DEVTYPE
- ICBACKUP
- DSNAME
- STYPE
- PIT_RBA
- DSVOLSER

For description of the fields, see SYSIBM.SYSCOPY table in Appendix C of *SQL Reference*.

Severity: 0 (informational)

DSNU583I *csect-name* **SYSLGRNX ROWS FROM REPORT RECOVERY FOR TABLESPACE** *dbname.tsname*

Explanation: This is the header message for the SYSLGRNX section of the REPORT RECOVERY output. This section displays the SYSLGRNX rows for the table space or table space partition as specified in the REPORT RECOVERY input statement. The fields in the SYSLGRNX row are:

- UCDATE - Modification date
- UCTIME - Modification time
- START RBA - Starting RBA
- STOP RBA - Stopping RBA
- START LRSN - Starting LRSN
- STOP LRSN - Stopping LRSN
- DSNUM - Partition number
- MEMBER - Data sharing member

An invalid SYSLGRNX record is marked with '**' at the end. The invalid SYSLGRNX record cannot be used for recovery because the range is outside recovery. If records are marked with '**', then a DSNU594 message should have been issued prior to this.

A SYSLGRNX record created after the last FULL IMAGE COPY, LOAD REPLACE LOG YES, or REORG LOG YES is marked with '*' at the end.

Severity: 0 (informational)

System Action: Processing continues normally.

DSNU584I *csect-name* **REPORT RECOVERY TABLESPACE** *dbname.tsname* **BSDS VOLUMES**

Explanation: Message for the BSDS VOLUMES section of the REPORT RECOVERY output. This section contains BSDS volumes for the archive log records associated with the table space specified in the REPORT RECOVERY input statement. The output contains the following information:

```
START TIME END TIME START RBA  END RBA UNIT VOLSER DATA SET NAME
start       end      rba       rba  device volume data set name
timestamp timestamp
```

An archive log record created after the last FULL IMAGE COPY, LOAD REPLACE LOG YES, or REORG LOG YES is marked with '*' at the end.

System Action: Processing continues normally

DSNU585I *csect-name* **REPORT RECOVERY TABLESPACE** *dbname.tsname* **CURRENT**

Explanation: The message is issued in response to the CURRENT option of REPORT RECOVERY utility. It indicates that only the information since the last recoverable point for the specified table space is reported.

Severity: 0 (informational)

System Action: Normal utility processing continues.

DSNU586I *csect-name* **REPORT RECOVERY TABLESPACE** *dbname.tsname* **SUMMARY:**

Explanation: This is the header message for the SUMMARY section of the REPORT RECOVERY utility. All the volumes to be used by the RECOVER utility are summarized.

The volume name is marked with '*' at the end if any archive log record in the volume was created after the last FULL IMAGE COPY, LOAD REPLACE LOG YES, or REORG LOG YES.

System Action: Processing continues normally

DSNU587I *csect-name* **REPORT TABLESPACE SET WITH TABLESPACE** *dbname.tsname*

Explanation: Header message for the REPORT TABLESPACESET output. The output contains all table spaces, tables, and dependent tables associated with the table space specified in the REPORT TABLESPACESET input statement.

Severity: 0 (informational)

System Action: Utility processing continues normally.

DSNU588I *csect-name* **NO DATA TO BE REPORTED**

Explanation: The message is issued when no data can be found for a section of the REPORT output.

Severity: 0 (informational)

System Action: Utility processing continues.

DSNU589I *csect-name* **REPORT RECOVERY TABLESPACE** *dbname.tsname* **COMPLETE**

Explanation: The message is issued at the normal completion of reporting the RECOVERY information of the table space in REPORT RECOVERY utility.

Severity: 0 (informational)

System Action: This message indicates the normal completion of the REPORT RECOVERY utility. Processing continues to the next utility statement in the utility job step, if any. If not, the utility job step is normally terminated, and the resources held become available for further processing. The UTILID of the utility job step becomes available for reuse. The output from REPORT RECOVERY is now available for RECOVER utility use.

DSNU590I *csect-name object* **RESOURCE NOT AVAILABLE -** *object-name* **REASON = X'***reason-code***'**

Explanation: A required object could not be accessed because of the reason shown in 'reason-code'. The 'object-name' can be a database, table space, or index space. If the object is in a stopped state and has partitions, then the stopped state applies to one or more of the partitions.

Severity: 8 (error) or 4 (warning)

System Action: If the return code is 8, utility processing is terminated. If the return code is 4, utility processing continues to the next request.

User Response: Determine the cause for unavailability. The -DISPLAY DATABASE command can be used to determine the status. After ensuring the object is available, resubmit the job.

DSNU591I *csectname* **AN UNSUCCESSFUL COMPLETION OF A LOG READ, REASON=X'***reason-code***'**

Explanation: The log manager subcomponent of DB2 detected an error during a LOG READ of SYSCOPY record for DSNDB06.SYSCOPY, DSNDB01.DBD01 or DSNDB01.SYSUTIL.

Severity: 4 (warning)

System Action: Processing continues.

Problem Determination: Look up the reason code in "Section 4. DB2 Codes" on page 4-1 of this book for problem determination.

DSNU592I *csect-name* **REPORT RECOVERY INFORMATION FOR DATA SHARING MEMBER** *member-name*

Explanation: The REPORT RECOVERY utility displays this message as the heading for SYSLGRNX and BSDS records or BSDS summary information for each data sharing member. Records for this member follow, if there is data to report.

Severity: 0 (Informational)

System Action: Utility processing continues.

DSNU593I *csect-name* **REPORT RECOVERY ENVIRONMENT INFORMATION:**
MINIMUM RBA: *rba1*
MAXIMUM RBA: *rba2*
MIGRATING RBA: *rba3*

Explanation: The REPORT utility issues this message to display recovery environment information used by the RECOVER utility. The maximum and minimum RBAs give the range of possible recovery points on the log before the start of data sharing. The migrating RBA is the RBA at the time of migration from DB2 Version 3 to Version 4. If there is data to report, other messages from the REPORT utility follow to display SYSCOPY, SYSLGRNX and BSDS records.

Severity: 0 (Informational)

System Action: Utility processing continues.

DSNU594E *csect-name* **DB2 ENCOUNTERED SYSLGRNX RECORDS THAT CANNOT BE USED FOR RECOVERY.**

Explanation: The utility found one or more SYSLGRNX records that cannot be used for recovery because the range is outside recovery. Invalid SYSLGRNX records are marked with '**' at the end of the record under message DSNU583.

Severity: 4 (REPORT - warning) or 8 (RECOVER - error)

System Action: REPORT utility processing continues. RECOVER utility terminates.

System Programmer Response: Run the RECOVER utility with the TOCOPY option.

DSNU595E *csect-name* **ERROR IN GETTING THE HIGHEST MEMBER ID IN DATA SHARING.**

Explanation: The REPORT utility could not find a valid highest member ID. The highest member is the last member to join a data sharing group. This message is issued only in a data sharing environment.

Severity: 8 (error)

System Action: The REPORT utility abends.

System Programmer Response: This might be an internal DB2 problem. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU596E *csect-name* **ERROR IN GETTING THE MEMBER NAME FOR MEMBER ID**

Explanation: The REPORT utility could not find a valid member name for the member ID, or the member ID supplied is invalid. This message is issued only in a data sharing environment.

Severity: 8 (error)

System Action: The REPORT utility abends.

System Programmer Response: This might be a DB2 internal problem. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU597I *csect-name* **INVALID SYSLGRNX INFORMATION FROM REPORT RECOVERY**

Explanation: This is the header message for the invalid SYSLGRNX records section of the REPORT RECOVERY output. This section lists SYSLGRNX records containing information that is invalid for recovery purposes.

Severity: 0 (Informational)

System Action: Utility processing continues.

User Response: Examine the invalid SYSLGRNX records with a zero member ID which were generated before enabling data sharing. The MODIFY utility can be used to delete the invalid SYSLGRNX records.

DSNU600I *csect-name* **INDEX** *creator.index-name* **POINTS TO A DIFFERENT DATABASE.**

Explanation: A specified index does not point to a table in the database selected. For a RUNSTATS Format 1 invocation, the database is the one specified (or defaulted) in the TABLESPACE parameter. For a RUNSTATS Format 2 invocation, the database is the one which contains the first index in the index-name list.

Severity: 8 (error)

System Action: All remaining RUNSTATS invocation parameters are validated and the executing utility job terminates. Work performed by previous utilities in the job step remains in effect. Subsequent utility control statements are flushed. No record of the utility job step is retained in the system; therefore, it cannot be restarted.

User Response: Ensure that all indexes in the list point to the same database and resubmit the RUNSTATS job.

Problem Determination: Refer to catalog table SYSIBM.SYSINDEXES to determine the table upon which the

index is based. This table must be in the database and table space targeted by the RUNSTATS utility.

DSNU601I *csect-name* **INDEX** *creator.index-name* **POINTS TO A DIFFERENT TABLESPACE.**

Explanation: A specified index does not point to a table in the table space selected. The table space is either the one specified in the TABLESPACE parameter or the one which contains the table pointed to by the first specified index.

Severity: 8 (error)

System Action: All remaining RUNSTATS invocation parameters are validated and the executing utility job terminates. Work performed by previous utilities in the job step remains in effect. Subsequent utility control statements are flushed. No record of the utility job step is retained in the system; therefore, it cannot be restarted.

User Response: Ensure that all indexes in the list point to tables in the targeted table space and resubmit the RUNSTATS job.

Problem Determination: Refer to catalog table SYSIBM.SYSINDEXES to determine the table upon which the index is based. Using the table-name found in SYSIBM.SYSINDEXES, refer to catalog table SYSIBM.SYSTABLES to determine the containing table space.

DSNU603I *csect-name* **- OBJECT=***object-name* **HAS AN INCOMPLETE DEFINITION**

Explanation: The identified object (TABLE or TABLE SPACE) does not have a complete definition. This can be caused by one of these errors:

- Not defining any tables in the table space (RC=4).
- Not creating the accompanying partitioned index if the table space is partitioned (RC=8).

Severity: 8 (error) or 4 (warning)

System Action: If the return code is 8, utility processing terminates. If the return code is 4, utility processing continues to the next request.

User Response: Complete the table space definition by creating at least one table in the table space, or create the accompanying partitioned index if the table space is partitioned.

Problem Determination: Issue an SQL SELECT statement on the catalog to determine if the tables or a partitioned index was not created for the table space.

DSNU604I *csect-name object* **IS EMPTY**

Explanation: The object currently to be scanned by the RUNSTATS utility contains no records. The 'object' can be TABLESPACE or INDEXSPACE.

Severity: 0 (informational)

System Action: The object currently to be scanned is recorded in the catalog as empty. The statistics for the object are updated and RUNSTATS continues to the next object, if there is one.

DSNU605I *csect-name* **ERROR OCCURRED ACCESSING TABLESPACE** *database-name.tablespace-name*

Explanation: A previous error makes it impossible for RUNSTATS to scan TABLESPACE 'creator.tbspname'.

Severity: 8 (error)

System Action: The executing utility job step terminates. Work performed by previous utilities in the job step remains in effect. Subsequent utility control statements are flushed. No record of the utility job step is retained in the system; therefore, it cannot be restarted.

User Response: Examine prior error messages for error identification. If the error can be corrected, resubmit the RUNSTATS utility in a new utility job step. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Prior messages identify this error. See the documentation for these messages in this manual for additional problem determination.

DSNU606I *csect-name* **USER NOT AUTHORIZED TO ACCESS TABLESPACE** *database-name.tablespace-name*

Explanation: This user is not authorized to execute the RUNSTATS utility against TABLESPACE 'creator.tbspname'.

Severity: 8 (error)

System Action: The executing utility job step terminates. Work performed by previous utilities in the job step remains in effect. Subsequent utility control statements are flushed. No record of the utility job step is retained in the system; therefore, it cannot be restarted.

User Response: Contact your system administrator to obtain the proper authority, or have another user with the required authority execute the utility for you.

DSNU607I *csect-name* **ERROR OCCURRED ACCESSING INDEXSPACE** *creator.index-name*

Explanation: A previous error makes it impossible for RUNSTATS to scan INDEXSPACE 'creator.indexspacename'.

Severity: 8 (error)

System Action: The executing utility job step terminates. Work performed by previous utilities in the job step remains in effect. Subsequent utility control statements are flushed. No record of the utility job step is retained in the system; therefore, it cannot be restarted.

User Response: Examine prior error messages for error identification. If the error can be corrected, resubmit the RUNSTATS utility in a new utility job step.

Problem Determination: Prior messages identify this error. See the documentation for these messages in this manual for additional problem determination. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU608I *csect-name* **USER NOT AUTHORIZED TO ACCESS INDEXSPACE** *creator.index-name*

Explanation: This user is not authorized to execute the RUNSTATS utility against INDEXSPACE 'creator.indexspacename'.

Severity: 8 (error)

System Action: The executing utility job step terminates. Work performed by previous utilities in the job step remains in effect. Subsequent utility control statements are flushed. No record of the utility job step is retained in the system; therefore, it cannot be restarted.

User Response: Contact your system administrator to obtain the proper authority, or have another user with the required authority execute the utility for you.

DSNU609I *csect-name* **TABLE** *table-name* **IS IN A DIFFERENT TABLESPACE**

Explanation: A table listed in the table name list of the RUNSTATS TABLE keyword was not found in the specified table space.

Severity: 8 (error)

System Action: The executing utility job step terminates. Work performed by previous utilities in the job step remains in effect. Subsequent utility control statements are flushed. No record of the utility job step is retained by the system; therefore it cannot be restarted.

User Response: Ensure that all tables in the list are in the specified table space and resubmit the utility.

Problem Determination: Refer to the catalog table SYSIBM.SYSTABLES to determine the table space in which the table is located.

DSNU610I *csect-name catalog-table-name* **CATALOG UPDATE FOR** *object-name* **SUCCESSFUL**

Explanation: This message indicates that the updating of the statistics columns in the CATALOG TABLE 'catalog-table-name' was successful.

Severity: 0 (informational)

System Action: Processing continues with the next catalog table.

DSNU611I *csect-name* **COLUMN** *column-name* **NOT FOUND FOR TABLE** *creator.table-name*

Explanation: A column name, given as an operand of the COLUMN keyword, was not found in the specified table.

Severity: 8 (error)

System Action: Validation of the utility invocation statement is completed and the executing utility job step is terminated.

User Response: Ensure that the column name given in the message is correct for the table specified.

Problem Determination: Check that the column name specified in the utility invocation statement is identical to that found in the SYSIBM.SYSCOLUMNS catalog table. Correct any errors and reissue the utility job.

DSNU612I *csect-name* **SYSTABLESPACE CATALOG STATISTICS FOR** *tspace-name* **NACTIVE =** *inactive*

Explanation: The RUNSTATS utility issues this message to report the statistics collected for table space 'tspace-name'.

nactive The number of active pages in the table space

This message is routed to SYSPRINT.

Severity: 0 (informational)

System Action: RUNSTATS processing continues.

User Response: Refer to *Utility Guide and Reference* for a discussion of the meaning of RUNSTATS statistics.

DSNU613I *csect-name* **SYSTABLEPART CATALOG STATISTICS FOR** *table-space-name* **PARTITION** *part-num*

CARD = cardinality
NEARINDREF = nearindref
FARINDREF = farindref
PERCACTIVE = peractive
PERCDROP = percdrop
PAGESAVE = pagesave

Explanation: The RUNSTATS utility issues this message to report the statistics collected. If the 'part-num' equals 0, the statistics apply to the entire table space. If the 'part-num' is not 0, the statistics apply to the specified partition of the table space.

cardinality The number of rows in the reported partition number

nearindref The number of rows that were relocated near their original page

farindref The number of rows that were relocated far from their original page

peractive The percentage of space occupied by actual data from active tables

percdrop The percentage of space occupied by rows of data from dropped tables

pagesave The percentage of pages saved in the table space or partition by using data compression

This message is routed to SYSPRINT.

Severity: 0 (informational)

System Action: RUNSTATS processing continues.

User Response: Refer to of *Utility Guide and Reference* for a discussion of RUNSTATS statistics.

DSNU614I *csect-name* **SYSTABLES CATALOG STATISTICS FOR** *table-name*

CARD = cardinality
CARDF = cardinality
NPAGES = npages
PCTPAGES = pctpages
PCTROWCOMP = pctrowcomp

Explanation: The RUNSTATS utility issues this message to report the statistics collected for the specified table. The statistics follow:

cardinality The number of rows in the table

npages — The number of pages on which rows of the table appear

pctpages — The percentage of total pages of the table space that contain rows from this table

pctrowcomp — The percentage of rows compressed within the total number of active rows in the table

For a LARGE table space, the value of CARD is set to -1.

RUNSTATS uses floating point fields to report these statistics.

This message is routed to SYSPRINT.

Severity: 0 (informational)

System Action: RUNSTATS processing continues.

User Response: Refer to *Utility Guide and Reference* for a discussion of RUNSTATS statistics.

DSNU615I *csect-name* **SYSCOLUMNS CATALOG STATISTICS FOR** *column-name*

COLCARD = cardinality
COLCARDF = cardinality
HIGH2KEY = high2key
LOW2KEY = low2key

Explanation: The RUNSTATS utility issues this message to report the statistics collected for column 'column-name'. Message DSNU619I is issued to identify the table.

cardinality — The number of distinct values in the column

high2key — The second highest value of the column

low2key — The second lowest value of the column

If the values for 'high2key' and 'low2key' are null, the invoker of RUNSTATS is not authorized to read the table.

For a LARGE table space, the value of COLCARD is set to -1.

RUNSTATS uses floating point fields to report these statistics.

This message is routed to SYSPRINT.

Severity: 0 (informational)

System Action: Processing continues.

User Response: Refer to *Utility Guide and Reference* for a description of RUNSTATS statistics.

DSNU616I *csect-name* **SYSCOLDIST CATALOG STATISTICS FOR** *column-name*, *column-name*, *column-name* **...**

CARDINALITY = cardinality

FREQUENCY	COLVALUE
frequency	X “hex_string”
frequency	X “hex_string”
...	...
frequency	X “hex_string”

Explanation: The RUNSTATS utility issues this message to report the statistics collected for the indexed column 'column-name'. If more than one column is listed, then the statistics collected and the column values reported represent the concatenation of those columns.

The value for CARDINALITY is the number of distinct values for the listed columns.

The values under FREQUENCY are the same as those that are inserted into the DB2 catalog. Consider each 'frequency' as a four-digit number with an implied decimal point two places to the left of the final digit. The resulting number is the percentage of total rows in the table that contain a particular value for the named index columns.

Frequency is associated with the occurrence of a single value which is listed under COLVALUE.

Frequencies for the most frequent values are collected by default, or if the FREQVAL option is specified and given a COUNT value greater than zero. If the default is taken, then the ten most frequently occurring values are reported in descending order of frequency.

If fewer than ten values appear, then there are fewer than ten distinct values in the index.

If no values appear, then the values are uniformly distributed.

If frequencies appear but column values do not, then the invoker of RUNSTATS is not authorized to read the table. Message DSNU619I is issued to identify the table.

This message is routed to SYSPRINT.

Severity: 0 (informational)

System Action: Processing continues.

User Response: Refer to *Utility Guide and Reference* for a description of RUNSTATS statistics.

DSNU617I *csect-name* **SYSINDEXES CATALOG STATISTICS FOR** *index-name*

CLUSTERED = clustered
CLUSTERRATIO = cluster-ratio
FIRSTKEYCARD = first-key
FIRSTKEYCARDF = first-key
FULLKEYCARD = full-key
FULLKEYCARDF = full-key
NLEAF = nleaf
NLEVELS = nlevels

Explanation: The RUNSTATS utility issues this message to report the statistics collected for index 'index-name'.

clustered — Whether the table is actually clustered by this index (YES or NO)

cluster-ratio — The percentage of data rows that are in clustering order for this index

first-key — The number of distinct values of the first key column

full-key — The number of distinct values of the key

nleaf — The number of active leaf pages in the index

nlevels — The number of levels in the index tree

For a LARGE table space, the values of FIRSTKEYCARD and FULLKEYCARD are set to -1. RUNSTATS uses floating point fields to report these statistics.

This message is routed to SYSPRINT.

Severity: 0 (informational)

System Action: Processing continues.

User Response: Refer to *Utility Guide and Reference* for a description of RUNSTATS statistics.

DSNU618I *csect-name* **SYSINDEXPART CATALOG STATISTICS FOR** *index-name* **PARTITION** *part-num*

CARD = cardinality
CARDF = cardinality
NEAROFFPOS = near-off
NEAROFFPOSF = near-off
FAROFFPOS = far-off
FAROFFPOSF = far-off
LEAFDIST = leafdist

Explanation: The RUNSTATS utility issues this message to report the statistics collected for index 'index-name'. If 'part-num' equals 0, the statistics apply to the entire index. If 'part-num' is not 0, the statistics apply to the specified partition of the index.

cardinality	The number of rows in the partition or index
near-off	The number of rows pointed to that are near but not at their optimal positions
far-off	The number of rows pointed to that are far from their optimal positions
leafdist	100 times the average distance in page IDs between successive leaf pages during a sequential access of the index

For a LARGE table space, the values of CARD, NEAROFFPOS, and FAROFFPOS are set to -1. RUNSTATS uses floating point fields to report these statistics.

This message is routed to SYSPRINT.

Severity: 0 (informational)

System Action: Processing continues.

User Response: Refer to *Utility Guide and Reference* for a description of RUNSTATS statistics.

DSNU619I *csect-name* **- USER** *auth_id* **DOES NOT HAVE PRIVILEGE ON TABLE** *table_name*

Explanation: The RUNSTATS utility issues this message to report that authorization ID 'auth_id' does not have privilege on table 'table_name'. Some column values reported by messages DSNU615I, DSNU616I, DSNU625I, and DSNU626I contain the null value.

Severity: 0 (informational)

System Action: RUNSTATS processing continues.

User Response: To obtain the key values, the user must be granted authority on the table. The RUNSTATS utility can be rerun with the report option.

DSNU620I *csect-name* **RUNSTATS CATALOG STATISTICS STATSTIME =** *timestamp*

Explanation: The RUNSTATS utility issues this message to report the timestamp value when statistics were collected. The value 'timestamp' is common to all of the statistic tables that were updated.

Severity: 0 (informational)

System Action: Processing continues.

User Response: Refer to *Utility Guide and Reference* for a description of the RUNSTATS statistics.

DSNU621I *csect-name* **RUNSTATS COMMIT/ROLLBACK FAILED**

Explanation: The RUNSTATS utility updated the catalog with gathered statistics and has tried either to commit those changes or to perform rollback processing to remove them following an error. The commit or rollback failed.

Severity: 8 (error)

System Action: RUNSTATS processing is terminated. Subsequent utility control statements in the utility job step are executed.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

DSNU623I *csect-name* **-** *catalog-table-name* **CATALOG NOT UPDATED WITH AGGREGATE STATISTICS FOR** *object-name* **BECAUSE SOME PARTITIONS HAVE NO STATISTICS**

Explanation: Aggregate statistics were requested, but partition statistics do not exist for every partition. Without partition statistics, the aggregate statistics cannot be calculated. The statistics for 'object-name' are not updated in the specified DB2 catalog table.

Severity: 4 (warning)

System Action: Processing continues.

User Response: Run the RUNSTATS utility to collect statistics for:

- The entire table space, table, column or index, or
- Every partition.

DSNU624I *csect-name* **SYSTABSTATS CATALOG STATISTICS FOR** *table-name* **PARTITION** *part-num*

CARD = cardinality
NPAGES = npages
PCTPAGES = pctpages
NACTIVE = nactive
PCTROWCOMP = pctrowcomp

Explanation: The RUNSTATS utility issues this message to report the statistics collected for the specified partition of the table space containing the table. The statistics follow:

cardinality	The number of rows in the table space partition
npages	The number of pages on which rows of the table space partition appear
pctpages	The percentage of total pages of the table space partition that contain rows from this table
nactive	The number of active pages in the table space partition
pctrowcomp	The percentage of rows compressed within the total number of active rows in the partition

This message is routed to SYSPRINT.

Severity: 0 (informational)

System Action: RUNSTATS processing continues.

User Response: Refer to *Utility Guide and Reference* for a discussion of RUNSTATS statistics.

DSNU625I *csect-name* **SYSCOLSTATS CATALOG STATISTICS FOR** *column-name* **PARTITION** *part-num*

COLCARD = cardinality
HIGHKEY = highkey
HIGH2KEY = high2key
LOW2KEY = low2key
LOWKEY = lowkey

Explanation: The RUNSTATS utility issues this message to report the statistics collected for column 'column-name' partition 'part-num' of a table. Message DSNU619I is issued to identify the table.

cardinality	The number of distinct values in the column for the partition
highkey	The highest value of the column in the partition
high2key	The second highest value of the column in the partition
low2key	The second lowest value of the column in the partition
lowkey	The lowest value of the column in the partition

If the values for 'highkey', 'high2key', 'low2key', and 'lowkey' are null, the invoker of RUNSTATS is not authorized to read the table.

This message is routed to SYSPRINT.

Severity: 0 (informational)

System Action: Processing continues.

User Response: Refer to *Utility Guide and Reference* for a description of RUNSTATS statistics.

DSNU626I *csect-name* **SYSCOLDISTSTATS CATALOG STATISTICS FOR** *column-name*, *column-name*, *column-name* **...** **PARTITION** *part-num*

CARDINALITY = cardinality

FREQUENCY	COLVALUE
frequency	X “hex_string”
frequency	X “hex_string”
...	...
frequency	X “hex_string”

Explanation: The RUNSTATS utility issues this message to report the statistics collected for the indexed column 'column-name' partition 'part-num'. If more than one column is listed, then the statistics collected and the column values reported represent the concatenation of those columns.

The value for CARDINALITY is the number of distinct values for the listed columns.

The values under FREQUENCY are the same as those that are inserted into the DB2 catalog. Consider each 'frequency' as a four-digit number with an implied decimal point two places to the left of the final digit. The resulting number is the percentage of total rows in the table that contain a particular value for the named index columns.

Frequency is associated with the occurrence of a single value which is listed under COLVALUE.

Frequencies for the most frequent values are collected by default, or if the FREQVAL option is specified and given a COUNT value greater than zero. If the default is taken, then the ten most frequently occurring values, plus the lowest and highest values in the partition (if not already included in the ten greatest frequencies), are reported in descending order of frequency.

If fewer than ten values appear, then there are fewer than ten distinct values in the index.

If no values appear, then the values are uniformly distributed.

If frequencies appear but column values do not, then the invoker of RUNSTATS is not authorized to read the table. Message DSNU619I is issued to identify the table.

This message is routed to SYSPRINT.

Severity: 0 (informational)

System Action: Processing continues.

User Response: Refer to *Utility Guide and Reference* for a description of RUNSTATS statistics.

DSNU627I *csect-name* **SYSINDEXSTATS CATALOG STATISTICS FOR** *index-name* **PARTITION** *part-num*

CLUSTERRATIO = cluster-ratio
FIRSTKEYCARD = first-key
FULLKEYCARD = full-key
NLEAF = nleaf
NLEVELS = nlevels
KEYCOUNT = keycount

Explanation: The RUNSTATS utility issues this message to report the statistics collected for partition 'part-num' of index 'index-name'.

cluster-ratio	The percentage of data rows in the partition that are in clustering order for this index
first-key	The number of distinct values of the first key column in the partition
full-key	The number of distinct values of the key in the partition
nleaf	The number of active leaf pages in the index partition
nlevels	The number of levels in the index tree in the partition
keycount	The number of index keys (entries) in the partition

This message is routed to SYSPRINT.

Severity: 0 (informational)

System Action: Processing continues.

User Response: Refer to *Utility Guide and Reference* for a description of RUNSTATS statistics.

DSNU638I *csect* **- UTILITY NOT ALLOWED TO RUN ON TABLESPACE =** *tttttttt* **IN ROSHARE READ DATABASE =** *dddddddd*

Explanation: An attempt to execute STOSPACE utility on a table space defined in a ROSHARE READ database failed. The STOSPACE utility is only allowed to execute in a ROSHARE OWNER or a nonshared database.

Severity: 4 (warning)

System Action: Processing continues to the next table space or index space in the storage group, if any.

User Response: Resubmit the utility job on the system in which the database was defined with the ROSHARE OWNER attribute.

DSNU639I *csect* **- UTILITY NOT ALLOWED TO RUN ON INDEX SPACE =** *iiiiiiii* **IN ROSHARE READ DATABASE =** *dddddddd*

Explanation: An attempt to execute the STOSPACE utility on an index space defined in a ROSHARE READ database failed. The STOSPACE utility is only allowed to execute in a ROSHARE OWNER or nonshared database.

Severity: 4 (warning)

System Action: Processing continues to the next table space or index space in the storage group, if any.

User Response: Resubmit the utility job on the system in which the database was defined with the ROSHARE OWNER attribute.

DSNU640I *csect-name* **DATA SET=** *nnn* **OF TABLESPACE=** *tttttttt* **IN DATABASE=** *dddddddd* **HAS BEEN MIGRATED BY HSM**

Explanation: The STOSPACE utility has found that a DB2 data set has been migrated by the Data Facility Hierarchical Storage Manager. The amount of storage space used cannot be determined for DATA SET 'nnn' of TABLESPACE 'tttttttt' in DATABASE 'dddddddd'. The space allocation information in the catalog will not include the storage used by the migrated data set.

Severity: 0 (informational)

System Action: Processing continues to the next data set in the storage group, if any.

System Programmer Response: If required, the data set may be recalled using HSM, and the STOSPACE utility may be run again.

DSNU641I *csect-name* **DATA SET=** *nnn* **OF INDEXSPACE=** *iiiiiiii* **IN DATABASE=** *dddddddd* **HAS BEEN MIGRATED BY HSM**

Explanation: The STOSPACE utility has found that a DB2 data set has been migrated by the Data Facility Hierarchical Storage Manager. The amount of storage space used cannot be determined for DATA SET 'nnn' of INDEXSPACE 'iiiiiiii' in DATABASE 'dddddddd'. The space allocation information in the catalog will not include the storage used by the migrated data set.

Severity: 0 (informational)

System Action: Processing continues to the next data set in the storage group, if any.

System Programmer Response: If required, the data set may be recalled using HSM, and the STOSPACE utility may be run again.

DSNU642I *csect-name* **UNABLE TO ACCESS DBD FOR DATABASE =** *dddddddd***, TABLESPACE =** *tttttttt*

Explanation: A database descriptor control block could not be accessed by the STOSPACE utility. Information in the DBD is required before space allocation data can be obtained from the appropriate ICF catalog. Storage space used by table space 'tttttttt' in database 'dddddddd' cannot be determined.

Severity: 4 (warning)

System Action: Processing continues with the next storage group.

User Response: Determine the cause for unavailability. The database may be stopped or the DBD may be marked as invalid. The -DISPLAY DATABASE command can be used to determine the status.

System Programmer Response: Determine if the reason for the DBD unavailability may require system corrective action.

Problem Determination: A DSNT501I message may have been sent to the operator console. If so, see the problem determination section for message DSNT501I in the “DSNT... Messages” on page 3-201.

DSNU643I *csect-name* **UNABLE TO ACCESS DBD FOR DATABASE =** *dddddddd***, INDEXSPACE =** *tttttttt*

Explanation: A database descriptor control block could not be accessed by the STOSPACE utility. Information in the DBD is required before space allocation data can be obtained from the appropriate ICF catalog. Storage space used by index space 'tttttttt' in database 'dddddddd' cannot be determined.

Severity: 4 (warning)

System Action: Processing continues with the next storage group.

User Response: Determine the cause for unavailability. The database may be stopped or the DBD may be marked as invalid. The -DISPLAY DATABASE command can be used to determine the status.

System Programmer Response: Determine if the reason for the DBD unavailability may require system corrective action.

Problem Determination: A DSNT501I message may have been sent to the operator console. If so, see the problem determination section for message DSNT501I in the “DSNT... Messages” on page 3-201 section.

DSNU644I *csect-name* **USER** *user-name* **NOT AUTHORIZED FOR STOSPACE UTILITY**

Explanation: Utility processing for the user indicated on the job statement failed, because the user is not authorized to execute the STOSPACE utility.

Severity: 8 (error)

System Action: Utility processing is terminated without invoking the requested utility or utilities.

User Response: Contact the systems programmer for assistance with your security classification.

System Programmer Response: If the USER specified on the job statement is incorrect, correct it, and resubmit the job.

To run the STOSPACE utility, the user must either have SYSADM authority or have been granted the STOSPACE privilege. Use the SQL GRANT command to give the user the desired authority.

DSNU645I *csect-name* **NO STORAGE GROUPS NAME FOUND**

Explanation: You requested the STOSPACE utility to report on all storage groups, but no storage group was found.

Severity: 4 (warning)

This condition does not prevent subsequent processing.

System Action: This message indicates completion of the STOSPACE utility. Processing continues to the next utility statement in the utility job step, if any. If not, the utility job step is normally terminated. Resources are released to their prior availability state. The UTILID of the utility job step becomes available for reuse.

User Response: This message indicates that there are no storage groups defined. Consult the system programmer to determine the reason for this condition.

System Programmer Response: This message indicates either that no storage groups were defined by the installation process (or by subsequent SQL procedures) or they have all been dropped. If this is an error, the required storage groups must be re-created with the CREATE STOGROUP SQL statement.

DSNU646I *csect-name* **STORAGE GROUP NAME** *nnnnnnnn* **NOT FOUND**

Explanation: This message is issued by STOSPACE when one of the requested storage groups is not found.

The following circumstances may exist:

1. When an inconsistency occurs between SYSIBM.SYSSTOGROUP at the beginning of STOSPACE execution and SYSIBM.SYSSTOGROUP during or at the end of processing. The inconsistency may be due to a storage group being dropped during the processing of STOSPACE utility.
2. The storage group name is misspelled.

Severity: 4 (warning)

System Action: Processing proceeds normally to the next storage group if any.

User Response: Verify the existence or spelling of the storage group names by referring to SYSIBM.SYSSTOGROUP. Submit another request with the correct storage group designated.

DSNU647I *csect-name* **UNAVAILABLE REASON X** *reason-code* **UNAVAILABLE TYPE X** *type-code*, **TABLESPACE NAME=** *table-space-name* **NOT FOUND**

Explanation: The indicated table space was not available for processing by the STOSPACE utility. The reason for its unavailability is given in 'reason-code'. The type of unavailability is given in 'type-code'.

This message may be issued when an inconsistency between SYSIBM.SYSSTABLESPACE and SYSIBM.SYSTABLEPART has been detected. The inconsistency may be due to a table space being dropped during the processing of the STOSPACE utility.

Severity: 4 (warning)

System Action: Processing continues to the next table space in the storage group, if any.

User Response: Use the 'reason-code' and 'type-code' to determine why the resource was unavailable. When the problem has been resolved, resubmit the STOSPACE request.

System Programmer Response: Determine if the 'reason-code' and 'type-code' require system corrective action.

Problem Determination: See the Problem Determination section for message DSNT500I on page 3-243.

DSNU648I *csect-name* **UNAVAILABLE REASON X** *reason code*, **UNAVAILABLE TYPE X** *type-code*, **INDEX NAME=***index-name* **NOT FOUND**

Explanation: The indicated index was not available for processing by the STOSPACE utility. The reason for its unavailability is given in 'reason-code'. The type of unavailability is given in 'type-code'.

This message may be issued when an inconsistency between SYSIBM.SYSINDEXES and SYSIBM.SYSINDEXPART has been detected. The inconsistency may be due to an index being dropped during the processing of the STOSPACE utility.

Severity: 4 (warning)

System Action: Processing continues to the next index in the storage group, if any.

User Response: Use the 'reason-code' and 'type-code' to determine why the resource was unavailable. When the problem has been resolved, resubmit the STOSPACE request.

System Programmer Response: Determine if the 'reason-code' and 'type-code' require system corrective action.

Problem Determination: See the Problem Determination section for message DSNT500I on page 3-243.

DSNU650I *csect-name control-statement-text*

Explanation: Each control statement is returned to the invoker as a part of the normal output. If an error occurred while processing the statement, a separate error message follows this message.

Severity: 0 (informational)

System Action: The processing of the utility request continues normally.

DSNU651I *csect-name* **SET NOCOPYPEND OPERATION SUCCESSFUL**

Explanation: This message reports the successful completion of the REPAIR SET TABLESPACE NOCOPYPEND utility operation. The COPY PENDING restriction has been removed from the specified table space.

Severity: 0 (informational)

System Action: The REPAIR SET statement has completed normally.

DSNU652I *csect-name* **VERIFY OPERATION SUCCESSFUL**

Explanation: This message is issued during REPAIR utility processing in response to a VERIFY control statement. It indicates the verification requested was successful, permitting a subsequent REPLACE request to take effect.

Severity: 0 (informational)

System Action: The requested verification was successful. If this is the only verification required for the subsequent REPLACE control statement, the REPLACE control statement takes effect. If there are other verification control statements, they must also complete successfully before the subsequent REPLACE control statement takes effect.

DSNU653E *csect-name* **REPLACE OPERATION AT OFFSET** *hex-data* **WITH DATA** *hex-data* **FAILED. ATTEMPTED TO REPLACE CRITICAL NON-DATA INFORMATION ON THE PAGE** *page-num* **WITH INCORRECT INFORMATION.**

Explanation: The REPAIR utility job with the LOG YES option was unable to replace certain critical, nondata information in the page for one of these reasons:

- Some critical information on any page at the indicated offset cannot be replaced by this method.
- The page is a header page and some of the information at the indicated offset cannot be replaced by this method.
- The information can be replaced only by using the LOG NO option.

Severity: 8 (error)

System Action: REPAIR resumes executing at the next LOCATE statement. Later control statements in the same LOCATE block are not executed.

User Response: Correct the REPAIR control statements and resubmit the request in a new utility job step.

User Response: Check the OFFSET option on the REPLACE statement to be sure it does not cause critical information to be replaced. If the replacement is intentional, use the LOG NO option.

DSNU654I *csect-name* **VERIFY OPERATION FAILED, DATA IS** *hex-data*

Explanation: The verify operation requested on the control statement failed. The actual data is given as 'hex-data'.

Severity: 4 (warning)

System Action: All REPAIR REPLACE actions subject to the current LOCATE scope are ignored. Processing continues at the next LOCATE request, if any.

User Response: Determine why the data (as reported in the message) does not match the expectations of VERIFY option. Make the appropriate correction, and resubmit the REPAIR request in a new utility job step.

Problem Determination: The REPAIR DUMP option can help you determine the correct verification data. Refer to *Utility Guide and Reference* for REPAIR processing constraints.

DSNU655I *csect-name* **DELETE OPERATION SUCCESSFUL**

Explanation: This message is issued during the REPAIR utility in response to a DELETE control statement.

Severity: 0 (informational)

System Action: The data record specified on the previous LOCATE statement and all of its related INDEX entries have been deleted from the system. Processing continues.

DSNU656I *csect-name* **REPLACE OPERATION SUCCESSFUL, DATA WAS** *hex-data*

Explanation: This message is issued by the REPAIR utility in response to a REPLACE control statement request. The message indicates that replacement of the data occurred and that the replaced data had the indicated hexadecimal value ('hex-data').

Severity: 0 (informational)

System Action: The REPAIR utility located the indicated record, performed all requested verifications, and replaced the data in the record at the indicated offset with the new data as defined by the REPLACE control statement.

System Programmer Response: If a changed record is recovered before an image copy is made, and the REPAIR utility was run with LOG NO, the repair must be reapplied. If the REPAIR utility was run with LOG YES, no image copy is required before recovering the data after the repair.

DSNU657I *csect-name* **REPLACE RESET OPERATION SUCCESSFUL**

Explanation: This message is issued by the REPAIR utility in response to a REPLACE RESET control statement request. The message indicates that the broken page indicator has been reset.

Severity: 0 (informational)

System Action: The REPAIR utility has reset the broken page indicator for the specified page. Although the reset indicator has been committed, it has not been logged. If the page is recovered before an image copy is made, the REPAIR RESET must be reapplied.

However, to make the repair persist across subsequent RECOVER operations, an image copy should be taken subsequent to the completion of the REPAIR utility.

DSNU658I *csect-name* **MULTIPLE RECORDS FOUND WITH SPECIFIED KEY**

Explanation: The specified key is not unique. Several DSNU660I messages, giving possible RID values for this KEY, follow this message.

Severity: 8 (error)

System Action: Processing continues normally.

User Response: Change the LOCATE statement to locate the desired RID, and resubmit the request in a new utility job step.

DSNU659I *csect-name* **REPAIR LEVELID OPERATION DISALLOWED.**

Explanation: The REPAIR utility with the LEVELID clause is not allowed. Possible reasons are:

- The data set was in use at the time the REPAIR utility was run.
- The page set has outstanding log apply activity (an indoubt UR has interest in the page set or the page set has pages in the logical page list (LPL)).

Severity: 8 (error)

System Action: Processing ends with this operation.

User Response: The REPAIR LEVELID operation for the given table space cannot continue at this stage. If the page set is in use, you should not attempt to run REPAIR LEVELID. If the page set has log apply activity outstanding (in-doubt UR or pages in LPL), the log apply activity must complete before using REPAIR LEVELID. Submit other REPAIR control statements in a different job step.

DSNU660I *csect-name* **POSSIBLE RID** *rid*

Explanation: 'rid' is one of several records that map to the specified KEY.

Severity: 8 (error)

System Action: Other records also mapping to the specified KEY are identified by other DSNU660I messages. This message is preceded by message DSNU658I. Processing continues normally.

User Response: Change the LOCATE statement to locate the desired RID, and resubmit the request in a new utility job step. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU661I *csect-name* **RECORD NOT FOUND IN PAGE, MAXID=** *hex-data*

Explanation: A RID was either specified or obtained from the clustering index via the specified KEY. The PAGE indicated in the RID did not contain the RECORD indicated in the RID.

Severity: 8 (error)

System Action: Processing proceeds to the next LOCATE statement, if there is one.

User Response: Either change the LOCATE statement to locate a valid RID or KEY, or use LOCATE PAGE and resubmit the REPAIR statements in a new utility job step. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU662I *csect-name* **NO RECORD FOUND WITH SPECIFIED KEY**

Explanation: A KEY was specified on the LOCATE statement, but no entry exists in the clustering index for that KEY.

Severity: 8 (error)

System Action: Processing begins at the next LOCATE statement, if there is one.

User Response: Correct the LOCATE statement, and resubmit the REPAIR statements in a new utility job step.

DSNU663I *csect-name* **PAGE** *hex-page-number* **NOT FOUND**

Explanation: The page identified a record identifier (RID) or KEY does not exist in the specified table space.

Severity: 0 (informational) when issued by DUMP PAGES(n). 8 (error) when issued by LOCATE PAGE(n).

System Action: Processing begins at the next LOCATE statement, if there is one.

User Response: Correct the LOCATE statement, and resubmit the REPAIR statements in a new utility job step.

DSNU664I *csect-name* **INVALID OFFSET OR LENGTH FOR** *xxxxx*

Explanation: 'xxxxx' is 'RECORD' or 'PAGE'. The specified or default values for OFFSET and LENGTH combine to extend beyond the specified record or page.

Severity: 4 (warning)

System Action: Processing continues at the next LOCATE statement, if there is one.

User Response: Correct the OFFSET and/or LENGTH specification, and resubmit the REPAIR statements in a new utility job step. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU665I *csect-name* **NO RECORD ASSOCIATED WITH SPECIFIED RID**

Explanation: A record identifier (RID) was specified on the LOCATE statement, but that RID is not associated with any record in the specified table space. If DELETE processing returns this message, the RID may exist but be invalid for DELETE.

Severity: 8 (error)

System Action: Processing begins at the next LOCATE statement, if there is one. Subsequent utilities in the same job step will not be executed.

User Response: Correct the LOCATE statement, and resubmit the REPAIR statements in a new utility job step.

Problem Determination: REPAIR DELETE will issue this message for RIDs which are internal and do not directly represent user data. The DUMP keyword may be used to view the RID, if it exists. These internal records may only be repaired using the REPLACE keyword.

DSNU666I *csect-name* **NO INDEX EXISTS**

Explanation: The KEY for this table space is not a full clustering key. The statement is invalid.

Severity: 8 (error)

System Action: Processing continues at the next LOCATE statement, if there is one.

User Response: Correct the LOCATE statement to use the clustering index, or change LOCATE by PAGE or RID. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU668I *csect-name* **UNABLE TO CONVERT KEY TO** *format*

Explanation: 'format' specifies the data type to which the KEY specification must be converted. The conversion has failed.

Severity: 8 (error)

System Action: Processing begins at the next LOCATE statement, if there is one.

User Response: Correct the LOCATE statement to specify a KEY either of the indicated data type or of a compatible data-type. Then resubmit the REPAIR statements in a new utility job step. Refer to *Utility Guide and Reference* for a discussion of conversion constraints.

DSNU669I *csect-name* **INDEX NOT FOUND FOR SPECIFIED TABLESPACE**

Explanation: An index was specified on the LOCATE KEY statement via the INDEX keyword, but no index by that name was found related to the specified TABLESPACE.

Severity: 8 (error)

System Action: Processing begins at the next LOCATE statement, if there is one.

User Response: Correct the LOCATE statement and resubmit the REPAIR statements in a new utility job step.

Problem Determination: Valid index names can be found in the SYSIBM.SYSINDEXES catalog table.

DSNU670I *csect-name* **PAGE X** *page-id* **IS A BROKEN PAGE**

Explanation: The indicated page located by the REPAIR utility has been marked broken by the data manager. The 'page id' is given in hexadecimal. This page is not accessible until the broken page indicator is reset by the REPAIR REPLACE RESET option.

Severity: 4 (warning)

System Action: The message reports that the page in which the REPAIR utility is requested to REPLACE some data is broken.

User Response: Determine the cause of the broken page with the assistance of the system programmer. When it is repaired, use the REPAIR RESET option.

System Programmer Response: Determine the cause of the broken page. It could be an internal error and require support center assistance. The REPAIR DUMP option can be used to determine the contents of the page for failure analysis. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU672I *csect-name* **INDEX USED HAS MULTIPLE-FIELD KEY**

Explanation: A REPAIR LOCATE KEY operation was attempted against a table space using an index that has a multiple-field key. LOCATE KEY does not support multiple-field keys.

Severity: 8 (error)

System Action: Processing begins at the next LOCATE scope, if any.

User Response: Change the LOCATE statement to specify PAGE and RID, and resubmit the REPAIR statements in a new utility job step.

DSNU673I *csect-name* **REPAIR LOCATE RID LOCATED A NON-DATA PAGE**

Explanation: The LOCATE RID option of the REPAIR utility was used to process a nondata page.

Severity: 8 (error)

System Action: Processing continues at the next LOCATE statement. Otherwise, processing stops.

User Response: To process nondata pages, use the LOCATE PAGE option in the REPAIR control statements and resubmit the new utility job step. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU678I *csect-name* **VERIFY, REPLACE, DUMP, OR DELETE BEFORE LOCATE**

Explanation: The REPAIR utility was requested to VERIFY, REPLACE, or DUMP or DELETE a page or record and that page of record could not be located.

Severity: 8 (error)

System Action: Processing begins at the next LOCATE statement, if there is one. Subsequent utilities in the same job step will not be executed.

User Response: Correct the REPAIR control statements, and resubmit the request in a new utility job step. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU679I *csect-name* **MULTIPLE 'DELETE'S PER 'LOCATE' NOT ALLOWED**

Explanation: The REPAIR utility was requested to DELETE the same record more than once. Only one DELETE is allowed per LOCATE RID or LOCATE KEY.

Severity: 8 (error)

System Action: Processing begins at the next LOCATE scope, if any. Subsequent utilities in the same job step are not executed.

User Response: Remove all but one DELETE control statement from each LOCATE scope which is intended to delete a record. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU680I *csect-name* **PAGE** *hex-page-number*

Explanation: This message is issued as an identifier at the top of each page dumped by the REPAIR DUMP PAGES facility. 'hex-page-number' identifies the page which is about to be dumped.

Severity: 0 (informational)

System Action: Processing continues.

DSNU681I *csect-name* **SET NOCHECKPEND OPERATION SUCCESSFUL**

Explanation: This message reports the successful completion of the REPAIR SET TABLESPACE NOCHECKPEND utility operation. The check pending restriction has been removed from the specified table space.

Severity: 0(informational)

System Action: The REPAIR SET statement has completed normally.

DSNU682I *csect-name* **SET NORCVRPEND OPERATION SUCCESSFUL**

Explanation: This message reports the successful completion of the REPAIR SET NORCVRPEND utility operation. The RECOVERY PENDING restriction has been removed from the specified table space, from the specified index, or from all indexes of the specified table space.

Severity: 0 (informational)

System Action: The REPAIR SET statement has completed normally.

DSNU683I *csect-name* **REPAIR LEVELID OPERATION SUCCESSFUL.**

Explanation: The REPAIR utility with the LEVELID clause completed successfully.

Severity: 0 (informational)

System Action: Processing completed successfully.

User Response: Submit any other REPAIR control statements in a different job step.

DSNU700I *csect-name nnnn* **INDEX ENTRIES UNLOADED FROM INDEX=***iiii* **PARTITION=***pppp*

Explanation: The CHECK utility UNLOAD phase unloaded nnnn records from the index named iiii and partition pppp.

Severity: 0 (informational)

System Action: Processing continues.

DSNU701I *csect-name nnnn* **INDEX ENTRIES UNLOADED FROM** *iiii*

Explanation: The CHECK Utility UNLOAD phase unloaded nnnn records from the index named iiii. Counters are valid up to four billion.

Severity: 0 (informational)

System Action: Processing continues.

DSNU702I *csect-name* **INVALID INDEX SPECIFICATION. INDEX=***iiii*

Explanation: All tables referenced by the INDEXES being CHECKed or RECOVERed must be in the same table space. Index 'iiii' is not over a table in the table space specified with the TABLESPACE keyword.

Severity: 8 (error)

System Action: Utility processing is discontinued.

User Response: Correct the index name and/or the TABLESPACE parameters such that a single table space is involved, and rerun the utility job.

Problem Determination: To CHECK or RECOVER ALL INDEXES in a table space, use the TABLESPACE keyword, but do not use the list option. This is one way to correct this error. If you want to correct the list of indexes specified in the index name list, the following procedure will locate the table space name related to the index 'iiii'.

The index name 'iiii' reported in the message is of the form 'creator.name'. Obtain the TBCREATOR and TBNAME columns from the DB2 catalog table SYSIBM.SYSINDEXES where columns CREATOR and NAME have the values reported in the message. Obtain the DBNAME and TSNAME columns from the DB2 catalog table SYSIBM.SYSTABLES, where columns CREATOR and NAME have the values obtained from TBCREATOR and TBNAME of SYSIBM.SYSINDEXES.

The values for DBNAME and TSNAME must be the same for all indexes specified in the index name list and must be the same as the table space name specified on the TABLESPACE keyword (if provided).

DSNU703I *csect-name* **INVALID INDEX SPECIFICATION. INDEX=***iiii*

Explanation: All tables referenced by the indexes being CHECKed or RECOVERed must be in the same table space. Index 'iiii' is not over a table in the same table space as the prior indexes listed in the index name list.

Severity: 8 (error)

System Action: Utility processing is discontinued.

User Response: Correct the index name and/or the TABLESPACE parameters such that a single table space is involved, and rerun the utility job.

Problem Determination: To CHECK or RECOVER ALL INDEXES in a table space, use the TABLESPACE keyword, but do not use the list option. This is one way to correct this error. If you want to correct the list of indexes specified in the index name list, the following procedure will locate the table space name related to the index 'iiii'.

The index name 'iiii' reported in the message is of the form 'creator.name'. Obtain the TBCREATOR and TBNAME columns from the DB2 catalog table SYSIBM.SYSINDEXES, where columns CREATOR and NAME have the values reported in the message. Obtain the DBNAME and TSNAME columns from the DB2 catalog table SYSIBM.SYSTABLES, where columns CREATOR and NAME have the values obtained from TBCREATOR and TBNAME of SYSIBM.SYSINDEXES.

The values for DBNAME and TSNAME must be the same for all indexes specified in the index name list and must be the same as the table space name specified on the TABLESPACE keyword if provided.

DSNU705I *csect-name* **UNLOAD PHASE COMPLETE, ELAPSED TIME=***tttt*

Explanation: The unload phase of the CHECK or RECOVER INDEX utility is complete.

Severity: 0 (informational)

System Action: Processing continues.

DSNU706I *csect-name* **ROW IS IN WRONG PARTITION RID=***rrrr***, INDEX=***iiii***, KEY=***kkkk***, CORRECT PART=***pppp***, WRONG PART=***wwww***

Explanation: The row at RID 'rrrr' resides in the wrong partition. The partitioning KEY 'kkkk' for partitioning INDEX 'iiii' indicates that the row at RID 'rrrr' should reside in partition 'pppp', however the rid indicates that the row contains partition 'wwww'.

Severity: 4 (warning)

System Action: Utility processing continues.

User Response: Run RECOVER TABLESPACE utility to recover the data or run REPAIR DELETE utility to delete the row 'rrrr' followed by CHECK INDEX and CHECK DATA utility if referential constraints are involved.

Problem Determination: The inconsistency between the table space partition number of a row and the index space partition number of the row's clustering key may be due to a DB2 internal error, but is most likely due to a user using the DSN1COPY service aid to populate a target table space with data from a source table space when the clustering key values on the source and target table spaces are not identical.

DSNU707I *csect-name* **INDEX ENTRY POINTS TO WRONG TABLE. OBID=***oooo***, RID=***rrrr***, INDEX=**

Explanation: The CHECK utility CHECKIDX phase found that index 'iiii' contains an entry for key 'kkkk' that points to record at RID 'rrrr', but the record belongs to the table with OBID 'oooo'.

Severity: 4 (warning)

System Action: CHECK utility processing continues.

User Response: Run the RECOVER INDEX utility for index 'iiii'.

DSNU708I *csect-name* **INDEX IS NOT UNIQUE. INDEX=***iiii***, KEY=***kkkk***

Explanation: The CHECK utility CHECKIDX phase found that unique index 'iiii' contains a nonunique key, 'kkkk'.

Severity: 4 (warning)

System Action: CHECK utility processing continues.

User Response: Drop the unique index, and delete the duplicate rows. Re-create the index.

DSNU709I *csect-name* **NO INDEX ENTRY FOR ROW. RID=***rrrr***, INDEX=***iiii***, KEY=***kkkk***

Explanation: The CHECK utility CHECKIDX phase found that index 'iiii' is missing an entry for the row at RID 'rrrr' with key 'kkkk'.

Severity: 4 (warning)

System Action: CHECK utility processing continues.

User Response: Run the RECOVER INDEX utility for index 'iiii'.

DSNU710I *csect-name* **INDEX ENTRY CONTAINS INVALID ZERO REPRESENTATION. RID=***rrrr***, INDEX=***iiii***, KEY=***kkkk***

Explanation: The CHECK utility CHECKIDX phase found that index 'iiii' has an entry that contains a negative zero. The index entry is for the row at RID 'rrrr' with key 'kkkk'.

Severity: 4 (warning)

System Action: CHECK utility processing continues.

User Response: Run the RECOVER INDEX utility for index 'iiii'.

DSNU711I *csect-name* **NO ROW FOR INDEX ENTRY. RID=***rrrr***, INDEX=***iiii***, KEY=***kkkk***

Explanation: The CHECK utility CHECKIDX phase found that the index 'iiii' contains an entry that has no row. The index entry contained RID 'rrrr' and key 'kkkk', but RID 'rrrr' is not a valid record.

Severity: 4 (warning)

System Action: CHECK utility processing continues.

User Response: Run the RECOVER INDEX utility for index 'iiii'.

DSNU712I *csect-name* **INDEX OUT OF SEQUENCE. INDEX=***iiii***, KEY=***kkkk***

Explanation: The CHECK utility CHECKIDX phase found that index 'iiii' is not in correct sequence.

Severity: 4 (warning)

System Action: CHECK utility processing continues.

User Response: Run the RECOVER INDEX utility for index 'iiii'.

DSNU713I *csect-name* **KEYS MISMATCH. RID=***rrrr***, INDEX=***iiii***, KEY=***kkkk***, DATA KEY=***jjjj***

Explanation: The CHECK utility CHECKIDX phase found that index iiii contains an entry for the row at rid rrrr that is inconsistent. KEY kkkk does not match DATA KEY jjjj.

Severity: 4 (warning)

System Action: CHECK utility processing continues.

User Response: Run the RECOVER INDEX utility for index 'iiii'.

DSNU715I *csect-name* **MULTIPLE INDEX ENTRIES FOR ROW. RID=***rrrr***, INDEX=***iiii***, KEY=***kkkk***

Explanation: The CHECK utility CHECKIDX phase found that index 'iiii' has multiple index entries for the row at RID 'rrrr' with key 'kkkk'.

Severity: 4 (warning)

System Action: CHECK utility processing continues.

User Response: Run the RECOVER INDEX utility for index 'iiii'.

DSNU717I *csect-name nnnn* **ENTRIES CHECKED FOR INDEX=***iiii* **PARTITION=***pppp*

Explanation: The CHECK utility completed checking index iiii partition pppp and processed nnnn index entries. This message is issued once for each index partition checked. Counters are valid up to four billion.

Severity: 0 (informational)

System Action: Processing continues.

DSNU718I *csect-name* **NO INDEXES FOUND FOR TABLESPACE** *tttt*

Explanation: A utility has been invoked with the TABLESPACE keyword specifying a table space containing tables that have no indexes.

Severity: 4 (warning)

System Action: This message indicates completion of the utility. Processing continues to the next utility statement in the job step, if any. If there are no utility statements following, the job step is terminated normally and the UTILID of the job step becomes available for reuse.

User Response: If the table space specification is in error, correct it and resubmit the utility. If the table space specification is correct, and the table space contains no indexed tables, this is a normal indication and no response is necessary.

DSNU719I *csect-name nnnn* **ENTRIES CHECKED FOR INDEX** *iiii*

Explanation: The CHECK utility has completed checking index 'iiii' and has processed 'nnnn' index entries. This message will be issued once for each index checked. Counters are valid up to four billion.

Severity: 0 (informational)

System Action: Processing continues.

DSNU720I *csect-name* **CHECKIDX PHASE COMPLETE, ELAPSED TIME =** *tttt*

Explanation: The CHECK utility CHECKIDX phase is complete.

Severity: 0 (informational)

System Action: Processing continues.

DSNU721I *csect-name* **- USER** *auth-id* **DOES NOT HAVE DELETE AUTHORITY ON TABLE**

Explanation: The CHECK DATA utility was run with DELETE YES, but user *auth-id* does not have authority to delete from a table specified in the utility statement or from one of its descendents.

Severity: 8 (error)

System Action: Further utility processing is terminated.

User Response: Obtain authorization to delete from the tables specified in the utility statement and any of its descendents that are affected.

DSNU722I *csect-name* **- USER** *userid* **DOES NOT HAVE INSERT AUTHORITY ON EXCEPTION TABLE**

Explanation: The CHECK DATA utility was run with FOR EXCEPTION specified but user 'userid' does not have authority to insert into an exception table specified in the utility statement.

Severity: 8 (error)

System Action: Further utility processing is terminated.

User Response: Obtain authorization to insert into all of the exception tables specified in the utility statement.

DSNU725I *csect-name* **DUPLICATE TABLESPACE** *tsp* **NAMES EXIST IN THE TABLESPACE LIST**

Explanation: This message is issued by the CHECK DATA utility when a duplicate table space 'tsp' is found in the table space list. An entry in the list for the same table space with a partition specified is also considered a duplicate. This is because all partitions are the default when no partition is specified for a partitioned table space. The CHECK DATA utility proceeds and the duplicate entry is skipped.

Severity: 4 (warning)

System Action: Processing continues.

DSNU726I *csect-name* **SCOPE PENDING IS ACTIVE, BUT THE ENTIRE TABLE SPACE** *tsp* **MUST BE CHECKED**

Explanation: This message is issued by the CHECK DATA utility when checking with the option SCOPE PENDING. Table space *tsp* is in check pending status, but the utility is checking all rows in dependent tables or tables defined with check constraints in that table space.

Severity: 4 (warning)

System Action: The utility continues processing.

DSNU727I *csect-name* **TABLESPACE** *tsp* **IS NOT CHECK PENDING**

Explanation: This message is issued when 'CHECK DATA TABLESPACE tsp SCOPE PENDING' is specified and the CHECK DATA utility finds that the table space is not in a check pending state. The CHECK DATA utility skips table space 'tsp' and will continue with any other table space specified. The catalog fields that reflect the extent of a check pending state are updated to ensure that they indicate that no check is required.

Severity: 4 (warning)

System Action: Processing continues.

DSNU728I *csect-name* **INVALID EXCEPTION TABLE** *table2* **FOR** *table1*

Explanation: This message is issued when the CHECK DATA utility finds an exception table is invalid. The exception table named 'table2' which was specified for rows from table, 'table1', is invalid. Either 'table2' was missing columns of 'table1' or 'table2' contained incompatible column attributes. The CHECK DATA utility will terminate processing after all exception tables have been examined.

Severity: 8 (error)

System Action: The CHECK DATA utility will terminate processing after all the exception tables have been examined.

User Response: Refer to Section 2 (Volume 1) of *Administration Guide* for a definition of the CREATE TABLE command with the LIKE operand to correct the invalid exception table.

DSNU729I *csect-name* **TABLE** *table-name* **NOT SPECIFIED IN THE 'FOR EXCEPTION' CLAUSE**

Explanation: The CHECK DATA utility did not find a required table listed in the FOR EXCEPTION clause. All tables with constraints in the table spaces being checked and their descendents must be listed in the FOR EXCEPTION clause of CHECK DATA utility.

Severity: 8 (error)

System Action: The CHECK DATA utility terminates processing after all the required tables are examined.

User Response: Examine the utility input statement to determine the reason for the missing table named in the message. Correct the input statement to include the missing table and resubmit the job. Refer to *Utility Guide and Reference* for information about the FOR EXCEPTION clause of the CHECK DATA utility and use of exception tables.

DSNU730I *csect-name* **CHECKING TABLE** *tab*

Explanation: This message is issued when the CHECK DATA utility begins to process a table. The name of table being checked is 'tab'.

Severity: 0 (informational)

System Action: Processing continues.

DSNU731I *csect-name* **EXCEPTION LIMIT REACHED**

Explanation: The EXCEPTION limit specified on the CHECK utility statement has been reached.

Severity: 8 (error)

System Action: The CHECK utility terminates processing.

User Response: If required, increase the exception limit and resubmit the job.

DSNU732I NO TABLE TO BE CHECKED FOR TABLESPACE *tsp*

Explanation: The CHECK DATA utility determined that none of the tables in table space *tsp* has a constraint defined. Therefore, no table in that table space is checked.

This message is issued by the following CSECT: DSNUKINP

Severity: 4 (warning)

System Action: Utility processing continues.

DSNU733I *csect-name* **ROW (RID=***rrrrrr***) HAS NO PARENT FOR** *rel*

Explanation: This message is issued when the CHECK DATA utility finds a row in a dependent table without a parent. The row with RID, 'rrrrrr', has no parent for the relationship named 'rel'. This message is always proceeded by a DSNU730I message that identifies the table in error.

Severity: 4 (warning)

System Action: Processing continues.

User Response: Refer to Section 2 (Volume 1) of *Administration Guide* for a discussion of the check pending operation.

DSNU735I *csect-name* **DUPLICATE TABLESPACE** *tsp* **PARTITION** *part* **NAMES EXIST IN THE TABLESPACE LIST**

Explanation: This message is issued by the CHECK DATA utility when a duplicate table space 'tsp' and partition 'part' is found in the table space list. An entry in the table space list with a partition specified is considered to be a duplicate when another entry for the same table space with no partition specified (defaults to all partitions for a partitioned table space) is found. In this case, the table space list entry with no partition specified has priority and the entry with a partition specified is skipped. The CHECK DATA utility proceeds and the duplicate entry is skipped.

Severity: 4 (warning)

System Action: Processing continues.

DSNU736I *csect-name* **SCOPE PENDING IS ACTIVE, BUT THE ENTIRE TABLE SPACE** *tsp* **PARTITION** *part* **MUST BE CHECKED**

Explanation: This message is issued by the CHECK DATA utility when checking with the option SCOPE PENDING. Table space *tsp* partition *part* is in check pending status, but the utility is checking all rows in that table space partition.

Severity: 4 (warning)

System Action: The utility continues processing.

DSNU737I *csect-name* **TABLESPACE** *tsp* **PARTITION** *part* **IS NOT CHECK PENDING**

Explanation: This message is issued when 'CHECK DATA TABLESPACE tsp PART part SCOPE PENDING' is specified and the CHECK DATA utility finds that the table space partition is not in a check pending state. The CHECK DATA utility skips table space 'tsp' partition 'part' and continues with any other table space specified. The catalog fields that reflect the extent of a check pending state are updated to ensure that they indicate that no check is required.

Severity: 4 (warning)

System Action: Processing continues.

DSNU739I *csect-name* **CHECK TABLE** *tab* **COMPLETE,** *elapsed time***=***t1*

Explanation: This message is issued when the CHECK DATA utility finishes processing a table. The elapsed clock time that the check of table 'tab' consumed is 't1'.

Severity: 0 (informational)

DSNU740I *csect-name* **CHECKING TABLE** *tab* **PARTITION** *part*

Explanation: This message is issued when the CHECK DATA utility begins to process a table of a partitioned table space in which a single partition was specified. The name of the table and the number of the partition being checked are identified in the message.

Severity: 0 (informational)

System Action: Processing continues.

DSNU741I *csect-name nn* **ROWS DELETED FROM TABLE** *tab*

Explanation: This message is issued by the CHECK DATA utility when the DELETE YES option is specified. The number of rows deleted from TABLE *tab* is the number of rows that contain referential integrity violations or check constraint violations, plus their descendent rows. The number of rows deleted from TABLE *tab* is equal to the number of rows inserted into the corresponding exception table. Counters are valid up to four billion.

Severity: 4 (warning)

System Action: Processing continues.

DSNU742I *csect-name* **ROW (RID=***rrrrrr***) VIOLATES CHECK CONSTRAINT** *constraint-name* **ON TABLE** *table-name*

Explanation: The CHECK DATA utility found that the row with RID=*rrrrrr* in table *table-name* violated check constraint *constraint-name*.

Severity: 4 (warning)

System Action: Processing continues

User Response: Refer to Section 2 (Volume 1) of *Administration Guide* for a discussion of the check pending operation and recovery procedures.

DSNU749I *csect-name* **CHECK DATA COMPLETE, ELAPSED TIME=***t1*

Explanation: This message is issued when the CHECK DATA utility is complete. The elapsed clock time that the CHECK DATA utility consumed is 't1'.

Severity: 0 (informational)

System Action: Processing ends.

DSNU750I *csect-name* **CATMAINT** *operation* **STARTED**

Explanation: The CATMAINT utility started for the indicated operation.

Severity: 0 (informational)

System Action: Utility processing continues normally.

DSNU751I *csect-name* **CATALOG** *operation* **OF TABLE -** *table-name*

Explanation: This message is issued the first time data is operated upon for the designated table.

Severity: 0 (informational)

System Action: Utility processing continues normally.

DSNU752I *csect-name* **CATMAINT** *operation* **COMPLETED**

Explanation: The CATMAINT utility completed for the indicated operation.

Severity: 0 (informational)

System Action: Utility processing continues normally.

DSNU756I *csect-name* **CATALOG TABLE IS EMPTY -** *table-name*

Explanation: This message is issued when the named table is empty.

Severity: 0 (informational)

System Action: Utility processing continues normally.

DSNU759I *csect-name* **INCORRECT UNLOAD DATASET HAS BEEN DETECTED**

Explanation: This message indicates an inconsistency between the release level of the unloaded catalog and the DB2 release that is running the CATMAINT utility.

Severity: 8 (error)

System Action: Utility processing terminates.

User Response: Review the JCL for the job to ensure that the correct unload data set is specified. Verify that the correct level of DB2 is up.

DSNU760I *csect-name* **SPECIFIED USER NOT DEFINED WITH INSTALLATION SYSADM AUTHORITY**

Explanation: The utility can be run only under a user defined with the installation SYSADM authority.

Severity: 8 (error)

System Action: Utility processing terminates.

User Response: Rerun the utility with the proper authorization.

DSNU762I *csect-name* **DUPLICATE RECORD DETECTED FOR TABLENAME -** *table-name* **SEQNO OF THE INPUT RECORD IS -** *seqno* **FOLLOWING IS UP TO 119 BYTES OF RECORD BEING INSERTED**

Explanation: An object created in the target catalog has the same name as an object being migrated from the source catalog.

Severity: 8 (error)

System Action: Utility abends.

User Response: User data should not be in the target catalog before running the CATMAINT utility. Free or drop the object from the target catalog and rerun the CATMAINT utility.

DSNU764I csect-name FOLLOWING IS UP TO 119 BYTES OF RECORD FOR TABLE table-name, SEQNO seqno BEING PROCESSED AT THE TIME OF ERROR

Explanation: An abend occurred during the execution of the CATMAINT utility, during the processing of the table, 'table-name', with a sequence number of 'seqno'. The cause of the abend is one of the following:

- The record sequence number was invalid.
- An unexpected return code was received from DSNUEXLO.
- The table name was not found in the load table (DSNUELTB).
- The parent record could not be positioned.

- The position OBID was zero (DSNUELTB has incorrect value).
- The record action code is incorrect.

Following this message, up to the first 119 bytes of the record in question is displayed.

Severity: 8 (error)

System Action: Utility abends.

User Response: Verify that the record in the unloaded data set is correct.

DSNU765I *csect-name* **THE DB2 CATALOG IS NOT AT THE REQUIRED LEVEL. CATALOG NOT UPDATED**

Explanation: The DB2 catalog is not at the proper catalog level to migrate the catalog. An attempt was made to migrate the catalog from a DB2 release from which migration is not supported.

Severity: 8 (error)

System Action: Utility processing terminates.

User Response: Fall back to the previous release. Migrate only from DB2 releases from which migration is supported.

DSNU766I *csect-name* **THE CATALOG HAS ALREADY BEEN MIGRATED. NO ACTION WILL BE TAKEN**

Explanation: The catalog was already successfully migrated. There is no reason to rerun the catalog migration job. Therefore, no action is taken to update the DB2 catalog.

Severity: 0 (informational)

System Action: Processing ends.

DSNU767I *csect-name* **DB2 SYSTEM MUST BE STARTED ACCESS(MAINT)**

Explanation: In order for the utility to execute, the DB2 subsystem must be started with ACCESS(MAINT). This message indicates that the subsystem was not started in this manner.

Severity: 8 (error)

System Action: -STOP DB2, and then -START DB2 with ACCESS(MAINT).

DSNU768I *csect-name* **CATMAINT CONVERT COMPLETE FOR INDEX** *index-name*

Explanation: The conversion is complete for index *index-name*.

Severity: 0 (informational)

System Action: Processing continues with the next index.

DSNU769I *csect-name* **THE BUILD PHASE FAILED FOR INDEX** *index-name* **REASON** *reason*

Explanation: The CATMAINT CONVERT build phase failed for index *index-name*. This message and others identify the actions that should be taken.

Severity: 8 (error)

Operator Response: Note the reason code and the index name. See the Problem Determination section for an explanation of the collected data.

System Action: Utility processing continues with the next index and will terminate with return code 8.

User Response: Correct the problem indicated by the reason code. Either resubmit the CATMAINT CONVERT job or recover the index that failed.

Problem Determination: The reason the build phase failed is identified by the reason code, which is described in “Section 4. DB2 Codes” on page 4-1.

DSNU770I *csect-name* **- DBD** *type* **STARTED FOR DATABASE** *database*

Explanation: This message marks the start of the REPAIR DBD type utility. In the message, 'type' can be DIAGNOSE, REBUILD, or TEST. The database name specified in the REPAIR statement is 'database'.

Severity: 0 (informational)

System Action: Utility processing continues normally.

DSNU771I *csect-name* **- DBD** *type* **COMPLETE FOR DATABASE** *database*

Explanation: This message marks the completion of the REPAIR DBD type utility. In the message, 'type' can be DIAGNOSE, REBUILD, or TEST. The database name specified in the REPAIR statement is 'database'.

Severity: 0 (informational)

System Action: Utility processing continues normally.

DSNU772I *csect-name* **- THE** *object-type qualifier.object-name* **IS UNAVAILABLE IN THIS RELEASE**

Explanation: This message indicates that the specified object has a dependency on a release from which fall back has occurred, and cannot be operated upon in the current release.

Severity: 8 (error)

System Action: Utility processing terminates.

User Response: Check the IBMREQD column of the catalog table associated with the specified object type. If the value in the catalog table is the release dependency mark for a release of DB2 from which fall back has occurred, the utility is not operational for the current release of the targeted database.

DSNU773I *csect-name* **-** *database* **IS A SYSTEM DATABASE AND CANNOT BE PROCESSED**

Explanation: The database indicated is not eligible for processing by the type of the REPAIR DBD utility involved.

Severity: 8 (error)

System Action: Utility processing terminates.

User Response: Ensure that the utility control statement specifies the correct database.

DSNU774I *csect-name* **- SPECIFIED DATABASE** *database* **NOT FOUND**

Explanation: The database indicated by the utility control statement was not found in catalog table SYSIBM.SYSDATABASE.

Severity: 8 (error)

System Action: Utility processing terminates.

User Response: Ensure that the database indicated by the utility control statement exists in SYSIBM.SYSDATABASE.

DSNU775I *csect-name* **- DROP OF DATABASE** *dbname* **FAILED WITH SQLCODE =** *sqlcode*

Explanation: An error was encountered while using the REPAIR DBD DROP utility to drop DATABASE 'dbname'. The SQL error code is indicated by 'sqlcode'.

Severity: 8 (error)

System Action: DATABASE 'dbname' is not dropped.

User Response: For a description of the SQL error code that was issued, refer to “Section 2. SQL Return Codes” on page 2-1.

DSNU776I *csect-name* **CATMAINT** *operation* **ERROR - *error-text*.**

Explanation: The CATMAINT utility was terminated because the catalog contains one or more of the following (indicated by *error-text*):

- Type 1 indexes
- Data set passwords
- Shared read-only data

Severity: 0 (informational)

System Action: Utility processing terminates.

System Programmer Response: Convert all type 1 indexes to type 2, remove all data set passwords, and convert all shared read-only data. Then retry the failing CATMAINT *operation*. This message is followed by an abend04E RC00E40601. See the problem determination text of RC00E40601 for additional information.

DSNU777I *csect-name* **CATMAINT** *operation* **STATUS** *status-msg*

Explanation: The CATMAINT utility is processing CATMAINT *operation status-msg* indicates where CATMAINT is in the *operation* process.

Severity: 0 (informational)

System Action: Utility processing continues normally.

DSNU778I *csect-name* **- ERROR PROCESSING SQL STATEMENT - SQL CODE IS:** *sql-code* **SQL MESSAGE TOKENS:** *message-token(s)* **THE FOLLOWING IS THE PROBLEM SQL STATEMENT:** *sql-statement*.

Explanation: There was a utility abend in the DB2 database services address space (ssnmDBM1) during CATMAINT UPDATE processing. The *message-tokens* displayed are those found in the SQLERRMT field of the SQLCA, separated by commas, for the indicated SQLCODE *sql-code*. The problem SQL statement *sql-statement:* is also displayed.

Severity: 0 (informational)

System Action: Utility processing abends.

System Programmer Response: This message is followed by an abend04E RC00E40601. The *sql-code*, *message-tokens*, and *sql-statement* listed in this message are probably sufficient to diagnose and correct the problem. See the problem determination text of RC00E40601 for additional information.

DSNU780I *csect-name* **DSNUTILB LEVEL** *rel1* **INVALID WITH SUBSYSTEM LEVEL** *rel2*

Explanation: JCL has been submitted which executes level 'rel1' of DSNUTILB against a level 'rel2' DB2 subsystem. The levels must match.

Severity: 8 (error)

System Action: The utility terminates with a return code of 8.

User Response: Determine the DB2 subsystem against which you wish to execute. Determine which STEPLIB data set contains the corresponding DSNUTILB load module. Correct the JCL to specify the correct data set on the STEPLIB DD statement and the correct DB2 subsystem on the EXEC statement and resubmit the job.

DSNU781I *csect-name* **RESTART OF LEVEL** *rel1* **UTILITY AT LEVEL** *rel2* **INVALID**

Explanation: JCL has been submitted which attempts to RESTART a stopped utility. The utility began processing at level 'rel1' and cannot be restarted at level 'rel2'.

System Action: The utility job is abended with reason code X'00E40018'.

User Response: Either restart the utility at the same level it was originated or terminate the utility with the TERM command and resubmit it at the new level. Refer to *Command Reference* for special TERM command considerations.

DSNU782I *csect-name* **UNABLE TO RECOVER DUE TO ACTIVITY AT ANOTHER SYSTEM LEVEL**

Explanation: The RECOVER utility is unable to recover the specified table space. Activity at another system level has left all image copies for this table space inconsistent with the DB2 LOG.

Severity: 8 (error)

System Action: The utility terminates with a return code of 8.

User Response: The table space, in its entirety can not be recovered. Individual data sets may be recoverable using the DSNUM() keyword.

DSNU783I *csect-name* **Indexes DSNSCT02, DSNLUX01, DSNLUX02 and DSNLLX02 have SUBPAGES value greater than 1 and cannot become GROUP BUFFER POOL DEPENDENT.**

Explanation: CATMAINT CONVERT TO TYPE 1 DIRECTORY alters the indexes DSNSCT02, DSNLUX01, DSNLUX02, and DSNLLX02 to type 1 with more than one subpage. In a data sharing environment, there cannot be inter-DB2 R/W interest on type 1 indexes with more than one subpage (they cannot become *group buffer pool dependent*). This means that any read or update request that causes inter-DB2 R/W interest on these directory indexes is denied with a 'resource unavailable' condition.

For directory indexes, only type 2 indexes can have full R/W sharing among data sharing members.

Severity: 4 (warning)

System Action: Processing continues.

User Response: With very few exceptions, indexes on the directory will have inter-DB2 R/W interest if there are two or more members in your DB2 data sharing group. Use CATMAINT CONVERT TO TYPE 2 DIRECTORY to convert the indexes to type 2 if you plan to have two or more DB2 members.

DSNU860I *csect-name* **DIAGNOSE UTILITY COMPLETE**

Explanation: This message is issued in response to the normal completion of the DIAGNOSE utility.

Severity: 0 (informational)

System Action: This message indicates the normal completion of the DIAGNOSE utility. Processing continues to the next utility statement in the utility job step.

DSNU861I *csectname* **DISPLAY MEPL**

Explanation: This is the header message for output of the DIAGNOSE DISPLAY MEPL function. The contents of the MEPL is dumped to SYSPRINT.

Severity: 0 (informational)

System Action: This message indicates the beginning of DIAGNOSE DISPLAY MEPL processing.

DSNU863I *csect-name* **DISPLAY OBD** *dbname.tsname*

Explanation: This message is the heading message for DIAGNOSE DISPLAY OBD output.

Severity: 0 (informational)

System Action: This message indicates the start of the output for the DIAGNOSE DISPLAY OBD function.

DSNU864I *csect-name* **DISPLAY OBD, DBID=***nn* **OBID=***nn* **OBD TYPE=***type*

Explanation: This message is the heading message for the OBD being displayed.

Severity: 0 (informational)

System Action: This message identifies the OBD being displayed.

DSNU865I *csect-name* **DISPLAY OBD** *dbname.tsname* **COMPLETE**

Explanation: This message is issued in response to normal completion of DISPLAY OBD processing.

Severity: 0 (informational)

System Action: This message indicates the end of DISPLAY OBD processing.

DSNU866I *csect-name* **DISPLAY SYSUTIL JOB INFORMATION**

Explanation: This message is the header message for the SYSUTIL JOB INFORMATION section of the DIAGNOSE DISPLAY SYSUTIL output. This section displays the job information area of the SYSUTIL record and contains information which identifies the utility the SYSUTIL record is referencing.

Severity: 0 (informational)

System Action: This message identifies the SYSUTIL JOB INFORMATION section of the DIAGNOSE DISPLAY SYSUTIL output.

DSNU867I *csect-name* **DISPLAY SYSUTIL CHECKPOINT/RESTART INFORMATION**

Explanation: This message is the header message for the SYSUTIL UTILITY CHECKPOINT/RESTART INFORMATION section of the DIAGNOSE DISPLAY SYSUTIL output. This section displays the utility checkpoint/restart area of the SYSUTIL record and contains information pertaining to utility processing needed for the restart of the utility.

Severity: 0 (informational)

System Action: This message identifies the SYSUTIL UTILITY CHECKPOINT/RESTART INFORMATION section of the DIAGNOSE DISPLAY SYSUTIL output.

DSNU868I *csect-name* **DISPLAY SYSUTIL UTILITY DEPENDENT AREA**

Explanation: This message is the header message for the SYSUTIL UTILITY DEPENDENT INFORMATION section of the DIAGNOSE DISPLAY SYSUTIL output. This section displays the utility dependent area of the SYSUTIL record and contains information particular to the utility which the SYSUTIL record is referencing.

Severity: 0 (informational)

System Action: This message identifies the SYSUTIL UTILITY DEPENDENT INFORMATION section of the DIAGNOSE DISPLAY SYSUTIL output.

DSNU869I *csect-name* **DISPLAY SYSUTIL COMPLETE**

Explanation: This message is issued in response to normal completion of DISPLAY SYSUTIL processing.

Severity: 0 (informational)

System Action: This message indicates the end of DISPLAY SYSUTIL processing.

DSNU870I *csect-name* **NO SYSUTIL RECORD FOUND**

Explanation: This message is issued if no SYSUTIL records are found when DISPLAY SYSUTIL is specified.

Severity: 4 (warning)

System Action: This message indicates the end of DISPLAY SYSUTIL processing.

DSNU871I *csectname* **DISPLAY DBET DATABASE** *dbname*

Explanation: This message is the heading for display output of the database exception table (DBET) entry associated with database *dbname*.

Severity: 0 (informational)

System Action: DIAGNOSE DISPLAY DBET processing started for the named database.

DSNU872I *csectname* **DISPLAY DBET TABLE SPACE** *tsname*

Explanation: This message is the heading for display output of the database exception table (DBET) entry associated with table space *tsname*.

Severity: 0 (informational)

System Action: DIAGNOSE DISPLAY DBET processing started for the named table space.

DSNU873I *csectname* **DISPLAY DBET INDEX** *index-name*

Explanation: This message is the heading for display output of the database exception table (DBET) entry associated with index *index-name*.

Severity: 0 (informational)

System Action: DIAGNOSE DISPLAY DBET processing started for the named index.

DSNU874I *csectname* **NO DBET ENTRY FOUND FOR THE SPECIFIED OBJECT**

Explanation: There is no database exception table (DBET) entry associated with the specified object.

Severity: 4 (warning)

System Action: Processing continues normally.

DSNU875I *csectname* **DIAGNOSE WAIT AT MESSAGE=***msgno* **INSTANCE=***nn* **CORR ID=***id1* **CONN ID=***id2* **REPLY TO CONT**

Explanation: The DIAGNOSE WAIT function was invoked to wait at a specified message 'msgno' on the nn'th time that message was issued. The CORR ID is the correlation identifier of the thread associated with the waiting application. The CONN ID is the connection identifier of the thread.

Severity: 4 (warning)

System Action: Processing is stopped until the user responds to this message.

User Response: See operator response.

Operator Response: After diagnosis procedure in progress is completed, reply to this message to continue execution. Any reply is valid.

System Programmer Response: None required

DSNU876I *csectname* **DIAGNOSE WAIT AT TRACEID=X'trcid' INSTANCE=***nn* **CORR ID=***id1* **CONN ID=***id2* **REPLY TO CONT**

Explanation: The DIAGNOSE WAIT function was invoked to wait at a specified traceid 'trcid' on the nn'th time that traceid was encountered. The CORR ID is the correlation identifier of the thread associated with the waiting application. The CONN ID is the connection identifier of the thread.

Severity: 4 (warning)

System Action: Processing is stopped until the user responds to this message.

User Response: See operator response.

Operator Response: After diagnosis procedure in progress is complete, reply to this message to continue execution. Any reply is valid.

System Programmer Response: None required

DSNU877I event modulename+offset

Explanation: Event 'event' occurred at module 'modulename' plus 'offset'. The DIAGNOSE utility issues this message to aid in diagnosing utility problems.

This message is issued by the following CSECTs: DSNUGCMA DSNUGCMB

Severity: 0 (informational)

System Action: Processing continues normally.

DSNU900I *csect-name* **- DBD X'xxxx' COMPARISON STARTING**

Explanation: This message marks the start of a DBD comparison for the REPAIR DBD TEST or REPAIR DBD DIAGNOSE utility. The DBID of the DBD being compared against the DB2 Catalog is 'xxxx'.

Severity: 0 (informational)

System Action: DBD checking continues normally.

DSNU901I *csect-name* **- OBD X'xxxx'** *obd-type* **HAS THE FOLLOWING DIFFERENCES**

Explanation: This message marks the start of an OBD comparison for the REPAIR DBD TEST or REPAIR DBD DIAGNOSE utility. This message is displayed when a difference in the OBDs has been detected. The OBID of the OBD being compared against the DB2 catalog is 'xxxx'. The type of OBD being displayed is 'obd-type'.

Severity: 0 (informational)

System Action: DBD checking continues normally.

DSNU902I *csect-name* **- EXISTING OBD AT OFFSET X'xxxxxxxx' IN EXISTING DBD**

Explanation: Following this message is a hexadecimal dump of the OBD as it exists in the DSNDB01.DBD01 page set. In the message, 'xxxxxxxx' is the hexadecimal offset from the beginning of the existing DBD as it appears later in the REPAIR DBD DIAGNOSE output.

Severity: 0 (informational)

System Action: DBD checking continues normally.

DSNU903I *csect-name* **- REBUILT OBD AT OFFSET X'xxxxxxxx' IN REBUILT DBD**

Explanation: Following this message is a hexadecimal dump of the OBD that was rebuilt from the DB2 Catalog. In the message, 'xxxxxxxx' is the hexadecimal offset from the beginning of the rebuilt DBD as it appears later in the REPAIR DBD DIAGNOSE output.

Severity: 0 (informational)

System Action: DBD checking continues normally.

DSNU904I *csect-name* **- EXISTING VALUE X'xx..xx'**

Explanation: This message shows a hexadecimal string which is the value of a field in the OBD as it exists on the DSNDB01.DBD01 page set. The hexadecimal string is 'xx..xx'.

Severity: 0 (informational)

System Action: DBD checking continues normally.

DSNU905I *csect-name* **- REBUILT VALUE X'xx..xx'**

Explanation: This message shows a hexadecimal string which is the value of a field in the OBD which was rebuilt from the DB2 catalog. The hexadecimal string is 'xx..xx'.

Severity: 0 (informational)

System Action: DBD checking continues normally.

DSNU906I *csect-name* **- EXISTING VALUE 'cc..cc'**

Explanation: This message shows a character string which is the value of a field in the OBD as it exists on the DSNDB01.DBD01 page set. The character string is 'cc..cc'.

Severity: 0 (informational)

System Action: DBD checking continues normally.

DSNU907I *csect-name* **- REBUILT VALUE 'cc..cc'**

Explanation: This message shows a character string which is the value of a field in the OBD which was rebuilt from the DB2 catalog. The character string is 'cc..cc'.

Severity: 0 (informational)

System Action: DBD checking continues normally.

DSNU908I *csect-name* **- EXISTING OBD IS** *obd-type*

Explanation: This message shows the OBD type of the OBD which exists on the DSNDB01.DBD01 page set.

Severity: 0 (informational)

System Action: DBD checking continues normally.

DSNU909I *csect-name* **- REBUILT OBD IS** *obd-type*

Explanation: This message shows the OBD type of the OBD which was rebuilt from the DB2 catalog.

Severity: 0 (informational)

System Action: DBD checking continues normally.

DSNU910I *csect-name* **- EXISTING DBD**

Explanation: Following this message is a hexadecimal dump of the DBD which exists on the DSNDB01.DBD01 page set.

Severity: 0 (informational)

System Action: DBD checking continues normally.

DSNU911I *csect-name* **- REBUILT DBD**

Explanation: Following this message is a hexadecimal dump of the DBD which was rebuilt from the DB2 Catalog.

Severity: 0 (informational)

System Action: DBD checking continues normally.

DSNU912I *csect-name* **-** *phase-completion-message* **--** *nn* **ERRORS WERE FOUND**

Explanation: This message marks the end of a processing phase in the DBD comparison for a REPAIR DBD TEST or REPAIR DBD DIAGNOSE utility. In the message, 'nn' indicates the number of errors detected while processing. Informational and warning messages are not added into the error count.

Severity: 0 (informational)

System Action: DBD checking continues normally.

DSNU913I *csect-name* **- OBD X'xxxx' COMPARISON COMPLETE --** *nn* **ERRORS WERE FOUND**

Explanation: This message marks the end of an OBD comparison for the REPAIR DBD TEST or REPAIR DBD DIAGNOSE utility. This message is displayed only when a difference has been detected. If there is no difference, this message will not be displayed. The OBID of the OBD being compared against the DB2 catalog is 'xxxx'. The number of errors in this OBD is 'nn'. Informational and warning messages are not added into the error count.

Severity: 0 (informational)

System Action: DBD checking continues normally.

DSNU914I *csect-name* **- DBD X'xxxx' COMPARISON COMPLETE --** *nn* **ERRORS WERE FOUND**

Explanation: This message marks the end of a DBD comparison for the REPAIR DBD TEST or REPAIR DBD DIAGNOSE utility. The DBID of the DBD being compared against the DB2 catalog is 'xxxx'. The total number of errors found in this DBD is 'nn'.

Severity: 0 (informational)

System Action: DBD checking completed.

DSNU915I *csect-name* **- OBD X'obid' E-X'xxxxxxxx' R-X'yyyyyyyy'** *obd-description*

Explanation: This message is used when listing the OBDs in the REPAIR DBD DIAGNOSE utility. The OBID of the OBD being listed is 'obid'. The offset to the OBD within the EXISTING DBD which is displayed later in the output is 'xxxxxxxx'. The offset to the OBD within the REBUILT DBD which is displayed later in the output is 'yyyyyyyy'. A short description of the state of the OBD is 'obd-description'.

Severity: 0 (informational)

System Action: DBD checking completed.

DSNU916I *csect-name* **- OBDS DIFFER AT OFFSET X'xxxxxxxx'** *field-name* **- INFORMATION NOT IN DB2 CATALOG**

Explanation: This message indicates the value of a field in the OBD differs from the DBD which exists on the DSNDB01.DBD01 page set and the DBD rebuilt from the DB2 catalog. This is information which is not kept in the DB2 catalog. This is an acceptable difference and does not indicate that the OBD is damaged. The hexadecimal offset from the beginning of the OBD is 'xxxxxxxx'. The name of the field is 'field-name'.

Severity: 0 (informational)

System Action: DBD checking continues normally.

DSNU917I *csect-name* **- DBDS DIFFER AT OFFSET X'xxxxxxxx'** *field-name* **- INFORMATION NOT IN DB2 CATALOG**

Explanation: This message indicates that the value of a field in the DBD differs from the DBD which exists on the DSNDB01.DBD01 page set and the DBD rebuilt from the DB2 Catalog. This is information which is not kept in the DB2 catalog. This is an acceptable difference and does not indicate that the DBD is damaged. The hexadecimal offset from the beginning of the DBD is 'xxxxxxxx'. The name of the field is 'field-name'.

Severity: 0 (informational)

System Action: DBD checking continues normally.

DSNU919I *csect-name* **- DBD X'xxxx' OBD X'yyyy' -** *details*

Explanation: This message gives detailed information about the specified OBD. The DBID of the DBD is 'xxxx'. The OBID of the OBD is 'yyyy'. A description of the error is 'details'.

Severity: 0 (informational)

System Action: DBD checking continues normally.

DSNU920I *csect-name* **- OBDS DIFFER AT OFFSET X'xxxxxxxx'** *field-name*

Explanation: This message indicates that the value of a field in the OBD differs from the DBD which exists on the DSNDB01.DBD01 page set and the DBD rebuilt from the DB2 catalog. The DB2 Catalog and DBD/OBD are inconsistent. The hexadecimal offset from the beginning of the OBD is 'xxxxxxxx'. The name of the field is 'field-name'.

Severity: 4 (warning)

System Action: DBD checking continues normally.

DSNU921I *csect-name* **- OBD X'xxxx' MISSING IN EXISTING DBD**

Explanation: This message indicates that an OBD which was rebuilt from the DB2 catalog does not exist in the DBD which exists on the DSNDB01.DBD01 page set. The DB2 catalog and DBD/OBD are inconsistent. The OBID of the missing OBD is 'xxxx'.

Severity: 4 (warning)

System Action: DBD checking continues normally.

DSNU922I *csect-name* **- OBD X'xxxx' MISSING IN REBUILT DBD**

Explanation: This message indicates that an OBD in the DBD which exists on the DSNDB01.DBD01 page set does not exist in the DBD which was rebuilt from the DB2 catalog. The DB2 catalog and DBD/OBD are inconsistent. The OBID of the missing OBD is 'xxxx'.

Severity: 4 (warning)

System Action: DBD checking continues normally.

DSNU923I *csect-name***—OBDTYPE FOR OBD X'xxxx' DOES NOT MATCH —NO FURTHER CHECKING DONE FOR THIS OBD**

Explanation: The object descriptor (OBD) that exists on the DSNDB01.DBD01 page set is different from the type of OBD that was rebuilt from the DB2 catalog. No further processing can be done because the fields of one OBD type are different from the fields of another. The DB2 catalog and database descriptor (DBD)/OBD are inconsistent. The object identifier (OBID) of the OBD that is inconsistent is 'xxxx'.

Severity: 4 (warning)

System Action: Checking for OBD X'xxxx' stops. Checking of the DBD continues normally.

DSNU924I *csect-name***—DBDS DIFFER AT OFFSET X'xxxxxxxx'** *field-name*

Explanation: The value of a field in the database descriptor (DBD) differs from the value of the corresponding field in the DBD that exists on the DSNDB01.DBD01 page set and differs from the value of the corresponding field in the DBD that was rebuilt from the DB2 catalog.

xxxxxxxx	The hex offset from the beginning of the DBD.
field-name	The name of the field.

Severity: 0 (informational)

System Action: Checking of the DBD continues normally.

DSNU925I *csect-name***—OBDDFILE AT OFFSET X'xxxxxxxx' IN EXISTING DBD HAS OBID X'nnnn' WHICH IS NOT A FILE OBD**

Explanation: The field that points to the first FILE OBD (OBDDFILE) in the database descriptor (DBD) that exists on the DSNDB01.DBD01 page set does not point to a FILE OBD. The DB2 catalog and DBD/OBD (object descriptor) are inconsistent.

xxxxxxxx	The hex offset from the beginning of the existing DBD.
nnnn	The object identifier (OBID) of the OBD which should be a FILE OBD.

Severity: 4 (warning)

System Action: Checking of the DBD continues normally.

DSNU926I *csect-name*—**OBDDFILE AT OFFSET X'xxxxxxxx' IN REBUILT DBD HAS OBID X'nnnn' WHICH IS NOT A FILE OBD**

Explanation: The field that points to the first FILE OBD (OBDDFILE) in the database descriptor (DBD) that was rebuilt from the DB2 catalog does not point to a FILE OBD. The DB2 catalog and DBD/OBD (object descriptor) are inconsistent.

xxxxxxxx	The hex offset from the beginning of the rebuilt DBD.
nnnn	The object identifier (OBID) of the OBD that should be a FILE OBD.

Severity: 4 (warning)

System Action: Checking of the DBD continues normally.

DSNU927I *csect-name*—**OBD X'xxxx' IS A HOLE IN EXISTING DBD**

Explanation: The object descriptor (OBD) that exists on the DSNDB01.DBD01 page set has been logically deleted, OBDHOLE = '1'B. The DB2 catalog and database descriptor (DBD)/OBD are inconsistent. The object identifier (OBID) of the OBD that is a hole is 'xxxx'.

Severity: 4 (warning)

System Action: Checking of the DBD continues normally.

DSNU928I *csect-name*—**OBD X'xxxx' IS A HOLE IN REBUILT DBD**

Explanation: The object descriptor (OBD) that was rebuilt from the DB2 catalog has been logically deleted, OBDHOLE = '1'B. The DB2 catalog and database descriptor (DBD)/OBD are inconsistent. The object identifier (OBID) of the OBD that is a hole is 'xxxx'.

Severity: 4 (warning)

System Action: Checking of the DBD continues normally.

DSNU929I *csect-name*—**OBD FIELD** *field-name* **HAS VALUE OUT OF RANGE AT OFFSET X'xxxxxxxx' IN OBD X'nnnn'**

Explanation: The object descriptor (OBD) field 'field-name' has an unexpected value. The DB2 catalog and database descriptor (DBD)/OBD are inconsistent.

field-name	The name of the field in the OBD.
xxxxxxxx	The hex offset from the beginning of the OBD.
nnnn	The object identifier (OBID) of the OBD.

Severity: 4 (warning)

System Action: Checking of the DBD continues normally.

DSNU930I *csect-name*— **INDEX** *index-name* **(OBD X'xxxx') MUST BE RECOVERED**

Explanation: The index 'index-name' must be either recovered or dropped and recreated to ensure that the index is consistent with the description in the INDEX FANSET OBD. The object descriptor (OBD) is not damaged. However, if the index is not either recovered or dropped and recreated, incorrect output can be produced when the index is used as an access path.

index-name	The name of the index found in SYSIBM.SYSINDEXES.
xxxx	The object identifier (OBID) of the OBD.

Severity: 8 (error)

System Action: Checking of the DBD continues normally.

DSNU931I *csect-name* **- OBDDMAX FIELD OF DBD IS TOO LARGE**

Explanation: The OBDDMAX field (maximum number of ID in the DBD) is too large. It is larger than the largest possible number of ID based upon the DBD size.

Severity: 8

System Action: Checking of the DBD continues but using the largest possible number of ID instead of the incorrect OBDDMAX.

DSNU935I *csect-name* **DATABASE** *database-name* **IS NOT STARTED FOR UTILITY PROCESSING ONLY**

Explanation: This message is issued when the REPAIR utility with the DBD option is run on a database that is not started for utility processing only.

Severity: 8

System Action: REPAIR DBD terminated.

User Response: Stop the database. Then start the database with the ACCESS(UT) option. Resubmit the REPAIR DBD job.

DSNU938I *csect-name*—**OBD X'xxxx' HAD DIFFERENCES WHICH WERE NOT IN A NAMED FIELD**

Explanation: There is a difference between the object descriptor (OBD) in the database descriptor (DBD) that exists on the DSNDB01.DBD01 page set and the DBD that was rebuilt from the DB2 catalog. This difference does not exist in a named field. Therefore, the detailed search by field name fails to find the difference. The DB2 catalog and DBD/OBD are inconsistent. The object identifier (OBID) of the OBD in error is 'xxxx'.

Severity: 4 (warning)

System Action: Checking of the DBD continues normally.

DSNU939I *csect-name*—**DBD HEADER HAD DIFFERENCES WHICH WERE NOT IN A NAMED FIELD**

Explanation: There is a difference between the DBD header in the DBD that exists on the DSNDB01.DBD01 page set and the DBD that was rebuilt from the DB2 catalog. This difference does not exist in a named field. Therefore, the detailed search by field name fails to find the difference. The DB2 catalog and database descriptor (DBD)/object descriptor (OBD) are inconsistent.

Severity: 4 (warning)

System Action: Checking of the DBD continues normally.

DSNU971I *csect-name* **TABLESPACE** *dbname.tsname* **IS CHECK PENDING CORRELATION-ID** *id1* **CONNECTION-ID** *id2* **LUW-ID** *id3*

Explanation: This message is sent to the console when TABLESPACE 'tsname' is set to check pending state. The CORRELATION-ID 'id1' is the correlation identifier of the thread requesting check pending. Correlation IDs beginning with '0nn', where 'nn' is a number from 01 to 28, identify system agents. The CONNECTION-ID 'id2' is the correlation identifier of the thread. The LUW-ID 'id3' is the logical-unit-of-work identifier of the thread. If the LUW-ID is an '*', the thread has no LUW-ID. If it is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

Severity: 4 (warning)

System Action: Processing continues.

User Response: Refer to Section 2 (Volume 1) of *Administration Guide* for a discussion of the check pending operation.

DSNU972I *csect-name* **CATALOG UPDATING FAILURE WHILE SETTING OR RESETTING CHECK PENDING CORRELATION-ID** *id1* **CONNECTION-ID** *id2*

Explanation: When the check pending state is set on or off, the updating of the catalog tables (SYSTABLESPACE, SYSTABLES, and SYSTABLEPART) fails. The CORRELATION-ID, 'id1', is the correlation identifier of the thread associated with the application requesting that the check pending state be set on or off. The CONNECTION-ID, 'id2', is the correlation identifier of the application. Correlation IDs beginning with '0nn', where 'nn' is a number from 01 to 28, identify system agents.

Severity: 0 (informational) or 4 (warning)

System Action: Processing continues.

Problem Determination: The utility being processed requested the setting of check pending either on or off. The updating of the STATUS column of SYSTABLESPACE, and of the CHECKFLAG and CHECKRID columns of SYSTABLES and SYSTABLEPART failed. Processing continues normally. However, those columns for the rows being updated now contain invalid values. Subsequent utility processing ignores these values, and the next setting or resetting of check pending for that table space corrects the error in one of the following ways:

- If the table space is set to check pending and the catalog fields are in error, the scope of check pending is escalated in the catalog. (The STATUS column of SYSTABLESPACE is set to 'P', and the CHECKFLAG and CHECKRID columns of SYSTABLES and SYSTABLEPART are set to 'C' and binary zeros.)
- If the table space is set to not check pending and the catalog fields are in error, the scope of check pending is set off in the catalog. (The STATUS column of SYSTABLES is set to an 'A', and the CHECKFLAG and CHECKRID columns of SYSTABLES and SYSTABLEPART are set to blanks.)

After the catalog fields are corrected, the setting or resetting of check pending continues as specified.

Usually message DSNT500I or DSNT501I is also issued, because the probable cause of the error is RESOURCE UNAVAILABLE. If the reason for the failure was not RESOURCE UNAVAILABLE, an SVC dump is requested and processing continues normally. To determine the cause of the failure, refer to the dump listing and the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32

DSNU973I *csect-name* **TABLESPACE** *dbname.tsname* **IS NOT CHECK PENDING CORRELATION-ID** *id1* **CONNECTION-ID** *id2* **LUW-ID** *id3*

Explanation: This message is sent to the console when TABLESPACE 'tsname' was set to 'not check pending'. The CORRELATION-ID 'id1' is the correlation identifier of the thread requesting the check pending state be set off. Correlation IDs beginning with '0nn', where 'nn' is a number from 01 to 28, identify system agents. The CONNECTION-ID 'id2' is the correlation identifier of the thread. The LUW-ID 'id3' is the logical-unit-of-work identifier of the thread. If the LUW-ID is an '*', the thread has no LUW-ID. If it is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of the logical-unit-of-work-id in any DB2 command that accepts a logical-unit-of-work-id as input.

Severity: 0 (informational)

System Action: Processing continues.

User Response: Refer to Section 2 (Volume 1) of *Administration Guide* for a discussion of the not check pending operation.

DSNU993I *csect-name* **IMAGE COPY RESTORE TERMINATED**

Explanation: Catalog and directory initialization (image copy restore) did not complete successfully.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Examine other error messages associated with this job.

DSNU994I *csect-name* **IMAGE COPY RESTORE COMPLETED SUCCESSFULLY**

Explanation: Catalog and directory initialization (image copy restore) completed successfully.

Severity: 0 (informational)

DSNU995I *csect-name* **VSAM PUT ERROR, RPLERREG =** *return-code***, RPLERRCD =** *reason-code*

Explanation: VSAM PUT failed with the indicated *return-code* and *reason-code*.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Notify system programmer.

System Programmer Response: Follow standard VSAM diagnostic procedure. Refer to *DFSMS/MVS: Macro Instructions for Data Sets*. See also *MVS/DFP V3R3 Diagnosis Guide* for more information about the VSAM procedures.

DSNU996I *csect-name* **VSAM OPEN ERROR, ACBERRFLG = *error-code***

Explanation: VSAM OPEN failed with the indicated ACB *error-code*.

Severity: 8 (error) if error is greater than or equal to 128; otherwise, 4 (warning)

System Action: Processing terminates if the error code is greater than or equal to 128; otherwise, processing continues normally.

User Response: Notify the system programmer.

System Programmer Response: Follow standard VSAM diagnostic procedure. Refer to *DFSMS/MVS: Macro Instructions for Data Sets*. See also *MVS/DFP V3R3 Diagnosis Guide* for more information about the VSAM procedures.

DSNU997I *csect-name* **OUTPUT DATA SET NAME =** *data-set-name*

Explanation: The indicated *data-set-name* is used for output.

Severity: 0 (informational)

DSNU998I *csect-name* **INPUT DATA SET NAME =** *data-set-name*

Explanation: The indicated *data-set-name* is used for input.

Severity: 0 (informational)

DSNU999I *csect-name* **START OF IMAGE COPY RESTORE FOR JOB** *job-name step-name*

Explanation: The catalog and directory initialization (image copy restore) started.

Severity: 0 (informational)

DSNV... Messages

DSNV029E LOAD MODULE *module-name* DOES NOT HAVE AMODE(31) ATTRIBUTE

Explanation: During DB2 startup, Agent Services establishes the tasking structure for the control and resource manager address spaces. Three load modules, DSNVEUS3, DSNVEUS4, and DSNVRCT, are loaded and attached as the control programs for each subtask created. All three load modules must have been link-edited with the attributes AMODE(31) and RMODE(ANY). At least one of the modules did not have the 31-bit addressing attribute when it was loaded. The 'module-name' in the error message is the alias name of the first load module whose addressing mode was invalid.

This message is issued by the following CSECT: DSNVASIM

System Action: DB2 startup is terminated.

System Programmer Response: Verify that all installation and maintenance activities against these modules were executed using SMP, that the JCLIN for SMP includes the correct AMODE and RMODE control statements, and that the Linkage Editor provided with the Data Facility Product (DFP) for the version of MVS being used was invoked by SMP for the link-edits. Correct the procedure or JCL which caused the error and rerun the necessary SMP jobs.

Operator Response: Notify the system programmer of the failure.

Problem Determination: A DB2 dump was requested to a SYS1.DUMP data set.

Load module names and aliases are as follows:

Load module	Alias
DSNVEUS3	DSNVEU3I
DSNVEUS4	DSNVEU4I
DSNVRCT	DSNVRCTI

The MVS service aid AMBLIST provides Linkage Editor module attributes in the summary section of the LISTLOAD function output.

DSNV086E DB2 ABNORMAL TERMINATION REASON=*xxxxxxxx*

Explanation: The DB2 subsystem is being abended, because an error that cannot be corrected has occurred. This message, which is not automatically deleted from the operator console, is issued during DB2 abnormal termination. 'REASON' is the subsystem termination reason code. If DB2 abnormal termination is invoked multiple times, the subsystem termination reason code that accompanies this message is the reason associated with the first invocation. For additional information, look up the reason code in “Section 4. DB2 Codes” on page 4-1.

This message is issued by the following CSECT: DSNVATRM

System Action: Abnormal termination processing continues.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: This message is accompanied by one or more dumps. Obtain a copy of SYS1.LOGREC after DB2 completely terminates; also obtain a copy of the SVC dump(s). If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5.

DSNV400I ARCHIVE LOG WITH MODE(QUIESCE) CURRENTLY ACTIVE

Explanation: An -ARCHIVE LOG MODE(QUIESCE) command is currently active. This message follows the DSNV401I message as part of the -DISPLAY THREAD command report.

This message is issued by the following CSECT: DSNVDTM

System Action: This message is issued as information only. The message indicates that the -ARCHIVE LOG MODE(QUIESCE) command has not completed, and consequently, updates against DB2 resources have been temporarily suspended. This may result in active threads being suspended awaiting termination of the quiesce period. DB2 processing otherwise continues normally.

DSNV401I DISPLAY THREAD REPORT FOLLOWS -

Explanation: This message is always generated as the title for the DISPLAY THREAD command report output. It precedes the other messages generated by this command.

This message is issued by the following CSECT: DSNVDTM

System Action: Processing continues normally.

DSNV402I ACTIVE THREADS-

Explanation: This message precedes the listing of active threads.

The series of messages DSNV402I through DSNV405I provide the formatted report for the -DISPLAY THREAD TYPE(ACTIVE) when the status of active threads is requested.

The series of messages DSNV444I through DSNV448I augment the formatted report for the -DISPLAY THREAD TYPE(ACTIVE) when LOCATION, LUWID, or DETAIL keywords are used to show distributed activity.

This message is issued by the following CSECT: DSNVDTM

System Action: Processing continues normally.

DSNV403I NAME ST A REQ ID AUTHID PLAN ASID TOKEN

Explanation: This message displays the column headings for the list of threads generated by the -DISPLAY THREAD TYPE(ACTIVE) or -DISPLAY THREAD TYPE(INACTIVE) command.

The message number and subsystem recognition character are not included in this message.

This message is issued by the following CSECT: DSNVDTM

System Action: Processing continues normally.

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DSNV404I *name status act-ind req-ct corr-id auth-id pname asid token*

Explanation: This message provides the status information on an active or inactive thread and is part of the response to the -DISPLAY THREAD command. Information provided is:

name A 1- to 8-character variable representing the 'connection name' used to establish the thread. For distributed database access threads, this field contains the following:

- For threads using system-directed access and for threads using application-directed access from a DB2 Version 3 or later requester, this variable displays the connection name of the thread at the requesting location.
- For threads using application-directed access from a non-DB2 requester or from a DB2 Version 2 Release 3 requester, this variable displays the constant SERVER.
- If the thread has a status of PT, the connection name contains blanks if the thread of the originating task is running on the same DB2. This helps to show that these parallel tasks are related to the originating task above. If the parallel task is running on a different DB2 for the originating task, then the connection name will be supplied and the entry will be followed by DSNV443I.

If the thread has a status of D, the connection name might be either the connection name for the allied address space or the DB2 subsystem name.

status A 1- or 2- character connection status code with the following values:

D The thread is in the process of termination as a result of the termination of the associated allied task. If this thread is also the last (or only) DB2 thread for the address space, the associated allied task is placed in a wait state.

DI The thread is disconnected from an execution unit. There is no TCB associated with the DB2 thread. This state is only valid when 'connection name'=RRSAF.

N The thread is in either IDENTIFY or SIGNON status.

PT A parallel task thread was established (plan allocated).

QD The thread is queued for termination as a result of the termination of the associated allied task. If this thread is also the last (or only) DB2 thread for the address space, the associated allied task is placed in a wait state.

QT The CREATE THREAD request was queued. The associated allied task is placed in a wait state.

RA The distributed thread is performing a remote access on behalf of a request from another location.

RD A distributed thread is performing a remote access on behalf of a request from another location. The thread is performing an operation that invoked DCE services. This status is displayed until DCE returns control to DB2.

RN A distributed thread is performing a remote access on behalf of a request from another location. The request actually accesses data at yet another (DB2) location, so the thread was suspended because DB2 must first connect to the partner location (establish DB2 system conversations with the partner).

When another DB2 site is being contacted for the first time using system-directed access, DB2 must establish DB2 system conversations with the partner location. A request is presented to a DB2 DDF service task that establishes a system conversation. The thread is suspended until the request is processed. If the thread remains in this status for an extended period of time, the DB2 service task that establishes the system conversations might be busy processing other requests. The DB2 DISPLAY LOCATION command ('DISPLAY LOCATION(*) DETAIL') shows you conversation activity for this DB2 system conversation (SYSCON-O) service task.

RQ A distributed thread is performing a remote access on behalf of a request from another location. The thread is suspended because the maximum number of active database access threads (as described by the MAX REMOTE ACTIVE value of the DSN6SYSP macro in the DB2 startup parameter, usually DSNZPARM) was reached. Database access agents (DBAAs) are queued until other DBAAs deallocate or go inactive, providing an available slot. The DBAA resumes when a slot becomes available, and the

DBAA is next in the queue. Alternatively, you should consider increasing the MAX REMOTE ACTIVE value.

SP A thread is executing within a stored procedure. This status is displayed until the stored procedure terminates and returns control to DB2.

SW A thread is waiting for a stored procedure to be scheduled. This status is displayed until the stored procedure begins execution.

T An allied, nondistributed thread was established (plan allocated).

TN An allied thread was distributed to access data at another DB2 location, but it was suspended because DB2 must first connect to the partner location (establish DB2 system conversations with the partner).

When another DB2 site is being contacted for the first time using system-directed access, DB2 must establish DB2 system conversations with the partner location. A request is presented to a DB2 DDF service task that establishes a system conversation. The thread is suspended until the request is processed. If the thread remains in this status for an extended period of time, the DB2 service task that establishes the system conversations might be busy processing other requests. The DB2 DISPLAY LOCATION command ('DISPLAY LOCATION(*) DETAIL') shows you conversation activity for this DB2 system conversation (SYSCON-O) service task.

TR An allied thread was distributed to access data at another location.

act-ind An asterisk if the thread is active within DB2; blank otherwise.

req-ct A wraparound counter to show the number of DB2 requests.

corr-id A 1- to 12-character variable representing the recovery 'correlation-id' associated with the thread.

For distributed database access threads, this field contains the following:

- While the thread is being created:
  - '028.DBAA nn' - Where nn ranges from 01 to 99. This indicates that the DBAA is in its connection processing, which consists of establishing the DBAA thread, and validating and verifying the user's ID. Refer to the "Controlling Access to a DB2 Subsystem" chapter in Section 3 (Volume 1) of *Administration Guide* for descriptions of the authorization checks that might be performed.

    RACF requests are serialized on one of the DB2 RACF service tasks, which might increase the validation time when multiple DBAAs are being created concurrently.
- After the thread is created:
  - For threads using system-directed access and threads using application-directed access from a DB2 requester, this variable displays the correlation-id name of the thread at the requesting location.
  - For threads using application-directed access from a non-DB2 requester, this variable displays the first twelve characters in the DDM external name (EXTNAM) parameter of the DDM EXCSAT command received as part of the SQL CONNECT.

authorization ID The authorization ID associated with a signed-on connection. If not signed-on, this field is blank.

pname A 1- to 8-character variable representing the plan name associated with the thread. For distributed database access threads, this field contains the following:

- For threads using system-directed access and threads using application-directed access from a DB2 Version 3 or later requester, this variable displays the plan name being executed at the requesting location.
- For threads using application-directed access from a non-DB2 requester or from a DB2 Version 2 Release 3 requester, this field displays the constant DISTSERV.

For RRSAF connected threads that did not specify a plan name at connect time, the value ?RRSAF is displayed. If a thread was not established, this field is blank.

If you receive a system plan in this field, see the information about system plans in message DSNT376I.

asid A 1- to 4-character hexadecimal number representing the ASID of the home address space.

token A 1- to 5-character number representing the thread token assigned to the thread. For threads with a status value of 'N', this value will be 0.

The message number and subsystem recognition character are not included in this message.

This message is issued by the following CSECT: DSNVDTM

System Action: Processing continues normally.

System Programmer Response: If you have active threads with QD or D status codes, use the information in message DSN3201I to diagnose a possible DB2 problem.

DSNV405I DISPLAY ACTIVE REPORT COMPLETE

Explanation: This message follows messages DSNV402I through DSNV404I augmented by the series of messages DSNV444I through DSNV448I when LOCATION and/or DETAIL keywords are used to show distributed activity. It indicates that the -DISPLAY THREAD TYPE(ACTIVE) report has completed successfully.

The message number and subsystem recognition character are not included in this message.

This message is issued by the following CSECT: DSNVDTM

System Action: Processing continues normally.

DSNV406I INDOUBT THREADS-

Explanation: This message precedes the listing of indoubt threads.

The series of messages DSNV406I through DSNV409I, DSNV446I, DSNV449I through DSNV453I, DSNV457I through
DSNV464I, DSNV466I, DSNV467I provides the formatted report for the -DISPLAY THREAD TYPE(INDOUBT) command when the status of indoubt threads is requested.

This message is issued by the following CSECT: DSNVDTM

System Action: Processing continues normally.

DSNV407I COORDINATOR STATUS RESET URID AUTHID

Explanation: This message displays the column headings for the list of threads generated by the DISPLAY THREAD TYPE (INDOUBT) command.

The message number and the subsystem recognition character are not included in this message.

This message is issued by the following CSECT: DSNVDTM

System Action: Processing continues normally.

DSNV408I *coordinator status reset urid authid*

Explanation: This message lists status information on an indoubt thread.

coordinator The name of the two-phase commit coordinator.

- If the thread is an allied thread, the coordinator name is either the IMS connection name, the CICS connection name, OS/390 RRS (for Recoverable Resource Manager Services attachment facility connected threads) or the location name of the local DB2 (if it is not one of the above). DSNV449I is displayed if the coordinator is IMS or CICS.
- If the thread is a database access thread, the coordinator name takes one of four forms:
  - location:luname -- where "location" is the coordinator's relational database name and "luname" is the coordinator's SNA LU name.
  - location:port -- where "location" is the coordinator's relational database name and "port" is the coordinator's TCP/IP port number for two-phase commit resynchronization.
  - <luname>:luname -- where "luname" is the coordinator's SNA LU name.
  - nnn.nnn.nnn.nnn:port -- where "nnn.nnn.nnn.nnn" is the coordinator's IP address and "port" is the coordinator's TCP/IP port number for two-phase commit resynchronization.
- If the thread is distributed, message DSNV467I is included in the display. This message shows the logical unit of work id and the local token that identifies the distributed thread.

status The status of the thread.

A status of ABORTED is not displayed unless DB2 believes a participant using PN protocols might be indoubt. If the status of a thread for a logical unit of work at a participant is INDOUBT, COMMITTED-H, or ABORTED-H, and the coordinator is a DB2 location that has not cold started, then the lack of any information about the thread in a DISPLAY THREAD(INDOUBT) report indicates that the decision at the coordinator was to abort the logical unit of work. In all other cases, a DSNV408I message for the thread is displayed.

- INDOUBT: The thread is indoubt and continues to appear in the display until all indoubt resolution responsibilities are complete. Additional detail lines that might appear in the report are:
  - DSNV450I and DSNV446I: The names of downstream participants who might be indoubt.
  - DSNV452I or DSNV453I: A heuristic action was taken at a downstream participant. DSNV452I or DSNV453I continues to appear in the display until DB2 resolves the indoubt status with the coordinator. If the coordinator decision is the same as the heuristic decision of the partner, then the detail line is no longer displayed. If the coordinator status is COMMITTED and the heuristic decision of the participant is ABORTED, then the message continues to appear in the display until it is deleted with the RESET INDOUBT command. The database administrators at all involved locations need to know that heuristic damage occurred and at which location.

  - DSNV466I: For a database access thread participant, the elapsed time that the thread was indoubt.

- COMMITTED: The thread is committed. This status is displayed when DB2 is the coordinator and has downstream participants that might be indoubt. The thread appears in the display until all downstream participants complete indoubt resolution. Detail lines DSNV450I and DSNV446I list the downstream participants that have pending resolution. Database locks held for the thread were released.

  If a participant resolved the indoubt thread with a heuristic decision, and the decision was ABORT (rollback), detail line DSNV453I is displayed. This detail line contains the name of the participant and the heuristic decision that it made. Since the coordinator committed and the participant aborted, this indicates heuristic damage. This line continues to appear in the display until it is deleted with the RESET INDOUBT command. The database administrators at all involved locations need to know that heuristic damage occurred and at which location.

- COMMITTED-H: The indoubt thread was heuristically resolved with the RECOVER INDOUBT command. The thread continues to appear in the display until the coordinator is informed of the heuristic decision, and all downstream participants, if any, complete indoubt resolution. Detail lines DSNV450I and DSNV446I list the downstream participants that have pending resolution. Additional detail lines that might appear in the report are:

  - DSNV451I is displayed if resolution with the coordinator is not complete. All database locks were released.
  - DSNV461I is displayed if resolution with the coordinator completed and heuristic damage was detected after the coordinator aborted the logical unit of work. This line continues to appear in the display until it is deleted with the RESET INDOUBT command.

- ABORTED-H: The indoubt thread was heuristically resolved with the RECOVER INDOUBT command. The thread continues to appear in the display until the coordinator is informed of the heuristic decision. Additional detail lines that might appear in the report are:

  - DSNV451I is displayed if resolution with the coordinator is not yet complete. All database locks were released.
  - DSNV461I is displayed if resolution with the coordinator completed and heuristic damage was detected after the coordinator committed the logical unit of work. This line continues to appear in the display until it is deleted with the RESET INDOUBT command.

- ABORTED: This is a coordinator status and DB2 has one or more downstream participants using the Presumed Nothing (PN) protocol that might be indoubt. The thread appears in the display until all downstream PN participants complete indoubt resolution. Detail lines DSNV450I and DSNV446I list the downstream participants that have pending resolution. Database locks held for the thread were released.

  If a participant resolved the indoubt thread with a heuristic decision, and the decision was COMMIT, detail line DSNV452I is displayed. This detail line contains the name of the participant and the heuristic decision that it made. Since the coordinator aborted and the participant committed, this indicates heuristic damage. This line continues to appear in the display until it is deleted with the RESET INDOUBT command. The database administrators at all involved locations need to know that heuristic damage occurred and at which location.

Additional detail lines might appear in an indoubt thread report, as follows:

- Cold Start: When a coordinator cold starts, indoubt participants cannot achieve automatic resolution. A DB2 participant includes message DSNV463I in the display, indicating coordinator cold start and requesting heuristic resolution. Message DSNV458I is included in the display if the coordinator cold started. This message contains information that can be used to identify the thread. This information is provided by the coordinator. A DB2 coordinator provides the connection-name used to establish the thread at the DB2 coordinator and the correlation-id used by that connection.

  When a participant cold starts, the coordinator cannot fulfill its indoubt resolution responsibility. A DB2 coordinator displays message DSNV462I indicating participant cold start. The thread continues to be displayed in the report, even after resolution with all other indoubt participants, if any. The RESET INDOUBT command must be used to purge this thread from the report. The reason for this is that the cold starting participant might have been coordinating downstream participants that are now indoubt. The database administrator at these participants might need to know the status of the thread at the coordinator so correct heuristic decisions can be made.

- Protocol Errors: A communications protocol error might occur during sync point processing and during indoubt resolution processing. These protocol errors are per-

manent and prevent completion of the automatic indoubt resolution process.

An indoubt display thread report shows these protocol errors, as follows:

- A DB2 coordinator detecting a sync point protocol error by a participant, such that the coordinator believes that the participant might be indoubt, adds this thread to the indoubt thread display, if the decision is to commit. Message DSNV460I is included in the display indicating the protocol error and the potential need for heuristic action at the participant. The thread continues to be included in the report until the entry is purged with the RESET INDOUBT command. If the participant is actually indoubt, the database administrator at the participant needs to know the status of the thread so that the correct heuristic decision can be made.
- A DB2 participant detecting a sync point protocol error by a coordinator when the participant is indoubt adds this thread to the indoubt thread display. Message DSNV459I is included in the display, indicating the protocol error and requesting heuristic resolution. The thread continues to be included in the report until the thread is resolved with the RECOVER INDOUBT command. The DBA at the participant might need to contact the coordinator to determine the status of the thread.
- If a DB2 coordinator detects an indoubt resolution protocol error by a participant, message DSNV457I is included in the indoubt report, indicating the error and requesting heuristic action at the participant. The thread continues to be included in the report until the entry is purged with the RESET INDOUBT command. The database administrator at the participant needs to know the status of the thread so that the correct heuristic decision can be made.
- If a DB2 participant detects an indoubt resolution protocol error by a coordinator, and the thread status is INDOUBT, message DSNV464I is included in the indoubt report, indicating the error and requesting heuristic action. The thread continues to be included in the report until the thread is resolved with the RECOVER INDOUBT command.

reset — This column contains YES if the RESET INDOUBT command must be used to purge this thread from the indoubt display.

urid — The RBA of the DB2 recovery log. This point is the beginning of recovery logging for this thread.

authid — The primary authorization-id associated with the thread.

This message is issued by the following CSECT: DSNVDTM

System Action: Processing continues.

DSNV409I DISPLAY INDOUBT REPORT COMPLETE

Explanation: This message follows messages DSNV406I through DSNV408I and indicates that the -DISPLAY THREAD TYPE(INDOUBT) report was generated successfully.

The message number and subsystem recognition character are not included in this message.

This message is issued by the following CSECT: DSNVDTM

System Action: Processing continues normally.

DSNV410I NO CONNECTION FOUND FOR NAME=*connection-name*

Explanation: The -DISPLAY THREAD TYPE(ACTIVE) or TYPE(INACTIVE) command was unable to find any connection associated with 'connection-name'. This message is generated once for each requested connection name that was not found.

This message is issued by the following CSECT: DSNVDTM

System Action: Command processing continues.

DSNV411I NO THREADS FOUND FOR NAME=*connection-name*

Explanation: The -DISPLAY THREAD TYPE(ACTIVE) or TYPE(INACTIVE) command was unable to locate any threads associated with 'connection-name'. This message is generated once for each connection name for which no threads were found.

This message is issued by the following CSECT: DSNVDTM

System Action: Command processing continues.

DSNV412I *csect-name* **NO INDOUBT THREADS FOUND FOR NAME=***connection name*

Explanation: In this message, 'csect-name' is the name of the command program CSECT that issued the message. 'NAME' is the connection name specified on the command.

The named command was unable to locate any indoubt threads associated with the 'connection name'. This message is generated once for each 'connection name' for which no threads were found.

System Action: Command processing continues.

DSNV413I *csect-name verbname pkwname* **TERMINATED, DEFAULT UNAVAILABLE**

Explanation: This message indicates that the command 'verbname' abnormally terminated because the command was entered from an MVS console and a required parameter was not supplied with the command.

csect-name — The name of the command program CSECT that issued the message.

verbname The command verb as entered by the requester. The error depends on which command was entered.

- DISPLAY THREAD - neither the 'connection-name', LOCATION, nor LUWID was specified.
- RECOVER INDOUBT - neither 'connection-name' nor LUWID was specified.

pkwname The command primary keyword as entered by the requester.

System Action: Command processing terminates.

Operator Response: Reenter the command specifying one of the required parameters.

DSNV414I THREAD *xxx* COMMIT SCHEDULED

Explanation: In this message, 'xxx' is the recovery identifier specified with the -RECOVER INDOUBT command to identify the indoubt thread and is one of the following:

ID= The recovery correlation-id specified with the command.
NID= The recovery network-id specified with the command.
LUWID = Luwid=token indicates the luwid and token that identify the thread specified with the command.

This message is issued by the following CSECT: DSNVRIM

System Action: The thread specified on the -RECOVER INDOUBT command is scheduled for COMMIT recovery action.

DSNV415I THREAD *xxx* ABORT SCHEDULED

Explanation: In this message, 'xxx' is the recovery identifier specified with the -RECOVER INDOUBT command to identify the indoubt thread and is one of the following:

ID= The recovery correlation-id specified with the command.
NID= The recovery network-id specified with the command.
LUWID = The luwid=token indicates the luwid and token that identify the thread specified with the command.

The thread specified on the -RECOVER INDOUBT command is scheduled for ABORT recovery action.

This message is issued by the following CSECT: DSNVRIM

System Action: Command processing continues.

DSNV416I THREAD NID=*net-node.number* IS INVALID

Explanation: In this message, 'net-node' is the recovery 'network-id' specified with the command.

The -RECOVER INDOUBT command (NID=net-node.number) determined that the input format for the specified network-id is invalid.

This message is issued by the following CSECT: DSNVRIM

System Action: Command processing continues.

Operator Response: Prior to reentering the command, ensure that the network-id entered is in the correct format as specified on the -RECOVER INDOUBT command.

DSNV417I THREAD *xxx* NOT FOUND

Explanation: In this message, 'xxx' is the recovery identifier specified with the -RECOVER INDOUBT command to identify the indoubt thread and is one of the following:

ID= The recovery correlation-id specified with the command
NID= The recovery network-id specified with the command
LUWID = The luwid or token specified with the command

The -RECOVER INDOUBT command was unable to locate the specified thread to be scheduled for recovery. Either the thread identifier is incorrect, or the thread no longer is in an indoubt state.

This message is issued by the following CSECT: DSNVRIM

System Action: Command processing continues.

Operator Response: Before reentering the command, ensure that the thread still is in an indoubt state.

DSNV418I RECOVER INDOUBT REJECTED FOR ID= *correlation-id*

Explanation: In this message, 'ID=' indicates the recovery 'correlation-id' specified with the command.

The -RECOVER INDOUBT command determined that more than one 'network-id' is associated with the specified 'correlation-id'. No recovery action is taken against the indoubt threads associated with the 'correlation-id'.

This message is issued by the following CSECT: DSNVRIM

System Action: Command processing continues.

Operator Response: To indicate the specific indoubt thread to be scheduled for resolution, the 'network-id' associated with the thread must be specified.

DSNV419I NO CONNECTIONS FOUND

Explanation: The -DISPLAY THREAD command found no active or inactive connections within the system. This message is generated when the command requests thread information for all (TYPE=*), active (TYPE=ACTIVE), or inactive (TYPE=INACTIVE) connections within the system, but no active or inactive connections currently exist.

This message is issued by the following CSECT: DSNVDTM

System Action: Command processing continues.

DSNV420I NO INDOUBT THREADS FOUND

Explanation: The -DISPLAY THREAD command found no indoubt threads within the system. This message is generated when the command requests information about all (*) threads currently residing within an indoubt state (TYPE=INDOUBT) within the system, but no threads currently exist within this state.

This message is issued by the following CSECT: DSNVDTM

System Action: Command processing continues.

DSNV421I DISPLAY TERMINATED WITH MAX LINES

Explanation: This message indicates the -DISPLAY THREAD TYPE(ACTIVE) or the DISPLAY THREAD TYPE(INACTIVE) report was truncated. The report was generated in response to a command from an MVS console and more than 254 response messages were generated. Only 254 response messages are returned.

The message number and subsystem recognition character are not included in this message.

This CSECT is issued by the following CSECT: DSNVDTM

System Action: The truncated report is written to the MVS console.

Operator Response: Reissue the -DISPLAY THREAD request specifying a specific connection name, location, luwid, or a combination of these, as appropriate, to further reduce the display.

DSNV422I DISPLAY INDOUBT TERMINATED WITH MAX LINES

Explanation: This message indicates the -DISPLAY THREAD TYPE(INDOUBT) report was truncated. The report was generated in response to a command from an MVS console and more than 254 response messages were generated. Only 254 response messages are returned.

The message number and subsystem recognition character are not included in this message.

This message is issued by the following CSECT: DSNVDTM

System Action: The truncated report is written to the MVS console.

Operator Response: Reissue the -DISPLAY THREAD request specifying a specific connection name.

DSNV423I DISPLAY THREAD MESSAGE POOL SIZE EXCEEDED

Explanation: The virtual storage requirement needed to generate a -DISPLAY THREAD response display exceeded the maximum size of the message buffer pool.

This message is issued by the following CSECT: DSNVDTM

System Action: Processing is terminated.

User Response: Reissue the -DISPLAY THREAD request specifying TYPE(INDOUBT), TYPE(ACTIVE), or TYPE(INACTIVE) and a specific connection name, location, luwid, or a combination of these, as appropriate, to further reduce the display.

Operator Response: Refer to the User Response.

DSNV424I INACTIVE THREADS-

Explanation: This message precedes the listing of inactive threads.

The series of messages DSNV402I through DSNV405I provide the formatted report for the -DISPLAY THREAD TYPE(INACTIVE) when the status of inactive threads is requested.

The series of messages DSNV444I through DSNV448I augment the formatted report for the -DISPLAY THREAD TYPE(INACTIVE) when LOCATION, LUWID, or DETAIL keywords are used to show idle distributed threads.

This message is issued by the following CSECT: DSNVDTM

System Action: Processing continues normally.

DSNV425I DISPLAY INACTIVE REPORT COMPLETE

Explanation: This message follows messages DSNV424I, DSNV403I and DSNV404I, which are augmented by the series of messages DSNV444I through DSNV448I when LOCATION and/or DETAIL keywords are used to show idle distributed threads. It indicates that the -DISPLAY THREAD TYPE(INACTIVE) report completed successfully.

The message number and subsystem recognition character are not included in this message.

This message is issued by the following CSECT: DSNVDTM

System Action: Processing continues normally.

DSNV426I *csect-name* **THREAD** *token* **HAS BEEN CANCELED**

Explanation: This message is issued in response to the CANCEL THREAD command. The thread is scheduled for termination.

System Action: The specified thread is scheduled for termination. The termination of the thread does not occur unless processing is occurring within DB2.

DSNV427I *csect-name* **INVALID THREAD** *token* **SPECIFIED**

Explanation: This message is issued in response to the CANCEL THREAD command. No thread with the specified *token* was found.

System Action: The specified thread is not canceled.

User Response: Determine the correct *token* of the thread you want to cancel and reissue the command. You can use the -DISPLAY THREAD command to display all thread activity.

DSNV428I *csect-name* **THREAD** *token* **WAS PREVIOUSLY CANCELED**

Explanation: The thread with the specified token was previously canceled by either the CANCEL THREAD or CANCEL DDF THREAD command, or is already in the process of termination.

The CANCEL command terminates the thread only if the thread is processing in DB2 or is currently suspended by DB2. The thread might not be processing in DB2 in these situations:

- The thread is processing in the application and has not made a request to DB2. The DISPLAY THREAD command indicates this.
- The user placed the thread on an MVS resource using the ENQUE command. The CANCEL command has no effect on the thread until ENQUE completes and the thread returns to DB2.
- The thread is processing in VTAM and is waiting for a response from a partner. The DISPLAY THREAD DETAIL command indicates this. The thread does not terminate until VTAM returns to DB2. VTAM commands, which will terminate the session or LU, can be used to cause VTAM to return to DB2.

DSNV429I V429 CALLING PROCEDURE=*proc*, LOAD MODULE=*loadmod*, PROC=*jclproc*, ASID=*asid*, WLM_ENV=*wlmenv*

Explanation: This message appears in the output of the DISPLAY THREAD command when a thread is running a stored procedure.

proc The name of the stored procedure the SQL application is running.

loadmod The MVS load module associated with the stored procedure. This field will contain blanks until the load module name has been determined.

jclproc The name of the JCL PROC used to start the address space where the stored procedure is running. This field will contain blanks until the stored procedure has been assigned to a specific stored procedure address space.

asid The MVS ASID of the address space where the stored procedure is running. This field will contain 0000 until the stored procedure has been assigned to a specific stored procedure address space.

wlmenv The name of the WLM application environment where the stored procedure is running. If it is running in the DB2-established stored procedure address space, this field will contain blanks.

System Action: The DISPLAY THREAD command continues processing.

DSNV443I V443-PARALLELISM COORDINATOR=*member-name*, ORIGINATING TOKEN=*token*

Explanation: This message follows a DSNV404I message for each parallel task thread that is running on an assisting DB2. This message gives the DB2 member name and the originating task's thread token.

member-name The coordinating DB2 member where the originating task thread is running.

token The originating task thread token.

The message number and subsystem recognition character are not included in this message. However, V443 is included in the message text to identify the message.

This message is issued by the following CSECT: DSNVDTM

System Action: Command processing continues.

DSNV444I V444-*luwid*=*token* ACCESSING DATA AT.

Explanation: This message follows a DSNV404I message for each thread that was distributed to other locations when a nondetail display is specified. This message gives the logical-unit-of-work identifier for the distributed thread, followed by an equal sign (=) and a token, which can be used in place of luw-id in any DB2 command that accepts luw-id as input. Message DSNV446I follows with the names of the locations associated with this 'luw-id'.

luwid=token The global logical unit of work id and the local token that identifies the thread. If the thread becomes indoubt, a new token is assigned for the indoubt thread.

The message number and subsystem recognition character are not included in this message. However, V444 is included in the message text to identify the message.

This message is issued by the following CSECT: DSNVDTM

System Action: Command processing continues.

DSNV445I V445-*luwid*=*token* ACCESSING DATA FOR *location*

Explanation: This message follows a DSNV404I message for a database access thread. This message displays the logical-unit-of-work identifier assigned to the database access thread.

luwid=token The global logical unit of work id and the local token that identifies the thread. If the thread becomes indoubt, a new token is assigned for the indoubt thread.

location Identifies the requesting site. The value specified in *location* is one of the following:

- The relational database name of the requester or the VTAM LU name of the requester (<luname>), a colon (":") delimiter, and the LU name of the requester for SNA connections.
- The dotted decimal IP address of the requester (nnn.nnn.nnn.nnn) for TCP/IP connections.

The message number and subsystem recognition character are not included in this message. However, V445 is included in the message text to identify the message.

This message is issued by the following CSECT: DSNVDTM

System Action: Command processing continues.

DSNV446I V446--*location-i location-j* ...

Explanation: This message is a continuation of message DSNV444I or message DSNV450I and provides a list of 'location-i'.

location-i Identifies the name of a remote DBMS at which data is being accessed or where a thread is indoubt.

The *location-i* string includes two or three tokens delimited by a colon (":"):

- The first token is the partner location name.
- The second token is the partner LU name for an SNA connection, or the dotted decimal IP address for a TCP/IP connection (nnn.nnn.nnn.nnn).
- The third token only appears if the second token is an IP address in which case the third token is a port number.

  When the message appears after message DSNV450I, the port number represents a resync port number. Otherwise the message appears after a DSNV444I message in which case it represents an SQL port number.

A 'location-i' identifier is repeated for each DBMS where data is being accessed or where a thread is indoubt.

The message number and subsystem recognition character are not included in this message. However, V446 is included in the message text to identify the message.

This message is issued by the following CSECT: DSNVDTM

System Action: Command processing continues.

DSNV447I V447--LOCATION SESSID A ST TIME

Explanation: This message forms the heading for the listing of distributed active or inactive threads in message DSNV448I. Items in this part of the heading are:

LOCATION Heading for the associated location names

SESSID Heading for the associated VTAM-defined session identifiers

A Heading for the associated active indicators

ST Heading for the associated status indicators

TIME Heading for the associated time stamps

See message DSNV448I for descriptions of these items.

The message number and subsystem recognition character are not included in this message. However, V447 is included in the message text to identify the message.

This message is issued by the following CSECT: DSNVDTM

System Action: Processing continues normally.

DSNV448I V448--*location sessid active status time*

Explanation: This message follows the DSNV447I message for a database access thread or distributed allied thread when a detail display is specified. This message is displayed for each conversation connected to the thread. It lists detailed information about the conversations associated with the thread.

location If displaying an allied thread, the location is the name of the server; otherwise, it is the name of the requester. The name can be any of the following: the relational database name of the partner, the VTAM LU name of the partner (<luname>), or the dotted decimal IP address of the partner (nnn.nnn.nnn.nnn).

sessid There are two possible values for this field:

- For VTAM partners, this field contains the VTAM-defined session instance identifier of the session on which the conversation is executing. Zeros if the session identifier is not applicable.

  VTAM does not supply the entire session id to DB2. The first two digits of the session id are incorrect. Therefore, the session id as presented in this message is not acceptable in VTAM commands. The VTAM DISPLAY NET,ID=db2-luname,SCOPE=ACT command must be used to obtain the full session ID. The DISPLAY NET command lists all sessions (SID) for the DB2 logical unit. Scan the DISPLAY NET output for the complete SID.

- For TCP/IP connections, this field contains the local DB2 TCP/IP port number, followed by the partner's TCP/IP port number. The two port numbers are separated by a colon (e.g 5001:28191).

active One of the following:

V The conversation is active within VTAM or TCPIP.

W The conversation is suspended in DB2 waiting for VTAM or TCP/IP notification that the function is complete.

Blank, otherwise.

status Status of the conversation.

This information is presented as two characters, each of which has significance.

First Character

A Conversation in allocation.

C Session limits are being negotiated with the partner (CNOS) prior to conversation allocation.

D Conversation in deallocation.

R Receiving

- At the requesting site, this indicates that the conversation is receiving a response from a request.
- At the server site, this indicates that the conversation is receiving or waiting for a request.

S Sending

- At the requesting site, this indicates that the conversation can send requests to the server.
- At the server site, this indicates that the conversation is sending or preparing to send a response.

X Exchanging log name information with the partner before conversation allocation to determine if the partner supports protected conversations. If the thread remains in this status for an extended period of time, the DB2 service task that exchanges log names might be busy processing other requests. The DB2 DISPLAY LOCATION command ('DISPLAY LOCATION(*) DETAIL') shows you conversation activity for this (RESYNC) service task.

Blank, otherwise.

Second Character

1 Unprotected conversation using system-directed access is active.

2 Unprotected conversation using application-directed access is active.

3 Protected conversation using system-directed access is active.

4 Protected conversation using application-directed access is active.

Blank otherwise.

time The time stamp (yydddhhmmssth) of the last message sent or received on the conversation.

The message number and subsystem recognition character are not included in this message. However, V448 is included in the message text to identify the message.

This message is issued by the following CSECT: DSNVDTM

System Action: Command processing continues

DSNV449I V449-HAS NID=*nid* AND ID=*correlation-id*

Explanation: This message is a detail line, which might be displayed with a DISPLAY THREAD TYPE (INDOUBT) report.

nid — The network-id assigned by IMS or CICS or, if the connection type is RRSAF, the OS/390 RRS unit of recovery ID (URID)

correlation-id — The correlation-id assigned by IMS or CICS or if the connection type is RRSAF, the correlation-id assigned by the connected application

The message number and subsystem recognition character are not included in this message. However, V449 is included in the message text to identify the message.

This message is issued by the following CSECT: DSNVDTM

System Action: Processing continues normally.

DSNV450I V450-HAS PARTICIPANT INDOUBT AT

Explanation: This message is a detail line which might be displayed with a DISPLAY THREAD TYPE (INDOUBT) report. This message is followed by one or more DSNV446I messages that name the 'locations' where indoubt participant threads are located. The 'luwid' of the indoubt thread is displayed in the preceding DSNV408I message.

The message number and subsystem recognition character are not included in this message. However, V450 is included in the message text to identify the message.

This message is issued by the following CSECT: DSNVDTM

System Action: The thread remains indoubt and processing continues normally.

Operator Response: See message DSNL406I for more information. The indoubt participants displayed can also result from an abnormal termination of this DB2 subsystem.

DSNV451I V451-RESYNC WITH COORDINATOR STILL PENDING

Explanation: This message is a detail line which might be displayed with a DISPLAY THREAD TYPE (INDOUBT) report. When an indoubt thread is manually resolved with the RECOVER INDOUBT command, this message is included in the report if indoubt resolution with the coordinator was not complete. The 'coordinator' and the 'luwid' of the indoubt thread are displayed in the previous DSNV408I message.

The message number and subsystem recognition character are not included in this message. However, V451 is included in the message text to identify the message.

This message is issued by the following CSECT: DSNVDTM

System Action: The thread remains indoubt and processing continues normally.

DSNV452I V452-HEURISTIC COMMIT BY PARTICIPANT AT LOCATION *location*

Explanation: This message is a detail line which might be displayed with a DISPLAY THREAD TYPE (INDOUBT) report. A decision was made at the participant to force the indoubt thread to commit without waiting for automatic resynchronization to be performed. The 'luwid' of the thread is displayed in the preceding DSNV408I message.

location — The 'location' where the HEURISTIC COMMIT was performed. The 'location' is either the relational database name (location-name), the logical unit name (<luname>), or the dotted decimal IP address (nnn.nnn.nnn.nnn) of the participant.

The message number and subsystem recognition character are not included in this message. However, V452 is included in the message text to identify the message.

This message is issued by the following CSECT: DSNVDTM

System Action: Processing continues normally.

Operator Response: See message DSNL402E for more information.

DSNV453I V453-HEURISTIC ABORT BY PARTICIPANT AT LOCATION *location*

Explanation: This message is a detail line which might be displayed with a DISPLAY THREAD TYPE (INDOUBT) report. A decision was made at the participant to force an indoubt thread to abort without waiting for automatic resynchronization to be performed. The 'luwid' of the thread that was forced to abort is displayed in the preceding DSNV408I message.

location — The 'location' where the HEURISTIC ABORT was performed. The 'location' is either the relational database name (location-name), the logical unit name (<luname>), or the dotted decimal IP address (nnn.nnn.nnn.nnn) of the participant.

The message number and subsystem recognition character are not included in this message. However, V453 is included in the message text to identify the message.

This message is issued by the following CSECT: DSNVDTM

System Action: Processing continues normally.

Operator Response: See message DSNL403E for more information.

DSNV454I LOCATION OR LUWID KEYWORD INVALID WHEN DDF NOT STARTED

Explanation: The -DISPLAY THREAD TYPE(ACTIVE) command was issued with the keyword LOCATION or LUWID and it was found that the distributed data facility (DDF) was not started. The LOCATION or LUWID keyword can be used only if DDF is in operation.

This message is issued by the following CSECT: DSNVDTM

System Action: Command processing is complete.

DSNV456I INVALID PARAMETER WITH LUWID KEYWORD *luwid-parameter*

Explanation: The -DISPLAY THREAD TYPE(ACTIVE), -DISPLAY THREAD TYPE(INACTIVE), or the -RECOVER INDOUBT command was issued with the keyword LUWID and its required parameter list. However, one of the parameters was syntactically invalid as a logical-unit-of-work identifier.

This message is issued by the following CSECTs: DSNVDTM DSNVRIM

System Action: Command processing is complete.

Operator Response: The syntax of the DISPLAY THREAD and RECOVER INDOUBT commands is described in *Command Reference*. Reenter the command specifying valid LUWID values.

DSNV457I V457-RESYNC PROTOCOL ERROR WITH PARTICIPANT *location*

Explanation: This message is a detail line which might be displayed with a DISPLAY THREAD TYPE (INDOUBT) report. Manual resolution of an indoubt thread at the participant location might be required. A protocol error was detected during attempted automatic indoubt resolution with the participant. The 'luwid' of the thread that might require manual resolution at the participant is displayed in the preceding DSNV408I message.

location The 'location' where manual resolution might be needed. The 'location' is either the relational database name (location-name) of the participant or the logical unit name (<luname>) of the participant.

The message number and subsystem recognition character are not included in this message. However, V457 is included in the message text to identify the message.

This message is issued by the following CSECT: DSNVDTM

System Action: Processing continues normally.

Operator Response: See message DSNL414E for more information.

DSNV458I V458-CONNECTION-NAME *connection-name* **CORRELATION-ID** *correlation-id*

Explanation: This message is a detail line which might be displayed with a DISPLAY THREAD TYPE (INDOUBT) report. It is displayed only if message DSNV463I is also displayed.

connection-name The connection-name assigned by the coordinator if the coordinator is another DB2 system. The constant SERVER if the coordinator is not a DB2 system.

correlation-id The correlation-id assigned by the coordinator if the coordinator is another DB2 system. The first 12 characters of the EXTNAME parameter of the EXCSAT command sent by the coordinator if the coordinator is not a DB2 system.

The message number and subsystem recognition character are not included in this message. However, V458 is included in the message text to identify the message.

This message is issued by the following CSECT: DSNVDTM

System Action: Processing continues normally.

Operator Response: See message DSNV463I for more information.

DSNV459I V459-SYNCPOINT PROTOCOL ERROR WITH COORDINATOR

Explanation: This message is a detail line which might be displayed with a DISPLAY THREAD TYPE (INDOUBT) report. Manual resolution of an indoubt thread at this location is required. A protocol error was detected during sync point processing with the coordinator. The 'coordinator' and the 'luwid' of the thread that requires manual resolution are both displayed in the preceding DSNV408I message.

The message number and subsystem recognition character are not included in this message. However, V459 is included in the message text to identify the message.

This message is issued by the following CSECT: DSNVDTM

System Action: Processing continues normally.

Operator Response: See message DSNL412I for more information.

DSNV460I V460-SYNCPOINT PROTOCOL ERROR WITH PARTICIPANT *location*

Explanation: This message is a detail line which might be displayed with a DISPLAY THREAD TYPE (INDOUBT) report. Manual resolution of an indoubt thread at the participant location might be required. A protocol error was detected during sync point processing with the participant. The 'luwid' of the thread that might require manual resolution at the participant is displayed in the preceding DSNV408I message.

location The 'location' where manual resolution might be needed. The 'location' is either the relational database name (location-name) of the participant or the logical unit name (<luname>) of the participant.

The message number and subsystem recognition character are not included in this message. However, V460 is included in the message text to identify the message.

This message is issued by the following CSECT: DSNVDTM

System Action: Processing continues normally.

Operator Response: See message DSNL413I for more information.

DSNV461I V461-RESYNC WITH COORDINATOR SHOWS HEURISTIC DAMAGE

Explanation: This message is a detail line which might be displayed with a DISPLAY THREAD TYPE (INDOUBT) report. Indoubt resolution with the coordinator completed. Heuristic damage was detected at this location because the heuristic decision made at this location is different than the decision made at the coordinator. The 'coordinator' and the 'luwid' of the thread are displayed in the previous DSNV408I message. The 'status' field in the previous DSNV408I message shows the heuristic decision made at this location. This message continues to appear until it is deleted with a RESET INDOUBT command.

The message number and subsystem recognition character are not included in this message. However, V461 is included in the message text to identify the message.

This message is issued by the following CSECT: DSNVDTM

System Action: The thread remains indoubt and processing continues normally.

Operator Response: See message DSNL400E and DSNL401E for more information.

DSNV462I V462-COLD START BY PARTICIPANT AT LOCATION *location*

Explanation: This message is a detail line which might be displayed with a DISPLAY THREAD TYPE (INDOUBT) report. There was an indoubt thread at the participant whose 'luwid' is displayed in the preceding DSNV408I message. DB2 has coordinator responsibility for the indoubt thread and the participant informed DB2 that it performed a cold start operation and lost all knowledge of indoubt threads. There might be heuristic damage at the participant. The RESET INDOUBT command must be used to purge this message from the indoubt report. The reason for this is that the cold-starting participant might have been coordinating downstream participants that are now indoubt. The database administrator at these participants might need to know the status of the thread at the coordinator, so that correct heuristic decisions can be made.

location The 'location' where the cold start was performed. The 'location' is either the relational database name (location-name), the logical unit name (<luname>), or the dotted decimal IP address (nnn.nnn.nnn.nnn) of the participant.

The message number and subsystem recognition character are not included in this message. However, V462 is included in the message text to identify the message.

This message is issued by the following CSECT: DSNVDTM

System Action: Processing continues normally.

Operator Response: See message DSNL420E for more information.

DSNV463I V463-COORDINATOR HAS COLD STARTED

Explanation: This message is a detail line which might be displayed with a DISPLAY THREAD TYPE (INDOUBT) report. Manual resolution of an indoubt thread at this location is required. The coordinator for a thread that is indoubt at DB2 was cold started and therefore lost all knowledge of indoubt threads. The 'coordinator' and the 'luwid' of the thread for which manual resolution is required are displayed in the preceding DSNV408I message.

The message number and subsystem recognition character are not included in this message. However, V463 is included in the message text to identify the message.

This message is issued by the following CSECT: DSNVDTM

System Action: Processing continues normally.

Operator Response: See message DSNL411I for more information.

DSNV464I V464-RESYNC PROTOCOL ERROR WITH COORDINATOR

Explanation: This message is a detail line which might be displayed with a DISPLAY THREAD TYPE (INDOUBT) report. Manual resolution of an indoubt thread at this location is required. A protocol error was detected during attempted automatic indoubt resolution with the coordinator. The 'coordinator' and the 'luwid' of the thread that requires manual resolution are both displayed in the preceding DSNV408I message.

The message number and subsystem recognition character are not included in this message. However, V464 is included in the message text to identify the message.

This message is issued by the following CSECT: DSNVDTM

System Action: Processing continues normally.

Operator Response: See message DSNL404E for more information.

DSNV465I V465-THREAD HAS REMAINED IN A PREPARED STATE FOR hh:mm:ss

Explanation: This message might be displayed with a DISPLAY THREAD TYPE (ACTIVE) report. The thread was 'prepared' for the specified period of time. This means that DB2 is the participant in the logical unit of work and completed the first phase of commit and is waiting for the commit or abort decision to be transmitted from the coordinator for the specified period of time. The thread is identified in the preceding DSNV404I message. This message does not appear in a report until the thread was in the prepared state for 60 seconds.

hh:mm:ss The length of time the thread was prepared (expressed in hours, minutes and seconds). The maximum number of hours reported is 65535, which is roughly 7.5 years. After this time period elapses, the count is reset to zero.

The following actions might be taken to resolve this thread by manual means (that is, take heuristic action) if it is necessary to release locks held by this thread.

- Use the -CANCEL DDF THREAD command to force the thread from the prepared state to the indoubt state. When the thread is indoubt, it appears in the display generated by issuing the DISPLAY THREAD command for type indoubt threads.
- Determine the proper decision (commit or abort) by contacting the coordinator 'location' shown in the display of indoubt threads.
- Use the RECOVER INDOUBT command to heuristically commit or abort the thread.

The message number and subsystem recognition character are not included in this message. However, V465 is included in the message text to identify the message.

This message is issued by the following CSECT: DSNVDTM

System Action: Processing continues normally.

DSNV466I V466-THREAD HAS BEEN INDOUBT FOR hh:mm:ss

Explanation: This message is a detail line which might be displayed with a DISPLAY THREAD TYPE (INDOUBT) report. The thread entered the indoubt state at the specified time. This means that DB2 is the participant in the logical unit of work and completed the first phase of commit and is waiting for the commit or abort decision to be transmitted from the coordinator. However, DB2 lost communications with the coordinator. The thread is identified in the preceding DSNV408I message.

hh:mm:ss The length of time the thread was indoubt (expressed in hours, minutes and seconds). The maximum number of hours reported is 65535, which is roughly 7.5 years. After this time period elapses, the count is reset to zero.

The following actions might be taken to resolve this thread by manual means (that is, take heuristic action) if it is necessary to release locks held by this thread.

- Determine the proper decision (commit or abort) by contacting the coordinator 'location' shown in the display of indoubt threads.
- Use the RECOVER INDOUBT command to heuristically commit or abort the thread.

The message number and subsystem recognition character are not included in this message. However, V466 is included in the message text to identify the message.

This message is issued by the following CSECT: DSNVDTM

System Action: Processing continues normally.

DSNV467I V467-HAS LUWID *luwid=token*

Explanation: This message is a detail line, which might be displayed with a DISPLAY THREAD TYPE (INDOUBT) report.

luwid=token The global logical unit of work id and the local token that identifies the thread.

The message number and subsystem recognition character are not included in this message. However, V467 is included in the message text to identify the message.

This message is issued by the following CSECT: DSNVDTM

System Action: Processing continues normally.

DSNW... Messages

DSNW001I ASYNCHRONOUSLY GATHERED DATA IS BEING FORMATTED IN THIS DUMP

Explanation: The subsystem formatting exit is not using DB2 summary dump records for formatting. The formatted control blocks may not contain the same values as they did at the time of the error.

This message is issued by the following CSECT: DSNWDPRD

System Action: Dump formatting continues.

System Programmer Response: If you want DB2 summary dump records to be used, do not specify the 'SUMDUMP=NO' operand on the dump control statement.

DSNW002I SUMMARY DUMP RECORDS ARE BEING FORMATTED IN THIS DUMP

Explanation: The subsystem formatting exit is using DB2 summary dump record information to format its control blocks.

This message is issued by the following CSECT: DSNWDPRD

System Action: Dump formatting continues.

System Programmer Response: If you do not want DB2 summary dump records to be used in formatting, specify the 'SUMDUMP=NO' and 'SUBSYS=subsystem name' on the dump control statement. Both operands are required.

DSNW004I ONE OR MORE INVALID OPERANDS WERE FOUND ON THE DSNWDMP CONTROL CARD. SUBSYSTEM FORMATTING TERMINATED

Explanation: An invalid operand was found on the dump control statement. The operand was not 'SG', 'LG', 'SA', 'AA', or 'ALL'.

This message is issued by the following CSECT: DSNWDPRD

System Action: Control returns to AMDPRDMP or IPCS to terminate the exit.

System Programmer Response: Correct the dump control statement operand specified by message DSNW007I.

DSNW005I DUMP FORMATTER WORK BUFFER (DSNWDBUF) CANNOT BE LOCATED

Explanation: The subsystem formatting exit could not locate its work buffer.

This message is issued by the following CSECT: DSNWDPRD

System Action: Control returns to AMDPRDMP or IPCS to terminate the exit.

System Programmer Response: Increase the region size.

DSNW006I THE ERLY BLOCK CANNOT BE ACCESSED OR IT IS INVALID

Explanation: The subsystem formatting exit could not locate its anchor block.

This message is issued by the following CSECT: DSNWDPRD

System Action: Control returns to AMDPRDMP or IPCS to terminate the exit.

System Programmer Response: Specify 'SUBSYS=subsystem name', 'SUMDUMP=NO' on the dump control statement. The subsystem name should have between 1 and 4 characters.

DSNW007I THE FOLLOWING OPERAND SPECIFIED ON THE DSNWDMP CONTROL CARD IS INVALID: xxxx

Explanation: The specified operand was not one of the valid dump control statement operands.

This message is issued by the following CSECT: DSNWDPRD

System Action: Control returns to AMDPRDMP or IPCS to terminate the exit.

System Programmer Response: Check the dump control statement operands.

DSNW008I THE SCOM CANNOT BE ACCESSED OR IT IS INVALID

Explanation: An error was encountered while trying to retrieve the SCOM.

This message is issued by the following CSECT: DSNWDPRD

System Action: Control returns to AMDPRDMP or IPCS to terminate the exit.

System Programmer Response: If 'SUMDUMP=NO' was specified on the dump control statement, omit this operand, and resubmit the job. Otherwise, specify this operand on the dump control statement, and resubmit the job.

DSNW009I THE ADDRESS SPACE REQUESTED IS NOT AVAILABLE

Explanation: The DB2 control blocks for the address space specified on the 'SA=asid' dump operand could not be located.

This message is issued by the following CSECT: DSNWDPRD

System Action: Formatting continues if other dump operands were specified.

System Programmer Response: Check the ASID specified on the 'SA=' dump operand. The ASID must be specified in hexadecimal.

DSNW010I THE TRACE RMFT CANNOT BE ACCESSED OR IT IS INVALID

Explanation: The DB2 trace table could not be located.

This message is issued by the following CSECT: DSNWDPRD

System Action: Formatting of the DB2 trace table is bypassed, and formatting continues of any other requested dump segment.

System Programmer Response: If 'SUMDUMP=NO' was specified on the dump control statement, omit this operand. Otherwise, specify this operand on the dump control statement. In either case, resubmit the job.

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DSNW011I A LARGER REGION SIZE IS REQUIRED FOR THIS JOB

Explanation: The subsystem formatting exit could not obtain a large enough work buffer to process the summary dump records.

This message is issued by the following CSECT: DSNWDPRD

System Action: Subsystem formatting continues.

System Programmer Response: Rerun the job, specifying a larger region size in the JCL.

DSNW013I DMPW NOT FOUND IN SUMMARY DUMP

Explanation: The subsystem formatting exit was unable to locate the DMPW control block in the summary record portion of the dump data set. Because the DMPW provides the main anchor block for the dump formatter, processing is terminated.

This message is issued by the following CSECT: DSNWDPRD

System Action: Control returns to AMDPRDMP or IPCS to terminate the exit.

System Programmer Response: If this is not a DB2 dump data set, specify 'SUBSYS=xxxx,SUMDUMP=NO' on the dump control statement (where xxxx is the 1- to 4-character subsystem name), so that the subsystem formatting exit does not attempt to use summary dump data.

DSNW014I REQUIRED SUMMARY DUMP RECORDS ARE NOT IN THIS DUMP. WILL ATTEMPT TO FORMAT FROM NON- SUMMARY DUMP

Explanation: Expected data could not be found in the summary dump. This message is issued for information only. Dump formatting continues. However, it will take longer, because a greater volume of data COMMAND PQUIT must be analyzed.

This message is issued by the following CSECT: DSNWDPRD

System Action: Formatting is attempted using the full dump instead of the summary dump.

System Programmer Response: Though processing continues, this message is an indication of a problem, and should be pursued as such.

DSNW015I SSCVT NOT LOCATED. CHECK THE SUBSYSTEM NAME ON THE CONTROL CARD

Explanation: In a search through the SSCVT chain, a match of the subsystem name in the SSCVTs and the subsystem name on the control statement was not found.

This message is issued by the following CSECT: DSNWDPRD

System Action: Formatting for the named subsystem is not done.

Operator Response: Check the 'SUBSYS=' operand on the control statement.

System Programmer Response: Correctly specify the subsystem name on the control statement.

DSNW016I THE RMVT CANNOT BE ACCESSED OR IT IS INVALID

Explanation: The subsystem formatting exit could not locate the RMVT. The RMVT is required for formatting the DB2 trace table and a number of other DB2 control blocks.

This message is issued by the following CSECT: DSNWDPRD

System Action: Formatting of the DB2 trace table is bypassed, and formatting of other requested dump segments continues.

System Programmer Response: If 'SUMDUMP=NO' was specified on the dump control statement, omit this operand. Otherwise, try specifying this operand on the dump control statement. In either case, resubmit the job.

DSNW017I MAXIMUM STACK LEVEL EXCEEDED

Explanation: This condition is usually caused by the DB2 control block formatter looping. The stack array is depleted and can no longer accommodate control blocks.

This message is issued by the following CSECT: DSNWDCBF

System Action: Dump formatting is terminated.

System Programmer Response: Examine the control block chains to see if they are looping. If those chains are not looping, increase the dimension of the stack array.

DSNW018I SUBSYS= NOT SPECIFIED ON THE CONTROL CARD OR MISSING. REQUIRED IF SUMDUMP=NO SPECIFIED

Explanation: The 'SUMDUMP=NO' option was specified, but either the 'SUBSYS=' operand is missing, or it was incorrectly specified.

This message is issued by the following CSECT: DSNWDPRD

System Action: Dump formatting is terminated.

Operator Response: Run the dump printing job after the error has been corrected.

DSNW020I UNSUCCESSFUL SEARCH FOR THE ERLY CONTROL BLOCK

Explanation: The 'ERLY' control block could not be located in the dump.

This message is issued by the following CSECT: DSNWDPRD

System Action: Dump formatting is terminated.

Operator Response: Check that the 'SUBSYS=' operand was correctly specified, and rerun the job.

System Programmer Response: This message can mean that the 'ERLY' control block has been overlaid. Examine the full dump to determine whether the subsystem is present. If it is, you may be able to determine why the control block could not be located.

DSNW022I THE RESIDENT TRACE WAS NOT ACTIVE AT THE TIME OF DUMP

Explanation: Trace table formatting has been attempted, but no trace table existed at the time of the dump.

This message is issued by the following CSECT: DSNWDCBF

System Action: Dump formatting continues with any other control blocks that were to be formatted.

DSNW023I THE TRACE TABLE ENTRY IS OUT OF SEQUENCE OR OVERLAID

Explanation: A trace entry is overlaid by another trace entry of a different timestamp. This message is issued to flag an unrecognized trace entry. This can occur when the oldest entry in the table is the second half of a double entry.

This message is issued by the following CSECT: DSNWDCBF

System Action: Formatting of the trace table continues.

DSNW024I TRACE TABLE

Explanation: The trace table follows.

This message is issued by the following CSECT: DSNWDCBF

System Action: Trace table formatting follows.

DSNW025I DUMP ACCESS ERROR ACCESSING THE TRACE TABLE IN THE DUMP

Explanation: A nonzero return code was returned from the storage access routine when accessing the trace table.

This message is issued by the following CSECT: DSNWDCBF

System Action: Trace table formatting is bypassed.

System Programmer Response: Check the address and ASID of the trace table.

DSNW026I CONTROL BLOCK SUMMARY (ALL ADDRESS SPACES)
DSNW027I CONTROL BLOCK SUMMARY (SINGLE ADDRESS SPACE)
DSNW028I CONTROL BLOCK SUMMARY (LONG FORM GLOBAL)
DSNW029I CONTROL BLOCK SUMMARY (SHORT FORM GLOBAL)

Explanation: Messages DSNW026I through DSNW029I provide descriptive information regarding the type of formatting being produced.

These messages are issued by the following CSECT: DSNWDPRD

System Action: Dump formatting continues.

DSNW030I DUMP ACCESS ERROR ACCESSING THE CONTROL BLOCK STRUCTURE TABLE IN THE DUMP

Explanation: The control block structure table cannot be accessed from the dump.

This message is issued by the following CSECT: DSNWDCBF

System Action: Control block formatting is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNW032I DUMP ACCESS ERROR ACCESSING ANCHOR CONTROL BLOCK

Explanation: The anchor control block cannot be accessed from the dump.

This message is issued by the following CSECT: DSNWDCBF

System Action: Control block formatting is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNW033I BEGINNING FORMATTING

Explanation: Formatting of DB2 control blocks is beginning.

This message is issued by the following CSECT: DSNWDHPP

DSNW034I TRACE TABLE AND GLOBAL BLOCKS ALREADY DUMPED

Explanation: An indicative dump is being requested. The DB2 trace table and the global blocks have already been dumped with first dump (full dump) for this abend dump (SNAP) invocation. These are, therefore, not dumped in the dump for this task.

This message is issued by the following CSECT: DSNWDHPP

DSNW035I WARNING – NO TASK RELATED CONTROL BLOCKS FOR THIS TASK

Explanation: The TCB for which the dump is being requested is not IDENTIFIED to DB2. Task-related control blocks are not dumped. The DB2 trace table and global blocks are dumped only if the 'SYSABEND' DD statement is present and only if this is the first of the dump(s) (full dump) for this abend dump (SNAP) invocation.

This message is issued by the following CSECT: DSNWDHPP

System Action: No DB2 formatting is done for the specified task.

DSNW036I CONTROL BLOCKS FOR TASKS ASSOCIATED WITH THE ABOVE RECOVERY COORDINATOR TASK

Explanation: The formatted blocks following this message are associated with TCBs that have IDENTIFIED to DB2 with the 'recovery coordinator = no' option. These TCBs may not have invoked SNAP, but they are associated with the TCB that did.

This message is issued by the following CSECT: DSNWDHPP

System Action: Related control blocks are dumped.

System Programmer Response: Examine the control blocks for relevant information.

DSNW037I TASK RELATED CONTROL BLOCKS FOR THIS TASK

Explanation: The formatted blocks following this message are associated with the TCB that is being dumped.

This message is issued by the following CSECT: DSNWDHPP

System Action: Relevant control blocks are dumped.

System Programmer Response: Examine the control blocks for relevant information.

DSNW038I END OF FORMATTING

Explanation: Formatting of DB2 control blocks is completed.

This message is issued by the following CSECT: DSNWDHPP

DSNW039I SUBSYSTEM FORMATTING COMPLETE FOR THIS DUMP

Explanation: The subsystem formatting routine has completed its processing for this dump data set.

This message is issued by the following CSECT: DSNWDPRD

DSNW040I 'VVV'CONTROL BLOCK FORMATTER ERROR FLAGS X'80': FIELD EXPECTED TO BE ZERO IS NONZERO X'40': LAST BLOCK IN CHAIN DOES NOT POINT BACK TO PARENT BLOCK X'20': BLOCK NOT FOUND IN DUMP X'10': BLOCK LENGTH INCORRECT X'08': VERIFICATION CODE INCORRECT X'04': BLOCK CHAINED FROM THIS BLOCK NOT FOUND IN DUMP X'02': BLOCK CHAINED FROM THIS BLOCK HAS WRONG VERIFICATION CODE X'01': VALIDATION CONSTANT DOES NOT MATCH EXPECTED VALUE

Explanation: The message DSNW040I appears at the beginning of a formatted dump. It defines the hexadecimal values associated with the 'VVV=XX' keyword. This keyword is provided on the title line of each control block selected for formatting. It indicates any unusual conditions encountered during the validation and format processing of the current control block structure.

This message is issued by the following CSECT: DSNWDPRD

System Action: Dump formatting continues.

System Programmer Response: All nonzero 'XX' values should be examined. If an error is indicated, the printout of the dump should be used for the problem documentation.

Problem Determination: Possible errors include:

- X'80'
- X'40'
- X'20'
- X'04'

The current state of the individual control block structures at the time of error might vary with the type of error involved. Examine control block structures with one of these 'XX' values based on the specific ABEND code.

Example: A X'04' associated with the referencing control block and the X'20' associated with the referenced control block may mean the ABEND occurred between the release of the referenced control block and re-initialization of the address within the referencing one.

DB2 validation errors include:

- X'10'
- X'08'
- X'02'
- X'01'

These values indicate that a validation error occurred while formatting the associated control block.

For example, an X'08' associated with the referenced control block indicates the storage area has been overlaid or the address in the referencing control block is incorrect. Subsequent examination of the values in this control block is not reliable.

DSNW041I THE TAB CANNOT BE ACCESSED OR IT IS INVALID

Explanation: The DB2 trace table anchor block could not be located.

This message is issued by the following CSECT: DSNWDPRD

System Action: Formatting of the DB2 trace table is bypassed, and formatting of any other requested dump segment continues.

System Programmer Response: If 'SUMDUMP=NO' was specified on the dump control statement, omit this operand. Otherwise, specify this operand on the dump control statement. In either case, resubmit the job.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

DSNW049I OLDEST SLOT ADDRESS INVALID, FORMATTING TRACE TABLE FROM FIRST ENTRY

Explanation: The next trace table entry location is invalid.

This message is issued by the following CSECT: DSNWDCBF

System Action: Dump formatting continues.

System Programmer Response: The printout of the dump should be used for the problem documentation.

Problem Determination: The Trace Anchor Block has been initialized incorrectly, or overlaid during execution.

DSNW050I *ssid*,**NO SDWA/LOGREC, ABND=***comp-reason*,**U=***user-id*, **M=***module*,**C=XYR00.***vrm.comp-function*

Explanation: This message provides the default SVC dump title (SDUMP) associated with the SYS1.DUMP data set when an SDWA was unavailable during recovery processing. The variable fields are:

ssid
4-character DB2 subsystem name

comp-reason
Abend completion code, followed by the abend reason code.

user-id
Authorization-ID for the individual subsystem user.

module
Functional recovery routine responsible for the dump.

vrm.comp-function
Component-ID, as follows:

vrm
DB2 version, release number, and modification level.

comp-function
Component-ID function.

This message is issued by the following CSECT: DSNWDSDM

System Action: Dump processing continues.

System Programmer Response: Since the SDWA provides important diagnostic information to assist in problem determination, examine the recovery environment at time of error to determine why an SDWA was not provided for this abend.

In a nonrecovery environment, there may be valid reasons for the lack of an SDWA.

Problem Determination: In a recovery environment, functional recovery routines (FRRs) are guaranteed an SDWA by Recovery Termination Manager (RTM). Therefore, the recovery routine is most likely an ESTAE recovery routine. The primary reason for an SDWA not being provided to an ESTAE routine is insufficient storage available during recovery processing. Examine the region sizes allocated to the failing function to ensure that sufficient storage is available.

In a nonrecovery environment, no SDWA is provided because only RTM can create one.

DSNW051I ERROR DURING DUMP PROCESSING

Explanation: This message is generated by the 'SDUMP dump data gathering service' recovery routine when an error is encountered during dump processing.

This message is issued by the following CSECT: DSNWDSDM

System Programmer Response: This error is documented in a SYS1.LOGREC record. This message can be issued because of an error in the invocation of SDUMP, or because of an error in SDUMP itself, or during control block examination and access.

System Action: Processing of the 'SUMLSTA' user storage areas is terminated, an SVC dump is requested, and control is returned to RTM.

DSNW052I ERROR ENCOUNTERED DURING LOAD OR VALIDATION OF A CONTROL BLOCK STRUCTURE TABLE MODULE

Explanation: The DB2 dump formatting facility cannot be used to format control blocks. An error occurred during the DB2 startup process while attempting to LOAD one of the Control Block Structures Table (CBDS) modules from the DB2 subsystem program library.

This message is issued by the following CSECT: DSNWOLDS

System Action: Subsystem startup processing continues.

Operator Response: If intervention is desired, notify the system programmer.

System Programmer Response: If intervention is desired, the DB2 subsystem can be terminated by either an MVS CANCEL command or a -STOP DB2 command. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The modules must reside in a DB2 program library named on the execution procedure used to start a DB2 subsystem address space.

The named modules prohibit the use of the DB2 dump formatting facility to format SVC dumps that occur during the current execution cycle of the DB2 subsystem. The named modules are not required for DB2 execution.

DSNW053I VRA DIAGNOSTIC INFORMATION REPORT

Explanation: All DB2 diagnostic information in the Variable Recording Area (VRA) at the time of the error is extracted and displayed in this report.

The address of the SDWA, the contents of SDWARA, and SDWARA's hexadecimal offset into SDWA are also displayed. Individual diagnostic entries are identified by a hexadecimal VRA 'key', followed by the length of the subsequent data. Data fields are displayed in hexadecimal and EBCDIC formats. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This message is issued by the following CSECT: DSNWSDFR

System Action: Dump format processing continues.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNW054I NO VRA DATA RECORDED IN SDWA

Explanation: The SDWA obtained from the SYS1.DUMP data set contained no diagnostic information in the VRA.

This message is issued by the following CSECT: DSNWSDFR

System Action: VRA report generation is bypassed, dump format processing continues.

System Programmer Response: If an error is indicated, the printout of the dump should be used for the problem documentation. If VRA data is needed, the abending DB2 subcomponent has failed to supply it. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNW055I FORMAT ROUTINE UNABLE TO LOCATE SDWA

Explanation: The MVS Summary Dump Data Access Service Routine (IEAVTFRD) was unable to locate the SDWA in the summary data portion of the SYS1.DUMP data set.

This message is issued by the following CSECT: DSNWSDFR

System Action: VRA report generation is terminated and dump format processing continues.

System Programmer Response: Take the appropriate action, as indicated in the next section. If an error is indicated, use the printout of the dump for problem documentation.

Problem Determination: The SDWA is placed in the summary data portion of the SYS1.DUMP data set by AMDPRDMP or IPCS. It indicates either CSA or Local Storage Residency.

If the SDWA is not in the dump data set, no error is indicated.

DSNW056I VRA DIAGNOSTIC REPORT COMPLETE

Explanation: The VRA Diagnostic Report is done.

This message is issued by the following CSECT: DSNWSDFR

System Action: Dump format processing continues.

DSNW060I BEGIN SAVE AREA TRACE

Explanation: This message identifies the start of the DB2 register Save Area Trace report which appears in the formatted section of a DB2 SVC Dump. The save areas for the current failing agent execution block (EB), and all associated Agent EBs, are traced from the point of error and displayed in order of invocation.

The format of this report is as follows:

Save Area Identification

The address and contents of each save area is displayed and identified by the invoking module.

```
Module-name  Service-level-identifier

SA    .... WD1 ....  HSA ....  LSA ....
           RET ....  EPA ....  R0  ....
           R1  ....  R2  ....  R3  ....
           R4  ....  R5  ....  R6  ....
           R7  ....  R8  ....  R9  ....
           R10 ....  R11 ....  R12 ....
```

Module-name
: Identifies the module responsible for obtaining the save area as indicated in the DB2 module entry point list (MEPL) at the time of the error.

  If the MEPL does not contain an entry that corresponds to the module entry point address (EPA), this field is set to:

  MODULE INFORMATION UNAVAILABLE

Service-level-identifier
: The service level information associated with the module name is obtained from the corresponding module MEPL entry, and consists of the compilation-date and the PTF number of the latest maintenance applied.

  If no maintenance has been applied for this module, this field defaults to the Function Modification Identifier (FMID).

SA
: Identifies the address and contents of each word of the save area and is displayed using the format and register abbreviation conventions defined by MVS SNAP. All save area data references indicate the primary address space at the time of execution.

Execution Environment

Displays the current execution environment at the time of error for the save areas that follow. This information is repeated each time the current Agent execution EB changed during processing.

```
CURRENT EB=address JOBNAME=name
          HASID=hasid PASID=pasid
          EXECUTION MODE=mode
```

address
: Address of the associated Agent EB.

name
: The 8-character MVS jobname associated with the home address space.

hasid
: Home address space identifier.

pasid
: Primary address space identifier.

mode
: Agent EB MVS execution mode:

  TCB — Task Control Mode
  SRB — Supervisory Request Mode

Register Save Area Contents for Agent EBs

The contents of the register save area chains for the current failing Agent EB, and all suspended Agent EBs at the time of error, are displayed using the save area (SA) format.

```
REGISTERS IN (CB-name) AT TIME OF
          execution-status
```

CB-name
: Identifies the name of the control block from which the registers for the current Agent EB were obtained:

  SDWA — MVS System Diagnostic Workarea (Failure).
  TCB — MVS Task Control Block (Suspend).
  STSV — MVS SRB Status Save Area (Suspend).

execution-status
: Indicates the current execution status of the Agent EB at the time of error:

  Failure — Failing execution EB.
  Suspend — Suspended execution EB.

Change of Primary Address Space

Since all register data references refer to the primary address space associated with the currently active execution EB, the following information is displayed each time the primary address changed during execution:

```
CHANGE OF ADDRESS SPACE, NEW PASID=pasid
```

pasid
: Indicates the new primary address space identifier associated with the save areas that follow.

This message is issued by the following CSECT: DSNWDFST

System Action: save area trace format processing continues for the failing agent EB, and all associated agent EBs.

System Programmer Response: See the Problem Determination section.

Problem Determination: This report may be used to determine the register contents, module invocation sequence, and execution environments leading up to the point of error.

DSNW061I SAVE AREA TRACE COMPLETE

Explanation: This message indicates that the DB2 formatted save area trace report (DSNW060I) is complete.

This message is issued by the following CSECT: DSNWDFST

System Action: Dump format processing continues.

DSNW062I R6 (R6-contents) DOES NOT CONTAIN A VALID EB ADDRESS

Explanation: During dump format processing of the DB2 formatted Save Area Trace report (DSNW060I), register 6 (R6) did not contain the address of a valid Agent execution block (EB).

R6-contents: The contents of register 6.

This message is issued by the following CSECT: DSNWDFST

System Action: save area trace format processing is terminated for the current Agent EB, and all prior EBs.

System Programmer Response: The dump formatter expects the contents of register 6 to contain the address of a valid EB.

Problem Determination: Register 6 does not contain the current EB address or a prior EB address.

Refer to the abend reason and completion codes associated with the original error to determine the use of register 6 prior to the failure.

DSNW063I name (address) ASID (asid) NOT FOUND IN DUMP

Explanation: During dump formatter processing of the save area trace report (DSNW060I), a control block or save area was not found in the dump data set.

Since the dump formatter utilizes the DB2 and MVS control blocks defined under the 'name' field of this message to locate individual register save areas, subsequent save areas located via the 'named' control block or save area will not be displayed in the report.

name Identifies the name of the control block or save area that was not found in the dump data set:

SA	Indicates a Save Area
ASCE	DB2 Address Space Control Element
EB	DB2 Execution Block
TCB	MVS Task Control Block
RB	MVS Request Block
XSB	MVS Extended Status Block
PSA	MVS Prefix Save Area
SDWA	MVS System Diagnostic Work Area
STSV	MVS SRB Status Save Area
STKE	MVS Cross Memory Stack Element

address The address of the 'named' control block or save area.

asid The address space identifier associated with the control block or save area.

This message is issued by the following CSECT: DSNWDFST

System Action: Register save area trace format processing for the current save area chains is terminated. Subsequent save area processing will vary depending on the specific control block or save area that was available, and the DB2 Agent execution environments at the time of the error.

System Programmer Response: Due to the execution structures and environmental restrictions of selected DB2 and MVS control structures, some control blocks and save areas associated with these execution environments will not be included in the dump data set.

Problem Determination: During MVS/RTM recovery processing, IFC Dump Services attempts to include all control blocks (both DB2 and MVS), and the pertinent DB2 save areas in the dump data set, regardless of the type of error. Control blocks and save areas associated with the following address spaces at time of error will be included in the dump data set:

- Primary, Secondary, and Home address spaces.
- DB2 System Services and Database Services address spaces.

DSNW108I UNABLE TO AUTOMATICALLY START type TRACE

Explanation: System parameters indicated that a DB2 trace should be started automatically during DB2 subsystem initialization, but the DB2 subsystem was unable to start the trace. A nonzero return code was received from the -START TRACE command.

This message is issued by the following CSECTs: DSNWVTIT, DSNWVZIT

System Action: Subsystem initialization continues.

Operator Response: Start the trace via the -START TRACE command after DB2 subsystem initialization is complete.

DSNW109I TRACE INITIALIZATION PARAMETERS UNAVAILABLE, DEFAULTS ASSUMED

Explanation: The trace function was unable to access the trace initialization parameters defined by the DSN6SYSP macro. Default values as defined by that macro are assumed for trace parameters.

This message is issued by the following CSECTs: DSNWVTIT, DSNWVZIT

System Action: Subsystem initialization continues.

Operator Response: Determine if the system parameters module DSNZPARM is missing or inaccessible. If not, determine if the CSECT DSN6SYSP is missing. Trace can be started with the -START TRACE command.

DSNW120I A SPECIFIED keyword VALUE IS INVALID FOR type TRACE

Explanation: A trace command has been entered, but a specified keyword value is not valid for the trace type requested.

This message is issued by the following CSECT: DSNWVCM1

System Action: Processing for the TRACE command is terminated.

Operator Response: If a -START TRACE command was entered, specify a valid destination for the trace. Otherwise, issue a -DISPLAY TRACE command to determine what traces are currently active. Refer to *Command Reference* for detailsabout valid destinations.

Problem Determination: Obtain a copy of the system or terminal log to verify command entry.

DSNW121I A SPECIFIED CLASS VALUE IS INVALID FOR type TRACE

Explanation: A trace command has been entered, but a specified class value is not valid for the trace type requested.

This message is issued by the following CSECT: DSNWVCM1

System Action: Processing for the TRACE command is terminated.

Operator Response: If a -START TRACE command was entered, specify a valid class for the trace. Otherwise, issue a -DISPLAY TRACE command to determine what options are currently active. Refer to *Command Reference* for details about valid classes.

Problem Determination: Obtain a copy of the system or terminal log to verify command entry.

DSNW122I THE KEYWORD keyword IS NOT VALID FOR type TRACE

Explanation: A trace command has been entered, but 'keyword' is not valid for the trace type specified.

This message is issued by the following CSECT: DSNWVCM1

System Action: Processing for the TRACE command is terminated.

Operator Response: Either the named keyword must be omitted from the command, or a different type of trace must be specified. Refer to *Command Reference* for details about valid combinations of keywords and trace types.

Problem Determination: Obtain a copy of the system or terminal log to verify command entry.

DSNW123I *csect-name* **TRACE RECORDING HAS BEEN RESUMED ON** *dest*

Explanation: 'dest' destination resumes acceptance of trace data after a failure.

System Action: Data recording is resumed.

DSNW124I *csect-name type* **TRACE TERMINATED RC=***code* **RMID=***nn*

Explanation: During processing 'type' trace, processing abended due to an error. A trace type of blank indicates all tracing has stopped. 'RMID', displayed in decimal, identifies the resource manager. 'RC', displayed in hexadecimal, specifies the return/reason/abend code associated with the action.

Further collection of the named trace is stopped. If it is necessary to resume collection of the trace, a -START TRACE command may be issued. However if another failure is experienced, the problem should be resolved before starting the trace collection again.

System Action: Processing for the named trace type is stopped. The message is not externalized by the functional recovery routine, but is outputted whenever a IFC event is driven at a later time. A trace type of blank indicates all tracing has stopped.

User Response: Investigate the reasons for the failure.

Operator Response: If necessary to collect the named trace, issue a -START TRACE command to resume processing.

Problem Determination: Obtain a copy of the system or terminal log. If a dump was produced, have it printed. Print a copy of the contents of the SYS1.LOGREC for the time period involved. Forward these items along with a copy of the system log to the system programmer.

DSNW125I MULTIPLE ENTRIES NOT ALLOWED FOR keyword AND keyword

Explanation: The following matrix shows keywords which can have multiple entries and the valid combinations. If the row keyword has multiple values then the column keyword can have multiple (M) entries or a maximum of one (1).

Certain keywords are not allowed with some commands. Refer to *Command Reference* for additional information.

	Class	Dest	Plan	Authorization ID	RMID	TNO	IFCID	Loca
Class		M	M	M	M	M	M	M
Dest	M		M	M	M	M	M	M
Plan	M	M		1	M	1	M	1
Authori-zation ID	M	M	1		M	1	M	1
RMID	M	M	M	M		M	M	M
TNO	M	M	1	1	M		M	1
IFCID	M	M	M	M	M	M		M
Loca	M	M	1	1	M	1	M	

This message is issued by the following CSECT: DSNWVCM1

System Action: Processing for the TRACE command is terminated.

Operator Response: Reenter the command omitting the invalid keyword.

Problem Determination: Obtain a copy of the system or terminal log to verify command entry.

DSNW126I *type* **TRACE NOT ALLOWED, ACTIVE TRACE TABLE FULL**

Explanation: The 'type' trace cannot be started because the active trace table is has reached the maximum number of active traces allowed.

This message is issued by the following CSECT: DSNWVCM1

System Action: Processing for the TRACE command is terminated.

Operator Response: Use the -DISPLAY TRACE command to see if an active trace could be stopped. An active trace must be stopped before any other start trace command will be processed.

Problem Determination: Obtain a copy of the system or terminal log to verify command entry.

DSNW127I CURRENT TRACE ACTIVITY IS–

Explanation: This message is the title for the -DISPLAY TRACE command output. The DSNW127I message is followed by the DSNW128I message, one or more DSNW129I messages, and the DSNW147I message.

This message is issued by the following CSECT: DSNWVCM1

DSNW128I TNO TYPE CLASS DEST QUAL

Explanation: This message is issued before any -DISPLAY TRACE responses. The message follows message DSNW127I. The title indicates the trace number that is active, the type of trace, the class within type, and the destination specified for the active trace entries. Whether the trace is qualified is also displayed. If QUAL=YES, the trace is qualified by authorization ID, plan, RMID, or location. If QUAL=NO, the trace is not qualified. Qualification information can be requested by specifying DETAIL(2) on -DISPLAY TRACE. Refer to messages DSNW143I, DSNW144I, DSNW145I, and DSNW148I for more information about -DISPLAY TRACE. The message number is not displayed to save space on the message line.

This message is issued by the following CSECT: DSNWVCM1

DSNW129I *tno type class dest qual*

Explanation: This message is issued for -DISPLAY TRACE responses. The message indicates the trace number that is active, the type of trace, the class within type, and the destination specified for the active trace entries. Whether the trace is qualified is also displayed. If QUAL=YES, the trace is qualified by authorization ID, plan, RMID, or location. If QUAL=NO, the trace is not qualified. Qualification information may be requested by specifying DETAIL(2) on -DISPLAY TRACE. Refer to messages DSNW143I, DSNW144I, and DSNW145I for trace qualification information.

The message follows message number DSNW128I or DSNW129I. If more information is available than can be displayed on one line, subsequent lines of information are displayed. The message number is not displayed to save space on the message line.

This message is issued by the following CSECT: DSNWVCM1

DSNW130I *type* **TRACE STARTED ASSIGNED TRACE NUMBER** *tno*

Explanation: 'type' trace has been started and assigned the decimal trace number 'tno'. Multiple messages are possible when the start request specifies multiple plans or multiple authorization ids.

This message is issued by the following CSECT: DSNWVCM1

System Action: Processing for the -START TRACE command will continue.

DSNW131I STOP TRACE SUCCESSFUL FOR TRACE NUMBER(S) *tno***,...**

Explanation: The trace number(s), 'tno,...', have been stopped. Up to five decimal trace numbers may be listed. If more than five traces have been stopped, then another DSNW131I message is sent.

This message is issued by the following CSECT: DSNWVCM1

System Action: Processing for the -STOP TRACE command will continue.

DSNW132I MODIFY TRACE SUCCESSFUL FOR TRACE NUMBER(S) tno,...

Explanation: The trace numbers, 'tno,...', have been modified. Up to five numbers may be listed. If more than five traces have been modified, then another DSNW131I message is sent.

This message is issued by the following CSECT: DSNWVCM1

System Action: Processing for the modify command will continue.

DSNW133I *csect-name* **TRACE DATA LOST,** *dest* **NOT ACCESSIBLE RC=***code*

Explanation: The destination specified stopped accepting trace data during a trace. Some condition external to DB2 caused the data rejection. The reason for failure is defined by the return code (RC). The RC hexadecimal value can be:

- The hexadecimal return code from SMF. Refer to the appropriate MVS publication for the specific value.
- The hexadecimal return code from the GTF request.

  04 GTF trace and/or USR tracing is not active.

- The hexadecimal return code from the OPn request.

04 No OPn buffer is assigned to an application to collect
data.

- The hexadecimal return code from the OPX request.

04 No OPn buffer is assigned to an application to collect
data.

  08 The OPX trace destination buffer is full causing data to be lost.

- The hexadecimal return code from the SRV request.

  10 The serviceability routine is absent.

  xx The serviceability routine return code.

System Action: Trace processing continues although data will be lost.

This message will also be issued if a -START TRACE command is entered from the console or from the DB2I commands panel to an unassigned OPn or OPX destination. This is because the OP destination is not activated until an application program claims the buffer. DB2 will begin writing trace records to the buffer when an application program issues a -START TRACE to this same OP buffer destination.

Operator Response: Investigate the GTF or SMF facility to determine why data is not being accepted. You may want to issue a -START TRACE command to record the data at another destination. The -DISPLAY TRACE command shows what types of data were recorded at the specified destination. Message DSNW133I with RC=8 is due to exhaustion of storage in an OPx buffer.

Problem Determination: Obtain a copy of the system or terminal log to verify command. Refer to *MVS/ESA System Management Facilities (SMF)* for an explanation of the return code value. For instances of message DSNW133I with RC=8, consult Appendix E (Volume 2) of *Administration Guide*. The OPx buffer to which the records were to be written has been filled, and all subsequent records intended for the buffer will be lost until an IFI READA request is issued to read and clear the contents of the buffer. Suggested actions include increasing the size of the OPx buffer and/or issuing the IFI READA request more frequently so that the OPx buffer is read and cleared before buffer storage is exhausted.

DSNW135I *type* **TRACE ALREADY ACTIVE, TRACE NUMBER** *tno*

Explanation: 'type' trace was already active with trace number 'tno'.

This message is issued by the following CSECT: DSNWVCM1

System Action: Processing for the -START TRACE command will continue.

DSNW137I SPECIFIED TRACE NOT ACTIVE

Explanation: The specified trace could not be found in the active trace table.

This message is issued by the following CSECT: DSNWVCM1

System Action: Processing for the -STOP or -DISPLAY TRACE command will continue.

Operator Response: You may wish to issue an unqualified -DISPLAY TRACE command to determine all the active trace entries. If no traces are active then an unqualified -DISPLAY TRACE command response message is a DSNW137I message.

DSNW138I IFCID *ifcid-number* IS INVALID

Explanation: The specified IFCID number is outside the range of valid IFCID numbers or is an IFCID number which is not allowed on a trace command as specified in Section 5 (Volume 2) of *Administration Guide*.

This message is issued by the following CSECT: DSNWVCM1

System Action: Processing of the trace command is terminated before any trace functions are performed.

Operator Response: Investigate the reason for the problem.

Problem Determination: Refer to *Command Reference* for the range of valid IFCID numbers.

DSNW139I AUTHORIZATION FAILURE BECAUSE *authorization-privilege* PRIVILEGE REQUIRED

Explanation: The user of the command does not have the required authorization privilege to execute the command.

This message is issued by the following CSECT: DSNWVCM1

System Action: Command processing is stopped.

User Response: Notify the security administrator.

Operator Response: Notify the security administrator.

Problem Determination: Obtain a copy of the command input and verify the user's current authorization from the DB2 subsystem catalog.

DSNW140I ALL OPN DESTINATIONS ARE ASSIGNED

Explanation: The request could not be processed because destinations OP1 - OP8 were assigned.

This message is issued by the following CSECT: DSNWVCM1

System Action: Processing of the trace command is terminated before any trace functions are performed.

User Response: Investigate the reason for the failure.

Operator Response: Investigate the reason for the problem by doing a display trace to analyze the active traces.

Problem Determination: Analyze why all the OPn destinations are active after doing a display trace.

DSNW141I STORAGE NOT AVAILABLE FOR BUFFER SIZE *size* K BYTES

Explanation: The request could not be processed because storage cannot be obtained for the OPn destination storage buffer.

This message is issued by the following CSECT: DSNWVCM2

System Action: Processing of the trace command is terminated.

User Response: Investigate the reason for the failure.

Operator Response: Investigate the reason for the problem by doing a display trace to analyze the active traces.

Problem Determination: The problem is caused either because one or more prior start traces to an OPn destination used all the storage in the IFC OPn storage pool or because ECSA contiguous storage was not available. The IFC OPn storage pool limit is approximately 4 megabytes. When a trace is stopped the buffer storage is not free. If another start trace is issued to the same destination, the storage will be reused. If the requested storage is greater than the current unassigned buffer, it is free and a larger buffer is obtained. If the requested storage is less than the current unassigned buffer, the buffer is reused. Fragmentation can occur if either application programs or an operator specify numerous start commands for varying size buffers.

DSNW142I SPECIFIED BUFSIZE IS INCOMPATIBLE WITH ASSIGNED BUFFER

Explanation: The request could not be processed because the start trace command specified a BUFSIZE value for an OPn destination which has a buffer already assigned with a different BUFSIZE.

This message is issued by the following CSECT: DSNWVCM2

System Action: Processing of the trace command is terminated.

User Response: Investigate the reason for the failure.

Operator Response: Investigate the reason for the problem.

Problem Determination: The problem may be caused by one application program attempting to start a trace to a destination owned by another program. This is a site problem and can be solved by having application programs start traces to an OPX destination rather than a specific OPn destination. If only one application program is starting traces, then the program should either specify the same BUFSIZE for all requests or should not specify BUFSIZE.

DSNW143I CURRENT TRACE QUALIFICATIONS ARE -

Explanation: This message is issued before -DISPLAY TRACE responses when DETAIL(2) or DETAIL(*) is specified. Message DSNW143I is followed by the DSNW144I message, one or more DSNW145I messages, and the DSNW148I message.

This message is issued by the following CSECT: DSNWVCM1

DSNW144I TNO AUTHID PLAN RMID LOCATION

Explanation: This message is issued before -DISPLAY TRACE responses when DETAIL(2) is specified. The title indicates the trace number that is active, the authorization ID, the plan, the RMID, and the location specified for the active trace entries. The message follows message DSNW143I. The message number is not displayed to save space on the message line.

This message is issued by the following CSECT: DSNWVCM1

DSNW145I *tno authid plan rmid location*

Explanation: This message is issued for -DISPLAY TRACE responses when DETAIL(2) is specified. The message indicates the trace number that is active, the authorization ID, the plan, the RMID, and the location specified for the active trace entries.

The message follows messages DSNW143I or DSNW144I. If more information is available than can be displayed on one line, subsequent lines of information are displayed. The message number is not displayed to save space on the message line.

This message is issued by the following CSECT: DSNWVCM1

DSNW146I MULTIPLE ENTRIES NOT ALLOWED FOR *keyword*, *keyword* AND *keyword*

Explanation: The following matrix shows keywords that can have multiple entries and the valid combinations. If the row keyword has multiple values, the column keyword can have multiple (M) entries or a maximum of one (1).

	Class	Dest	Plan	Authorization ID	RMID	TNO	Loca
Class		M	M	M	M	M	M
Dest	M		M	M	M	M	M
Plan	M	M		1	M	1	1
Authorization ID	M	M	1		M	1	1
RMID	M	M	M	M		M	M
TNO	M	M	1	1	M		1
Loca	M	M	1	1	M	1	

Certain keywords are not allowed with some commands. Refer to *Command Reference* for additional information.

This message is issued by the following CSECT: DSNWVCM1

System Action: Processing for the TRACE command is terminated.

Operator Response: Omit the invalid keyword and reenter the command.

Problem Determination: Obtain a copy of the system or terminal log to verify command entry.

DSNW147I ***END OF DISPLAY TRACE SUMMARY DATA***

Explanation: This message is produced when all summary information for the -DISPLAY TRACE command has been written. Summary information is written when the DETAIL keyword is specified as '1', '*', or not specified at all. Message DSNW147I follows one or more DSNW129I messages. The message number is not displayed to save space on the message line.

This message is issued by the following CSECT: DSNWVCM1

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

DSNW148I ***END OF DISPLAY TRACE QUALIFICATION DATA***

Explanation: This message is produced when all qualification data for the -DISPLAY TRACE command has been written. Qualification data is written when the DETAIL keyword of the -DISPLAY TRACE command is specified as '2', or '*'. Message DSNW148I follows one or more DSNW145I messages. The message number is not displayed to save space on the message line.

This message is issued by the following CSECT: DSNWVCM1

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

DSNW149I STOP TRACE COMMAND WAS UNSUCCESSFUL BECAUSE MONITOR TRACE CLASS 6 IS ACTIVE FOR QUALIFYING TRACE NUMBER(S) *tno*,...

Explanation: No traces were stopped by the -STOP TRACE command. Either -STOP TRACE(*) or -STOP TRACE(MON) CLASS(*) was issued when monitor trace class 6 was active. An asterisk (*) is not allowed for the TRACE and CLASS keywords when monitor trace class 6 is active. The trace numbers, 'tno,...', indicate the traces that met any other specified -STOP TRACE qualifying criteria (PLAN, AUTHID, RMID, LOCATION, TNO) and also activated monitor trace class 6, thereby preventing all qualifying traces from being stopped. This special handling of the asterisk on the -STOP TRACE command for monitor trace class 6 reduces the possibility of accidentally stopping monitor trace class 6, which enables and disables DB2 data propagation.

This message is issued by the following CSECT: DSNWVCSP

System Action: No traces are stopped. Processing of the -STOP TRACE command is terminated.

User Response: Reissue the -STOP TRACE command without using an asterisk for the trace type. You can use a asterisk for the CLASS keyword to stop all trace types except the monitor (MON) trace.

Operator Response: If you do not want DB2 data propagation capability, you can stop monitor trace class 6 to allow full use of the asterisk. First stop the traces indicated by the trace numbers, 'tno,...', and then reissue the command.

If you want DB2 data propagation capability, do not stop monitor trace class 6. You must specify the trace TYPE. You can stop traces without specifying the trace CLASS as long as the trace TYPE is not (MON). If the trace TYPE is (MON), then you must specify the CLASS keyword explicitly (for example, -STOP TRACE(MON) CLASS(1,2)).

Refer to *Command Reference* for information on restrictions to the -STOP TRACE command when monitor trace class 6 is active.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

DSNX... Messages

DSNX100I bind-type SQL WARNING USING authorization-id AUTHORITY PLAN=plan-id DBRM=dbrm name STATEMENT=statement number object name IS NOT DEFINED

Explanation: The indicated object is not defined in the DB2 catalog.

bind-type	Type of BIND subcommand that caused the warning: BIND, REBIND
authorization-id	Authorization ID used during the BIND process: for a BIND subcommand, indicates the authorization ID of the plan owner; for a REBIND subcommand, indicates the authorization ID of the owner specified by the subcommand, or the latest owner of the plan. If this is a remote rebind, and the OWNER was not specified in the subcommand, then “REMOTE OWNER” will be output.
plan-id	Name of the application plan specified in the BIND subcommand, blank if the application plan is not specified.
dbrm name	Name of the DBRM that contains the reference to the indicated object.
statement number	Statement number of the SQL statement referencing the name of the object.
object name	Name of the object that is not defined in the DB2 catalog.

This message is issued by the following CSECTs: DSNLXMSG, DSNXEPR, DSNXEBPG

System Action: A valid plan is created if no errors are detected and VALIDATE(RUN) is in effect.

System Programmer Response: Ensure that the indicated table is created before the statement is executed. Otherwise, execution of this statement results in an error.

This statement is bound dynamically on each execution of the statement. For better performance, REBIND the application program after the indicated object is created.

DSNX101I bind-type SQL WARNING USING authorization-id AUTHORITY PLAN=plan-id DBRM=dbrm name STATEMENT=statement number THE SPECIFIED AUTHORIZATION-ID DOES NOT HAVE THE PRIVILEGE TO PERFORM OPERATION op name ON OBJECT object name

Explanation: The identified authorization ID does not have a privilege required for application plan execution.

bind-type	Type of BIND subcommand that caused the warning: BIND or REBIND
authorization-id	Authorization ID used during the bind process. For a BIND subcommand, it is the authorization ID of the plan owner. For a REBIND subcommand, it is the authorization ID of the owner specified by the subcommand, or the latest owner of the plan. If this is a remote operation, and the OWNER was not specified in the subcommand, then REMOTE OWNER is output.
plan-id	Name of the application plan specified in the BIND subcommand. If the application plan is not specified, this field is blank.
dbrm name	Name of the DBRM that contains the unauthorized operation.
statement number	Statement number of the SQL statement containing the unauthorized operation.

This message is issued by the following CSECTs: DSNLXMSG, DSNXEPR, DSNXEBPG

System Action: A valid plan is created if no errors are detected and VALIDATE(RUN) is in effect.

System Programmer Response: You must take one of the following actions before the statement can be executed. Otherwise, the execution of the statement results in an error.

- Ensure that the appropriate authority is granted to the invoker of the latest BIND subcommand against this application plan
- Invoke the BIND subcommand again using an authorization ID with authority to perform all the operations in this application plan.

This statement is bound dynamically on each execution of the statement. For better performance, rebind the application program after the appropriate authority is granted to the invoker of the BIND subcommand against this application plan.

DSNX102I bind-type SQL WARNING USING authorization-id AUTHORITY PLAN=plan-id DBRM=dbrm name STATEMENT=statement number THE REQUIRED INDEX HAS NOT BEEN CREATED ON TABLE table name IN PARTITIONED TABLESPACE table space name

Explanation: There was an attempt to reference the table in the table space (both specified in the message) when the required index was not yet created.

bind-type	Type of BIND subcommand that caused the warning: BIND or REBIND
authorization-id	Authorization ID used during the bind process. For a BIND subcommand, it is the authorization ID of the plan owner. For a REBIND subcommand, it is the authorization ID of the owner specified by the subcommand, or the latest owner of the plan. If this is a remote operation, and the OWNER was not specified in the subcommand, then REMOTE OWNER is output.
plan-id	Name of the application plan specified in the BIND subcommand. If the application plan is not specified, this field is blank.
dbrm name	Name of the DBRM that contains the reference to the indicated table.
statement number	Statement number of the SQL statement referencing the indicated table.

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This message is issued by the following CSECTs: DSNLXMSG, DSNXEPR, DSNXEBPG

System Action: A valid plan is created if no errors are detected and VALIDATE(RUN) is in effect.

System Programmer Response: Ensure that the required index on the indicated table in the partitioned table space is created before the statement is executed. Otherwise, execution of this statement results in an error. This statement is bound dynamically on each execution of the statement. For better performance, rebind the application program after the required index is created.

DSNX103I bind-type SQL WARNING USING authorization-id AUTHORITY PLAN=plan-id DBRM=dbrm name STATEMENT=statement number BIND ISOLATION LEVEL RR CONFLICTS WITH TABLESPACE LOCKSIZE PAGE OR LOCKSIZE ROW

Explanation: Because of the possible inconsistency between the isolation level of the application and the LOCKSIZE of the table space, table space locking is used to protect the integrity of the application.

bind-type	Type of BIND subcommand that caused the warning: BIND or REBIND
authorization-id	Authorization ID used during the bind process. For a BIND subcommand, it is the authorization ID of the plan owner. For a REBIND subcommand, it is the authorization ID of the owner specified by the subcommand, or the latest owner of the plan. If this is a remote operation, and the OWNER was not specified in the subcommand, then REMOTE OWNER is output.
plan-id	Name of the application plan specified in the BIND subcommand. If the application plan is not specified, this field is blank.
dbrm name	Name of the DBRM that contains the reference to the indicated table.
statement number	Statement number of the SQL statement referencing the indicated table.

This message is issued by the following CSECTs: DSNLXMSG, DSNXEPR, DSNXEBPG

System Action: A valid plan is created if no errors are detected. Table space locking is used. RR isolation level is preserved.

System Programmer Response: If you do not want table space locking, use isolation level UR, CS or RS.

DSNX104I bind-type SQL WARNING USING authorization-id AUTHORITY PLAN=plan-id DBRM=dbrm name STATEMENT=statement number THE RESULT OF DECIMAL MULTIPLICATION MAY CAUSE OVERFLOW

Explanation: An arithmetic expression contains a decimal multiplication that might cause an overflow condition when the statement is executed. The problem can be corrected by restructuring the arithmetic expression so that decimal multiplication precedes decimal division or by changing the precision and scale of the operands in the arithmetic expression. Refer to Chapter 3 of *SQL Reference* for the precision and scale of the decimal multiplication and division results.

bind-type	Type of BIND subcommand that caused the warning: BIND or REBIND
authorization-id	Authorization ID used during the bind process. For a BIND subcommand, it is the authorization ID of the plan owner. For a REBIND subcommand, it is the authorization ID of the owner specified by the subcommand, or the latest owner of the plan. If this is a remote operation, and the OWNER was not specified in the subcommand, then REMOTE OWNER is output.
plan-id	Name of the application plan specified in the BIND subcommand. If the application plan is not specified, this field is blank.
dbrm name	Name of the DBRM that contains the reference to the indicated table.
statement number	Statement number of the SQL statement referencing the indicated table.

This message is issued by the following CSECTs: DSNLXMSG, DSNXEPR, DSNXEBPG

System Action: A valid plan is created if no errors are detected.

DSNX105I bind-type SQL WARNING USING authorization-id AUTHORITY PLAN=plan-id DBRM=dbrm name STATEMENT=statement number SQLCODE=sqlcode SQLSTATE=sqlstate TOKENS=token list

Explanation: An SQL warning code was generated while processing an SQL statement.

bind-type	The type of subcommand that caused the warning: BIND or REBIND
authorization-id	Indicates the authorization ID used during the bind process. For a BIND subcommand, it is the authorization ID of the plan owner. For a REBIND subcommand, it is the authorization ID of the owner specified by the subcommand, or the latest owner of the plan. If this is a remote operation, and the OWNER was not specified in the subcommand, then REMOTE OWNER is output.
plan-id	Name of the application plan specified in the BIND subcommand. If the application plan is not specified, this field is blank.
sqlcode	A product specific code which identifies the particular SQL warning condition. The value and semantics of the code are the same as the SQL return codes documented in “Section 2. SQL Return Codes” on page 2-1.
sqlstate	A common code which identifies the particular SQL warning condition.
dbrm name	Name of the DBRM that contains the problem.
statement number	Statement number of the SQL statement containing the problem.

token list — Sequence of one or more tokens separated by blanks. Refer to "Section 2. SQL Return Codes" on page 2-1 for an explanation of tokens.

This message is issued by the following CSECTs: DSNLXMSG, DSNXEPR, DSNXEBPG

System Action: A valid plan is created if no errors are detected.

System Programmer Response: Refer to "Section 2. SQL Return Codes" on page 2-1, for the particular SQL return code given in this message. If the reason code is negative, this statement is bound dynamically on each execution of the statement. For better performance, rebind the application program after correcting this statement or after the required object is created or altered.

DSNX106I ATTEMPTED REBIND OF PACKAGE pkg-id RESULTED IN A TOTAL OF number ERRORS

Explanation: Errors have been detected during the remote REBIND process. Only the first REBIND error will produce a specific message. Additional errors will simply be totaled, and the number will be returned to the user.

pkg-id — Name of the package specified in the subcommand.

number — Total number of errors in the remote REBIND

This message is issued by the following CSECT: DSNLXMSG

System Action: The package was not rebound.

System Programmer Response: See previously output message to determine the initial error that caused the subcommand to be terminated unsuccessfully.

DSNX200I bind-type SQL ERROR USING authorization-id AUTHORITY PLAN=plan-id DBRM=dbrm name STATEMENT=statement number SQLCODE=sqlcode SQLSTATE=sqlstateTOKENS=token list CSECT=csect name RDS CODE=location code

Explanation: An error has been detected while processing an SQL statement.

bind-type BIND | REBIND
indicates type of BIND subcommand that caused the error.

authorization-id — indicates the authorization ID used during the bind process. For a BIND subcommand, indicates the authorization ID of the plan owner. For a REBIND subcommand, indicates the authorization ID of the owner specified by the subcommand, or the latest owner of the plan.

plan-id — Name of the application plan specified in the BIND subcommand. Blank if the application plan is not specified.

sqlcode — A product specific code which identifies the particular SQL error detected. The value and semantics of the code are the same as the SQL return codes documented in "Section 2. SQL Return Codes" on page 2-1.

sqlstate — A common code which identifies the particular SQL error detected.

dbrm name — Name of the DBRM that contains the error.

statement-number — Statement number containing the SQL error.

token list — Optional sequence of one or more tokens separated by blanks. These are the tokens that are to be substituted into the text of the error code as described at the beginning of "Section 2. SQL Return Codes" on page 2-1.

csect — Name of the CSECT detecting the problem.

rds code — Unique code that identifies the location within the CSECT when the problem is detected.

This message is issued by the following CSECT: DSNLXMSG

System Action: No application plan is created.

System Programmer Response: Correct the SQL errors in the application program associated with the indicated DBRM. Precompile the application program, and reinvoke the BIND subcommand.

DSNX201I bind-type SQL ERROR USING authorization-id AUTHORITY PLAN=plan-id DBRM=dbrm name STATEMENT=statement number SQL CODE=sql code TOKENS=token list; bind-type DBRM ERROR USING authorization-id AUTHORITY PLAN=plan-id DBRM dbrm name IS IN AN INCONSISTENT STATE

Explanation: The content of a DBRM has been modified after the precompilation process.

bind-type — Type of BIND subcommand that caused the warning: BIND, REBIND

authorization-id — Authorization ID of the plan owner.

plan-id — Name of the application plan specified in the BIND or REBIND subcommand (or blank if the application plan is not specified).

dbrm name — Name of the DBRM that is in error.

This message is issued by the following CSECTs: DSNXEPR, DSNXEBPG

System Action: No application plan is created.

System Programmer Response: Precompile the application program associated with the indicated DBRM. Reinvoke the BIND subcommand.

DSNX202I INVALID AMODE ATTRIBUTE FOUND FOR DATE OR TIME INSTALLATION REPLACEABLE EXIT ROUTINE module-name

Explanation: During DB2 startup, the Relational Data System subcomponent loads the Date (DSNXVDTX) and Time (DSNXVTMX) exit routines. These routines must have the link-edited attributes AMODE(31) and RMODE(ANY). The module listed in the message 'module-name' did not have the correct addressing attributes. If the date and time LOCAL installation option is specified, DB2 will be unable to execute the date and time functions required by the exit routine that failed to load.

This message is issued by the following CSECT: DSNXINIT

System Action: The load module is deleted. DB2 startup will continue.

Operator Response: Notify the system programmer.

System Programmer Response: When DB2 is stopped, the date and time exit routine must be link-edited again with the correct AMODE and RMODE control statements. For more information, refer to Appendix B (Volume 2) of *Administration Guide*.

DSNX203I LOAD OF THE DATE OR TIME INSTALLATION REPLACEABLE EXIT ROUTINE module-name FAILED WITH MVS ABEND CODE = abend-code REASON CODE = reason-code DB2 STARTUP WILL CONTINUE

Explanation: During DB2 startup, the Relational Data System subcomponent loads the date (DSNXVDTX) and time (DSNXVTMX) exit routines. During the load of EXIT ROUTINE 'module-name', MVS issued the abend code and reason code that would cause abnormal termination of the task, but the abend was suppressed. If the date and time LOCAL option is specified, DB2 will be unable to execute the date and time functions required by the exit routine that failed to load.

This message is issued by the following CSECT: DSNXINIT

System Action: The load failed. DB2 startup will continue.

Operator Response: Notify the system programmer.

System Programmer Response: When DB2 is stopped, the date and time exit routine must be link-edited correctly. For more information, refer to Appendix B (Volume 2) of *Administration Guide* .

DSNX204I *csect-name* **ERROR LOADING THE DB2 CATALOG, REASON** *reason***: DB2 STARTED ACCESS(MAINT)**

Explanation: The internal structure (DBD) for the catalog database (DSNDB06) was either not found or inconsistent when DB2 was started. See the appropriate reason for a more detailed description of the problem.

The *reason* is one of the following:

0 An error occured reading the DB01 table space. Check the Console for messages and SYS1.LOGREC for abends.

1 The expected level of the DBD for DSNDB06 is the previous release, but objects exist in the DBD for a current or later release.

2 The expected level of the DBD for DSNDB06 is the current release, but objects exist in the DBD for a later release.

3 The expected level of the DBD for DSNDB06 is a later release, but objects do not exist in the DBD for a later release.

4 The level of the DBD for DSNDB06 is unknown to this version of DB2.

System Action: DB2 was started ACCESS(MAINT).

System Programmer Response: Do not run any CREATES, ALTERS, DROPS, GRANTs, REVOKEs or BINDs when in this state; it might corrupt your catalog and directory. Determine the problem with the DSNDB01.DBD01 table space. An improper REPAIR or RECOVER of the table space might have been run. Fix the problem while in ACCESS(MAINT) mode and then stop and start DB2. See Section 4 (Volume 1) of Administration Guide for more information on recovering the DSNDB01.DBD01 table space.

Problem Determination: If you suspect an error in DB2 or the table space is in an inconsistent state refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2.

DSNX205I *csect-name* **THE DATA DEFINITION CONTROL OBJECT DEFINITIONS AND ATTRIBUTES ON MEMBER** *member-name* **ARE NOT THE SAME.**

Explanation: One or more data definition control object definitions and attributes on member *member-name* and on this member are not the same. The data definition control object definitions and attributes are defined in the initialization parameter module DSNZPARM.

System Action: Processing continues.

System Programmer Response: Use the same data definition control table object definitions and attributes for all members of the DB2 data sharing group. See Section 2 of *Installation Guide* for information about defining data definition control objects and attributes in DSNZPARM.

DSNX900E *csect-name* **ILLEGAL VALUE DETECTED IN** *colname* **COLUMN OF SYSIBM.SYSPROCEDURES FOR PROCEDURE** *procname*

Explanation: The *colname* column of the SYSIBM.SYSPROCEDURES catalog table contains an unsupported value in a row associated with PROCEDURE=*procname*.

colname The name of the column of the SYSIBM.SYSPROCEDURES table that contains the illegal value.

procname The name of the stored procedure being processed when the illegal value was detected

System Action: The invalid row in the SYSIBM.SYSPROCEDURES table cannot be processed.

If this error occurs during a START PROCEDURE command, DB2 continues to process stored procedure requests using information previously cached from the SYSIBM.SYSPROCEDURES table.

If this error occurs during processing for an SQL CALL statement, DB2 rejects any further SQL CALL statements for the failing procedure until the row in SYSIBM.SYSPROCEDURES is corrected.

Operator Response: Contact the system programmer.

System Programmer Response: Correct the unsupported column value in the SYSIBM.SYSPROCEDURES table. Then use the -START PROCEDURE(procname) command to enable DB2 to accept new stored procedure requests.

DSNX902E *csect-name* **ILLEGAL SYMBOL** *token* **DETECTED IN PARMLIST COLUMN OF SYSIBM.SYSPROCEDURES FOR PROCEDURE** *procname***. VALID SYMBOLS ARE** *token-list***.**

Explanation: The PARMLIST column of the SYSIBM.SYSPROCEDURES catalog table contains an illegal keyword in a row associated with PROCEDURE=*procname*. The PARMLIST column defines the parameter list expected by a DB2 stored procedure.

token The illegal symbol that was detected

procname The name of the stored procedure being processed when the illegal value was detected

token-list A list of symbols that are legal in this position of the PARMLIST string

System Action: The invalid row in the SYSIBM.SYSPROCEDURES table cannot be processed.

If this error occurs during a START PROCEDURE command, DB2 continues to process stored procedure requests using information previously cached from the SYSIBM.SYSPROCEDURES table.

If this error occurs during processing for an SQL CALL statement, DB2 rejects any further SQL CALL statements for the failing procedure until the row in SYSIBM.SYSPROCEDURES is corrected.

Operator Response: Contact the system programmer.

System Programmer Response: Correct the PARMLIST column value in the SYSIBM.SYSPROCEDURES table. Then use the -START PROCEDURE(procname) command to enable DB2 to accept new stored procedure requests.

DSNX903E *csect-name* **THE NAME** *name* **IN THE PARMLIST COLUMN OF SYSIBM.SYSPROCEDURES FOR PROCEDURE** *procname* **IS TOO LONG.**

Explanation: The PARMLIST column of the SYSIBM.SYSPROCEDURES catalog table contains a name that is longer than 8 characters. The PARMLIST column defines the parameter list expected by a DB2 stored procedure.

name The name that was greater than 8 characters in length

procname The name of the stored procedure being processed when the illegal value was detected

System Action: The invalid row in the SYSIBM.SYSPROCEDURES table cannot be processed.

If this error occurs during a START PROCEDURE command, DB2 continues to process stored procedure requests using information previously cached from the SYSIBM.SYSPROCEDURES table. If multiple procedure names are supplied on the START PROCEDURE command, DB2 continues processing the remaining names.

If this error occurs during processing for an SQL CALL statement, DB2 rejects any further SQL CALL statements for the failing procedure until the row in SYSIBM.SYSPROCEDURES is corrected.

Operator Response: Contact the system programmer.

System Programmer Response: Correct the PARMLIST column value in the SYSIBM.SYSPROCEDURES table. Then use the -START PROCEDURE(procname) command to enable DB2 to accept new stored procedure requests.

DSNX904E *csect-name* **THE NAME** *name* **IN THE PARMLIST FOR PROCEDURE** *procname* **CONTAINS AN INVALID CHARACTER. REASON CODE IS** *reason***.**

Explanation: The PARMLIST column of the SYSIBM.SYSPROCEDURES catalog table contains an invalid character. For example, a shift-in or shift-out character, which is not supported for the PARMLIST string of SYSIBM.SYSPROCEDURES, might be present. The PARMLIST column defines the parameter list expected by a DB2 stored procedure.

name The name that contained the invalid character

procname The name of the stored procedure being processed when the invalid character was detected

reason The following reason codes apply to SBCS identifiers:

000 An invalid character was found in the SBCS identifier (including the situation in which a DBCS identifier is used where only an SBCS identifier is allowed.)

The following reason codes apply to DBCS identifiers.

101 An odd number of bytes exists between the shift-out and the shift-in character.

102 No shift-in character was found at the end of the identifier.

103 DBCS blanks X'4040' are not allowed.

104 There are no characters between the shift-out and the shift-in character.

105 Shift-out can not be the first byte of the DBCS character between the shift-out and the shift-in character.

System Action: The invalid row in the SYSIBM.SYSPROCEDURES table cannot be processed.

If this error occurs during a START PROCEDURE command, DB2 continues to process stored procedure requests using information previously cached from the SYSIBM.SYSPROCEDURES table. If multiple procedure names are supplied on the START PROCEDURE command, DB2 continues processing the remaining names.

If this error occurs during processing for an SQL CALL statement, DB2 rejects any further SQL CALL statements for the failing procedure until the row in SYSIBM.SYSPROCEDURES is corrected.

Operator Response: Contact the system programmer.

System Programmer Response: Correct the PARMLIST column value in the SYSIBM.SYSPROCEDURES table. Then use the -START PROCEDURE(procname) command to enable DB2 to accept new stored procedure requests.

DSNX905I *csect-name* **PROCEDURE** *procname* **TERMINATED ABNORMALLY ASID=** *asid* **WLM_ENV=** *wlmenv*

Explanation: A stored procedure terminated abnormally while attempting to satisfy an SQL CALL statement for an SQL application.

procname The name of the stored procedure that terminated abnormally

asid The MVS ASID of the address space where the stored procedure executed.

wlmenv The name of the WLM application environment where the stored procedure executed. If it executed in the DB2-established stored procedures address space, this field will contain blanks.

System Action: The SQL CALL statement fails, and the SQL application is forced to roll back.

System Programmer Response: Correct the cause of the abnormal termination. If the correction requires the stored procedure to be linkedited again, then it might be necessary to cause the corrected MVS load module to be reloaded. Different commands must be used to cause this reloading depending on the environment in which the stored procedure was executed.

If it was run in a WLM-established stored procedures address space, issue the MVS VARY WLM,APPLENV=name,REFRESH command.

If it was run in the DB2-established stored procedures address space, issue the -START PROCEDURE command.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 4, 5.

DSNX906I *csect-name* **PROCEDURE** *procname* **TERMINATED ABNORMALLY. THE PROCEDURE HAS BEEN STOPPED. ASID=** *asid* **WLM_ENV=** *wlmenv*

Explanation: A stored procedure terminated abnormally while attempting to satisfy an SQL CALL statement for an SQL application.

procname The name of the stored procedure that terminated abnormally

asid The MVS ASID of the address space where the stored procedure executed.

wlmenv The name of the WLM application environment where the stored procedure executed. If it executed in the DB2-established stored procedures address space, this field will contain blanks.

System Action: The SQL CALL statement fails, and the SQL application is forced to roll back.

The abnormal termination count for procedure *procname* was reached. The procedure is stopped and further requests for the procedure are rejected.

System Programmer Response: Correct the cause of the abnormal termination. If the correction requires the stored procedure to be linkedited again, then it might be necessary to cause the corrected MVS load module to be reloaded. Different commands must be used to cause this reloading depending on the environment in which the stored procedure was executed.

If it was run in a WLM-established stored procedures address space, issue the MVS VARY WLM,APPLENV=name,REFRESH command.

If it was run in the DB2-established stored procedures address space, issue the -START PROCEDURE command.

After the appropriate command has been issued to refresh the stored procedure load module,use the -START PROCEDURE command to activate the stored procedure.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 4, 5.

DSNX908I *csect-name* **PROCEDURE** *procname* **WITH LOAD MODULE** *module* **EXCEEDED CPU RESOURCE LIMIT SSN=** *ssn* **PROC=** *jclproc***ASID=** *asid* **WLM_ENV=** *wlmenv*

Explanation: A stored procedure consumed more CPU service units than allowed by the ASUTIME column of the SYSIBM.SYSPROCEDURES catalog table. The stored procedure might be in a loop.

procname The name of the stored procedure being processed

module The MVS load module associated with the stored procedure

ssn The name of the DB2 subsystem that called the stored procedure.

jclproc The name of the JCL PROC used to start this stored procedures address space.

asid The MVS ASID of the address space where the stored procedure executed.

wlmenv The name of the WLM application environment where the stored procedure executed. If it executed in the DB2-established stored procedures address space, this field will contain blanks.

System Action: DB2 detaches the TCB associated with the stored procedure, which causes abnormal termination of the stored procedure.

Operator Response: Contact the system programmer.

System Programmer Response: If the stored procedure is looping, correct the stored procedure.

If the stored procedure is performing correctly, increase the ASUTIME value in the SYSIBM.SYSPROCEDURES row associated with the stored procedure.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 4, 5.

DSNX909E *csect-name* **PROCEDURE** *procname* **HAS AN INVALID** *type* **SPECIFICATION** *spec* **FOR PARMLIST PARAMETER** *num*

Explanation: The PARMLIST column of the SYSIBM.SYSPROCEDURES catalog table contains an invalid length or scale specification for one of the parameters. The PARMLIST column defines the parameter list expected by a DB2 stored procedure.

procname The name of the stored procedure being processed when the illegal value was detected.

type The type of specification that is in error. Two values are possible: LENGTH or SCALE.

spec The specified length or scale that is in error.

num The ordinal number of the parameter within the PARMLIST string that is in error.

System Action: The invalid row in SYSIBM.SYSPROCEDURES cannot be processed.

If this error occurs during a START PROCEDURE command, DB2 continues to process stored procedure requests using information previously cached from SYSIBM.SYSPROCEDURES. If multiple procedure names are supplied on the START PROCEDURE command, DB2 continues processing the remaining names.

If this error occurs during processing for an SQL CALL statement, DB2 rejects any further SQL CALL statements for the failing procedure until the row in SYSIBM.SYSPROCEDURES is corrected.

Operator Response: Contact the system programmer.

System Programmer Response: Correct the PARMLIST column value in SYSIBM.SYSPROCEDURES. Then use the -START PROCEDURE(procname) command to enable DB2 to accept new stored procedure requests.

DSNX910E *csect-name* **PROCEDURE** *procname* **CONTAINS THE DUPLICATE KEYWORD** *keyword* **FOR PARMLIST PARAMETER** *num*

Explanation: The PARMLIST column of the SYSIBM.SYSPROCEDURES catalog table contains a duplicate keyword. The PARMLIST column defines the parameter list expected by a DB2 stored procedure.

procname The name of the stored procedure being processed when the illegal value was detected

keyword The keyword that appeared more than once in the parameter definition

num The ordinal number of the parameter within the PARMLIST string that is in error

System Action: The invalid row in SYSIBM.SYSPROCEDURES cannot be processed.

If this error occurs during a START PROCEDURE command, DB2 continues to process stored procedure requests using information previously cached from SYSIBM.SYSPROCEDURES. If multiple procedure names are supplied on the START PROCEDURE command, DB2 continues processing the remaining names.

If this error occurs during processing for an SQL CALL statement, DB2 rejects any further SQL CALL statements for the failing procedure until the row in SYSIBM.SYSPROCEDURES is corrected.

Operator Response: Contact the system programmer.

System Programmer Response: Correct the PARMLIST column value in SYSIBM.SYSPROCEDURES. Then use the -START PROCEDURE(procname) command to enable DB2 to accept new stored procedure requests.

DSNX911E *csect-name* **PROCEDURE** *procname* **SPECIFIED EXTERNAL_SECURITY 'Y' AND IS TO RUN IN THE DB2-Established STORED PROCEDURE ADDRESS SPACE. THIS COMBINATION IS NOT SUPPORTED**

Explanation: The EXTERNAL_SECURITY column of the SYSIBM.SYSPROCEDURES catalog table contains a Y, and the WLM_ENV column of the SYSIBM.SYSPROCEDURES catalog table contains blanks. The EXTERNAL_SECURITY function is only supported for stored procedures that are run in a WLM-established stored procedures address space.

procname The name of the stored procedure being processed when the illegal value was detected

System Action: The invalid row in SYSIBM.SYSPROCEDURES cannot be processed.

If this error occurs during a START PROCEDURE command, DB2 continues to process stored procedure requests using information previously cached from SYSIBM.SYSPROCEDURES. If multiple procedure names are supplied on the START PROCEDURE command, DB2 continues processing the remaining names.

If this error occurs during processing for an SQL CALL statement, DB2 rejects any further SQL CALL statements for the failing procedure until the row in SYSIBM.SYSPROCEDURES is corrected.

Operator Response: Contact the system programmer.

System Programmer Response: Either set the EXTERNAL_SECURITY column to N, or specify a non-blank value for the WLM_ENV column. Then use the -START PROCEDURE(procname) command to enable DB2 to accept new stored procedure requests.

DSNX912E *csect-name* **PROCEDURE** *procname* **SPECIFIED PGM_TYPE 'S' AND IS TO RUN IN THE DB2-Established STORED PROCEDURE ADDRESS SPACE. THIS COMBINATION IS NOT SUPPORTED**

Explanation: The PGM_TYPE column of the SYSIBM.SYSPROCEDURES catalog table contains an S, and the WLM_ENV column of the SYSIBM.SYSPROCEDURES catalog table contains blanks. The PGM_TYPE function for subprograms is only supported for stored procedures that are run in a WLM-established stored procedures address space.

procname The name of the stored procedure being processed when the illegal value was detected

System Action: The invalid row in SYSIBM.SYSPROCEDURES cannot be processed.

If this error occurs during a START PROCEDURE command, DB2 continues to process stored procedure requests using information previously cached from SYSIBM.SYSPROCEDURES. If multiple procedure names are supplied on the START PROCEDURE command, DB2 continues processing the remaining names.

If this error occurs during processing for an SQL CALL statement, DB2 rejects any further SQL CALL statements for the failing procedure until the row in SYSIBM.SYSPROCEDURES is corrected.

Operator Response: Contact the system programmer.

System Programmer Response: Verify that the stored procedure can be called as a main program and set the

PGM_TYPE to M, or specify a non-blank value for the WLM_ENV column. Then use the -START PROCEDURE(procname) command to enable DB2 to accept new stored procedure requests.

DSNX921I *csect-name* **SQL CALL STATEMENTS CANNOT BE PROCESSED, BECAUSE REQUIRED RESOURCES ARE NOT AVAILABLE REASON=***reason* **TYPE=***type* **NAME=***name*

Explanation: DB2 was unable to validate the attributes of the SYSIBM.SYSPROCEDURES catalog table and related objects because of an unavailable resource.

reason The DB2 reason code describing the unavailable resource

type The resource type

name The name of the resource

System Action: SQL CALL statements are rejected.

System Programmer Response: Resolve the unavailable resource problem. Then use the -START PROCEDURE(*) command to cause DB2 to accept SQL CALL statements.

Operator Response: Note the *reason* code, the *type* code, and the *name*. See the Problem Determination section for an explanation of the collected data.

Problem Determination: The reason code tells why the resource is unavailable. Reason codes are described in "Part 4. Reason Codes". Use the table defined for message DSNT500I to find the type of resource identified in the message.

DSNX922I *csect-name* **BEGINNING DISCONNECTION OF STORED PROCEDURE ADDRESS SPACES**

Explanation: This message is produced during -STOP DB2 processing. It indicates that DB2 SQL processing has been quiesced, and DB2 is now beginning the termination process for the stored procedures address spaces.

DSNX923I *csect-name* **ALL STORED PROCEDURE ADDRESS SPACES ARE NOW DISCONNECTED.**

Explanation: This message is produced during -STOP DB2 processing. It indicates that all of the stored procedure address spaces are now disconnected from DB2 and the stop of DB2 will continue.

WLM-established stored procedure address spaces are terminated by WLM after the disconnection from DB2.

DSNX940I *csect-name* **- DISPLAY PROCEDURE REPORT FOLLOWS-**

Explanation: This message is the title for the report output from the DISPLAY PROCEDURE command. It precedes messages DSNX941I and DSNX942I. Message DSNX943I might also be displayed. The final message for the report is DSNX945I.

System Action: The DISPLAY PROCEDURE command processing continues.

DSNX941I PROCEDURE MODULE STATUS ACTIVE MAXACT QUEUED MAXQUE TIMEOUT

Explanation: This message displays the column headings for the list of stored procedures generated by the DISPLAY PROCEDURE command. The definitions are:

PROCEDURE The name of the stored procedure

MODULE The MVS load modules associated with the stored procedure This field contains blanks for statistics gathered while the stored procedure is in STOPPED status. This field is non-blank for statistics gathered when the specific load module name can be determined.

STATUS The status of the stored procedure

ACTIVE The number of DB2 agents that are currently running this stored procedure

MAXACT The maximum number of DB2 agents that have run this stored procedure concurrently since DB2 was started

QUEUED The number of DB2 agents that are currently waiting for this stored procedure to be scheduled

MAXQUE The maximum number of DB2 agents that have waited for this stored procedure to be scheduled since DB2 was started

TIMEOUT The number of times a request for this procedure timed out while waiting to be scheduled since DB2 was started

System Action: The DISPLAY PROCEDURE command processing continues.

DSNX942I *procedure module status active maxact queued maxque timeout*

Explanation: This message lists the DISPLAY PROCEDURE information for a given stored procedure. The definitions of the columns are:

procedure The name of the stored procedure.

module The MVS load module associated with the stored procedure.

If the *module* column contains blanks, the request for the *procedure* is in a state in which the MVS load module name cannot yet be determined.

status The status of the stored procedure. The status can be any of the following values:

STARTED The stored procedure is able to accept SQL CALL requests.

STOPABN The stored procedure was stopped because of the previous abnormal termination of the stored procedure application. SQL CALL requests for the stored procedure are rejected.

The -START PROCEDURE command can be used to place the stored procedure in STARTED status.

STOPQUE The stored procedure was stopped. SQL CALL requests for the stored procedure are queued until the stored procedure is started or the installation-defined timeout interval expires.

The -START PROCEDURE command can be used to place the stored procedure in STARTED status.

STOPREJ The stored procedure was placed in this status by the STOP PROCEDURE ACTION(REJECT) command. SQL CALL requests for the stored procedure are rejected.

The -START PROCEDURE command can be used to place the stored procedure in STARTED status.

active The number of DB2 agents that are currently running this stored procedure.

maxact The maximum number of DB2 agents that have run this stored procedure concurrently since DB2 was started.

queued The number of DB2 agents that are currently waiting for this stored procedure to be scheduled.

maxque The maximum number of DB2 agents that have waited for this stored procedure to be scheduled since DB2 was started.

timeout The number of times an SQL CALL statement timed out while waiting for a stored procedure to be scheduled since DB2 was started.

An SQL CALL statement can time out for several reasons:

- The procedure can be stopped by the STOP PROCEDURE ACTION(QUEUE) command, causing requests for the procedure to be queued until the installation-defined time interval expires.
- There might not be enough MVS TCBs in the DB2 stored procedures address space to satisfy the volume of SQL CALL statements.
- The MVS dispatching priority of the DB2 stored procedures address space might be too low to process the stored procedure requests in a timely manner.

System Action: The DISPLAY PROCEDURE command processing continues.

DSNX943I PROCEDURES *begin* **THROUGH** *end* **HAVE BEEN STOPPED WITH ACTION(***act***)**

Explanation: This message indicates a STOP PROCEDURE command was issued with an asterisk ('*') in the procedure name, causing a range of procedure names to be stopped. This message follows the DSNX940I, DSNX941I, and any DSNX942I messages.

begin The first procedure name in the range of procedure names that are currently stopped

end The last procedure name in the range of procedure names that are currently stopped

act The action provided on the STOP PROCEDURE command

System Action: The DISPLAY PROCEDURE command processing continues.

DSNX944I *csect-name* **THE STORED PROCEDURE FUNCTION IS NOT AVAILABLE**

Explanation: This message is returned by the START, STOP, and DISPLAY PROCEDURE command when the stored procedure facility is not available. It can also be produced when an MVS START command is used to start the stored procedures address space.

The following conditions cause the stored procedure facility to be unavailable:

- The DB2 DSNZPARM module does not include a value for the stored procedure JCL procedure name. This prevents DB2 from starting the stored procedure function.
- DB2 was unable to start the stored procedures address space. This can be caused by a JCL error in the stored procedures JCL procedure.
- DB2 is running on MVS/XA, which does not support the stored procedure function.

System Action: If a START, STOP, or DISPLAY PROCEDURE command is in progress, the command terminates.

If an MVS START command is used to start the stored procedures address space, the stored procedures address space terminates.

DSNX945I DISPLAY PROCEDURE REPORT COMPLETE

Explanation: The output from the DISPLAY PROCEDURE command is complete. This message follows the DSNX940I, DSNX941I, and any DSNX942I messages.

System Action: The DISPLAY PROCEDURE command processing continues.

DSNX946I *csect-name* **START PROCEDURE SUCCESSFUL FOR** *token*

Explanation: The START PROCEDURE command completed successfully.

token The procedure name supplied on the START PROCEDURE command.

System Action: The START PROCEDURE COMMAND processing continues.

DSNX947I *csect-name* **STOP PROCEDURE SUCCESSFUL FOR** *token*

Explanation: The STOP PROCEDURE command completed successfully.

token The procedure name supplied on the STOP PROCEDURE command

System Action: The STOP PROCEDURE command processing continues.

DSNX948I *csect-name* **START PROCEDURE FAILED FOR** *token***, DUE TO PREVIOUSLY REPORTED ERROR CONDITION**

Explanation: The START PROCEDURE command for *token* was not successful. The cause of the failure was reported earlier in the START PROCEDURE command output with another DSNX9xxx message.

token The name of the stored procedure

System Action: The status of the failing stored procedure identified by *token* is unchanged.

If other stored procedures are to be started, the START PROCEDURE command tries to start any remaining procedures that were supplied.

DSNX949I *csect-name* **PROCEDURE** *procname* **WAS NOT FOUND**

Explanation: The procedure name supplied on the START PROCEDURE command was not found in the SYSIBM.SYSPROCEDURES catalog table.

procname The name of the stored procedure

System Action: The start of the procedure is successful. Any information from the SYSIBM.SYSPROCEDURES catalog table that had previously been cached for that procedure name is deleted.

Processing continues for any additional procedure names supplied on the command.

DSNX950I *csect-name* **PROCEDURE** *procname* **HAS NOT BEEN ACCESSED**

Explanation: The procedure name supplied on the DISPLAY PROCEDURE command has not yet been accessed by any SQL CALL statement. The specified *procname* might not be present in the SYSIBM.SYSPROCEDURES catalog table.

procname The name of the stored procedure

System Action: Processing continues for any additional procedure names supplied on the command.

DSNX951I *csect-name* **A STORED PROCEDURE CANNOT ISSUE START/STOP PROCEDURE COMMANDS**

Explanation: A stored procedure attempted to issue the START or STOP PROCEDURE command. This is not allowed because the START and STOP PROCEDURE commands might cause the stored procedures address space tasks to terminate.

System Action: The START or STOP PROCEDURE command is rejected.

DSNX952I *csect-name* **THE DB2-Established STORED PROCEDURE ADDRESS SPACE IS ALREADY STARTED**

Explanation: DB2 supports only one DB2-established stored procedure address space.

An MVS address space attempted to connect to DB2 as a DB2-established stored procedure address space, but another DB2-established stored procedure address space is already connected to DB2.

DB2 supports multiple WLM-established stored procedure address spaces.

System Action: The attempt to connect to DB2 is rejected.

DSNX953E *csect-name* **STORED PROCEDURE JOBNAME OR STARTED TASK NAME DOES NOT MATCH ZPARM**

Explanation: An MVS address space attempted to identify itself to DB2 as the DB2-established stored procedure address space, but the JOBNAME or started task name of the address space did not match the stored procedure's MVS procedure name recorded in the DB2 DSNZPARM module.

System Action: The attempt to connect to DB2 is rejected.

System Programmer Response: If you want to start the DB2-established stored procedure address space from the MVS console, you must use an MVS procedure name that matches the value in the DB2 DSNZPARM module.

DSNX954I *csect-name* **ATTEMPT TO START DB2-Established STORED PROCEDURE ADDRESS SPACE PROC=** *jclproc* **FAILED**

Explanation: DB2 attempted to start the DB2-established stored procedure address space using the JCL proc name specified in the DB2 DSNZPARM module. MVS failed the request.

Possible causes for the start failing include:

- JCL proc not found
- JCL error in the proc

jclproc The name of the JCL PROC used to start the stored procedures address space.

System Action: The DB2-established stored procedures address space will not be available.

System Programmer Response: Correct the error and use the -START PROCEDURE(*) command to start the DB2-established stored procedure address space.

DSNX960E *csect-name***SQL CALL STATEMENTS CANNOT BE PROCESSED, BECAUSE THE Language Environment ROUTINE CEEPIPI CANNOT BE LOADED SSN=** *ssn* **PROC=** *jclproc* **ASID=** *asid* **WLM_ENV=** *wlmenv*

Explanation: To execute an SQL CALL statment, DB2 must load the Language Environment interface module (CEEPIPI). If the CEEPIPI module is not included in an accessible data set such as STEPLIB data sets, JOBLIB data sets, or the LPA library, DB2 is unable to call Language Environment to process stored procedure requests.

ssn The name of the DB2 subsystem to which the stored procedures address space was connected.

ssn The name of the JCL PROC used to start this stored procedures address space.

asid The MVS ASID of the address space where the load was issued.

wlmenv The name of the WLM application environment where the load was issued. If it executed in the DB2-established stored procedures address space, this field will contain blanks.

System Action: The address space attempting to process stored procedures terminates.

System Programmer Response: Change the STEPLIB DD statement in the JCL used to start the stored procedure address space, or install the CEEPIPI module in one of the libraries already accessible to the address space.

After the CEEPIPI module is accessible, use one of the following techniques to restart the failing stored procedure address space:

- If the error was in a WLM-established stored procedures address space, use the MVS VARY WLM,APPLENV=name,RESUME command.
- If the error was in the DB2-established stored procedures address space, use the -START PROCEDURE(*) command.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1.

DSNX962I *csect-name* **THE Language Environment CEEPIPI SERVICE RETURNED AN UNEXPECTED RETURN CODE** *rc* **FOR FUNCTION** *func* **SSN=** *ssn* **PROC=** *jclproc* **ASID=** *asid* **WLM_ENV=** *wlmenv*

Explanation: DB2 uses the Language Environment CEEPIPI service to load and execute user-written stored procedures. The Language Environment return code *rc* was not expected for the indicated Language Environment function call.

rc The return code received from CEEPIPI.

func The function requested by DB2. Possible values are:

add_entry	Add an entry to the Language Environment PIPI table dynamically.
call_main	Run a main program stored procedure using an existing Language Environment run time environment.
call_sub	Run a sub program stored procedure using an existing Language Environment run time environment.
delete_entry	Delete an entry from the Language Environment PIPI table dynamically.
end_seq	End a sequence of calls using CEEPIPI.
identify	Identify the language the module was written in.
init_main	Create Language Environment run time environment.
init_sub_dp	Create Language Environment sub run time environment.
term	Terminate the Language Environment run time environment.
start_seq	Start a sequence of calls using CEEPIPI.

ssn The name of the DB2 subsystem to which the stored procedures address space was connected.

jclproc The name of the JCL PROC used to start this stored procedures address space.

asid The MVS ASID of the address space where the CEEPIPI error was encountered.

wlmenv The name of the WLM application environment where the CEEPIPI error was encountered. If it executed in the DB2-established stored procedures address space, this field will contain blanks.

System Action: The attempt to run a stored procedure fails. The DB2 stored procedure address space attempts any new stored procedure requests it receives.

System Programmer Response: The Language Environment return codes from CEEPIPI are documented in *Language Environment for MVS & VM Programming Guide*.

If the values of *func* and *rc* are 'ADD_ENTRY' and X'0000000C', the error might be caused by using a compiler that is not Language Environment enabled to create the stored procedure. DB2 stored procedures must be compiled with a compiler that supports Language Environment.

Problem Determination: Collect the following diagnostic item listed in “Appendix B. Problem Determination” on page X-5: 1.

DSNX964I *csect-name* **THE DB2-Established STORED PROCEDURES ADDRESS SPACE FOR SUBSYSTEM** *subs* **IS STARTED**

Explanation: The DB2-established stored procedures address space is now available to process SQL CALL statements.

subs The name of the DB2 subsystem to which the DB2-established stored procedures address space is connected.

System Action: Processing continues.

DSNX965I *csect-name* **THE DB2-Established STORED PROCEDURES ADDRESS SPACE FOR SUBSYSTEM** *subs* **IS STOPPING**

Explanation: The DB2-established stored procedures address space is terminating. Termination occurs when all active stored procedures in the DB2-established stored procedures address space return control to DB2.

subs The name of the DB2 subsystem to which the DB2-established stored procedures address space was connected.

System Action: DB2 continues to process any stored procedures that are currently running. If a new SQL CALL statement is received that is to be executed in the DB2-established stored procedures address space the request is queued.

DSNX966I *csect-name* **STORED PROCEDURE** *sp* **FAILED. Language Environment ENCLAVE RC =** *erc*, **FEEDBACK INFORMATION =** *fi* **SSN=** *ssn* **PROC=** *jclproc* **ASID=** *asid* **WLM_ENV=** *wlmenv*

Explanation: DB2 uses the Language Environment CEEPIPI call_main or call_sub service to execute user-written stored procedures. The CEEPIPI interface returned information indicating a failure while executing the stored procedure.

sp The stored procedure name that was called using CEEPIPI.

erc The Language Environment enclave return code.

fi Contains one or two message identifiers. The message identifiers are constructed from the Language Environment condition token.

The message identifiers are constructed as follows:

- Single message: Facility_Id combined with Msg_No
- Two messages: Facility_Id combined with Class_Code and Facility_Id combined with Cause_Code

ssn The name of the DB2 subsystem that called the stored procedure.

jclproc The name of the JCL PROC used to start this stored procedures address space.

asid The MVS ASID of the address space where the stored procedure executed.

wlmenv The name of the WLM application environment where the stored procedure executed. If it executed in the DB2-established stored procedures address space, this field will contain blanks.

System Action: The attempt to run this stored procedure failed. The DB2 stored procedure address space attempts any new stored procedure requests it receives.

System Programmer Response: A description of the Language Environment enclave return code and the condition token are documented in *Language Environment for MVS & VM Programming Guide*. In many cases the feedback information contains a Language Environment message number. These are documented in Language Environment for MVS & VM.

Problem Determination: Collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 1. 4.

DSNX967I *csect-name* **ATTEMPT TO PERFORM WLM FUNCTION** *func* **FAILED WITH WLM RC=** *rc* **RSN=** *rsn* **SSN=** *ssn* **PROC=** *jclproc* **ASID=** *asid* **WLM_ENV=** *wlmenv*

Explanation: A WLM-established stored procedures address space was unable to perform a WLM operation required to communicate with WLM.

func The WLM function that failed. Possible values are:

- IWMCONN
- IWMSSEL
- IWMSTBGN
- IWMSTEND

ssn The name of the DB2 subsystem to which this stored procedure address space was connected.

jclproc The name of the JCL PROC used to start this stored procedures address space.

asid The MVS ASID of the address space where this function was invoked.

wlmenv The name of the WLM application environment where this function was invoked.

System Action: The stored procedures service task that encountered the error terminates. If this is the last service task in that address space, then that address space terminates.

The WLM return codes and reason codes are documented in MVS/ESA SP 5.3 Workload Management Services. In some cases the failures are caused by the WLM application environment being incorrectly defined or in a quiesced state. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 4, 5.

DSNX968I *csect-name* **STORED PROCEDURE ADDRESS SPACE IS UNABLE TO CONNECT TO WLM BECAUSE WLM_ENV =** *wlmenv* **IS STOPPED OR QUIESCED**

Explanation: A DB2 stored procedures address space could not connect to the Work Load Manager services of MVS because the WLM application environment was in a stopped or quiesced state.

wlmenv The name of the WLM application environment for which the stored procedure address space was being started.

System Action: The stored procedures address space terminates.

System Programmer Response: Correct the WLM application environment name that is being used by stored procedures address space JCL proc.

To change the status of the application environment use the MVS VARY WLM,APPLENV=wlmenv,RESUME command.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 4, 5.

DSNX980E *csect-name* **ATTEMPT TO PERFORM CALL ATTACH FUNCTION** *func* **FAILED WITH DB2 SUBSYSTEM** *subsys***. RETURN CODE=***rc***, REASON CODE=***reason*

Explanation: The DB2 stored procedures address space was unable to perform a DB2 call attach operation required to communicate with DB2.

func The DB2 call attach function that failed. Possible values are:

CONNECT
OPEN
CLOSE
DISCONNECT

subsys The DB2 subsystem name involved in the call attach function

rc The DB2 call attach return code

reason The DB2 reason code

System Action: The stored procedures service task that encountered the error terminates. If this is the last service task in the address space, the the DB2 stored procedures address space terminates.

System Programmer Response: Consult the DB2 *Application Programming and SQL Guide* to determine the cause of the DB2 call attach return code and reason code.

DSNX981E *csect-name* **THE PARAMETER** *parm* **CONTAINS AN INVALID VALUE "***string***" PROC=** *jclproc*

Explanation: The DB2 stored procedures address space received an invalid value in the JCL parameter used to start the address space.

parm The JCL parameter is specified incorrectly. Possible values are:

SUBSYS This parameter can be invalid for the following reasons:

- The SUBSYS parameter is null.
- The SUBSYS parameter is too long.
- The SUBSYS parameter contained an invalid character.

NUMTCB This parameter can be invalid for the following reasons:

- A comma was not present in the parameter list to separate the NUMTCB parameter from the previous parameter.
- The NUMTCB parameter is null.
- The NUMTCB parameter contained nonnumeric characters.
- The value of the NUMTCB parameter is zero.
- The value of the NUMTCB parameter is negative.
- The value of the NUMTCB parameter is greater than the maximum number of TCBs allowed in the DB2 stored procedures address space.

APPLENV This parameter can be invalid for the following reasons:

- A comma was not present in the parameter list to separate the APPLENV parameter from the previous parameter.
- The value of the APPLENV parameter is longer than eighteen characters.

string The value provided for the parameter in error.

jclproc The name of the JCL PROC used to start this stored procedures address space.

System Action: The DB2 stored procedures address space terminates.

If MVS WLM is used to establish the stored procedure address space, WLM will retry the start of the address space two more times. If all three attempts fail, WLM will quiesce the WLM environment associated with the stored procedure address space.

System Programmer Response: Correct the JCL parameter used to invoke the DB2 stored procedure address space.

If MVS WLM is used to establish the stored procedure address space, the MVS VARY WLM,APPLENV=*wlmenv*,RESUME command might be required to resume the WLM application environment (*wlmenv*) associated with the stored procedures address space.

DSNX982I *csect-neme* **ATTEMPT TO PERFORM RRS ATTACH FUNCTION** *func* **FAILED WITH RRS ATTACH RC=** *rc* **RSN=** *rsn* **SSN=** *ssn* **PROC =** *jclproc* **ASID=** *asid* **WLM_ENV=** *wlmenv*

Explanation: A WLM-established stored procedures address space was unable to perform an RRS attach operation required to communicate with DB2.

func The RRS attach function that failed. Possible values are:

- SPAS_ID
- SPAS_INIT_SP
- SPAS_TERM_SP

ssn The name of the DB2 subsystem involved with the RRS attach function.

jclproc The name of the JCL PROC used to start the stored procedures address space.

asid The MVS ASID of the address space where the function was attempted.

wlmenv The name of the WLM application environment where the function was attempted.

System Action: The stored procedures service task that encountered the error terminates. If this is the last service task in that address space, then that address space terminates.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination:

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 4, 5.

DSNX983I *csect-neme* **DB2 STORED PROCEDURE SUPPORT CODE AND SUBSYSTEM CODE ARE NOT AT THE SAME LEVEL SSN=** *ssn* **PROC =** *jclproc*

Explanation: A DB2 stored procedures address space could not connect to the DB2 subsystem. This occurred because the DB2 code in the stored procedures address space was not at the same release level as the code in the DB2 subsystem.

ssn The name of the DB2 subsystem that the stored procedure address space was attempting to connect with.

jclproc The name of the JCL PROC used to start the stored procedures address space.

System Action: The stored procedures address space terminates.

System Programmer Response: Correct the DB2 library name in the STEPLIB for the JCL proc for the stored procedures address space. Make the library name the same as the library name used for the DB2 subsystem address spaces. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 4, 5.

DSNX990E *csect-name* **IMS ODBA INITIALIZATION FAILED BECAUSE THE CALLABLE INTERFACE CANNOT BE LOADED**

Explanation: The IMS ODBA callable interface module cannot be loaded. Stored procedure applications cannot use DLI calls to access IMS databases.

Ensure the load module named AIBTDLI is located in the partitioned dataset specified in the SPAS startup procedure's DFSRESLB dd card statement.

System Action: The stored procedure address space initialization continues.

DSNX991I *csect-name* **IMS ODBA INITIALIZATION COMPLETED**

Explanation: The initialization of the IMS ODBA callable interface has completed. Stored procedure applications may use DLI calls to access IMS databases.

System Action: The stored procedure address space initialization continues.

DSNX992E *csect-name* **IMS ODBA INITIALIZATION FAILURE, AIB RC =** *rc*

Explanation: The initialization of the IMS ODBA callable interface has failed. Stored procedure applications cannot use DLI calls to access IMS databases.

rc The AIB return code provided by IMS for the CIMS INIT call. Refer to IMS/ESA V6 Application Programming: DB; DL/I Return and Reason Codes for more information regarding the failure.

System Action: The stored procedure address space initialization continues.

DSNY... Messages

DSNY001I SUBSYSTEM STARTING

Explanation: The -START DB2 command is accepted. This message is issued to the MVS console that issued the -START command. The DSN9022I message is sent when the DB2 subsystem startup process has completed. Refer to the DSN9022I message for additional information.

This message is issued by the following CSECT: DSNYSTRT

System Action: DB2 startup processing begins.

DSNY002I SUBSYSTEM STOPPING

Explanation: The -STOP DB2 command is accepted. The DSN9022I message is issued when the DB2 subsystem shutdown process has completed. The message is issued either to the origin of the -STOP DB2 command (for MVS MCS console) or to the MVS console from which the -START DB2 command was received. Refer to the DSN9022I message for additional information.

This message is issued by the following CSECT: DSNYSCMD

System Action: DB2 subsystem shutdown is initiated.

DSNY003I SUBSYSTEM IS ALREADY ACTIVE

Explanation: The -START DB2 command has not been accepted, because the DB2 subsystem is active. The DSN9023I message is issued after this message. Refer to the DSN9023I message for additional information.

This message is issued by the following CSECT: DSNYSCMD

DSNY004I SUBSYSTEM IS ALREADY STOPPING

Explanation: The -STOP DB2 command has not been accepted either because the DB2 subsystem shutdown is in progress for the specified option (QUIESCE or FORCE), or because the QUIESCE option was specified after a FORCE option had been previously accepted. The DSN9023I message is issued after this message. Refer to the DSN9023I message for additional information.

This message is issued by the following CSECT: DSNYSCMD

System Action: DB2 subsystem shutdown is continued.

DSNY005I SUBSYSTEM STARTUP TERMINATED, INVALID START COMMAND

Explanation: The DB2 subsystem can be started only by a -START DB2 command.

This message is issued by the following CSECT: DSNYSTRT

System Action: DB2 subsystem startup is terminated.

Operator Response: Start the DB2 subsystem via the -START DB2 command, and reenter the rejected command.

DSNY006I *csect-name* **INVALID AMODE OR RMODE ATTRIBUTE FOUND FOR LOAD MODULE** *module name*

Explanation: The Initialization Procedures subcomponent detected that a module had an invalid AMODE or RMODE attribute when it was loaded. In the error message, 'module name' is the name of the load module with an invalid addressing or residency mode.

System Action: DB2 subsystem startup is terminated.

Operator Response: Notify the system programmer of the failure.

System Programmer Response: Verify that all installation and maintenance activities against DB2 were executed using SMP, that the JCLIN for SMP includes the correct AMODE and RMODE control statements, and that the Linkage Editor provided with the Data Facility Product (DFP) was invoked by SMP for the link edits. Correct the procedure or JCL that caused the error and rerun the necessary SMP jobs.

Problem Determination: A DB2 dump was requested to an MVS SYS1.DUMP data set. The MVS service aid AMBLIST provides Linkage Editor module attributes in the summary section of the LISTLOAD function output.

DSNY007I LOAD MODULE DSNHDECP DOES NOT HAVE RMODE(24) ATTRIBUTE

Explanation: The named load module was not link-edited with the required RMODE(24) attribute.

This message is issued by the following CSECT: DSNYASCP

System Action: DB2 startup is abended with reason code 00E80160.

Operator Response: Notify the system programmer.

System Programmer Response: Verify that all installation and maintenance activities against DSNHDECP were executed using SMP. JCLIN for SMP must have included the correct AMODE and RMODE control statements. The Linkage Editor, provided with the Data Facility Product (DFP), was invoked by SMP for the link-edits. Correct the procedure or JCL that caused the error and rerun the necessary SMP jobs.

Problem Determination: The MVS service aid AMBLIST provides Linkage Editor module attributes in the summary section of the LISTLOAD function output.

DSNY008I SUBSYSTEM SHUTDOWN REQUEST NOT ACCEPTED

Explanation: The -STOP DB2 command has not been accepted because a subsystem startup has not completed to the point where shutdown can occur. The DSN9023I message is issued after this message. Refer to the DSN9023I message for additional information.

This message is issued by the following CSECT: DSNYSCMD

System Action: DB2 startup continues and the -STOP DB2 command is ignored.

User Response: Reissue the -STOP DB2 command after subsystem startup has completed.

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DSNY010I LOAD MODULE module name IS NOT AT THE CORRECT RELEASE/VERSION LEVEL

Explanation: The named load module is not at the correct release/version level for the version of DB2 that was being started.

This message is issued by the following CSECT: DSNYASCP

System Action: DB2 startup is abended with reason code 00E80161.

Operator Response: Notify the system programmer.

System Programmer Response: Verify that the correct load libraries are being used. Also verify that the application of maintenance did not result in modules being link edited into the wrong load libraries.

DSNY020I *csect-name* **MEASURED USAGE DATA IS NOT BEING RECORDED FOR** *subsystem|address-space*

Explanation: For measured usage data to be recorded, SMF type 89 records must be collected. Two PTFs must be applied: one to the early code and one to the base. Until both are active, measured usage data cannot be recorded.

System Action: Processing continues, but measured usage for either the DB2 subsystem or the specified DB2 address space is not recorded.

Programmer Response: If measured usage data is needed, be sure that SMF type 89 records are collected and that both PTFs are applied to the running system. An IPL is required for the change to early code.

If the records are being recorded, the PTFs are applied, and an address-space is in the message, then the return code for the MVS service is located in ASCEMULC for that address space.

DSNZ... Messages

DSNZ002I src DSNZINIT SUBSYSTEM ssnm SYSTEM PARAMETERS LOAD MODULE NAME IS dsnzparm-name

Explanation: DB2 subsystem 'ssnm' is being started with the 'dsnzparm-name' DSNZPARM load module. This message is written to the MVS console which entered the -START DB2 command. The message will also appear in the JES SYSLOG and on the JES job log of *ssnm*MSTR. The message contains the name of the DSNZPARM load module entered by the operator or the default name (DSNZPARM) if no name was entered.

This message is issued by the following CSECT: DSNZINIT

System Action: DB2 startup processing continues.

DSNZ003I *csect-name* **DSNZINIT CSECT** *parm-csect* **NOT FOUND IN SYSTEM PARAMETERS.**

Explanation: The named *parm-csect* was not found in the system parameters (ZPARM) specified when starting DB2. This CSECT is required to start DB2. The name of the system parameters load module that is missing this CSECT is identified in previously issued message DSNZ002I.

This error can occur if the system parameters load module specified is for a different release of DB2.

System Action: DB2 subsystem startup processing stops.

Operator Response: Verify that the correct system parameters name was specified. If the correct name was specified, notify the system programmer.

System Programmer Response: Verify that:

- The system parameters load module is for the release of DB2 being started.
- The correct load libraries are being used to load the system parameters load module.

If these are correct, then reassemble and relink-edit your system parameters load module.

DSNZ004I *csect-name* **DSNZINIT INCORRECT LEVEL** *wrong-level* **FOUND IN** *parm-csect* **SYSTEM PARAMETERS. LEVEL** *correct-level* **IS REQUIRED.**

Explanation: The system parameters load module CSECT *parm-csect* contains an incorrect level identifier. The CSECT contains a level identifier of *wrong-level* and the DB2 that is starting requires a level identifier of *correct-level*.

This error can occur if the system parameters load module specified is for a different release of DB2. This error can also occur if the system parameters load module is missing some maintenance. In this case the *parm-csect* is down level and must be reassembled.

System Action: DB2 subsystem startup processing stops.

Operator Response: Verify that the correct system parameters name was specified. If the correct name was specified, then notify the system programmer.

System Programmer Response: Verify that:

- The system parameters load module is for the release of DB2 being started.
- The correct load libraries are being used to load the system parameters load module.

If these are correct, then reassemble and relink-edit your system parameters load module.

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DSN1... Messages

The messages in this section apply to DSN1LOGP, DSN1COPY, DSN1COMP, DSN1PRNT, and DSN1CHKR.

The value shown for 'severity' is the value returned as the job-stepcondition code from the job step in which the message is issued. If additional messages having higher severity values are issued during the same job step, the higher value is reflected as the job-step condition code.

Severity values have the following meanings:

0 An informational message. No error occurred.
4 A warning message. A condition was detected of which the user should be aware. The user might need to take further action.
8 An error message. An error situation was detected and processing could not continue.
12 A severe error message. A severe error situation was detected and processing could not continue.

DSN1110E LIMIT OF 50 STATEMENTS EXCEEDED

Explanation: DSN1LOGP allows a total of 50 statements for a given job.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job using no more than 50 statements.

DSN1111E LIMIT OF 80 TOKENS EXCEEDED

Explanation: DSN1LOGP allows a total of 80 keywords and corresponding value specifications. A keyword with its value is considered two tokens.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job using no more than 80 keywords.

DSN1112E TOKEN xx..xx EXCEEDS 64 HEXADECIMAL CHARACTERS

Explanation: The SYSIN input contains the character string 'xx..xx'. This string is invalid.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job with the specified token being no more than 64 hexadecimal characters in length.

DSN1113E VALUE FOR KEYWORD xxxxxxxx INVALID

Explanation: The SYSIN input contains the keyword 'xxxxxxxx'. The value specified for that keyword is not of the form '(value)'.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job with the correct form of the keyword. The problem might be that the closing parenthesis ')' is missing or that an extra blank exists in the value.

DSN1114E RBASTART MULTIPLY DEFINED

Explanation: The RBASTART parameter can be specified only once for a given job.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job using a single RBASTART value.

DSN1115E *csect-name* **KEYWORD** *keyword* **ALLOWS ONLY** *number* **HEX CHARACTERS**

Explanation: The value given for *keyword* is too long.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing no more than the maximum number of characters allowed for the keyword.

DSN1116E *csect-name keyword* **IS USED MORE THAN ONCE.**

Explanation: The *keyword* can be used only once in a single job.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing a single keyword.

DSN1117E *csect-name keyword* **SPECIFIED WITH NO VALUE OR INCORRECT VALUE**

Explanation: The keyword must be followed by a correct value.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing a correct value for the keyword.

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DSN1118E RBAEND > 12 HEX CHARACTERS

Explanation: The maximum size of a log RBA in DB2 is 6 bytes (hence, 12 characters).

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing an RBAEND value that is no more than 12 hexadecimal characters.

DSN1119E DBID MULTIPLY DEFINED

Explanation: The DBID keyword can be specified only once for a given job.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing a single DBID value.

DSN1120E DBID SPECIFIED WITH NO VALUE

Explanation: The DBID keyword specifies a hexadecimal database identifier and must be followed by a value.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing a DBID (value).

DSN1121E DBID > 4 HEX CHARACTERS

Explanation: A DBID is 2 bytes in length (hence, 4 characters maximum).

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing a DBID which is no longer than 4 hexadecimal characters.

DSN1122E OBID MULTIPLY DEFINED

Explanation: The OBID keyword can be specified only once for a given job.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing a single OBID value.

DSN1123E OBID SPECIFIED WITH NO VALUE

Explanation: The OBID keyword specifies a hexadecimal database object identifier. OBID must be followed by a value.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing an OBID (value).

DSN1124E OBID > 4 HEX CHARACTERS

Explanation: An OBID is 2 bytes in length (hence, 4 characters maximum).

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing an OBID which is no longer than 4 hexadecimal characters.

DSN1125E PAGE SPECIFIED WITH NO VALUE

Explanation: The PAGE keyword specifies a hexadecimal page number. PAGE must be followed by a value.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing a PAGE (value).

DSN1126E PAGE > 6 HEX CHARACTERS

Explanation: A page number is 3 bytes in length (hence, 6 characters maximum).

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing a PAGE value which is no longer than 6 hexadecimal characters.

DSN1127E KEYWORD xxxxxxxx UNKNOWN

Explanation: DSN1LOGP does not recognize the keyword 'xxxxxxxx'.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Check to make sure all keywords are valid and resubmit the job.

DSN1128E *csect-name keyword* **KEYWORD SPECIFIED WITHOUT** *keyword*

Explanation: The identified keywords are associated with each other. You cannot specify one keyword without the other keyword.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing the corresponding correct keywords.

DSN1129E PAGE WITHOUT DBID OBID

Explanation: DB2 pages exist in objects called 'page sets'. When you specify a page, you must also identify the page set by using the appropriate DBID and OBID specifications.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing the associated DBID (value) and OBID (value) that correspond to the given page.

DSN1130E OBID WITHOUT DBID

Explanation: When you specify an OBID, you must also identify the database that contains that OBID by specifying the DBID of the database.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing both an OBID (value) and a DBID (value).

DSN1131E OFFSET/VALUE PAIR NUMBER xx CONTAINS INVALID HEX DATA

Explanation: A hexadecimal specification is required. The value for offset/value pair number 'xx' contains an invalid hexadecimal character.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing a correct hexadecimal value specification.

DSN1132E URID SPECIFIED WITH NO VALUE

Explanation: The URID keyword specifies the hexadecimal unit of recovery identifier. URID must be followed by a value.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing an associated value for the URID parameter.

DSN1133E URID > 12 HEX CHARACTERS

Explanation: The maximum size of a URID in DB2 is 6 bytes (hence, 12 characters).

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing a valid URID value of no more than 12 hexadecimal characters.

DSN1134E *csect-name* **LIMIT OF** *number keyword***S IS EXCEEDED**

Explanation: The *keyword* was specified more than the maximum number of times allowed in any given job.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job specifying this keyword no more than the maximum number of times.

DSN1135E SUMMARY MULTIPLY DEFINED

Explanation: The SUMMARY option can be specified only once.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job using a singe SUMMARY specification.

DSN1136E SUMMARY SPECIFIED WITH NO VALUE OR INCORRECT VALUE

Explanation: The permitted values for summary are YES, NO, ONLY, or FILTER.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing a valid parameter for the SUMMARY option.

DSN1137I *csect-name* **FIRST PAGE SET CONTROL RECORD AFTER RESTART LOG** *seq nnnnnnnnnnn*

Explanation: This message shows the log sequence number of a record that serves as an implicit indication that a restart occurred just prior to this point.

seq RBA or LRSN

nnnnnnnnnnn The log sequence number

Severity: 0 (informational)

System Action: Processing continues.

DSN1138E *csect-name keyword* **AND** *keyword* **CANNOT BOTH BE SPECIFIED**

Explanation: You cannot specify both keywords in one job.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job specifying only one of the keywords.

DSN1139E RID SPECIFIED WITH NO VALUE

Explanation: The RID keyword specifies a 4-byte hexadecimal number, with the first 3 bytes representing the page number and the last byte representing the record ID. A value must be associated with the RID.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing a RID (value).

DSN1140E RID > 8 HEX CHARACTERS

Explanation: The maximum size of a RID in DB2 is 4 bytes (hence, 8 characters).

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing a valid RID value of no more than 8 hexadecimal characters.

DSN1141E RID WITHOUT DBID OBID

Explanation: The DBID and OBID associated with the given RID value must be specified.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing the associated DBID (value) and OBID (value) that correspond to the given RID value.

DSN1142E DATAONLY MULTIPLY DEFINED

Explanation: The DATAONLY option limits the log records extracted in the detail report to those that represent data modifications. This option can be specified only once.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job specifying DATAONLY once.

DSN1143E DATAONLY SPECIFIED WITH NO VALUE OR INCORRECT VALUE

Explanation: The DATAONLY keyword must be specified with either a YES or NO value. Any other value (including no value) is incorrect.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job specifying the correct value for the DATAONLY parameter.

DSN1144E RBASTART SPECIFIED WITH NO VALUE

Explanation: The RBASTART keyword specifies the hexadecimal log RBA from which to begin extraction. RBASTART must be followed by a value.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing an associated value for the RBASTART parameter.

DSN1146E CURRENT END CHECKPOINT TIMESTAMP TIMESTAMP=yy.ddd hh.mm.ss LOG RBA=xxxxxx IS OUT OF SEQUENCE. THE GREATEST TIMESTAMP SEEN SO FAR IS TIMESTAMP=yy.ddd hh.mm.ss LOG RBA=xxxxxx Multiple processors may be writing to the same log.

Explanation: This message indicates that the current log record has a timestamp that is less than the previous timestamp processed. This may be a potential problem.

This message is issued by the following CSECT: DSN1LOUT

Severity: 4 (warning)

System Action: Processing continues.

User Response: Examine current log to determine whether multiple processors are writing to the same log. (Data may be being overwritten.) This may lead to data inconsistencies.

DSN1147E SYSCOPY MULTIPLY DEFINED

Explanation: The SYSCOPY option can only be specified once.

This message is issued by the following CSECT: DSN1LPAR

Severity: 8

System Action: Processing is terminated.

User Response: Resubmit the job using a single SYSCOPY specification.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

DSN1148E SYSCOPY SPECIFIED WITH NO VALUE OR INCORRECT VALUE

Explanation: The SYSCOPY keyword must be specified with either a YES or NO value. Any other value (including no value) is incorrect.

This message is issued by the following CSECT: DSN1LPAR

Severity: 8

System Action: Processing is terminated.

User Response: Resubmit the job specifying the correct value for the SYSCOPY parameter.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

DSN1150I SUMMARY OF COMPLETED EVENTS

Explanation: This message heads the summary of completed units of recovery (URs) and checkpoints. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Severity: 0 (informational)

System Action: Processing continues.

DSN1151I *csect-name mbn* **UR CONNID=***cc* **CORRID=***bb* **AUTHID=***aa* **PLAN=***pp* **START DATE=***yy.ddd* **TIME=***hh:mm:ss* **DISP=***xx* **INFO=***ii* **STARTRBA=***ss* **ENDRBA=***ee* **STARTLRSN=***rr* **ENDLRSN=***nn* **NID=***nid* **LUWID=***luwid* **COORDINATOR=***name* **PARTICIPANTS: (***list of participants***)**

Explanation: This message describes a unit of recovery (UR) that terminated for data sharing member *mbn*.

mbn MEMBER=*membername*, where *membername* is the member of a data sharing group. This is printed only for a data sharing record.

cc Connection ID (for example, BATCH).

bb Correlation ID (for example, JOB xxx).

aa Authorization ID executing the UR.

pp Plan name used by the UR.

DSN1LOGP returns a plan name of SYSTEM in this field if the UR was generated as a result of a system event (such as the first update of a table space). In such a case, no bound plan exists for the UR described.

yy.ddd Starting date of the UR.

hh:mm:ss Starting time of the UR.

xx Disposition of the UR. Values reported are:

Inflight
In-abort
In-commit
Indoubt
Committed
Aborted

If the UR was bypassed by a conditional restart, DSN1LOGP indicates this by preceding the disposition value with the word BYPASSED.

ii The status of the data is one of the following:

COMPLETE, indicating that all page sets modified by this UR were identified.
PARTIAL, indicating that the list of page sets modified by this UR is incomplete. DSN1LOGP indicates PARTIAL status if all records associated with a UR are not available, and no checkpoint is found before the UR's completion.

ss RBA of the first log record associated with the UR (that is, the URID).

ee RBA of the last log record associated with the UR.

rr LRSN of the first log record associated with the UR.

nn LRSN of the last log record associated with the UR

nid The identifier assigned by IMS or CICS for this UR. This is blank if the UR is a result of TSO, batch, or remote access.

luwid The logical unit of work identifier associated with the UR

name The name of the remote coordinator associated with the UR. This is blank if the coordinator is the local DB2, IMS, or CICS.

list of participants
The names of all remote participants that might have updated data in this UR.

This message is followed by messages that identify the page sets modified by the UR. For each page set, a single message is printed in the following form:

```
DATABASE=dbid=dbname
PAGE SET=obid=psname
```

Where:

dbid Internal database identifier

dbname Database name corresponding to the *dbid*

obid Internal page set identifier

psname Page set name corresponding to the OBID

The *dbname* and *psname* fields might be absent if a full checkpoint was unavailable to DSN1LOGP or was caused by overlapped processing of DB2 during a checkpoint.

If no data was modified by the UR (for example, certain URs might be created merely to track information that is valid only for the life of the application), the phrase NO DATA MODIFIED is printed.

Severity: 0 (informational)

System Action: Processing continues.

DSN1152I *csect-name mbn* **UR CONNID=** CORRID=** AUTHID=** PLAN=** START DATE=** TIME=** DISP=***xx*** INFO=***ii*** STARTRBA=***ss*** STARTLRSN=** ENDRBA=***ee*** ENDLRSN=***nn*** NID=***nid*** LUWID=***luwid*** COORDINATOR=***name*** PARTICIPANTS: (***list of participants***)**

Explanation: This message describes a unit of recovery (UR) for data sharing member *mbn*. The UR identifying information (**) described in message DSN1151I is unavailable.

mbn MEMBER=*membername*, where *membername* is the member of a data sharing group. This is printed only for a data sharing record.

The remaining information (DISP, INFO, START, END, NID, LUWID, COORDINATOR and PARTICIPANTS) appears just as it does in message DSN1151I. If the UR did not complete, the END RBA or LRSN values are not printed.

This message is followed by messages that identify the page sets modified by the UR. Details of that are in the explanation of message DSN1151I.

Severity: 0 (informational)

System Action: Processing continues.

DSN1153I *csect-name* **CHECKPOINT** *mbn* **STARTRBA=***ss* **ENDRBA=***ee* **STARTLRSN=***rr* **ENDLRSN=***nn* **DATE=***yy.ddd* **TIME=***hh:mm:ss*

Explanation: This message describes a complete checkpoint on the log starting and ending RBA or LRSN for data sharing member *mbn*. If the information is available, DSN1LOGP also returns the date and time that the checkpoint was completed.

When this message follows message DSN1157I RESTART SUMMARY, it identifies the checkpoint that would be used at restart. If no checkpoint is available, message DSN1158I is printed instead.

mbn MEMBER=*membername*, where *membername* is the member of a data sharing group. This is printed only for a data sharing record.

Severity: 0 (informational)

System Action: Processing continues.

DSN1154I *csect-name* **RESTART** *mbn* **AT RBA=***xx* **LRSN=***ll* **DATE=***yy.ddd* **TIME=***hh:mm:ss*

Explanation: A normal restart occurred at log RBA *xx* or LRSN *ll*.

mbn MEMBER=*membername*, where *membername* is the member of a data sharing group. This is printed only for a data sharing record.

DSN1LOGP also returns the date and time of that restart.

Severity: 0 (informational)

System Action: Processing continues.

DSN1155I *csect-name* **CONDITIONAL RESTART** *mbn* **AT RBA=***xx* **LRSN=***ll* **DATE=***yy.ddd* **TIME=***hh:mm:ss* **STARTRBA=***ss* **ENDRBA=***ee* **FORWARD=***ff* **BACKOUT=***bb*

Explanation: A conditional restart occurred at the log RBA *xx* and LRSN *ll*. DSN1LOGP also returns the date and time of that restart.

mbn MEMBER=*membername*, where *membername* is the member of a data sharing group. This is printed only for a data sharing record.

ss Relative byte address of the beginning of the restart

ee Relative byte address of the conclusion of the restart

ff Whether forward log recovery phase was to be bypassed (YES | NO)

bb Whether backward log recovery phase was to be bypassed (YES | NO)

Severity: 0 (informational)

System Action: Processing continues.

DSN1156I ALL URS COMPLETE

Explanation: There are no URs outstanding for restart.

Severity: 0 (informational)

System Action: Processing continues.

DSN1157I RESTART SUMMARY

Explanation: This message heads the summary of the description of work to be performed at restart. Restart information that follows is based on the scope of the log scanned. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Severity: 0 (informational)

System Action: Processing continues.

DSN1158I NO CHECKPOINT AVAILABLE — RESTART SUMMARY INCOMPLETE

Explanation: No checkpoint is available within the scope of the log scanned. The information following this message includes:

- URs that have not completed
- Page sets modified by these URs
- Page sets with writes pending.

The information cannot be considered complete.

Severity: 0 (informational)

System Action: Processing continues.

DSN1159I NO DATABASE WRITES PENDING

Explanation: All database I/O has been completed. If the Log Extractor can find no complete checkpoint, it will return an additional message '(BASED ON INCOMPLETE LOG INFORMATION)', to warn you that there may in fact be pending database writes.

Severity: 0 (informational)

System Action: Processing continues.

DSN1160I DATABASE WRITES PENDING:

Explanation: Database writes are pending at restart. Each page set with outstanding I/O is identified by a separate message following this one:

DATABASE=dbid=dbname
PAGESET=obid=psname START=ss

Where:

dbid Internal database identifier

dbname Database name corresponding to the dbid

obid Internal page set identifier

psname Page set name corresponding to the obid

Note: *dbname* and *psname* may be absent if a full checkpoint was unavailable to the Log Extractor or was caused by overlapped processing of DB2 during a checkpoint.

ss Log RBA of the earliest log record required to complete outstanding writes for this page set. If the value of ss is returned as **, this information is unavailable. Such will be the case if the Log Extractor is unable to locate a full checkpoint. In this event, DSN1LOGP will return an additional message (LIST MAY BE INCOMPLETE), to alert you to the possibility that the list of page sets with outstanding writes may be incomplete.

Severity: 0 (informational)

System Action: Processing continues.

DSN1162I *csect-name mbn* **UR CONNID=***cc* **CORRID=***bb* **AUTHID=***aa* **PLAN=***pp* **START DATE=***yy.ddd* **TIME=***hh:mm:ss* **DISP=***xx* **INFO=***ii* **STARTRBA=***ss* **STARTLRSN=***ll* **NID=***nid* **LUWID=***luwid* **COORDINATOR=***name* **PARTICIPANTS: (***list of participants***)**

Explanation: This message describes a unit of recovery (UR) that has not terminated. The information returned is the same as for message DSN1151I, except that the END field is not included in the message because the UR did not terminate.

mbn MEMBER=*membername*, where *membername* is the member of a data sharing group. This is printed only for a data sharing record.

Severity: 0 (informational)

System Action: Processing continues.

DSN1163E NO CHECKPOINT AVAILABLE DUE TO LOG ERROR -- RESTART SUMMARY INCOMPLETE

Explanation: A log error was encountered. DSN1LOGP marked any checkpoints encountered before the log error as invalid. There were no complete checkpoints following the log error in the specified log range. The information following this message includes:

- URs that have not completed
- Page set modified by these URs
- Page sets with writes pending.

This information cannot be considered complete.

Severity: 0 (informational)

System Action: Processing continues.

DSN1164E INVALID xxxx FOUND AT RBA = yyyyyyyyyyyy

Explanation: While processing the SUMMARY option, an invalid checkpoint record (either URE or RURE identified by 'xxxx') was encountered in the log.

This message is issued by the following CSECT: DSN1LSUM

Severity: 0 (informational)

System Action: Processing continues.

User Response: If the checkpoint record identified in the message is used to restart DB2, the restart will fail because DB2 will not be able to process the unit of recovery presented by the invalid URE or RURE. DB2 must be restarted from a previous checkpoint to correctly process all units of recovery. The print log map (DSNJU004) utility can be used to list the checkpoint records in the BSDS, and the CHKPTRBA parameter of the change log inventory (DSNJU003) utility can be used to direct the DB2 restart to use a particular checkpoint.

DSN1170E SUBTYPE MULTIPLY DEFINED

Explanation: The SUBTYPE parameter can be specified only once for any given job.

This message is issued by the following CSECT: DSN1LPAR

Severity: 12 (severe error)

System Action: Processing terminates.

User Response: Provide a single SUBTYPE value and resubmit the job.

DSN1171E SUBTYPE SPECIFIED WITH NO VALUE

Explanation: The SUBTYPE parameter specifies a decimal set subtype. The SUBTYPE must be followed by a value, i.e. SUBTYPE(value).

This message is issued by the following CSECT: DSN1LPAR

Severity: 12 (severe error)

System Action: Processing terminates.

User Response: Provide a SUBTYPE value and resubmit the job.

DSN1172E SUBTYPE > 2 DECIMAL CHARACTERS

Explanation: The maximum size of a SUBTYPE is 2 decimal characters.

This message is issued by the following CSECT: DSN1LPAR

Severity: 12 (severe error)

System Action: Processing terminates.

User Response: Provide a SUBTYPE value with a maximum of 2 decimal characters and resubmit the job.

DSN1173E *csect-name* **INVALID VALUE** *value* **SPECIFIED FOR KEYWORD** *keyword*

Explanation: The specified keyword value is not valid.

Severity: 12 (severe error)

System Action: Processing terminates.

User Response: Refer to *Utility Guide and Reference* for a list of valid values. Provide a valid value and resubmit the job.

DSN1174E OFFSET SPECIFIED WITH NO SUBTYPE

Explanation: The given OFFSET has no corresponding SUBTYPE.

This message is issued by the following CSECT: DSN1LPAR

Severity: 12 (severe error)

System Action: Processing terminates.

User Response: Provide a valid SUBTYPE for the given OFFSET and resubmit the job.

DSN1175E OFFSET SPECIFIED WITH NO VALUE OR INCORRECT VALUE

Explanation: The given OFFSET has no corresponding VALUE given or an incorrect VALUE is specified, such as specifying another keyword in place of a value.

This message is issued by the following CSECT: DSN1LPAR

Severity: 12 (severe error)

System Action: Processing terminates.

User Response: Provide a valid VALUE for the given OFFSET and resubmit the job.

DSN1176E OFFSET > 8 HEX CHARACTERS

Explanation: The maximum size for an OFFSET is 4 bytes (hence, 8 characters).

This message is issued by the following CSECT: DSN1LPAR

Severity: 12 (severe error)

System Action: Processing terminates.

User Response: Provide an OFFSET with a maximum of 8 characters and resubmit the job.

DSN1177E LIMIT OF 10 OFFSET, VALUE PAIRS EXCEEDED

Explanation: A maximum of 10 OFFSET, VALUE pairs can be specified for a given log record SUBTYPE.

This message is issued by the following CSECT: DSN1LPAR

Severity: 12 (severe error)

System Action: Processing terminates.

User Response: Provide a maximum of 10 OFFSET, VALUE pairs for a given SUBTYPE and resubmit the job.

DSN1178E OFFSET SPECIFIED WITH NO CORRESPONDING VALUE

Explanation: The given OFFSET has no corresponding VALUE keyword specified.

This message is issued by the following CSECT: DSN1LPAR

Severity: 12 (severe error)

System Action: Processing terminates.

User Response: Provide an associated VALUE (value) for the given OFFSET and resubmit the job.

DSN1179E VALUE SPECIFIED WITH NO CORRESPONDING OFFSET OR SUBTYPE PARAMETER

Explanation: The given VALUE has either no corresponding OFFSET or SUBTYPE parameter specified.

This message is issued by the following CSECT: DSN1LPAR

Severity: 12 (severe error)

System Action: Processing terminates.

User Response: Provide an associated OFFSET or SUBTYPE for the given VALUE and resubmit the job.

DSN1180E VALUE SPECIFIED WITH NO VALUE OR INCORRECT VALUE

Explanation: The given VALUE has no corresponding value given, an incorrect value is specified, such as specifying a keyword in place of a value, or an uneven number of characters were specified.

This message is issued by the following CSECT: DSN1LPAR

Severity: 12 (severe error)

System Action: Processing terminates.

User Response: Provide a valid value for the given VALUE and resubmit the job.

DSN1181E VALUE SPECIFIED WITH NO CORRESPONDING OFFSET

Explanation: The given VALUE has no corresponding OFFSET specified.

This message is issued by the following CSECT: DSN1LPAR

Severity: 12 (severe error)

System Action: Processing terminates.

User Response: Provide a valid OFFSET for the given VALUE and resubmit the job.

DSN1182E LIMIT OF 10 LUWIDs EXCEEDED

Explanation: A maximum of 10 LUWID keywords can be specified in any given job.

This message is issued by the following CSECT: DSN1LPAR

Severity: 8 (error)

System Action: DSN1LOGP processing is terminated.

User Response: Resubmit the job providing no more than 10 LUWID keywords.

DSN1183E LUWID SPECIFIED WITH INCORRECT VALUE OR NO VALUE

Explanation: The LUWID consists of an LU network name, an LUW instance number, and a commit sequence number. The LU network name consists of a 1 to 8 character network ID, a period, and a 1 to 8 character network LU name. The LUW instance number consists of a period followed by 12 hexadecimal characters. The LUW sequence number consists of a period followed by 4 hexadecimal characters.

This message is issued by the following CSECT: DSN1LPAR

Severity: 8 (error)

System Action: DSN1LOGP processing is terminated.

User Response: Resubmit the job providing a valid LUWID value.

DSN1184E FILTER KEYWORD MULTIPLY DEFINED

Explanation: The FILTER keyword was specified more than once.

This message is issued by the following CSECT: DSN1LPAR

Severity: 8 (error)

System Action: DSN1LOGP processing is terminated.

User Response: Correct the input to provide only one FILTER keyword and resubmit the job.

DSN1185E FILTER KEYWORD SPECIFIED WITHOUT SUMMARY KEYWORD

Explanation: The FILTER keyword was specified without an associated SUMMARY keyword.

This message is issued by the following CSECT: DSN1LPAR

Severity: 8 (error)

System Action: DSN1LOGP processing is terminated.

User Response: Correct the input to include the SUMMARY keyword and resubmit the job.

DSN1210E DSNJSLR ERROR RETCODE=xxxxxxxx REASON CODE =yyyyyyyy

Explanation: The stand-alone log read function detected an error. The return code (RETCODE) is explained in Appendix C (Volume 2) of *Administration Guide*. The reason code is explained in “Section 4. DB2 Codes” on page 4-1.

Severity: 8 (error)

System Action: Processing is terminated.

DSN1211E DSNJSLR RETURNED BAD LOG RBA

Explanation: One of the three problems listed below exists.

1. The recovery log data set is damaged.
2. You identified a data set that isn't a recovery log data set.
3. The stand-alone log read service has a problem.

Severity: 0 (informational)

System Action: Processing continues.

User Response: Determine if the problem is your error by dumping the data set and determining if it is a log data set.

Problem Determination: A common error is to specify the first data set on an archive tape (the 'Bxxxxxxx' data set) as a log data set; it is actually a BSDS.

DSN1212I *csect-name* **FIRST LOG** *seq* **ENCOUNTERED** *nnnnnnnnnnn*

Explanation: This message identifies the sequence number of the first log record that was read.

seq RBA or LRSN

Severity: 0 (informational)

System Action: Processing continues.

DSN1213I *csect-name* **LAST LOG** *seq* **ENCOUNTERED** *nnnnnnnnnnn*

Explanation: This message identifies the sequence number of the last log record that was read.

seq RBA or LRSN

Severity: 0 (informational)

System Action: Processing continues.

DSN1214I NUMBER OF LOG RECORDS READ nnnnnnnnnnnnnnn

Explanation: This identifies the number (in decimal) of 'logical' log records read during DSN1LOGP processing.

Severity: 0 (informational)

System Action: Processing continues.

DSN1215I NO LOG RECORDS WERE READ

Explanation: DSN1LOGP read no log records.

Severity: 0 (informational)

System Action: Processing continues. Possible explanations:

- An error prevents DSN1LOGP from continuing, so no log records have yet been processed. If this is the case, an error message should precede this message.
- You specified the active log data sets or archive log data sets out of RBA sequence.
- You specified a STARTRBA that is greater than any RBA in the active and/or archive data sets available.

DSN1216E *csect-name* **DSNJSLR ERROR RETCODE =** *xxxxxxxx* **REASON CODE =** *yyyyyyyy seq* **=** *nnnnnnnnnnn*

Explanation: The stand-alone log read function returned an error indicating that either the log has an error in one of the control intervals (CI) or a data set containing the requested sequence number cannot be located. The sequence number shown in the message indicates where the error was detected.

seq RBA or LRSN

The sequence number points:

- To the start of the CI, if there is a problem with the log control interval definition (LCID), or with any of the general control information within a CI.
- To the log record in the CI, if there is a problem with a log record header (LRH).

If this is the first log record read during this execution of DSN1LOGP, and if there is a problem with the LCID, the sequence number is all zeros.

Before returning any records, DSN1LOGP checks the control information (LCID) at the end of a CI, and analyzes the LRH to ensure that all records are properly chained together within the CI. If an error is detected while performing this process, DSN1LOGP issues this message before dumping the entire CI. It will not format individual records within the CI, but will, if possible, continue processing by reading the next CI.

Severity: 0 (informational)

System Action: Processing continues.

Problem Determination: The reason code identifies the nature of the error and is explained in "Section 4. DB2 Codes" on page 4-1. The return code is explained in Appendix C (Volume 2) of *Administration Guide* .

DSN1217E *csect-name mbn* **DSNJSLR WARNING RETCODE =** *xxxxxxxx* **REASON CODE =** *yyyyyyyy* **CURRENT LOG** *seq* **=** *nnnnnnnnnnn*

Explanation: A gap in the log sequence range was encountered for member *mba*. The CURRENT LOG sequence number shows the log record for the member following the gap, and is formatted following this message.

Previous log record can be found with same member ID.

mbn MEMBER=*membername*, where *membername* is the member of a data sharing group. This is printed only for a data sharing record.

seq RBA or LRSN

Severity: 0 (informational)

System Action: Processing continues.

Problem Determination: The reason code identifies the nature of the error and is explained in "Section 4. DB2 Codes" on page 4-1. The return code is explained in Appendix C (Volume 2) of *Administration Guide* .

DSN1218I NUMBER OF LOG ERROR MESSAGES nnnnnnnnnnnnnnn

Explanation: DSN1LOGP distinguishes three classes of errors:

1. Code problems existing in the DB2 or system code used for DSN1LOGP. In the event of a SYSABEND dump, a user abend code of U0153 will be issued, and DSN1LOGP will be terminated.
2. Incorrect invocation of DSN1LOGP caused, perhaps, by your having used an incorrect keyword or missed a DD statement. Under these circumstances, DSN1LOGP will issue appropriate error messages, and the program will be terminated.
3. Failure by a given log CI under the scrutiny of DSN1LOGP. Such scrutiny is performed before any of the records within the CI are processed. Failure is an indication of logical damage, and error messages are issued by the Log Extractor. The CI or failing log record is printed, and DSN1LOGP continues to the next CI or log record.

   The count 'nnnnnnnnnnnnnnn' provided summarizes the number (in decimal) of errors DSN1LOGP detected while accessing the log.

Severity: 0 (informational)

System Action: Processing continues.

DSN1219E SYSSUMRY DD STATEMENT MISSING

Explanation: You requested the SUMMARY option, but failed to include the SYSSUMRY DD statement in your JCL invocation.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Resubmit the job with a SYSSUMRY DD statement included in the JCL invocation.

DSN1220E ARCHIVE LOG TRUNCATED AT xxxxxxxx - INVALID LOG RECORDS WERE READ

Explanation: At a restart of DB2, an archive log was truncated. This archive log data set could not be physically altered to reflect this truncation, and invalid log records therefore still exist. DSN1LOGP has already reported this information in the summary report, and cannot retract it. Nor can it disregard the invalid log information already read in order adequately to summarize what has occurred. Therefore, all information up to this point in the log will be summarized, and a new summary report initiated. Consequently, the same UR may be reported twice with different dispositions and different page sets modified. To avoid this condition, use the BSDS DD statement instead of the ARCHIVE DD statement.

Severity: 0 (informational)

System Action: Processing continues.

DSN1221E DSNJSLR ERROR RETCODE=xxxxxxxx REASON CODE=yyyyyyyy VSAM RETURN CODE=aaaa ERROR CODE=bbbb

Explanation: The stand-alone log read function resulted in a VSAM error. The DSNJSLR return code 'xxxxxxxx', and reason code 'yyyyyyyy', included in the message are documented in Appendixes (Volume 2) of *Administration Guide*.

The VSAM return code (aaaa), and error code (bbbb), identify the nature of the VSAM error. Refer to the appropriate VSAM publication for an explanation of these codes.

Severity: 0 (informational)

System Action: Processing continues.

DSN1222E DSNJSLR ERROR RETCODE=xxxxxxxx REASON CODE=yyyyyyyy DYNAMIC ALLOCATION INFORMATION CODE=aaaa ERROR CODE=bbbb

Explanation: An error occurred while dynamically allocating a log data set. DSNJSLR return code 'xxxxxxxx', and reason code 'yyyyyyyy', included in the message, are documented in Appendixes (Volume 2) of *Administration Guide*. Information code 'aaaa' and error code 'bbbb' were returned by the dynamic allocation SVC and identify the nature of the error. Refer to the appropriate MVS publication for an explanation of these codes.

Severity: 12 (severe error)

System Action: Processing terminates.

DSN1223E DSNJSLR ERROR RETCODE=xxxxxxxx REASON CODE=yyyyyyyy RDJFCB RETURN CODE=aaaa

Explanation: An error occurred while trying to read the job file control block. The DSNJSLR return code 'xxxxxxxx', and reason code 'yyyyyyyy', included in the message are documented in Appendixes (Volume 2) of *Administration Guide* .

The RDJFCB return code (aaaa), identifies the nature of the error. Refer to the appropriate MVS publication for an explanation of these codes.

Severity: 0 (informational)

System Action: Processing continues.

DSN1300E *csect-name* **RBA RANGE CANNOT BE USED TO PRINT LOG RECORDS FROM MULTIPLE DB2 SYSTEMS**

Explanation: RBASTART and RBAEND cannot be used to define the range when selecting log records from multiple DB2 systems. LRSNSTART and LRSNEND should be used instead.

System Action: Processing terminates.

User Response: Resubmit the job with either RBA values only or LRSN values only.

DSN1303E *csect-name* **INCOMPATIBLE DD STATEMENTS WERE SPECIFIED FOR LOG PROCESSING**

Explanation: Either MxxACTn or MxxARCHV was erroneously specified in conjunction with MxxBSDS to locate the log data sets of a member of a DB2 data sharing group for a DSN1LOGP job.

System Action: Processing terminates.

User Response: Correct the DD statement and resubmit the job.

DSN1309E *csect-name* **SPECIFIED END RANGE IS LESS THAN START RANGE**

Explanation: The value specified for ENDLRSN or ENDRBA is less than the value of STARTLRSN or STARTRBA for a DSN1LOGP job.

System Action: Processing terminates.

User Response: Resubmit the job with correct start and end values.

DSN1700E VALUE FOR KEYWORD xxxxxxxx IS INVALID

Explanation: The SDMPIN input contains the 'xxxxxxxx'. The value specified for that keyword is invalid.

This message is issued by the following CSECT: DSN1SDMP

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Provide a correct keyword value and resubmit the job.

DSN1701E START TRACE MISSING

Explanation: The START TRACE command is required. The first keyword record of the SDMPIN input does not contain a START TRACE command.

This message is issued by the following CSECT: DSN1SDMP

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job with START TRACE as the first keyword record in the SDMPIN input.

DSN1702E KEYWORD xxxxxxxx MULTIPLY DEFINED

Explanation: Keyword 'xxxxxxxx' was specified multiple times in the SDMPIN input. All keywords are allowed only once.

This message is issued by the following CSECT: DSN1SDMP

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Specify the keyword only once. Resubmit the job.

DSN1703E KEYWORD xxxxxxxx UNKNOWN

Explanation: DSN1SDMP does not recognize the keyword 'xxxxxxxx'.

This message is issued by the following CSECT: DSN1SDMP

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Make sure that all keywords are valid and then resubmit the job.

DSN1704E UNABLE TO OBTAIN RETURN-AREA STORAGE

Explanation: An error resulted when DSN1SDMP attempted to obtain storage for an instrumentation facility interface (IFI) return area.

This message is issued by the following CSECT: DSN1SDMP

Severity: 8 (error)

System Action: Processing is terminated.

User Response: When you resubmit the job either:

- Specify a larger region size in the job control language.
- Reduce the value of BUFSIZE on START TRACE.

DSN1705E SYNTAX ERROR, LINE = ll, COLUMN = cc

Explanation: A syntax error was encountered in the SDMPIN input. The location of the error is given by:

ll The line number within the input stream that is in error.

cc The column number.

This message is issued by the following CSECT: DSN1SDMP

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Correct the syntax error and then resubmit the error.

DSN1706E INVALID ABEND CODE SPECIFIED

Explanation: An invalid abend code was specified on the ACTION keyword.

This message is issued by the following CSECT: DSN1SDMP

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Allowable abend codes are 00E60100 through 00E60199. Specify an allowable abend code and then resubmit the job.

DSN1707E LIMIT OF 50 STATEMENTS EXCEEDED

Explanation: DSN1SDMP allows a maximum of 50 statements for a given job.

This message is issued by the following CSECT: DSN1SDMP

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Use no more than 50 statements when you resubmit the job.

DSN1708E TOO MANY SELECT CRITERIA VALUES

Explanation: DSN1SDMP allows a maximum of eight SELECT criteria values.

This message is issued by the following CSECT: DSN1SDMP

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Use no more than eight SELECT criteria values and then resubmit the job.

DSN1709E INPUT/OUTPUT ERROR, DDNAME=xxxxxxxx

Explanation: An error resulted when DSN1SDMP attempted to do I/O. The ddname of the data set to which I/O failed is 'xxxxxxxx'

This message is issued by the following CSECT: DSN1SDMP

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Ensure that the 'xxxxxxxx' DD statement in the job control language is valid and resubmit the job.

DSN1710E UNABLE TO OPEN SDMPTRAC

Explanation: An error resulted when DSN1SDMP attempted to open the SDMPTRAC data set.

This message is issued by the following CSECT: DSN1SDMP

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Ensure that the SDMPTRAC DD statement in the job control language is valid and resubmit the job.

DSN1711E START TRACE ERROR, REASON=xxxxxxxx

Explanation: DB2 did not process the submitted START TRACE command. The reason code 'xxxxxxxx' is returned from the instrumentation facility interface (IFI).

This message is issued by the following CSECT: DSN1SDMP

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Check the return area that follows message DSN1712I. Possible problems are:

- The syntax of the START TRACE command is invalid. Correct the command and resubmit the job. Do not include the subsystem recognition character before the command text.
- The user does not have authority to issue trace commands. Obtain trace authority and resubmit the job.

DSN1712I START TRACE RETURN-AREA FOLLOWS:

Explanation: DSN1SDMP issued the START TRACE command and the return area resulting from the instrumentation facility interface (IFI) COMMAND call follows this message. The return area contains DB2 command response messages.

This message is issued by the following CSECT: DSN1SDMP

Severity: 0 (informational)

System Action: Processing continues.

DSN1713I READA ERROR, REASON=xxxxxxxx

Explanation: An error resulted when DSN1SDMP issued a instrumentation facility interface (IFI) READA call in an attempt to obtain DB2 trace records. Reason code 'xxxxxxxx' is the IFI reason code returned in IFCARC2.

This message is issued by the following CSECT: DSN1SDMP

Severity: 0 (informational)

System Action: DSN1SDMP writes any records that were returned and processing continues.

User Response: Possible reason codes are:

00E60802 The DSN1SDMP return area was not large enough to hold the returned trace records. This condition should not occur because the DSN1SDMP return area is the same size as the requested OPn monitor buffer.

00E60803 No trace data was available when the READA request was made. This condition occurs when the trace started by DSN1SDMP is stopped from the operator console or by another application program.

DSN1714I TRACE RECORDS WERE LOST

Explanation: DB2 trace records were lost and are not contained in the SDMPTRAC data set.

This message is issued by the following CSECT: DSN1SDMP

Severity: 0 (informational)

System Action: Processing continues.

User Response: Possible reasons for lost trace records are:

- The OP buffer is not large enough. Specify a larger BUFSIZE on the START TRACE command and then resubmit the job.
- The trace data is too voluminous and buffer is overflowing before the data can be read. Specify a more granular selectivity on the START TRACE command and then resubmit the job.

DSN1715E UNABLE TO OBTAIN WORK SPACE

Explanation: An error resulted when DSN1SDMP attempted to obtain work area storage.

This message is issued by the following CSECT: DSN1SDMP

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Specify a larger region size in the job control language and then resubmit the job.

DSN1716E UNABLE TO OPEN SDMPIN

Explanation: An error resulted when DSN1SDMP attempted to open the SDMPIN data set.

This message is issued by the following CSECT: DSN1SDMP

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Ensure that the SDMPIN DD statement in the job control language is valid and resubmit the job.

DSN1717I STOP TRACE RETURN-AREA FOLLOWS:

Explanation: DSN1SDMP issued the STOP TRACE command and the return area resulting from the instrumentation facility interface (IFI) COMMAND call follows this message. The return area contains DB2 command response messages.

This message is issued by the following CSECT: DSN1SDMP

Severity: 0 (informational)

System Action: Processing continues.

DSN1718E STOP TRACE ERROR, REASON=xxxxxxxx

Explanation: DSN1SDMP attempted to submit a DB2 STOP TRACE command at the end of its processing; however, the command failed. The reason code returned from the instrumentation facility interface (IFI) is 'xxxxxxxx'.

This message is issued by the following CSECT: DSN1SDMP

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Check the return area that follows message DSN1717I. One possible problem is:

- The trace has already been stopped from the operator's console or by another application program.

DSN1719I ACTIONS ARE COMPLETE

Explanation: All requested IFC selective dump actions finished. All trace records have been written to the specified destination(s). If an abend action was requested, all abends have taken place.

This message is issued by the following CSECT: DSN1SDMP

Severity: 0 (informational)

System Action: DSN1SDMP stops the trace that it started and completes processing.

DSN1720I READA ERROR, REASON=xxxxxxxx

Explanation: An error resulted when DSN1SDMP issued a instrumentation facility interface (IFI) READA call in an attempt to obtain DB2 trace records. Reason code 'xxxxxxxx' is the IFI reason code returned in IFCARC2.

This message is issued by the following CSECT: DSN1SDMP

Severity: 8 (error)

System Action: Processing is terminated.

User Response: One possible reason code is:

00E60824 The user does not have correct monitor authority. Obtain the correct monitor authority (MONITOR1 or MONITOR2) and resubmit the job.

DSN1800I START OF DSN1CHKR FOR JOB job-name step-name

Explanation: This message indicates that DSN1CHKR started processing.

This message is issued by the following CSECT: DSN1CHKR

Severity: 0 (informational)

System Action: DSN1CHKR starts processing.

DSN1801I ANCHOR POINT mm IN ERROR IN PAGE nnnnnn

Explanation: This message indicates that anchor point 'mm' is in error in page 'nnnnnn'. Either the backward pointer is not zero when the forward pointer is zero, or the backward pointer does not point to the last record ID in the parent chain. If this message is preceded by DSN1835I then the child pointer is pointing to a page beyond the high used RBA of the data set. Either the child pointer is invalid or the data set has been truncated.

This message is issued by the following CSECT: DSN1CHKR

Severity: 4 (warning)

System Action: The page is marked for output if the FORMAT/DUMP option is in effect. Processing continues.

Problem Determination: Contact your IBM Support Center for assistance.

DSN1802I RING/LINK CHAIN BROKEN - type RID = nnnnnnnn

Explanation: This message indicates that there is a broken ring or link chain beginning at 'type' (anchor or parent) with record id equal to 'nnnnnnnn'. This is one of a series of messages associated with a broken ring or link. It will appear in combination with DSN1803I, DSN1804I, and DSN1805I.

This message is issued by the following CSECT: DSN1LNKF

Severity: 4 (warning)

System Action: The page is marked for output if the FORMAT/DUMP option is in effect. Processing continues.

Problem Determination: Contact your IBM Support Center for assistance.

DSN1803I PARENT RID = nnnnnnnn

Explanation: This message supplies the record id 'nnnnnnnn' for the parent record of a detected broken ring or link. This is one of a series of messages associated with a broken ring or link. It will appear in combination with DSN1802I, DSN1804I, and DSN1805I.

This message is issued by the following CSECT: DSN1LNKF

Severity: 4 (warning)

System Action: Processing continues.

Problem Determination: Contact your IBM Support Center for assistance.

DSN1804I CURRENT RID = nnnnnnnn

Explanation: This message supplies the record id 'nnnnnnnn' for the current record at the time the broken ring or link was detected. This is one of a series of messages associated with a broken ring or link. It will appear in combination with DSN1802I, DSN1803I, and DSN1805I.

This message is issued by the following CSECT: DSN1LNKF

Severity: 4 (warning)

System Action: Processing continues.

Problem Determination: Contact your IBM Support Center for assistance.

DSN1805I PREVIOUS IN CHAIN = nnnnnnnn

Explanation: This message supplies the record id 'nnnnnnnn' of the record prior to when the broken ring or link was detected. This is one of a series of messages associated with a broken ring or link. It will appear in combination with DSN1802I, DSN1803I, and DSN1804I.

This message is issued by the following CSECT: DSN1LNKF

Severity: 4 (warning)

System Action: Processing continues.

Problem Determination: Contact Your IBM Support Center for assistance.

DSN1806I IDMAP ENTRY entry-number IN PAGE page-number IS IN ERROR

Explanation: This message indicates that the IDMAP entry 'entry-number' in page 'page-number' is not valid. Valid entries are from X'0014' to X'0Fhh' (depending on the number of IDMAP entries in the page).

This message is issued by the following CSECTs: DSN1LNKF, DSN1MAP

Severity: 4 (warning)

System Action: The page is marked for output if the FORMAT/DUMP option is in effect. Processing continues.

Problem Determination: Contact your IBM Support Center for assistance.

DSN1807I CHILD POINTER chd-rid IN ERROR IN PARENT RECORD par-rid IN PAGE pppppp

Explanation: This message indicates that the parent record with record ID 'par-rid' in page 'pppppp' has a child pointer with an invalid record ID of 'chd-rid'. If this message is preceded by DSN1835I, then the child pointer is pointing to a page beyond the high used RBA of the data set. Either the child pointer is invalid or the data set has been truncated.

This message is issued by the following CSECTs: DSN1LNKF, DSN1CHKR

Severity: 4 (warning)

System Action: The page is marked for output if the FORMAT/DUMP option is in effect. Processing continues.

Problem Determination: Contact your IBM Support Center for assistance.

DSN1808I OVERFLOW RECORD IN ERROR - OVERFLOW RID = ovf-rid, POINTER RID = ptr-rid

Explanation: This message indicates that the record at record id 'ovf-rid', pointed to by the pointer record at record id 'ptr-rid', is not an overflow record.

This message is issued by the following CSECTs: DSN1LNKF, DSN1MAP

Severity: 4 (warning)

System Action: The page is marked for output if the FORMAT/DUMP option is in effect. Processing continues.

Problem Determination: Contact your IBM Support Center for assistance.

DSN1809I OVERFLOW RECORD IN ERROR - OVERFLOW RID = ovf-rid, HAS NO POINTER RECORD

Explanation: This message indicates no pointer record points to the overflow record with record id 'ovf-rid'.

This message is issued by the following CSECT: DSN1LNKF

Severity: 4 (warning)

System Action: The page is marked for output if the FORMAT/DUMP option is in effect. Processing continues.

Problem Determination: Contact your IBM Support Center for assistance.

DSN1810I INPUT DATA SET INVALID, NOT A CHECKABLE SYSTEM TABLESPACE

Explanation: This message indicates that the data set defined by SYSUT1 is not a checkable table space and therefore cannot be analyzed.

This message is issued by the following CSECT: DSN1CHKR

Severity: 8 (error)

System Action: Processing terminates.

System Programmer Response: Correct the SYSUT1 DD statement and rerun the job.

Problem Determination: Checkable system table spaces must be referenced by a hashed entry or contain links. Single-record table spaces referenced by an index are not checkable. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSN1811I ANCHOR POINT PAGE page IS OUT OF RANGE — VALUE IS LESS THAN 2 OR GREATER THAN 'E'X

Explanation: The ANCHOR function has an incorrect page value for the page-slot argument. Anchor points can be found only on pages 2 through 14 (E in hexadecimal). Any anchor point page specified beyond that range is invalid.

This message is issued by the following CSECT: DSN1MAP

Severity: 4 (warning)

System Action: Processing continues with the next set of parameters.

DSN1812I ORPHAN ID = orph-id ID ENTRY = entry-val FOUND IN PAGE page-number

Explanation: This message indicates that the record with id = 'orph-id' and id entry = 'entry-val' in page 'page-number' is an orphan.

This message is issued by the following CSECT: DSN1BUFM

Severity: 4 (warning)

System Action: Processing continues.

Problem Determination: Contact your IBM Support Center for assistance.

DSN1813I UNABLE TO DUMP PAGE page-number

Explanation: An error was encountered while retrieving the page and therefore page 'page-number' could not be dumped.

This message is issued by the following CSECT: DSN1BUFM

Severity: 4 (warning)

System Action: Processing continues.

Problem Determination: Examine previous diagnostic and system messages, correct problem, and rerun job.

DSN1814I UNEXPECTED END OF DATA AT PAGE page-number

Explanation: The END-OF-DATA condition was reached before expected at page 'page-number'.

This message is issued by the following CSECT: DSN1BUFM

Severity: 8 (error)

System Action: Processing terminates.

Problem Determination: Examine previous diagnostic and system messages, correct problem and rerun job.

DSN1815I DSN1CHKR COMPLETED SUCCESSFULLY, pg-cnt PAGES PROCESSED

Explanation: This message indicates the DSN1CHKR successfully completed processing; all checks completed. The 'pg-cnt' represents the number of pages read during check processing, not the number of pages in the table space.

This message is issued by the following CSECT: DSN1CHKR

Severity: 0 (informational)

System Action: Processing terminates.

DSN1816I DSN1CHKR TERMINATED WITH ERRORS, pg-cnt PAGES PROCESSED

Explanation: This message indicates the DSN1CHKR did not successfully complete processing. The 'pg-cnt' represents the number of pages read during check processing, not the number of pages in the table space.

This message is issued by the following CSECT: DSN1CHKR

Severity: 4 (warning) or 8 (error)

System Action: Processing terminates.

Problem Determination: Examine previous diagnostic messages, correct problems if possible and rerun job. Otherwise contact your IBM Support Center for assistance.

DSN1817I ARGUMENT arg-val OF THE MAP COMMAND IS INVALID

Explanation: This message indicates that the argument 'arg-val' of the MAP command is invalid.

This message is issued by the following CSECT: DSN1CHKR

Severity: 8 (error)

System Action: Processing terminates.

Problem Determination: Refer to *Utility Guide and Reference* for the correct syntax.

Examples of invalid arguments are:

- The offset value of the ANCHOR or HASH option is neither zero (0) nor four (4).
- When the ANCHOR and RID option has been specified, the page number specified is less than two, which would be a nondata page.

DSN1818I IDMAP ENTRY entry-number IN PAGE page-number IS BEING USED BY MULTIPLE CHAINS - ONE OF WHICH IS IN ERROR

Explanation: This message indicates that a record is part of two different chains and therefore creates an invalid structure within the table space. If using the MAP option, the mapping of the chain stops since the path back to the starting record is lost.

This message is issued by the following CSECTs:

DSN1CHKR DSN1LNKF DSN1MAP

Severity: 4 (warning)

System Action: Processing continues.

Problem Determination: Contact your IBM Support Center for assistance.

DSN1819I HASH VALUE FOR dbid CORRESPONDS TO: PAGE = page-number AND ANCHOR POINT OFFSET = offset

Explanation: This message indicates the hash values for the given 'dbid', after applying the hash function, where 'page-number' is the page and 'offset' is the anchor point.

This message is issued by the following CSECT: DSN1CHKR

Severity: 0 (informational)

System Action: Processing continues.

DSN1820I MAPPING OF map-opt (val1,val2) HAS STARTED

Explanation: This message indicates that mapping of the indicated option 'map-opt', which is either ANCHOR, HASH, PAGE or RID, has started. The option's arguments, 'val1' and 'val2' will also be mapped. Following this message will be the records of the chain.

This message is issued by the following CSECT: DSN1MAP

Severity: 0 (informational)

System Action: Processing continues.

DSN1821I MAPPING OF 'map-opt' (val1,val2) HAS COMPLETED

Explanation: This message indicates that mapping of the indicated option 'map-opt', which is either ANCHOR, HASH, PAGE, or RID, started. The option's arguments, 'val1' and 'val2', will also be mapped. Preceding this message will be the records of the chain.

This message is issued by the following CSECT: DSN1MAP

Severity: 0 (informational)

System Action: Processing continues.

DSN1822I DBID dbid HASHED TO AN EMPTY ANCHOR POINT - NO ENTRIES FOR THE GIVEN DBID ARE AVAILABLE IN THE TABLESPACE

Explanation: DBID 'dbid' hashed to an empty anchor point. An anchor point with a value of 0 (empty) means that no entries are available in the table space. Therefore, no links are checked.

This message is issued by the following CSECT: DSN1MAP

Severity: 4 (warning)

System Action: Processing continues with the next set of parameters.

DSN1823I INVALID SYNTAX, c EXPECTED

Explanation: This message indicates that an unexpected character was found while parsing the parmlist and that 'c' was the expected character.

This message is issued by the following CSECT: DSN1MVAL

Severity: 8 (error)

System Action: Processing terminates.

Problem Determination: Refer to *Command Reference* for the correct syntax.

DSN1824I INVALID HEX DATA: hex-data

Explanation: This message indicates that the input value 'hex-data' is not a valid hexadecimal number.

This message is issued by the following CSECT: DSN1MVAL

Severity: 8 (error)

System Action: Processing terminates.

Problem Determination: Correct input value and rerun job.

DSN1825I INPUT VALUE EITHER TOO LONG OR OMITTED: in-val

Explanation: This message indicates that the input value 'in-val' is either greater than 8 hexadecimal digits or was totally omitted.

This message is issued by the following CSECT: DSN1MVAL

Severity: 8 (error)

System Action: Processing terminates.

Problem Determination: Correct input value and rerun job.

DSN1826I RECORD WITH OBID = rec-obid IS INVALID FOR THIS CHAIN

Explanation: This message indicates that the record with OBID 'rec-obid' is invalid for the chain currently being processed, assuming the OBID of the parent or first record processed was not in error.

This message is issued by the following CSECTs: DSN1LNKF, DSN1MAP

Severity: 4 (warning)

System Action: Processing terminates.

Problem Determination: If using the MAP function, make sure the given values point to a valid record. Otherwise, contact your IBM Support Center for assistance.

DSN1827I THE SPECIFIED PAGE IS NOT A HASHED DATA PAGE - THE REQUESTED FUNCTION REQUIRES A HASHED DATA PAGE.

Explanation: This message indicates that the HASH or ANCHOR option of the MAP command was issued against a nonhashed data page (that is, a page with no anchor points).

This message is issued by the following CSECT: DSN1MAP

Severity: 4 (warning)

System Action: Processing continues with the next set of parameters.

Problem Determination: If using the ANCHOR function, examine the page-slot argument to ensure that the page value is correct. If using the HASH function, ensure that the 'dbid' value is correct. Otherwise, examine the SYSUT1 DD statement to ensure that the table space is correct. If so, use the RID or PAGE function to achieve the desired mapping.

DSN1828I OBID = rec-obid IS INVALID FOR THIS DATABASE

Explanation: This message indicates that the record with OBID 'rec-obid' is invalid for the database currently being processed.

This message is issued by the following CSECTs: DSN1MAP, DSN1LNKF

Severity: 4 (warning)

System Action: Processing continues with the next set of parameters.

Problem Determination: If using the MAP command, insure that all user supplied offsets actually point to valid data. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSN1829I MAPPING MUST STOP AT PARENT RECORD WHEN USING THE BACKWARD POINTER

Explanation: This message indicates that the requested mapping stopped at the parent record rather than the starting record because of the use of backward pointers.

This message is issued by the following CSECT: DSN1MAP

Severity: 4 (warning)

System Action: Processing continues.

DSN1830I INVALID NUMBERS OF VALUES SPECIFIED FOR func-name

Explanation: This message indicates that either:

- No value was specified.
- An odd number of values was specified for a function that requires an even number of values.

This message is issued by the following CSECT: DSN1CHKR

Severity: 8 (error)

System Action: Processing terminates.

Problem Determination: Refer to *Utility Guide and Reference* for the parameter specifications. Correct the parmlist and rerun the job.

DSN1831I END OF DATE REACHED, PAGE = page-number IS OUT OF RANGE

Explanation: This message indicates that page 'page-no', specified as a parameter of the MAP option, caused the END-OF-DATA condition to be reached. The page number is invalid for the table space being mapped.

This message is issued by the following CSECT: DSN1MAP

Severity: 4 (warning)

System Action: Processing continues with the next set of parameters.

Problem Determination: Correct the page parameter of the MAP option and rerun the job.

DSN1833I ANCHOR POINT IS NOT IN USE

Explanation: The anchor point to be mapped has a value of 0, which means that it is not in use. Therefore, no links are checked.

This message is issued by the following CSECT: DSN1MAP

Severity: 4 (warning)

System Action: Processing continues with the next set of parameters.

DSN1834I GETMAIN FOR BUFFERS FAILED. NO MORE AVAILABLE STORAGE IN ADDRESS SPACE.

Explanation: The GETMAIN for page buffers failed. There is no more virtual storage available in the address space. The table space being checked is too large to be processed with the current system configuration.

This message is issued by the following CSECT: DSN1BUFM

Severity: 8 (error)

System Action: Processing terminates.

Problem Determination: Make changes to the system configuration, if possible, to allow more virtual storage to be available in the address space.

DSN1835I THE REQUESTED PAGE page-no IS BEYOND THE END OF THE TABLESPACE.

Explanation: A request for a page number from an anchor point or a child pointer in a parent record is pointing beyond the high used RBA of the data set. Either the rid is in error or the data set has been truncated.

This message is issued by the following CSECT: DSN1CHKR

Severity: 4 (warning)

System Action: The page is marked for output if the FORMAT/DUMP option is in effect. Processing continues.

Problem Determination: Examine previous diagnostic and system messages, correct problem if possible and rerun the job. Otherwise, contact your IBM Support Center for assistance.

DSN1940I *csect-name* **COMPRESSION REPORT**

noncmpbytes	KB WITHOUT COMPRESSION
cmpbytes	KB WITH COMPRESSION
percsave	PERCENT OF THE BYTES WOULD BE SAVED
numdictrows	ROWS SCANNED TO BUILD DICTIONARY
numscanrows	ROWS SCANNED TO PROVIDE COMPRESSION ESTIMATE
numdictents	DICTIONARY ENTRIES
auncmprowlen	BYTES FOR AVERAGE UNCOMPRESSED ROW LENGTH
avgcmprowlen	BYTES FOR AVERAGE COMPRESSED ROW LENGTH
dictpages	DICTIONARY PAGES REQUIRED
noncmppages	PAGES REQUIRED WITHOUT COMPRESSION
cmppages	PAGES REQUIRED WITH COMPRESSION
pctpgsave	PERCENT OF THE DB2 DATA PAGES WOULD BE SAVED

Explanation: DSN1COMP completed successfully. This report contains the compression savings estimate based on the input data set. For a sample of the report, see the DSN1COMP utility in *Utility Guide and Reference*.

The compression statistics follow:

noncmpbytes	The total number of uncompressed KB (where KB = 1024 bytes) for the data rows (including the row prefix). This number was rounded to the nearest KB.
cmpbytes	The total number of compressed KB for the data rows (including the row prefix). This number was rounded to the nearest KB.
percsave	The percentage of bytes that would be saved if the rows were compressed.

The values above reflect only the number of bytes for the data row and the associated row prefix (6 bytes). DB2 page and dictionary page overhead is not included.

numdictrows	The number of data rows that were used to build the dictionary.
numscanrows	The number of data rows that were processed using the dictionary to produce the compression savings estimate.
numdictents	The number of entries contained in the compression dictionary.
auncmprowlen	Average uncompressed row length.
avgcmprowlen	Average compressed row length.
dictpages	The number of DB2 pages required for the compression dictionary.
noncmppages	The estimated number of DB2 pages required by the uncompressed data rows. Space required for PCTFREE and FREEPAGE is included. This number was rounded up to the next integer.
cmppages	The estimated number of DB2 pages required by the compressed data rows. Space required for PCTFREE and FREEPAGE is included. Dictionary pages are also included. This number was rounded up to the next integer.
pctpgsave	An estimate of the percentage of DB2 pages that would be saved by compressing the data rows.

Severity: 0 (informational)

System Action: The utility completed successfully.

DSN1941I *csect-name* **COMPRESSION ESTIMATE WAS NOT CALCULATED**

Explanation: There is insufficient data to build a compression dictionary. Either the input data set is empty, or the number of rows in the input data set was insufficient to build the dictionary.

Severity: 8 (error)

System Action: Processing terminated.

User Response: Increase the number of rows in the input data set.

DSN1942I *csect-name* **ERROR WHEN BUILDING THE COMPRESSION DICTIONARY**

Explanation: An internal error was encountered while building the dictionary.

Severity: 8 (error)

System Action: Processing terminated.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSN1943I *csect-name* **DICTIONARY PAGE ENCOUNTERED**

Explanation: A dictionary page was encountered while processing the input data set. This indicates that the data is in compressed format.

Severity: 8 (error)

System Action: Processing terminated.

User Response: Run DSN1COMP on a data set containing data that is not in a compressed format.

DSN1944I *csect-name* **INPUT PARAMETERS**

Explanation: The input parameters used by DSN1COMP are either user-supplied or default values.

Severity: 0 (informational)

System Action: Processing continues.

DSN1945I *csect-name* **DICTIONARY TREE**

Explanation: The compression dictionary tree follows. Each node is formatted in the SYSPRINT data set.

Severity: 0 (informational)

System Action: Processing continues.

DSN1946I *csect-name* **IMAGE COPY CONTAINING MULTIPLE PARTITIONS**

Explanation: An image copy containing multiple partitions is not acceptable input to the DSN1COMP utility.

Severity: 8 (error)

System Action: Processing terminated.

User Response: Run DSN1COMP on an image copy containing a single partition.

DSN1947I **DSN1947I** *csect-name* **COMPRESSION UNAVAILABLE FOR INDEX SPACES**

Explanation: Index data was provided as input to DSN1COMP. Compression is supported only for table space data.

Severity: 8 (error)

System Action: Processing terminated.

User Response: Provide DSN1COMP with data containing table space data.

DSN1950I **DSN1COPY HAS SUPPRESSED VSAM OPEN VERIFY, ACBERRFLG=acb-error-code.open-option**

Explanation: DSN1COPY suppresses the VSAM VERIFY done by the VSAM OPEN for the SYSUT1 data set. The VSAM VERIFY is not needed for the VSAM data sets used by DB2. For DB2 VSAM data sets, the data set hi-used RBA in the ICF catalog is always current.

This message is issued by the following CSECT: DSN1COPY

Severity: 0 (informational)

System Action: Processing continues.

DSN1951I **ODD NUMBER OF HEX CHARACTERS SPECIFIED IN VALUE PARM.**

Explanation: The VALUE parameter contained an odd number of hexadecimal characters. Only even numbers of hexadecimal characters are allowed.

This message is issued by the following CSECT: DSN1VAL

Severity: 8 (error)

System Action: Processing terminates.

User Response: Correct the number of hexadecimal digits specified for the VALUE parameter and resubmit the job.

Problem Determination: Refer to DSN1COPY documentation for parameter requirements in *Utility Guide and Reference* .

DSN1952I **UNEXPECTED END OF INPUT DATA - CHECK FOR INVALID SPECIFICATION OF THE 32K PARAMETER.**

Explanation: End of data occurred for the image copy data set specified in SYSUT1 before the first page could be read. Either the wrong input data set was specified or 32KB was specified even though the input data set contains 4KB pages.

This message is issued by the following CSECT: DSN1COPY

Severity: 8 (error)

System Action: Processing terminates.

User Response: Remove the 32KB parameter if the input data set contains 4KB pages, change the name of the input data set to specify a valid image copy, or remove the FULLCOPY or INCRCOPY parameter.

Problem Determination: Refer to DSN1COPY documentation for parameter requirements.

DSN1953I **STARTING PAGE NUMBER REQUIRES AN INPUT DATA SET NAME OF data-set-name**

Explanation: The starting page number of the page range to be printed is inconsistent with the input data set specified.

This message is issued by the following CSECTs: DSN1COPY, DSN1PRNT

Severity: 8 (error)

System Action: Processing terminates.

User Response: Ensure that NUMPARTS, the 32KB parameter (or its default of 4KB), and the starting page number are correct. If it is correct, change the input data set name as indicated by the message.

Problem Determination: Refer to DSN1COPY or DSN1PRNT documentation for parameter requirements.

DSN1955I **SYSUT1 DD CARD IS MISSING**

Explanation: No SYSUT1 DD statement was provided.

This message is issued by the following CSECTs: DSN1COPY, DSN1PRNT, DSN1COMP

Severity: 8 (error)

System Action: Processing terminates.

User Response: Rerun the job with a SYSUT1 DD statement.

DSN1956I *csect-name* **SYNTAX ERROR:** *parm2* **IS SPECIFIED WITHOUT** *parm1*

Explanation: The keyword *parm1* must be specified with *parm2.*

Severity: 8 (error)

System Action: Processing terminates.

User Response: Resubmit the job specifying the correct keyword.

DSN1957I *csect-name* **COMPRESSED RECORDS CANNOT BE EXPANDED DUE TO INCORRECT INPUT DATA SET SPECIFICATION.**

Explanation: DSN1PRNT issues this message when the EXPAND option is specified. The input data set might be an incremental image copy data set.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Resubmit the job specifying the correct input data set.

DSN1958I INVALID DATA SET NAME.

Explanation: A DB2 table space was given an incorrect name.

This message is issued by the following CSECT: DSN1CHDS

Severity: 8 (error)

System Action: Processing terminates.

User Response: Correct the output data set name if FULLCOPY or INCRCOPY were specified. If a page range is being printed, correct the input data set name. Refer to Section 2 (Volume 1) of *Administration Guide* for a discussion of DB2 data set naming conventions.

DSN1959I BOTH FULLCOPY AND INCRCOPY PARAMETERS CANNOT BE SPECIFIED.

Explanation: DSN1COPY cannot apply to both full images copies and incremental image copies in the same execution. The full image copies are applied first. Each incremental image copy must then be applied in separate steps, starting with the oldest incremental copy.

This message is issued by the following CSECT: DSN1SDEF

Severity: 8 (error)

System Action: Processing will terminate.

User Response: Omit either FULLCOPY or INCRCOPY.

DSN1960I *csect-name input/output* **DATA SET ALLOCATION ERROR. ERROR FIELD IS ERRFIELD** *value1***. INFORMATION FIELD IS INFFIELD** *value2***.**

Explanation: The allocation of an input or output data set failed. The ERRFIELD *value1* contains the error number; the INFFIELD *value2* contains the information number. See SVC99 error codes in *MVS/ESA SPL: Application Development Guide* for help in determining the cause of the error.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Correct the cause of the allocation error and resubmit the job.

DSN1961I PIECE NUMBER value IS INVALID.

Explanation: A page was retrieved that has a piece number greater than NUMPARTS for partitioned table spaces or greater than the default of 32 for linear table spaces. 'DPIECNUM value' is the piece number for the retrieved page. For page range printing, this message is issued if the starting page number has an invalid piece number as determined from calculations involving NUMPARTS and the page size.

This message is issued by the following CSECT: DSN1CHDS

Severity: 8 (error)

System Action: Processing will terminate.

User Response: Look in SYSIBM.SYSTABLESPACE for the correct number of partitions for this page. Correct NUMPARTS or 32KB if they were specified incorrectly, resubmit the job with a valid image copy, or correct the starting page number for page range printing.

DSN1962I OUTPUT DATA SETS MUST BE VSAM WHEN IMAGE COPY DATA SETS ARE USED AS INPUT TO DSN1COPY.

Explanation: If image copy data sets are used as input to DSN1COPY, the output data sets must be VSAM. QSAM data sets cannot be used for output.

This message is issued by the following CSECT: DSN1COPY

Severity: 8 (error)

System Action: Processing will terminate.

User Response: Change the output data set to VSAM, or remove the FULLCOPY and NUMPARTS parameters.

DSN1963I ZERO PAGES ARE INVALID WHEN IMAGE COPY DATA SETS ARE USED AS INPUT TO STAND ALONE UTILITIES.

Explanation: A page in an IMAGE COPY data set has a zero header. Pages with zero headers are illegal if image copy data sets are used as input to stand-alone utilities.

This message is issued by the following CSECTs: DSN1COPY, DSN1PRNT, DSN1COMP

Severity: 4 (warning)

System Action: Processing continues.

User Response: If the image copy data set name was invalid, look in SYSIBM.SYSCOPY for valid names. Resubmit the valid IMAGE COPY data set to the stand-alone utility. If the IMAGE COPY data set had a valid name, use the REPAIR utility to replace the zero pages with valid data pages.

DSN1964I NO VALUE HAS BEEN SPECIFIED FOR THE NUMBER OF PARTITIONS.

Explanation: No value was given for the number of partitions. This value should follow the 'NUMPARTS' parameter.

This message is issued by the following CSECT: DSN1GVAL

Severity: 8 (error)

System Action: Processing will terminate.

User Response: Look in SYSIBM.SYSTABLESPACE for the correct number of partitions for this page. Specify the correct number of partitions and resubmit the job. If the page is not

partitioned, then either omit the NUMPARTS parameter or specify NUMPARTS as zero.

DSN1965I THE PARTITION NUMBER VALUE IS INVALID.

Explanation: The partition number value following the 'NUMPARTS' parameter is not between 1 and 64.

This message is issued by the following CSECT: DSN1GVAL

Severity: 8 (error)

System Action: Processing will terminate.

User Response: Look in SYSIBM.SYSTABLESPACE for the correct number of partitions for this page.

DSN1966I OUTPUT DATA SET odsname NOT FOUND

Explanation: DB2 cannot find 'odsname' because it has not yet been defined.

This message is issued by the following CSECT: DSN1ALLO

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Use access method services to define 'odsname' and any other VSAM data sets that have not yet been defined.

DSN1967I THE OBID ARRAYS ARE FULL

Explanation: More than 500 records of OBIDs were specified in the SYSXLAT file.

This message is issued by the following CSECT: DSN1SYSX

Severity: 8 (error)

System Action: Processing stops.

Problem Determination: DSN1COPY cannot be used for table spaces containing more than 500 tables.

DSN1968I OBIDS SHOULD NOT BE DUPLICATED

Explanation: There should not be any repeated source OBIDs or target OBIDs within the SYSXLAT file.

This message is issued by the following CSECT: DSN1SYSX

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Change the SYSXLAT file.

DSN1969I SYSXLAT FILE CAN NOT BE OPENED

Explanation: The QSAM OPEN for the SYSXLAT file failed because no DD statement was provided.

This message is issued by the following CSECT: DSN1SYSX

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Notify system programmer.

System Programmer Response: Provide a SYSXLAT DD statement if OBID translate is to be done. Otherwise, remove the SYSXLAT parameter and rerun.

Problem Determination: Follow standard QSAM diagnostic procedures.

DSN1970I DATA PAGE CONTAINING OBID *xxxx*, HAS NO MATCHING VALUE IN THE SYSXLAT FILE

Explanation: One of the OBID records of the SYSXLAT file contains a source OBID value that does not match the OBID value of the source system.

This message is issued by the following CSECT: DSN1TRAN

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Provide that record of the SYSXLAT file which contains an unmatched OBID value with an OBID that matches the OBID value of the source system.

This error can also be caused when an OBIDXLAT is
attempted on an incremental image copy of a compressed seg-
mented table space. For more information on how to proceed,
see the OBIDXLAT option description under DSN1COPY in
Utility Guide and Reference.

DSN1971I DBID xxxx NOT FOUND IN THE SYSXLAT FILE. REPLACE SOURCE DBID xxxx OF THE SYSXLAT FILE WITH IT.

Explanation: The first record of the SYSXLAT file has the incorrect source DBID value.

This message is issued by the following CSECT: DSN1TRAN

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Provide the first record of the SYSXLAT file with a source DBID value which matches the DBID value of the source system.

DSN1972I PSID xxxx NOT FOUND IN THE SYSXLAT FILE REPLACE SOURCE DBID xxxx OF THE SYSXLAT FILE WITH IT

Explanation: The second record of the SYSXLAT file has the incorrect source PSID value.

This message is issued by the following CSECT: DSN1TRAN

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Provide the second record of the SYSXLAT file with the correct PSID value.

DSN1973I SOURCE DBID IS MISSING

Explanation: The first record of the SYSXLAT file contains no DBID value.

This message is issued by the following CSECT: DSN1SYSX

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Provide the first record of the SYSXLAT file with a pair of source and target DBID values which match the DBID values of the source and target systems.

DSN1974I TARGET DBID IS MISSING

Explanation: The first record of the SYSXLAT file contains no target DBID value.

This message is issued by the following CSECT: DSN1SYSX

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Provide the first record of the SYSXLAT file with a target DBID value which matches the DBID value of the target system.

DSN1975I SOURCE PSID IS MISSING

Explanation: The second record of the SYSXLAT file contains no PSID value.

This message is issued by the following CSECT: DSN1SYSX

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Provide the second record of the SYSXLAT file with a pair of source and target PSID values which match the PSID values of the source and target systems.

DSN1976I TARGET PSID IS MISSING

Explanation: The target PSID is missing from the second record of the SYSXLAT file.

This message is issued by the following CSECT: DSN1SYSX

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Provide the second record of the SYSXLAT file with a target PSID value which matches the PSID values of the target system.

DSN1977I SOURCE OBID IS MISSING

Explanation: There is a record in the SYSXLAT file with no OBID value.

This message is issued by the following CSECT: DSN1SYSX

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Correct the SYSXLAT file so that all the records following the first and second records will contain a pair of source and target OBID values.

DSN1978I TARGET OBID IS MISSING

Explanation: There is a record in the SYSXLAT file with no target OBID value specified.

This message is issued by the following CSECT: DSN1SYSX

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Provide the SYSXLAT file with an OBID value that matches the OBID value of the target system.

DSN1979I *csect-name* **SOURCE & TARGET VALUES MUST BE WITHIN THE RANGE OF 1 TO 65535.**

Explanation: The SOURCE and TARGET values of the SYSXLAT file must be between 1 and 65535.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Provide the SYSXLAT file with values that are between 1 and 65535.

DSN1980I BROKEN PAGE BIT SET, WILL RESET AND RETRY BROKEN PAGE TEST

Explanation: This message indicates that a broken page was detected. If message DSN1990I is issued following this message, determine the cause of the broken page. If message DSN1990I is not issued, reset the broken page bit with the REPAIR utility to correct the problem. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This message is issued by the following CSECT: DSN1COPY

Severity: 4 (warning)

System Action: Processing continues.

Operator Response: Notify the system programmer.

System Programmer Response: Use either the RECOVER or REPAIR utility to correct the broken page. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem determination should have been done when the dump associated with the setting of the broken page bit was requested.

DSN1981I INVALID PARAMETER FIELD: bad-parameter

Explanation: An invalid input parameter was detected on the EXEC statement. The parameter is either not a valid keyword or it has invalid subparameters associated with it.

Examples of invalid subparameters are:

- The NUMPARTS subparameter was other than `'(nn)'`. `'nn'` is a decimal number.
- The NUMPARTS subparameter was missing either a left or right parenthesis.
- The PRINT subparameter was missing either a left or right parenthesis.
- The PRINT subparameter specified a digit in a page number which was not hexadecimal.
- The PRINT subparameter contained a starting page number that is larger than the ending page number.
- The PRINT subparameter contains a page number larger than six hexadecimal digits.

This message is issued by the following CSECTs: DSN1COPY, DSN1PRNT, DSN1COMP

Severity: 8 (error)

System Action: Processing terminates.

User Response: Correct the indicated parameter on the EXEC DD statement, and resubmit the job.

Problem Determination: Refer to DSN1COPY, DSN1PRNT, or DSN1COMP documentation for parameter requirements.

DSN1982I NO BLANKS ARE ALLOWED WITHIN THE PARAMETER LIST

Explanation: There is a space or spaces between one or more parameters in the utility list.

This message is issued by the following CSECTs: DSN1COPY, DSN1PRNT, DSN1COMP

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Check the parameter list and make sure that there are no spaces between any of the parameters.

DSN1983I *csect-name* **DICTIONARY IS INVALID, REASON= X'***nnnn***'**

Explanation: The dictionary found in the data set is invalid. A DB2 internal error occurred during the validation of the expansion dictionary.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Verify that the correct data set is specified. You can delete the EXPAND option and resubmit the job.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The REASON identifies the nature of the error. The REASON is used for diagnostic purposes by the IBM Support Center.

DSN1984I UNEXPECTED PAGE NUMBER, EXPECTING: expected-page-number

Explanation: This message indicates that an unexpected page number was encountered. This message may be received if the input data set is an image copy but the FULLCOPY or INCRCOPY parameters were not specified. The 'expected page number' that is displayed (in hexadecimal) is the page number that was expected, not the one that was encountered.

This message is issued by the following CSECTs: DSN1COPY, DSN1COMP, DSN1PRNT

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Notify the system programmer.

System Programmer Response: Use DSN1PRNT to dump the table space or index space. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSN1985I ZERO PAGES ENCOUNTERED. FIRST PAGE = first-zero-page-number, LAST PAGE = last-zero-page-number

Explanation: One or more pages zero pages were encountered with valid data pages after them. A zero page is a page of all zeros or a page with only the page-synchronization bit on in the first and last byte of the page. The 'first zero page number' and the 'last zero page number' displayed in hexadecimal are the pages where zeros were first encountered and last encountered. In most cases, this is not an error condition. This is a normal condition for segmented table spaces and also for index spaces created with a FREEPAGE parameter not equal to zero. In addition, it is also normal for nonsegmented table spaces to contain zero pages after certain update scenarios terminated abnormally and data rollback was required.

The message is issued by the following CSECTs: DSN1COPY, DSN1PRNT, DSN1COMP

Severity: 4 (warning)

System Action: Processing continues.

User Response: Notify the system programmer.

System Programmer Response: If the zero page is the result of segmenting, no action is necessary. Similarly, if the zero page is a valid zero page that was introduced by DB2, no action is necessary as this page is free space and is used by DB2 when needed. If the zero page is a valid zero page and you want to remove it from the table space, run the REORG utility.

To help determine if the zero page was validly introduced by DB2, run the CHECK INDEX utility. This assumes that at least one index is defined on the affected table space.

If the zero page is determined to be invalid, you need to run the RECOVER utility.

DSN1986I NEITHER FULLCOPY NOR INCRCOPY PARAMETERS MAY BE SPECIFIED WITH THE SEGMENT PARAMETER.

Explanation: The parameters SEGMENT, FULLCOPY, and INCRCOPY describe the type of input that SYSUT1 references. SEGMENT is only relevant when a table space or index space is the input. FULLCOPY and INCRCOPY are only relevant when a image copy is the input. If the input data set is a segmented table space, then the FULLCOPY or INCRCOPY parameters should not be specified. If the input data set is a full or incremental image copy, then SEGMENT should not be specified.

This message is issued by the following CSECT: DSN1SDEF

Severity: 8 (error)

System Action: Processing will terminate.

User Response: Omit the incorrect parameter.

DSN1987I *csect-name* **INDEX PAGE CONTAINING OBID** *id* **HAS NO MATCHING VALUE IN THE SYSXLAT FILE.**

Explanation: This message is issued when the OBID on the page does not find a matching value in the input source OBID list. This message can also be issued when the input does not have enough OBID values.

Severity: 8 (error)

System Action: Processing terminates with a dump of the page on which the OBID does not find a match in the source list.

User Response: Resubmit the job with correct input OBID values.

DSN1988I *csect-name* **EXPAND KEYWORD IS SPECIFIED BUT DICTIONARY IS NOT FOUND**

Explanation: DSN1PRNT issues this message when the EXPAND option is specified. The dictionary was not found in the data set. An incorrect data set piece is specified or an incorrect data set number is specified for a multi-piece linear data set.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Resubmit the job specifying the correct keyword or the correct data set name.

DSN1989I *csect-name* **IS PROCESSED WITH THE FOLLOWING OPTIONS: check/32K/fullcopy/incrcopy/segment/ numparts=n/format/expand/swonly/ print/value/obidxlat/reset/no check/4K/ no imagecopy/nonsegment/numparts=0/ no print/no value/no obidxlat/ no format/no reset/no expand/no swonly**

Explanation: The stand-alone utility named *csect-name* is processing with the options that are either specified or supplied by default.

Severity: 0 (informational)

System Action: Processing continues.

User Response: Make sure that the parameters are correct. Not specifying the parameters correctly can give unpredictable results.

DSN1990I *csect-name* **BROKEN PAGE. PAGE NUMBER =** *broken-page-number***. REASON:** *comment***, SERVICE INFO: CODE =** *c1, d1* **=** *v1* **...** *dn* **=** *vn*

Explanation: During page checking, the page was detected as broken for the reason given in the message. The page number is displayed in hexadecimal format.

Severity: 4 (warning)

System Action: Processing continues.

Operator Response: Notify the system programmer.

System Programmer Response: Use either the RECOVER or REPAIR utility to correct the broken page.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Service information is used for diagnostic purposes by the IBM Support Center.

DSN1991I UNCLUSTERED DATA DETECTED. RID: 'xxxxxxxx'X TABLE: tablename INDEX KEY: index-key

Explanation: Data is not broken. Only the arrangement of data on one of the following DB2 Catalog table spaces: SYSDBASE, SYSPLAN, and SYSVIEWS has been affected. Normally, data on these pages is arranged to minimize locking contention. DSN1COPY found that the arrangement of data no longer minimizes locking contention for the objects named by the INDEX KEY for the given TABLE. Therefore, an increase in the number of deadlocks and timeouts may be seen on SYSDBASE, SYSPLAN, and SYSVIEWS.

This message is issued by the following CSECT: DSN1COPY

System Action: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Contact your IBM Support Center for assistance. Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 64.

DSN1992I VSAM PUT ERROR, RPLERREG = *return-code***, RPLERRCD =** *reason-code*

Explanation: VSAM PUT failed with the indicated error code.

This message is issued by the following CSECT: DSN1COPY

Severity: 8 (error)

System Action: Processing terminates.

User Response: Notify system programmer.

System Programmer Response: Follow standard VSAM diagnostic procedures. See *DFSMS/MVS: Macro Instructions for Data Sets* for more information on the standard VSAM procedures, the RPL fields, and the VSAM control blocks.

DSN1993I DSN1COPY/DSN1PRNT/DSN1COMP TERMINATED, *page-count* **PAGES PROCESSED**

Explanation: This message indicates that a stand-alone utility has not successfully completed processing. The page count is displayed in decimal format.

This message is issued by the following CSECTs: DSN1COPY, DSN1PRNT, DSN1COMP

Severity: 8 (error)

System Action: Processing terminates.

User Response: Examine the previous error message of the application program.

System Programmer Response: Correct the previous error and resubmit the job.

DSN1994I DSN1COPY/DSN1PRNT/DSN1COMP COMPLETED SUCCESSFULLY, *page-count* **PAGES PROCESSED**

Explanation: This message indicates that a stand-alone utility successfully completed processing. The page count is displayed in decimal format.

This message is issued by the following CSECTs: DSN1COPY, DSN1PRNT, DSN1COMP

Severity: 0 (informational)

System Action: Processing terminates.

DSN1995I VSAM GET ERROR, RPLERREG = *return-code***, RPLERRCD =** *reason-code*

Explanation: VSAM GET failed with the indicated error code.

This message is issued by the following CSECTs: DSN1COPY, DSN1PRNT, DSN1COMP

Severity: 8 (error)

System Action: Processing terminates.

User Response: Notify system programmer.

System Programmer Response: Follow standard VSAM diagnostic procedures. See *DFSMS/MVS: Macro Instructions*

for Data Sets for more information on the standard VSAM pro-
cedures, the RPL fields, and the VSAM control blocks.

DSN1996I VSAM OPEN ERROR, ACBERRFLG = ACB *error-code*. OPEN *option*

Explanation: VSAM OPEN failed with the indicated 'ACB error-code'. The OPEN option was either 'INPUT' or 'OUTPUT'.

This message is issued by the following CSECTs: DSN1COPY, DSN1PRNT, DSN1COMP

Severity: 8 (error) if error is greater than or equal to 128; otherwise, severity code is 4.

System Action: Processing terminates if error code is greater than or equal to 128; otherwise, processing continues normally.

User Response: Notify system programmer.

System Programmer Response: Follow standard VSAM
diagnostic procedure. See *DFSMS/MVS: Macro Instructions for*
Data Sets for more information on the standard VSAM proce-
dures and the VSAM control blocks.

DSN1997I OUTPUT DSNAME = *data-set-name*, *data-set-type*

Explanation: The indicated 'data set name' is used for output. 'data set type' is either VSAM or SEQ (for sequential).

This message is issued by the following CSECT: DSN1COPY

Severity: 0 (informational)

DSN1998I INPUT DSNAME = *data-set-name*, *data-set-type*

Explanation: The indicated 'data-set-name' is used for input. 'data-set-type' is either VSAM or SEQ (indicating sequential).

This message is issued by the following CSECTs: DSN1COPY, DSN1PRNT, DSN1COMP

Severity: 0 (informational)

DSN1999I START OF DSN1COPY/DSN1PRNT/DSN1COMP FOR JOB *job-name step-name*

Explanation: This message indicates that a stand-alone utility started processing.

This message is issued by the following CSECTs: DSN1COPY, DSN1PRNT, DSN1COMP

Severity: 0 (informational).

System Action: The stand-alone utility starts processing.

DSN2... Messages

There are two versions of the CICS attachment facility:

- The version shipped with DB2 requires CICS Version 3 Release 3 or an earlier release. This attachment facility issues DSNCxxx messages.
- The version shipped with CICS requires a CICS release later than Version 3 Release 3. This attachment facility issues DSN2xxx messages.

DSN2001I CICS UR INDOUBT RESOLUTION IS INCOMPLETE FOR *ssid*

Explanation: CICS cannot resolve the disposition of the units of recovery that DB2 holds indoubt from the previous connection because CICS was cold started.

This message is issued by the following CSECT: DSN2EXT1

System Action: The CICS attachment facility continues the startup process.

Operator Response: Notify the CICS system programmer.

System Programmer Response: You must resolve the indoubt units of recovery manually by issuing the DB2 -DISPLAY THREAD and -RECOVER INDOUBT commands.

DSN2002I *csect-name* **DSN2CT***xx* **MODULE NOT FOUND**

Explanation: The resource control table DSN2CT with suffix *xx* could not be loaded.

System Action: The CICS attachment facility initialization terminates.

User Response: Reenter the start command with the correct suffix. Ensure that the resource control table DSN2CT is in the correct application program library, which is concatenated in the JOBLIB or STEPLIB statement of your CICS startup JCL.

If DSN2CT is not in your application program library, ensure that you are using the correct version of the DSNCRCT macro to assemble DSN2CT. For CICS versions later than Version 3 Release 3, the correct DSNCRCT macro is in the CICS macro library rather than in the DB2 macro library.

DSN2003I THE ATTACHMENT FACILITY IS ALREADY ACTIVE

Explanation: The CICS attachment facility is already active and enabled to CICS.

This message is issued by the following CSECT: DSN2COM1

System Action: The CICS attachment facility initialization is terminated.

Operator Response: Only one CICS attachment facility is permitted.

DSN2004I THE PLAN NAME IS NOT FOUND IN THE RCT

Explanation: This message is the response to a DSNC DISPLAY or DSNC DISCONNECT command. The plan specified in the command was not found in the resource control table (RCT).

This message is issued by the following CSECT: DSN2COM1

System Action: The CICS attachment facility command is not processed.

Operator Response: Reenter the command with the correct plan name.

DSN2005I THE TRANSACTION NAME IS NOT FOUND IN THE RCT

Explanation: This message is the response to a DSNC DISPLAY or DSNC MODIFY command. The transaction specified in the command was not found in the resource control table (RCT).

This message is issued by the following CSECT: DSN2COM1

System Action: The CICS attachment facility command is not processed.

Operator Response: Reenter the command with the correct transaction name.

DSN2006I THE *dest* **DESTINATION ID IS INVALID**

Explanation: This message is the response to a CICS attachment facility command. The destination ID *dest* specified in the command was not found in the CICS destination control table (DCT) or the resource control table (RCT).

This message is issued by the following CSECT: DSN2COM1

System Action: The CICS attachment facility command is not processed.

Operator Response: Reenter the command with the correct destination ID.

DSN2007I THE COMMAND VERB IS MISSING OR INVALID

Explanation: The CICS attachment facility does not recognize the ACTION keyword on the entered command.

This message is issued by the following CSECT: DSN2CMDP

System Action: The command is not processed.

Operator Response: Reenter the command with the correct syntax.

DSN2008I KEYWORD IS MISSING OR INVALID

Explanation: A CICS attachment facility command contains an unknown positional keyword or a keyword is missing.

This message is issued by the following CSECT: DSN2CMDP

System Action: The command is not processed.

Operator Response: Reenter the command with the correct syntax.

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DSN2009I THE VALUE IN THE COMMAND IS INVALID

Explanation: The numeric value in the DSNC MODIFY command might be invalid. Otherwise, the error is caused by one of the following:

- The value in the command is greater than the value specified for the THRDM parameter in the resource control table (RCT).
- If the POOL RCT entry is being changed, the active thread count cannot be set to less than 3.

This message is issued by the following CSECT: DSN2COM1

System Action: The command is not processed.

Operator Response: Reenter the command with a valid value.

System Programmer Response: If the number of threads required is more than the number allowed in the resource control table (RCT), specify a larger number of threads in the THRDM parameter and regenerate the table.

DSN2011I *tran* TRANSACTION ABENDED BECAUSE THREADS ARE UNAVAILABLE

Explanation: The transaction with CICS transaction ID *tran* was abnormally terminated because a thread connection to DB2 was not available for the transaction. This error message can occur when:

- TWAIT of the transaction entry in the resource control table is NO.
- TWAIT of the transaction entry is POOL, TWAIT in the pool entry is NO, and all threads in the POOL are active.

This message is issued by the following CSECT: DSN2EXT1

System Action: The indicated transaction is abended. No other action is taken by the CICS attachment facility

Operator Response: Notify the CICS system programmer.

System Programmer Response: Determine which of the following actions will correct the problem:

- If more threads are available with the current generation of the resource control table (RCT), tell the master terminal operator to make more threads active by using the DSNC MODIFY command.
- Regenerate the RCT and make more threads available to the transaction that failed. Stop and then restart the CICS attachment facility to make the new RCT active.

DSN2012I THE ATTACHMENT FACILITY STOP QUIESCE IS PROCEEDING

Explanation: A DSNC STOP command entered by the master terminal operator is being processed.

This message is issued by the following CSECT: DSN2COM1

System Action: The CICS attachment facility releases the terminal entering the command and proceeds with the quiesce process.

Operator Response: If the quiesce is not completed within the required time period, you can enter a DB2 -STOP FORCE command.

DSN2013I DISPLAY REPORT FOLLOWS

Explanation: A CICS attachment facility display was requested and follows this message.

This message is issued by the following CSECT: DSN2COM1

System Action: Processing continues.

DSN2014I STATISTICS REPORT FOR *rct-name* FOLLOWS

Explanation: A CICS attachment facility statistics display was requested and follows this message. The name of the resource control table (RCT) that is currently in use is *rct-name*.

The following information is displayed for each entry in the RCT:

TRAN	CICS transaction name.
PLAN	DB2 plan name.
CALLS	Total number of SQL statements in this connection.
AUTHS	Total number of sign-on invocations for transactions associated with this entry. A sign-on does not indicate whether a new thread is created or an existing thread is reused. If the thread is reused and TOKENE=NO, a sign-on occurs only if the authorization ID or transaction ID has changed.
W/P	Number of times all available threads for this entry were busy and the transaction had to wait or the thread request was diverted to the POOL.
HIGH	Maximum number of concurrent threads required by transactions associated with this entry at any time since the CICS attachment facility was started.
ABORTS	Total number of units of recovery that were rolled back.
COMMITS	One of the following two fields is incremented each time a DB2 transaction associated with this entry has an explicit or implicit (such as EOT) sync point.
1-PHASE	The total number of single phase commits for transactions associated with this entry.
2-PHASE	The total number of two phase commits for transactions associated with this entry.

For a more detailed explanation of the fields in the statistics report, refer to "Controlling CICS Connections" in Section 4 (Volume 1) of *Administration Guide*.

This message is issued by the following CSECT: DSN2COM1

System Action: Processing continues normally.

DSN2015E *csect* THE ATTACHMENT FACILITY FOR *name* IS IN STANDBY

Explanation: The CICS attachment facility has dropped into standby mode because DB2 has stopped and STANDBY=SQLCODE was specified in the RCT.

System Action: The CICS attachment facility will issue negative SQLCODEs for all SQL requests.

Operator Response: Restart the attachment after DB2 is restarted.

DSN2016I *csect-name* **THE CONNECTION OF CICS WITH** *name* **FAILED, '***reason-code***'**

Explanation: The CICS attachment facility is terminating abnormally because an error occurred while connecting with DB2. The error is indicated by *reason-code*, and the specific DB2 subsystem is indicated by *name*.

System Action: The CICS attachment facility terminates with abend completion code X'04E'. If the initial identify fails because of an authorization error, DSN2042I is issued and no dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: Look up *reason-code* to determine the specific failure that caused the termination.

DSN2017I ATTACHMENT OF A THREAD SUBTASK FAILED

Explanation: The CICS attachment facility continues processing but is unable to start as many thread subtasks as are allowed in a resource control table (RCT) entry.

This message is issued by the following CSECT: DSN2EXT2

System Action: The CICS attachment facility attempted to terminate all subtasks that are currently unused, but none could be terminated. If other subtasks are not active to process the current transaction, CICS is requested to abend the transaction.

Operator Response: Notify the system programmer.

System Programmer Response: The error might be caused by one of the following:

- There is a shortage of storage in the local storage queue area (LSQA).
- The maximum number of thread subtasks allowed was reached. The maximum is specified in the THRDMAX parameter of RCT. The DSNC DISPLAY STATISTICS command is useful in analyzing the current thread usage.

DSN2018I *name* **IS NOT ACTIVE**

Explanation: The DSNC STRT command cannot proceed because subsystem *name* is not active.

This message is issued by the following CSECT: DSN2STRT

System Action: The DSNC STRT command processing ends without starting the CICS attachment facility.

Operator Response: Reenter the CICS attachment facility command after DB2 is started.

DSN2019I THE MODIFY COMMAND IS COMPLETE

Explanation: The DSNC MODIFY command completed successfully.

This message is issued by the following CSECT: DSN2COM1

DSN2020I THE DISPLAY COMMAND IS COMPLETE

Explanation: The DSNC DISPLAY command completed successfully.

This message is issued by the following CSECT: DSN2COM1

DSN2021I THE DISCONNECT COMMAND IS COMPLETE

Explanation: The DSNC DISCONNECT command completed successfully.

This message is issued by the following CSECT: DSN2COM1

DSN2022I THE ATTACHMENT FACILITY STOP FORCE IS PROCEEDING

Explanation: A DSNC STOP FORCE command entered by the master terminal operator is being processed.

This message is issued by the following CSECT: DSN2COM1

System Action: The CICS attachment facility releases the terminal entering the command and proceeds with the STOP FORCE processing.

DSN2023I THE ATTACHMENT FACILITY HAS CONNECTED TO *name* **USING** *rct-name*

Explanation: The DSNC STRT command successfully completed. Subsystem *name* is now available to CICS. The name of the resource control table (RCT) that was specified for this start of the CICS attachment facility is *rct-name*.

This message is issued by the following CSECTs: DSN2COM1 DSN2EXT2

System Action: The DSNC STRT command completes processing. The CICS attachment facility is active.

DSN2024I *dest* **CANNOT BE LOCATED IN THE DCT**

Explanation: The destination shown in the message cannot be located in the CICS destination control table (DCT).

This message is issued by the following CSECT: DSN2COM1

System Action: The CICS attachment facility startup process continues. The destination entry in the resource control table (RCT) is set to '*' for potential modification by the CICS attachment facility.

Operator Response: Notify the system programmer. Use the DSNC MODIFY command to set the error destination to the correct identification characters.

System Programmer Response: Correct either the RCT or the DCT to synchronize the error destinations.

DSN2025I THE ATTACHMENT FACILITY IS INACTIVE

Explanation: This is the final message issued by the CICS attachment facility to inform the resource control table error destinations that the CICS attachment facility completed the shutdown process.

This message is issued by the following CSECT: DSN2STOP

System Action: The CICS attachment facility is terminated.

DSN2026I DSN2STOP FAILED TO DISABLE THE *name* **RMI EXIT**

Explanation: The CICS attachment facility failed to disable the named resource manager interface (RMI) exit. Either the exit was in use at the time DSN2STOP tried to disable it, or an abend occurred in the RMI exit code while the 'in use' flag was on. The CICS system must be stopped and restarted before the CICS attachment facility can be restarted.

This message is issued by the following CSECT: DSN2STOP

System Action: The CICS attachment facility continues termination processing after dumping the CICS trace, the resource control table (RCT), and the connection control table (CCT).

Operator Response: Notify the CICS attachment facility system programmer. CICS must be stopped and restarted before restarting the CICS attachment facility.

System Programmer Response: This could be a problem in the CICS 'task-related user exit'. Analyze the trace and any dumps associated with this execution to determine the source of the error.

DSN2027I SHUTDOWN IS IN PROGRESS. *transaction* **COMMANDS MAY NOT BE ENTERED**

Explanation: The CICS attachment facility does not accept commands directed to DB2 during or after the termination of the CICS attachment facility.

This message is issued by the following CSECT: DSN2COM1

System Action: The command is rejected.

User Response: Notify the CICS attachment facility system programmer.

DSN2028I USER IS NOT AUTHORIZED FOR *transaction* **COMMANDS**

Explanation: DB2 rejected the command request during the sign-on of the user. Therefore, the user is assumed to be unauthorized for the requested function in the command.

This message is issued by the following CSECT: DSN2COM1

System Action: The command is rejected.

Operator Response: Notify the CICS attachment facility system programmer.

System Programmer Response: The authorization ID used is described in the generation procedures of the resource control table (RCT). If this user should be allowed access to the command, use the GRANT statement to grant authorization.

DSN2029I *transaction* **COMMAND FAILED, REASON CODE** *rc*

Explanation: The DB2 command, identified in the message as *transaction*, failed to return a response message indicating the action taken by the command. DB2 returned reason code *rc*.

This message is issued by the following CSECT: DSN2COM1

System Action: The results of the command are unknown.

Operator Response: Notify the CICS attachment facility system programmer.

System Programmer Response: Check the master console for any messages indicating why the command failed. Refer to the explanation of the reason code returned by DB2 in “Section 4. DB2 Codes” on page 4-1.

DSN2030E AN ERROR HAS OCCURRED WRITING TO THE TRANSIENT DATA OUTPUT DESTINATION *destination*

Explanation: The CICS attachment facility encountered an error while writing to the indicated destination.

This message is issued by the following CSECT: DSN2MSG0

System Action: The CICS attachment facility continues operation.

Operator Response: Notify the system programmer. If the destination is one of the resource control table error destinations, use the CICS MODIFY command to change the destination code to another destination, if one is available.

System Programmer Response: Follow CICS procedures to correct the error. Refer to *CICS/ESA Problem Determination Guide* for additional information.

DSN2031I THE COMMAND IS INVALID. THE ATTACHMENT FACILITY IS INACTIVE

Explanation: STRT is the only valid command when the CICS attachment facility is inactive. No other commands to the CICS attachment facility are accepted.

This message is issued by the following CSECT: DSN2COM1

System Action: The command is rejected.

DSN2032I *transaction* **COMMAND ALTERNATE DESTINATION OUTPUT COMPLETE**

Explanation: The DB2 command identified in the message as *transaction* is complete. The resulting output should be available at the requested device.

This message is issued by the following CSECT: DSN2COM1

System Action: Processing continues normally.

DSN2033I TERMINAL *termid* **IS NOT SUPPORTED BY BMS OR IS INVALID**

Explanation: This message is issued in response to a CICS attachment facility or DB2 command that requested an alternate destination for the response. CICS basic mapping support (BMS) encountered an error while routing to the requested terminal named *termid*.

This message is issued by the following CSECT: DSN2MSG0

System Action: The output from the command might be suppressed.

Operator Response: Ensure that the terminal ID was correctly entered. Otherwise, notify the system programmer.

System Programmer Response: Verify that the terminal ID is valid. This message might occur if the destination device is not supported by BMS or if it is not defined to CICS. If *termid* is CSMT, this message might also follow message DSN2030E. The attachment facility unconditionally routes output to terminal CSMT following a transient data destination error.

DSN2034I INDOUBT RESOLUTION FOR *ur-id* IS INCORRECT

Explanation: CICS indicates recovery is required for the *ur-id*, but the unit of recovery is not indoubt to DB2.

This message is issued by the following CSECT: DSN2EXT1

System Action: The CICS attachment facility continues the startup process.

Operator Response: Notify the CICS system programmer.

System Programmer Response: CICS tried to recover a unit of recovery using an identifier that was not in the resolution request list from DB2. Use the DB2 -DISPLAY THREAD and -RECOVER INDOUBT commands to ensure that all indoubt units of recovery are resolved.

You must identify the reason for the inconsistency. A DB2 cold start, for example, might cause the problem.

DSN2035I INDOUBT RESOLUTION FOR *ur-id* IS INCOMPLETE

Explanation: CICS indicates recovery should not be required for the *ur-id*, but DB2 is indoubt.

This message is issued by the following CSECT: DSN2EXT1

System Action: The CICS attachment facility continues the startup process.

Operator Response: Notify the CICS system programmer.

System Programmer Response: CICS cannot recover a unit of recovery using an identifier that was in the resolution request list from DB2. Use the DB2 -DISPLAY THREAD and -RECOVER INDOUBT commands to ensure that all indoubt units of recovery are resolved.

You must identify the cause of the error. A CICS cold start could cause this problem.

DSN2036I INDOUBT RESOLUTION FOR *ur-id* IS INCONSISTENT

Explanation: CICS indicates recovery resolution for the *ur-id* should be ABORT (backout), but DB2 indicates the resolution should be COMMIT.

This error can be caused by a damaged CICS system journal file.

This message is issued by the following CSECT: DSN2EXT1

System Action: DB2 committed the unit of recovery. The CICS attachment facility continues the startup process.

Operator Response: Notify the CICS system programmer.

System Programmer Response: CICS and/or DB2 restart processes are not in synchronization. You must identify the cause of the error. Take appropriate action to return all resources to a consistent state.

DSN2037A *subsystem* IS NOT ACTIVE *transaction* IS WAITING

Explanation: The CICS attachment facility start transaction identified in the message is waiting for notification from the indicated DB2 subsystem that it is active. The start of the CICS attachment facility is complete after DB2 has started.

This message is issued by the following CSECT: DSN2STRT

System Action: The CICS attachment facility waits to complete the start process.

Operator Response: Start the DB2 subsystem.

DSN2038I THE COMMAND IS INVALID WHILE WAITING FOR *subsystem name*

Explanation: The command entered cannot be processed while the CICS attachment facility is waiting for the DB2 subsystem to start. The name of the DB2 subsystem that is not yet operational is *subsystem name*.

This message is issued by the following CSECT: DSN2COM1

System Action: The command is rejected.

DSN2039I THE ERROR DESTINATIONS ARE:

d1 d2 d3

Explanation: This message is the response to the DSNC MODIFY DESTINATION command that lists the currently active message destinations known to the CICS attachment facility. Null entries that show as '****' can be modified so they identify actual destinations.

This message is issued by the following CSECT: DSN2COM1

DSN2040I MODULE *name* COULD NOT BE FOUND

Explanation: During the CICS attachment facility initialization, an attempt was made to locate and load the named module, but it was not found in any of the libraries accessible to MVS through the MVS LOAD macro.

This message is issued by the following CSECT: DSN2STRT

System Action: The CICS attachment facility initialization is terminated.

Operator Response: Notify the CICS attachment facility system programmer.

System Programmer Response: Check the CICS JOBLIB/STEPLIB libraries and ensure that the CICS SDFHAUTH and the DB2 SDSNLOAD libraries are defined there.

DSN2041I NO ACTIVE THREADS

Explanation: A DSNC DISPLAY TRANSACTION or DSNC DISPLAY PLAN command was entered, but there were no active threads created. The CICS attachment facility might have identified and signed on the attached subtasks, but a create thread was not issued for any of the subtasks.

This message is issued by the following CSECT: DSN2COM1

DSN2042I CONNECTION NOT AUTHORIZED TO *name*

Explanation: The attempt to connect to the named DB2 subsystem failed because the user was not authorized to access DB2. Authorization was denied by either RACF or a user-written connection exit.

This message is issued by the following CSECT: DSN2STRT

System Action: The CICS attachment facility terminates.

Operator Response: Notify the system programmer.

System Programmer Response: The user specified on the CICS job was not authorized to connect to the named DB2 subsystem. Refer to Section 3 (Volume 1) of *Administration Guide* for information on how to authorize a user to access DB2.

DSN2043I DSN2STOP ENCOUNTERED ERROR, RECOVERY ROUTINE started/completed

Explanation: A CICS abend occurred while disconnecting the CICS attachment facility from DB2 and deleting it from storage. This message might be issued twice. It is issued at the start of the abend recovery routine, which is indicated by 'started' in the message text. If the recovery routine is successful, the message is issued with 'completed' in the message text.

This message is issued by the following CSECT: DSN2STOP

System Action: If the recovery routine is not successful, program DSN2STOP terminates with a CICS transaction dump. If the recovery routine is successful, the CICS attachment facility is terminated normally.

Operator Response: Notify the system programmer.

System Programmer Response: Analyze any abend dumps associated with this message to determine the cause of the failure.

DSN2044I DSNCRCT ENTRY HAS BEEN CORRUPTED OR OVERLAID

Explanation: The CICS attachment facility detected that a resource control table (RCT) entry was corrupted or overlaid since the CICS attachment facility was last started.

This message is issued by the following CSECT: DSN2EXT1

System Action: The CICS task is abended with reason code 00C30011. No other action is taken by the CICS attachment facility.

Operator Response: Notify the system programmer.

System Programmer Response: Analyze the abend dumps associated with this message to determine which CICS transaction and RCT entry was corrupted. Restart the CICS attachment facility to obtain a valid copy of the RCT.

DSN2045I RESOURCE MANAGER *rmi-name* **IS UNKNOWN TO CICS ATTACH FACILITY**

Explanation: The CICS attachment facility received a request from a resource manager interface (RMI) named *rmi-name*. This RMI is not known by the CICS attachment facility.

This message is issued by the following CSECT: DSN2EXT1

System Action: The CICS task is abended with a CICS transaction dump.

Operator Response: Notify the system programmer.

System Programmer Response: Analyze the CICS transaction dump to determine the source of the unknown resource manager interface (RMI) request.

Problem Determination: CICS dump information, such as the trace table and program storage, can aid in determining which module issued the request. The CICS EXEC interface block resource name field, EIBRSRCE, contains the name of the RMI.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSN2046I RCT RELEASE LEVEL *nnnn* **IS INCONSISTENT WITH CICS ATTACH RELEASE LEVEL** *mmmm*

Explanation: The resource control table (RCT) release level *nnnn* does not match the CICS attachment facility release level *mmmm*.

This message is issued by the following CSECT: DSN2STRT

Operator Response: Notify the system programmer.

System Programmer Response: Reassemble the RCT using the correct DB2 release level *mmmm* DSNCRCT macro.

DSN2047I TWA SIZE IS TOO SMALL FOR TRANSID *tran*

Explanation: The CICS TWASIZE defined for transaction *tran* is too small to support the CICS attachment facility command processor program (DSN2COM1).

This message is issued by the following CSECT: DSN2EXT1

System Action: The CICS attachment facility abends this CICS task with a CICS transaction abend.

Operator Response: Notify the system programmer.

System Programmer Response: Redefine the command processor transaction to specify the correct TWASIZE.

DSN2048I UNABLE TO INTERPRET SQL CALL WHILE FORMATTING AN EDF DISPLAY TRAN *tran* **TASK** *task*

Explanation: The CICS attachment facility was unable to decipher storage associated with an SQL statement for CICS transaction *tran* and task id *task*. Either the SQL communications area (SQLCA) or the RDS input parameter list (RDI) storage could not be interpreted by the CICS attachment facility.

This message is issued by the following module: DSN2EXT1

System Action: A CICS transaction dump is taken of the storage in question.

Programmer Response: Ensure that CICS storage associated with this task was not altered or overlaid. Analyzing the storage in the CICS transaction dump might provide clues about the source of the problem.

Problem Determination: Analyze the CICS transaction dump of the storage in question. In this situation the information supplied by the Execution Diagnostic Facility (EDF) of CICS for SQL statements consists of:

- The EDF status: ABOUT TO EXECUTE or COMMAND EXECUTION COMPLETE
- The processing status: CALL TO RESOURCE MANAGER DSNCSQL

- The ARG values associated with this call to the CICS attachment facility resource manager

No other information is provided about the SQL statement.

DSN2049E *csect-name* **RECOVER INDOUBT FOR urid FAILED WITH** *reason-code*

Explanation: A resolve indoubt request passed to DB2 from CICS failed.

System Action: The attachment leaves the unit of recovery indicated by 'urid' indoubt in CICS and DB2. The attachment requests a system dump of the CICS region.

System Programmer Response: Use the reason code to determine why the RECOVER INDOUBT request failed. If necessary, manually resolve the unit of recovery using the RECOVER INDOUBT command.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 82,

DSN2052I INSUFFICIENT STORAGE AVAILABLE TO START ATTACHMENT FACILITY

Explanation: During startup the CICS attachment facility was unable to allocate the required amount of storage. This message might be issued if an error occurs while the attachment facility is loading the data only load module, DSN2CTxx.

This message is issued by the following CSECTs: DSN2MSG0 DSN2STRT

System Action: The CICS attachment facility is not initialized.

System Programmer Response: Allow a larger amount of dynamic storage on your CICS system. Alternatively, you can delete unused entries or lower THRDA and THRDM values in your RCT, which reduces the size of the storage that the attachment facility requires.

For a load error, check the MVS console log for any preceding messages to determine why the load failed. If there is not enough free REGION space to load the RCT, see the appropriate CICS documentation for information on tuning your CICS system.

DSN2053I INSUFFICIENT TWASIZE FOR DSN2COM1. REQUIREMENT IS *twasize*

Explanation: The CICS attachment facility requires a TWASIZE of *twasize* on all transactions that execute DSN2COM1. Either the TWASIZE that was specified is less than the requirement, or no TWASIZE was specified at all.

This message is issued by the following CSECT: DSN2COM1

System Action: The attachment facility terminates.

System Programmer Response: Ensure that CSD group DFHDB2 was installed in the CSD. Any transaction that executes program DSN2COM1 should specify TWASIZE(*twasize*) on its transaction entry.

DSN2054I DYNAMIC PLAN PROGRAM LINK FAILED FOR TRANSACTION '*transaction***'. EIBRESP WAS '***eibresp***'.**

Explanation: The attachment facility was unable to link to the dynamic plan exit program specified in DSNCRCT. The reason code provided by CICS in the EIBRESP field of the EIB is given in this message.

This message is issued by the following CSECT: DSN2EXT1

System Action: The transaction is abended with a DSNC abend.

User Response: Look up the *eibresp* value in *CICS/ESA Application Programming Reference*. This value was returned from CICS after the attachment facility attempted to link to the dynamic plan exit. Take appropriate action based on the *eibresp*. For example, if *eibresp* was PGMIDERR, check your RCT entry for transaction *transaction* to ensure that the dynamic plan exit program name (PLNPGME or PLNPGMI) is the name of a valid program known to CICS.

DSN2055I SINGLE PHASE COMMIT FAILED FOR TRANSACTION '*transaction***'. EIBTASKN WAS '***task number***'.**

Explanation: CICS requested a single phase commit from DB2, but DB2 was unable to comply.

This message is issued by the following CSECT: DSN2EXT1

System Action: The transaction is abended with a DSNC abend.

User Response: Contact the IBM Support Center for assistance.

DSN2056I *csect-name* **CICS RELEASE** *release* **IS DOWN LEVEL FOR THIS ATTACHMENT FACILITY**

Explanation: The attachment facility that you are using requires a CICS release later than Version 3 Release 3. You are using CICS Version 3 Release 3 or an earlier release. For this release of CICS, you must use the attachment facility shipped with DB2.

System Action: The attachment facility does not initialize.

User Response: Ensure that the CSD definition of the DSNC transaction specifies program DSNCCOM1. If you are initializing the attachment facility using CICS program list table (PLT) processing, ensure that your CICS PLTPI table uses program DSNCCOM0 to initialize the attach.

DSN2059I *csect-name* **CICS ATTACHMENT FACILITY MISMATCH WITH RESOURCE CONTROL TABLE** *rct-name*

Explanation: The wrong macro library was used to assemble DSN2CT, the resource control table.

There are two versions of the CICS attachment facility. The version shipped with DB2 requires CICS Version 3 Release 3 or an earlier release; the one shipped with CICS requires a CICS release later than Version 3 Release 3. This error message indicates CICS is using the attachment facility shipped with CICS, but the RCT was assembled using the DB2 macro libraries.

System Action: The CICS attachment facility initialization terminates.

User Response: Reassemble DSN2CT using the DSNCRCT macro shipped in the CICS macro libraries.

DSN2060I *csect-name* **INITPARM IS IGNORED BECAUSE FORMAT IS INVALID.**

Explanation: The DSN2STRT INITPARM specified on the CICS initialization job is incorrect. The format of the INITPARM should be:

```
INITPARM=(DSN2STRT='xx,yyyy')
```

where xx is the suffix of the RCT and yyyy is the DB2 subsystem id. The RCT suffix cannot be greater than 2 characters, and the subsystem ID cannot be greater than 4 characters.

To specify an RCT suffix only, use the format:

```
INITPARM=(DSN2STRT='xx')
```

To specify a subsystem ID override only, use the format:

```
INITPARM=(DSN2STRT=',yyyy')
```

System Action: The attachment facility attempts to initialize with the subsystem ID specified in the DSNC STRT command. If no subsystem ID is provided there, it attempts to initialize with the subsystem ID specified in the resource control table.

User Response: If you want to override the subsystem ID, restart the attachment facility using the DSNC STRT command with the correct SSID. Alternatively, you can correct the DSN2STRT INITPARM and reinitialize CICS.

DSN2061I *csect-name* **INITPARM IS INVALID. ATTACHMENT FACILITY NOT STARTED.**

Explanation: No resource control table suffix was specified on the DSNC STRT command, and the format of the DSN2STRT INITPARM on the CICS initialization job is incorrect. The format of the INITPARM should be:

```
INITPARM=(DSN2STRT='xx,yyyy')
```

where xx is the suffix of the RCT and yyyy is the DB2 subsystem id. The RCT suffix cannot be greater than 2 characters, and the subsystem ID cannot be greater than 4 characters.

To specify an RCT suffix only, use the format:

```
INITPARM=(DSN2STRT='xx')
```

To specify a subsystem ID override only, use the format:

```
INITPARM=(DSN2STRT=',yyyy')
```

System Action: The attachment facility does not initialize.

User Response: To start the attachment facility, use the DSNC STRT command and specify a resource control table suffix on the command. Alternatively, you can correct the DSN2STRT INITPARM and reinitialize CICS.

DSN2063I *csect-name* **NOT AUTHORIZED TO START TRANSACTION** *transaction***. ATTACHMENT FACILITY NOT STARTED**

Explanation: The user was not authorized to start transaction *transaction*.

The CICS-DB2 attachment facility starts *transaction* during initialization. Before it starts *transaction*, it checks external security (such as RACF) using CICS's QUERY SECURITY command. When CICS returns the value NOTREADABLE for *transaction*, the attachment facility produces this message.

System Action: The attachment facility does not initialize.

System Programmer Response: Identify the authorization ID of the user who started the attachment facility. Use your external security product to authorize that user to start *transaction*.

DSN2064I *csect-name transaction* **ABENDED. ATTACHMENT FACILITY IS TERMINATING.**

Explanation: The CICS-DB2 transaction *transaction* abended.

System Action: The CICS-DB2 attachment facility terminates.

System Programmer Response: Identify the cause of the abend, correct it if necessary, and restart the attachment facility.

DSN2065I *csect-name* **INVALID LENGTH. DATA NOT DISPLAYABLE.**

Explanation: The module running under the CICS Execution Diagnostic Facility (EDF) attempted to display an input or output variable that had an incorrect length indicator.

System Action: EDF processing continues, but the value of the variable is not displayed.

DSN2070I csect ROLLBACK FAILED FOR TRANSACTION transaction EIBRESP2 = X'eibresp2'

Explanation: The attachment facility was unable to issue a CICS ROLLBACK. The reason code provided by CICS in the EIBRESP2 field of the EIB is shown in *eibresp2*.

System Action: The transaction is abended with a DSNC abend.

System Programmer Response: Look up the *eibresp2* value in CICS/ESA Application Programming Reference. This value was returned from CICS after the attachment facility attempted a ROLLBACK requested by the ROLBE=YES option.

DSN2700I DSN2SAMG *message-id* **HAS BEEN ISSUED**

Explanation: This message is issued only if the requested message was not found in the message directory (DSN2MSGT).

System Action: The system proceeds as though the requested message was issued.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to this manual for the message text.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSN2901I UNRECOVERABLE IOERROR IN PROGRAM DSN2COM1. THE ATTACHMENT FACILITY WILL SHUTDOWN.

Explanation: An attempt to retrieve data stored for program DSN2COM1 failed when CICS returned an exceptional condition of IOERR (EIBRESP = X'11').

This message is issued by the following CSECT: DSN2COM1

System Action: The DB2-CICS attachment facility is shutdown.

Operator Response: Notify the system programmer.

System Programmer Response: An IOERR occurs if an input or output error occurs during a RETRIEVE operation. Examine the CICS auxiliary trace records and the CICS system log to determine the cause of the IOERR.

DSN3... Messages

DSN3001I *csect-name* **ABNORMAL DISCONNECT FROM SUBSYSTEM INTERFACE**

Explanation: This message indicates that 'csect-name' detected that an online routine was still supporting SSI calls (IEFSSREQ) even though DB2 was nearly done terminating or no longer executing. This occurs with 'csect-name' DSN3RS0X when the service address space has reached end-of-memory and neither normal termination nor online error recovery routines have successfully completed termination of the DB2 subsystem. This occurs with 'csect-name' DSN3SSTM when this condition is discovered during online termination.

System Action: The connection is terminated. All IEFSSREQ requests are handled by the DB2 ERLY code until DB2 is restarted.

Problem Determination: An SVC dump is requested. This SVC dump and associated SYS1.LOGREC entries provide information to determine which resource managers had not removed their support of particular SSI function codes.

For dumps requested by DSN3RS0X, all pertinent control blocks and stack storage are dumped. The primary control block of interest is the SSVT for DB2.

For DSN3SSTM, the DB2 'standard dump' facility is used to dump the information necessary for problem diagnosis. The primary control blocks of interest are the 'active' CONN blocks.

DSN3002I **RECOVERY INCOMPLETE FOR connection-name**

Explanation: At least one DB2 unit of recovery (UR), related to an identified subsystem ('connection-name'), is still 'indoubt' after restart synchronization has taken place. ('Indoubt' URs are those for which commit has been voted by DB2 but which have not been acknowledged by 'connection-name'.)

This message may appear if the 'connection-name' subsystem has begun to do new work before having resolved all indoubt URs. The 'connection-name' subsystem may be in the process of resolving the indoubt URs.

This message is issued by the following CSECT: DSN3ID30

System Action: Resources held (locked) by these 'indoubt' URs are unavailable to any other work units until their status is resolved.

System Programmer Response: The system programmer and/or system administrator must determine the correct recovery action to resolve the 'indoubt' situations. This involves either 'ensure-commit' or 'backout' decisions for all 'indoubt' URs.

The -DISPLAY THREAD command should be used to see the URs still indoubt. It may show that all indoubt URs have already been resolved. The -RECOVER INDOUBT command should be used, either from an MVS console or through an attachment facility, to resolve the indoubt URs and to release the resources they hold.

Problem Determination: This error is probably caused by a cold start after an abnormal termination of either subsystem or by offline alterations of the logs of either subsystem.

DSN3004I **DESCRIPTOR GET FAILURE RC=X xxxxxxxx, REASON=X xxxxxxxx**

Explanation: The parameter list required to create the DB2 agents under which IEFSSREQ calls are processed could not be obtained from the subsystem support subcomponent directory of internal parameters (DSN3DIR1). The RC indicates the return code received from the system parameter manager and REASON indicates the reason code (from register 0).

The return code is always 4 when this message is presented, indicating that the IEFSSREQ descriptor was not found in the subsystem support subcomponent directory. This is a system error and results in termination of the DB2 subsystem. The reason code is always 0.

This message is issued by the following CSECT: DSN3SSIN

System Action: Subsystem initialization is discontinued. Termination occurs.

System Programmer Response: Repair the master directory (DSNZPARM) and/or the DB2 program libraries, and restart the DB2 subsystem.

Problem Determination: If the problem persists, use any dumps and the console log to diagnose the problem. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSN3006I **xxxx SSI FUNCTION WAS ALREADY ACTIVE WHEN ACTIVATE WAS ATTEMPTED**

Explanation: An initialization sequence error has occurred. The subsystem support for SSI services resource manager (SSSS) has discovered during its initialization that another resource manager ('xxxx') has already activated the EOM or FEOT SSI call by calling DSN3AC0X. If this occurs, the error is a serious one.

This message is issued by the following CSECT: DSN3SSIN

System Action: Subsystem initialization is discontinued. DB2 termination occurs.

System Programmer Response: Ensure that all maintenance has been applied to the DB2 program libraries, and then restart the DB2 subsystem.

Problem Determination: If the problem persists, use any dumps and the console log to diagnose the problem. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSN3007I **xxxx SSI FUNCTION WAS ALREADY INACTIVE WHEN DEACTIVATE WAS ATTEMPTED**

Explanation: A termination sequence error has occurred. The subsystem support for SSI services resource manager (SSSS) has discovered during its termination that another resource manager ('xxxx') has already deactivated the EOM or FEOT SSI call by calling DSN3AC0X. If this occurs, the error is a serious one.

This message is issued by the following CSECT: DSN3SSTM

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System Action: Termination continues.

System Programmer Response: Ensure that all maintenance has been applied to the DB2 program libraries.

Problem Determination: If the problem persists, use any dumps and the console log to diagnose the problem. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSN3008I *csect-name* **ABNORMAL DISCONNECT FOR PROGRAM REQUEST HANDLER(S)**

Explanation: This message indicates that 'csect-name' has discovered that one or more resource managers are still supporting application program calls through their program request handler, even though DB2 was almost done terminating or was no longer executing. This occurs when the system services address space has gone to end of memory and neither normal termination nor online error recovery routines have successfully completed termination of the DB2 subsystem.

System Action: The program request handler (PRH) connection is terminated. All application program support requests are rejected with an indication that DB2 is not up.

System Programmer Response: See the Problem Determination section of this message.

Problem Determination: An SVC dump is requested. This SVC dump and associated SYS1.LOGREC entries provide information to determine which resource managers were still supporting application program support calls. All pertinent control blocks and stack storage are dumped. The primary control block of interest is the program request handler block (PRHB).

DSN3010I *csect-name* **PARTICIPANT OS/390 RRS IS COLD STARTING AND HAS LOST ITS LOG. OTHER RECOVERABLE RESOURCE MANAGERS MIGHT HAVE INDOUBT UNITS OF RECOVERY.**

Explanation: DB2 has coordinator responsibility for indoubt units of recovery and OS/390 RRS has a participant role in the unit of recovery. OS/390 RRS has cold started and has lost knowledge of indoubt units of recovery. There might be damage at OS/390 RRS Recoverable Resource Managers that also participated in the unit of recovery.

System Action: Processing continues.

System Programmer Response: Contact the database administrator.

Database Administrator Action: DB2 is the coordinator for one or more indoubt units of recovery at other OS/390 RRS recoverable resource managers. OS/390 RRS has lost all knowledge of these units of recovery. The participant OS/390 RRS Recoverable Resource Managers might still have indoubt units of recovery. DB2 has no knowledge of other OS/390 RRS Recoverable Resource Manager except for the OS/390 RRS unit of recover ID (URID) that identifies such a unit of recovery. Subsequent DSN3017I, DSN3018I or DSN3019I messages describe the status of each unit of recovery and contain the OS/390 RRS URID for each.

DSN3011I *csect-name* **COORDINATOR OS/390 RRS IS COLD STARTING AND HAS LOST ITS LOG. INDOUBT DB2 THREADS NEED MANUAL RESOLUTION.**

Explanation: DB2 has participant responsibility for indoubt threads. OS/390 RRS, the commit coordinator, has informed DB2 that it lost all knowledge of DB2 indoubt threads. The indoubt threads at this DB2 must be manually resolved with the RECOVER INDOUBT command.

System Action: Processing continues.

System Programmer Response: Contact the database administrator.

Database Administrator Action: DB2 is a participant with one or more indoubt threads. The coordinator is OS/390 RRS. OS/390 RRS has lost knowledge of the indoubt DB2 threads. A list of indoubt threads where OS/390 RRS is the coordinator can be displayed using the DISPLAY THREAD command for indoubt type threads by specifying RRSAF as the connection name. A DSNV408I message with coordinator = RRSAF identifies a thread of this type. The DSNV449I message in the DISPLAY THREAD report that follows contains the OS/390 RRS unit of recovery ID (URID) that identifies the OS/390 RRS unit of recovery in the NID field.

The heuristic decision (that is, to commit or abort the logical unit of work) should be coordinated with any other participant OS/390 RRS Recoverable Resource Managers. The existence of other participants might not be easy to determine. The information might be available in the MVS/RRS recovery log even though information has been lost.

At this DB2, all indoubt threads coordinated by the OS/390 RRS must be resolved with the RECOVER INDOUBT command. Locked data remains unavailable until resolution. Threads that were already resolved with this command are discarded. Threads not yet resolved are discarded after resolution with the command.

The commit or abort decision provided using the RECOVER INDOUBT command for a logical unit of work are propagated to all downstream participants, if any.

DSN3012I *csect-name* **DB2 WAS RESTARTED ON THE WRONG SYSTEM AND CANNOT CONNECT TO RRS. THERE ARE UNRESOLVED UNITS OF RECOVERY WHERE DB2 IS THE COORDINATOR.**

Explanation: DB2 is the commit coordinator for one or more indoubt units of recovery. DB2 is unable to connect to OS/390 RRS to resolve these indoubt units of recovery.

System Action: Processing continues.

Operator Response: Use the OS/390 RRS IPCS interface to determine the correct system and restart DB2 on that system.

DSN3013I *csect-name* **DB2 WAS RESTARTED ON THE WRONG SYSTEM AND CANNOT CONNECT TO RRS. THERE ARE UNRESOLVED UNITS OF RECOVERY WHERE DB2 IS A PARTICIPANT.**

Explanation: DB2 has one or more indoubt threads and is unable to connect to OS/390 RRS to resolve these indoubt units of recovery.

System Action: Processing continues.

Operator Response: Use the OS/390 RRS IPCS interface to determine the correct system and restart DB2 on that system.

DSN3014I *csect-name* **DB2 HAS NO KNOWLEDGE OF RRS URID=***rrs_urid***. THE RRS UR IS INDOUBT. THE DB2 URID RECORDED BY RRS=***db2_urid***.**

Explanation: DB2 is restarting with OS/390 RRS where DB2 is a participant and OS/390 RRS is the coordinator. OS/390 RRS has a unit of recovery that DB2 should be a participant in, but DB2 has no knowledge of the OS/390 RRS unit of recovery. The OS/390 RRS unit of recovery ID is 'rrs_urid'. OS/390 RRS has recorded the DB2 unit of recovery ID as 'db2_urid'.

System Action: Restart with OS/390 RRS continues.

Operator Response: Notify the database administrator.

Database Administrator Action: This message might indicate a DB2 or OS/390 RRS problem, or it might be produced normally because one of the following prior actions:

- A DB2 conditional restart was performed that resulted in the loss of part or all of the DB2 log. This conditional restart might have happened at any time in the past.
- The DB2 RECOVER INDOUBT command was used to resolve the DB2 unit of recovery with URID 'db2_urid'.

If either of these occurred, the message can be ignored. If neither occurred, there might be a DB2 or an OS/390 RRS problem. If the 'db2_urid' appears to be a valid log RBA, use the DSN1LOGP utility with the SUMMARY option and URID options using the 'db2-urid' value. If DSN1LOGP finds the 'db2-urid', the disposition will indicate whether the DB2 UR was committed or aborted (rolled back). If possible, use the OS/390 RRS ISPF interface to commit or abort the OS/390 RRS URID to avoid heuristic damage.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 6, 33. 72.

DSN3015I *csect-name* **DB2 HAS NO KNOWLEDGE OF RRS URID=***rrs_urid***. THE RRS UR IS INDOUBT. THE DB2 URID RECORDED BY RRS=***db2_urid***.**

Explanation: DB2 is restarting with OS/390 RRS where DB2 is the coordinator and OS/390 RRS is the participant. OS/390 RRS has a unit of recovery that DB2 should be the coordinator of, but DB2 has no knowledge of the OS/390 RRS unit of recovery. The OS/390 RRS unit of recovery ID is 'rrs_urid'. OS/390 RRS has recorded the DB2 unit of recovery ID as 'db2_urid'.

System Action: Restart with OS/390 RRS continues.

Operator Response: Notify the database administrator.

Database Administrator Action: This message might indicate a DB2 or OS/390 RRS problem, or it might be produced normally because a DB2 conditional restart was performed that resulted in the loss of part or all of the DB2 log. This conditional restart might have happened at any time in the past.

If the 'db2_urid' appears to be a valid log RBA, use the DSN1LOGP utility with the SUMMARY option and URID options using the 'db2-urid' value. If DSN1LOGP finds the 'db2-urid', the disposition will indicate whether the DB2 UR was committed or aborted (rolled back). Use the OS/390 RRS ISPF interface to commit or abort the OS/390 RRS URID to avoid heuristic damage.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 6, 33. 72.

DSN3016I *csect-name* **RRS HAS LOST DATA FROM ITS LOG.**

Explanation: DB2 is restarting with OS/390 RRS and OS/390 RRS has lost some portion of its log.

System Action: Restart with RRS continues.

Operator Response: Notify the database administrator.

Database Administrator Action: DB2 might not be able to resolve indoubt Units of Recovery successfully with RRS because of the loss of RRS log data. This message might be followed by one or more of the following messages: DSN3017I, DSN3018I, DSN3019I, DSN3020I, DSN3021I, DSN3022I and DSN3023I.

DSN3017I *csect-name* **RRS HAS NO KNOWLEDGE OF DB2 URID=***db2_urid***. THE DB2 UR IS INDOUBT. THE RRS URID RECORDED BY DB2=***rrs_urid***.**

Explanation: DB2 is restarting with OS/390 RRS where DB2 is the coordinator and OS/390 RRS is a participant. DB2 has a unit of recovery that OS/390 RRS should be a participant in, but OS/390 RRS has no knowledge of the DB2 unit of recovery. The DB2 unit of recovery ID is 'db2_urid'. DB2 has recorded the OS/390 RRS unit of recovery ID as 'rrs_urid'.

System Action: Restart with OS/390 RRS continues.

Operator Response: Notify the database administrator.

Database Administrator Action: This message might indicate a DB2 or OS/390 RRS problem, or it might be produced normally because of one of the following:

- An OS/390 RRS cold start was performed that resulted in the loss of the OS/390 RRS log. In this case, message DSN3010I should have been produced.
- OS/390 RRS might have had a partial loss of log data during restart. In this case, message DSN3016I should have been produced.
- The OS/390 RRS ISPF interface might have been used to heuristically commit or roll back the UR.

If any of the above are true, the message can be ignored. If not, there might be a DB2 or an OS/390 RRS problem.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 6, 33. 72.

DSN3018I *csect-name* **RRS HAS NO KNOWLEDGE OF DB2 URID=***db2_urid***. THE DB2 UR WAS COMMITTED. THE RRS URID RECORDED BY DB2=***rrs_urid***.**

Explanation: DB2 is restarting with OS/390 RRS where DB2 is the coordinator and OS/390 RRS is a participant. DB2 has a unit of recovery that OS/390 RRS should be a participant in, but OS/390 RRS has no knowledge of the DB2 unit of recovery. The DB2 unit of recovery ID is 'db2_urid'. DB2 has recorded the OS/390 RRS unit of recovery ID as 'rrs_urid'.

System Action: Restart with OS/390 RRS continues.

Operator Response: Notify the database administrator.

Database Administrator Action: This message might indicate a DB2 or OS/390 RRS problem, or it might be produced normally because of one of the following:

- An OS/390 RRS cold start was performed that resulted in the loss of the OS/390 RRS log. In this case, message DSN3010I should have been produced.
- OS/390 RRS might have had a partial loss of log data during restart. In this case, message DSN3016I should have been produced.
- The OS/390 RRS ISPF interface might have been used to heuristically commit or roll back the UR.

If any of the above are true, the message can be ignored. If not, there might be a DB2 or an OS/390 RRS problem.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 6, 33. 72.

DSN3019I *csect-name* **RRS HAS NO KNOWLEDGE OF DB2 URID=***db2_urid***. THE DB2 UR WAS ROLLED BACK. THE RRS URID RECORDED BY DB2=***rrs_urid***.**

Explanation: DB2 is restarting with OS/390 RRS where DB2 is the coordinator and OS/390 RRS is a participant. DB2 has a unit of recovery that OS/390 RRS should be a participant in, but OS/390 RRS has no knowledge of the DB2 unit of recovery. The DB2 unit of recovery ID is 'db2_urid'. DB2 has recorded the OS/390 RRS unit of recovery ID as 'rrs_urid'.

System Action: Restart with OS/390 RRS continues.

Operator Response: Notify the database administrator.

Database Administrator Action: This message might indicate a DB2 or OS/390 RRS problem, or it might be produced normally because of one of the following:

- An OS/390 RRS cold start was performed that resulted in the loss of the OS/390 RRS log. In this case, message DSN3010I should have been produced.
- OS/390 RRS might have had a partial loss of log data during restart. In this case, message DSN3016I should have been produced.
- The OS/390 RRS ISPF interface might have been used to heuristically commit or roll back the UR.

If any of the above are true, the message can be ignored. If not, there might be a DB2 or an OS/390 RRS problem.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 6, 33. 72.

DSN3020I *csect-name* **POSSIBLE HEURISTIC DAMAGE. RRS HAS COMMITTED THE UR WITH RRS URID=***rrs_urid***. THE DB2 UR WITH DB2 URID=***db2_urid* **IS INDOUBT.**

Explanation: DB2 is restarting with OS/390 RRS and has a unit of recovery (UR) DB2 URID=db2_urid that is indoubt. DB2 is the commit coordinator for the UR and OS/390 RRS is a participant. OS/390 RRS has committed the same UR. The OS/390 RRS URID=rrs_urid.

System Action: Restart with OS/390 RRS continues.

Operator Response: Notify the database administrator.

Database Administrator Action: If possible, insure that the DB2 UR is resolved to commit. If this is done, there will be no heuristic damage. If the DB2 UR is resolved to abort, heuristic damage will have occurred since OS/390 RRS committed the same UR.

DSN3021I *csect-name* **POSSIBLE HEURISTIC DAMAGE. RRS HAS ROLLED BACK THE UR WITH RRS. URID=***rrs_urid***. THE DB2 UR WITH DB2 URID=***db2_urid* **IS INDOUBT.**

Explanation: DB2 is restarting with OS/390 RRS and has a unit of recovery (UR) DB2 URID=db2_urid that is indoubt. DB2 is the commit coordinator for the UR and OS/390 RRS is a participant. OS/390 RRS has rolled back the same UR. The OS/390 RRS URID=rrs_urid.

System Action: Restart with OS/390 RRS continues.

Operator Response: Notify the database administrator.

Database Administrator Action: If possible, insure that the DB2 UR is resolved to abort. If this is done, there will be no heuristic damage. If the DB2 UR is resolved to commit, heuristic damage will have occurred since OS/390 RRS rolled back the same UR.

DSN3022I *csect-name* **HEURISTIC DAMAGE HAS OCCURRED. RRS HAS COMMITTED THE UR WITH RRS URID=***rrs_urid***, AND DB2 HAS ROLLED BACK THE SAME UR. THE DB2 URID=***db2_urid*

Explanation: DB2 is restarting with OS/390 RRS and has a unit of recovery (UR) with DB2 URID=db2_urid that was rolled back. DB2 is the commit coordinator for the UR and OS/390 RRS is a participant. OS/390 RRS has committed the same UR. The OS/390 RRS URID=rrs_urid.

System Action: Restart with OS/390 RRS continues.

Operator Response: Notify the database administrator.

Database Administrator Action: Heuristic damage has occurred since DB2 rolled back the UR and OS/390 RRS has committed the same UR. Correct the damage. This is not an easy task. Knowledge of the application is required to determine which Recoverable Resource Managers are involved in the UR. Since the time of the heuristic action, the data that was updated might have been used by many applications - read and/or write. Correcting the damage might involve

reversing the effects of these applications as well. Tools available are:

- The OS/390 RRS ISPF functions can provide assistance in determining the set of resource managers involved and what action they took.
- The DB2 DSN1LOGP utility provides a summary report that identifies the table spaces modified by the unit of recovery.

Contact your IBM Support Center for further assistance.

DSN3023I *csect-name* **HEURISTIC DAMAGE HAS OCCURRED. RRS HAS ROLLED BACK THE UR WITH RRS URID=***rrs_urid***, AND DB2 HAS COMMITTED THE SAME UR. THE DB2 URID=***db2_urid*

Explanation: DB2 is restarting with OS/390 RRS and has a unit of recovery (UR) with DB2 URID=db2_urid that was committed. DB2 is the commit coordinator for the UR and OS/390 RRS is a participant. OS/390 RRS has rolled back the same UR. The OS/390 RRS URID=rrs_urid.

System Action: Restart with OS/390 RRS continues.

Operator Response: Notify the database administrator.

Database Administrator Action: Heuristic damage has occurred since DB2 committed the UR and OS/390 RRS has rolled back the same UR. Correct the damage. This is not an easy task. Knowledge of the application is required to determine which Recoverable Resource Managers are involved in the UR. Since the time of the heuristic action, the data that was updated might have been used by many applications - read and/or write. Correcting the damage might involve reversing the effects of these applications as well. Tools available are:

- The OS/390 RRS ISPF functions can provide assistance in determining the set of resource managers involved and what action they took.
- The DB2 DSN1LOGP utility provides a summary report that identifies the table spaces modified by the unit of recovery.

Contact your IBM Support Center for further assistance.

DSN3024I *csect_name* **HEURISTIC DAMAGE HAS OCCURRED. COORDINATOR DB2 HAS COMMITTED THE UR WITH DB2 URID=***db2_urid***, AND RRS HAS INDICATED THAT THE OUTCOME WAS MIXED. THE RRS URID=***rrs_urid***.**

Explanation: DB2 is the commit coordinator and OS/390 RRS is a participant. DB2 committed the UR with URID = db2_urid and OS/390 RRS has indicated that one or more Recoverable Resource Managers that participated in the OS/390 RRS UR with URID = rrs_urid has rolled back the same UR.

System Action: Processing continues.

Operator Response: Notify the database administrator.

Database Administrator Action: Heuristic damage has occurred since DB2 committed the UR and at least one OS/390 RRS Recoverable Resource manager has rolled back the same UR. Correct the damage. This is not an easy task. Knowledge of the application is required to determine which Recoverable Resource Managers are involved in the UR. Since the time of the heuristic action, the data that was updated might have been used by many applications - read and/or write. Correcting the damage might involve reversing the effects of these applications as well. Tools available are:

- The OS/390 RRS ISPF functions can provide assistance in determining the set of resource managers involved and what action they took.
- The DB2 DSN1LOGP utility provides a summary report that identifies the table spaces modified by the unit of recovery.

Contact your IBM Support Center for further assistance.

DSN3025I *csect-name* **HEURISTIC DAMAGE HAS OCCURRED. COORDINATOR DB2 HAS ROLLED BACK THE UR WITH DB2 URID=***db2_urid***, AND RRS HAS INDICATED THE OUTCOME WAS MIXED. THE RRS URID=***rrs_urid***.**

Explanation: DB2 is the commit coordinator and OS/390 RRS is a participant. DB2 rolled back the UR with URID = db2_urid and OS/390 RRS has indicated that one or more Recoverable Resource Managers that participated in the OS/390 RRS UR with URID = rrs_urid has committed the same UR.

System Action: Processing continues.

Operator Response: Notify the database administrator.

Database Administrator Action: Heuristic damage has occurred since DB2 rolled back the UR and at least one OS/390 RRS Recoverable Resource manager has committed the same UR. Correct the damage. This is not an easy task. Knowledge of the application is required to determine which Recoverable Resource Managers are involved in the UR. Since the time of the heuristic action, the data that was updated might have been used by many applications - read and/or write. Correcting the damage might involve reversing the effects of these applications as well. Tools available are:

- The OS/390 RRS ISPF functions can provide assistance in determining the set of resource managers involved and what action they took.
- The DB2 DSN1LOGP utility provides a summary report that identifies the table spaces modified by the unit of recovery.

Contact your IBM Support Center for further assistance.

DSN3026I *csect-name* **POSSIBLE HEURISTIC DAMAGE. COORDINATOR DB2 HAS COMMITTED THE UR WITH DB2 URID=***db2_urid***, AND RRS HAS INDICATED THAT THE OUTCOME IS PENDING. THE RRS URID=***rrs_urid***.**

Explanation: DB2 is the commit coordinator for the DB2 UR with URID=db2_urid and OS/390 RRS is a participant. OS/390 RRS has also committed the UR but has indicated that at least one OS/390 RRS Recoverable Resource manager has not completed commit processing for the OS/390 RRS UR with URID=rrs_urid.

System Action: Processing continues.

Operator Response: Notify the database administrator.

Database Administrator Action: If possible, insure that the OS/390 RRS Recoverable Resource Manager commits the OS/390 RRS UR. If this is done, there will be no heuristic

damage. If the OS/390 RRS UR is rolled back by the OS/390 RRS Recoverable Resource manager, heuristic damage will have occurred since DB2 committed the same UR.

DSN3027I *csect-name* **POSSIBLE HEURISTIC DAMAGE. COORDINATOR DB2 HAS ROLLED BACK THE UR WITH DB2 URID=***db2_urid***, AND RRS HAS INDICATED THAT THE OUTCOME IS PENDING. THE RRS URID=***rrs_urid***.**

Explanation: DB2 is the commit coordinator for the DB2 UR with URID=db2_urid and OS/390 RRS is a participant. OS/390 RRS has also rolled back the UR but has indicated that at least one OS/390 RRS Recoverable Resource manager has not completed roll back processing for the OS/390 RRS UR with URID=rrs_urid

System Action: Processing continues.

Operator Response: Notify the database administrator.

Database Administrator Action: If possible, insure that the OS/390 RRS Recoverable Resource Manager rolls back the OS/390 RRS UR. If this is done, there will be no heuristic damage. If the OS/390 RRS UR is committed by the OS/390 RRS Recoverable Resource manager, heuristic damage will have occurred since DB2 rolled back the same UR.

DSN3100I *csect-name* **SUBSYSTEM** *ssnm* **READY FOR START COMMAND**

Explanation: This message is issued by CSECT DSN3RRSR when DB2 subsystem initialization is complete. The 'ssnm' in the message is the name of the subsystem that issued the message. This occurs during MVS IPL processing. The message is also issued by CSECT DSN3EC0X after termination of the previous execution of DB2 is complete. Message DSN3104I is also issued during this processing.

Operator Response: Issue the -START command when DB2 execution is desired.

DSN3101I *csect-name* **INVALID EARLY PROCESSING MODULE NAME IN PARMLIB RECORD.** *ssnm* **IS NOT AVAILABLE**

Explanation: CSECT DSN3UR00 has discovered that a parameter passed to DB2 subsystem initialization is in error. Either the Early processing load module name is not between 1 and 8 characters long, or there are syntax errors in the parameter string. The entire parameter string must be between 3 and 10 characters long, and the next to the last character must be a ','. The parameters were obtained from the parameter fields of a record defining a DB2 subsystem in member IEFSSNxx of SYS1.PARMLIB.

The subsystem recognition character is not inserted in this message as it is not yet known. 'ssnm' is the name of the DB2 subsystem undergoing IPL-time initialization.

System Action: The DB2 subsystem with the indicated name is not available for this IPL of MVS.

Operator Response: Notify the system programmer.

This message is issued by the following CSECT: DSN3RRSR

System Programmer Response: Correct the parameter fields in the record of SYS1.PARMLIB member IEFSSNxx, and re-IPL MVS. Refer to Section 2 of *Installation Guide* for the format of an IEFSSNxx record which defines a DB2 subsystem.

DSN3102I *csect-name* **INVALID SUBSYSTEM RECOGNITION CHARACTER IN PARMLIB RECORD.** *ssnm* **IS NOT AVAILABLE**

Explanation: CSECT DSN3UR00 detected that the subsystem recognition character is invalid; it must be nonblank. The subsystem recognition character is the last field of the parameter string passed to DB2 IPL initialization. It is obtained from a record for the named subsystem in member IEFSSNxx of SYS1.PARMLIB.

The subsystem recognition character is not inserted in this message as it cannot be determined. 'ssnm' is the name of the DB2 subsystem undergoing IPL-time initialization.

System Action: The DB2 subsystem with the indicated name is not available for this IPL of MVS.

Operator Response: Notify the system programmer. Correct the parameter fields in the SYS1.PARMLIB record of member IEFSSNxx, and re-IPL MVS. Refer to Section 2 of *Installation Guide* for the format of an IEFSSNxx record which defines a DB2 subsystem.

DSN3103I *csect-name* **- UNABLE TO LOAD EARLY PROCESSING MODULE SPECIFIED IN PARMLIB RECORD.** *ssnm* **IS NOT AVAILABLE**

Explanation: CSECT DSN3UR00 is unable to load the early processing load module named in the first parameter passed to DB2 subsystem IPL initialization. 'ssnm' is the name of the DB2 subsystem undergoing IPL-time initialization.

Either the load module name was specified incorrectly or the load module does not reside in a library included in the MVS linklist.

System Action: DSN3UR00 abends with code X'04E' and reason code X'00F30103'. The DB2 subsystem with the indicated name is not available for this IPL of MVS.

Operator Response: Notify the system programmer.

System Programmer Response: Identify the cause of the error. Either correct the early processing load module or take the necessary steps to include the module in a link-listed library. Re-IPL MVS. Refer to Section 2 of *Installation Guide* for the format of an IEFSSNxx record that defines a DB2 subsystem. Refer to the appropriate MVS publication for MVS linklist requirements.

Problem Determination: An entry is made to SYS1.LOGREC. No SVC dump is taken.

DSN3104I *csect-name* **- TERMINATION COMPLETE**

Explanation: This message indicates that a DB2 subsystem has terminated. The actual MVS termination of the DB2 address space(s) may have completed earlier. This message is presented for every termination, normal or abnormal.

Operator Response: Issue a DISPLAY ACTIVE command to see if MVS has completed termination processing of the address space(s).

DSN3105I *csect-name* **- UNABLE TO LOAD EARLY PROCESSING MODULE 'DSN3EPX'** *ssnm* **IS NOT AVAILABLE**

Explanation: CSECT DSN3UR00 is unable to load the early processing module DSN3EPX required for MVS. The name of the DB2 subsystem undergoing IPL-time initialization is 'ssnm'. Either the load module has been inadvertently deleted, or does not reside in a library included in the MVS linklist.

System Action: DSN3UR00 abends with code X'04E' and reason code X'00F30105'. DB2 subsystem 'ssnm' is not available for this IPL of MVS.

Operator Response: Notify the system programmer.

System Programmer Response: Identify the cause of the error. Either correct the early processing load module or take the necessary steps to include the module in a link-listed library. Re-IPL MVS.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: An entry is made in SYS1.LOGREC. No SVC dump is taken. Refer to MVS linklist requirements in *MVS/ESA JES2 Initialization and Tuning Guide*.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5.

DSN3106I *csect-name* **SUBSYSTEM STOPPED. THIS COMMAND NOT PROCESSED:** *command-text*

Explanation: A command has been received which cannot be processed due to one of the following:

- The DB2 subsystem has not been started.
- The command was queued for processing while DB2 was starting, but startup terminated with an error.
- DB2 terminated before the command could be processed.

System Action: The command is not processed.

Operator Response: Start the DB2 subsystem, then reenter the command.

DSN3107I *csect-name* **COMMAND REJECTED. REQUESTER NOT AUTHORIZED**

Explanation: CSECT DSN3EC0X has discovered that the source of the command was a console that does not have 'system' authority.

System Action: The command is not processed. This message is sent to the console that entered the command.

Operator Response: Enter the command from another console that has 'system' authority.

System Programmer Response: Verify that this console should be used for entering DB2 commands. If so, authorize it for 'system' commands by using MVS services.

DSN3108I *csect-name* **COMMAND REJECTED. COMMAND FACILITY PATH UNAVAILABLE**

Explanation: CSECT DSN3EC0X has discovered that the path from MVS consoles to the DB2 command processor is unavailable. It may still be possible to enter commands through one of the attachment facilities.

System Action: The command is not processed. This message is delivered to the console that entered the command.

System Programmer Response: The console command facility is available again the next time DB2 is started. If it is necessary to regain this facility immediately, DB2 should be canceled and restarted.

DSN3109I *csect-name* **- UNABLE TO OBTAIN SUBSYSTEM AFFINITY TABLE INDEX FOR SUBSYSTEM** *ssnm***. IEFSSREQ RC =** *nn*

Explanation: CSECT DSN3UR00 was unable to obtain a subsystem affinity table index for the named subsystem. MVS did not recognize the named subsystem name as a known subsystem. If this message is issued, a serious error has occurred in MVS or DB2.

In the message, 'nn' is the return code from the IEFSSREQ MVS service. 'ssnm' is the name of the DB2 subsystem undergoing IPL-time initialization.

System Action: DSN3UR00 abends with completion code X'04E' and reason code X'00F30104'. The DB2 subsystem with the indicated name is not available for this IPL of MVS.

Operator Response: Notify the system programmer.

System Programmer Response: Try to re-IPL. If the problem persists, follow standard DB2 problem reporting procedures.

Problem Determination: A record is written to SYS1.LOGREC. No SVC dump is taken. Return codes from IEFSSREQ are documented under control block SSOB in the appropriate MVS publication.

DSN3111I *csect-name* **LOAD MODULE** *module-name* **DOES NOT HAVE AMODE(31) ATTRIBUTE.** *ssnm* **IS NOT AVAILABLE**

Explanation: The DB2 program which establishes DB2 as an MVS subsystem during Master Scheduler initialization has determined that either its own load module or a load module loaded by it does not have the linkage editor attributes AMODE(31) and RMODE(ANY). Most DB2 load modules must be capable of running in the 31-bit addressing mode.

In the message, 'csect-name' is the name of the program detecting the error, 'module-name' is the name of the first load module found with an invalid AMODE attribute, and 'ssnm' is the name of the DB2 subsystem undergoing IPL-time initialization.

System Action: Program DSN3UR00 abends with a code of X'04E' and a reason code of X'00F30111'. The DB2 subsystem named 'ssnm' is not initialized. The subsystem will not be available until the error is corrected and MVS is re-IPLed.

Operator Response: Notify the system programmer of the failure.

System Programmer Response: Verify that all of the following were done:

- The installation and maintenance activities against DB2 were executed using SMP.
- The JCLIN for SMP included the correct AMODE and RMODE control statements.
- The appropriate Linkage Editor provided with the Data Facility Product (DFP) for the version of MVS being used was invoked by SMP for the link-edit steps.

Correct and rerun the procedure or JCL which caused the error. If necessary, REJECT all SMP APPLY steps which were executed incorrectly and rerun the rejected steps. Request a re-IPL of MVS.

Problem Determination: A record is written to SYS1.LOGREC. No SVC dump is taken.

The MVS service aid AMBLIST provides Linkage Editor module attributes in the summary section of the LISTLOAD function output.

DSN3112I *csect-name* **UNABLE TO REGISTER COMMAND PREFIX,**

CPF RETURN CODE = *xxyy***.**

ssnm **IS NOT AVAILABLE**

Explanation: DB2 is unable to register the installation-specified command prefix with MVS. The command prefix is specified in the subsystem definition parameter. *xx* is the hexadecimal return code, and *yy* is the hexadecimal reason code from the CPF MVS service. Subsystem *ssnm* is not available.

System Action: This DB2 subsystem is not available.

System Programmer Response: Refer to the MVS documentation on the CPF macro service to determine the reason for the *xx* and *yy* codes. Ensure that the specified command prefix is not already registered, or is not a substring or superstring of an already registered command prefix. Use the MVS DISPLAY OPDATA command, if necessary, to see command prefixes registered with MVS.

DSN3113I *csect-name* **INVALID SUBSYSTEM DEFINITION PARAMETER IN PARMLIB RECORD.** *ssnm* **IS NOT AVAILABLE.**

Explanation: DB2 detected an error in the subsystem definition parameter, which is obtained from the IEFSSNxx member of SYS1.PARMLIB. Some possible causes for this error are:

- The early processing load module name is not between 1 and 8 characters long.
- The command prefix is not between 1 and 8 characters long.
- The command prefix scope is not 1 character long.
- The command prefix scope is not X, S, or M.
- The group attach name is not between 1 and 4 characters long.

The command prefix is not inserted into this message because it is unknown. The name of the subsystem attempting to initialize is *ssnm*.

System Action: The DB2 subsystem is not available.

System Programmer Response: Correct the subsystem definition parameter and re-IPL MVS. Refer to *Installation Guide* for the format of the subsystem definition parameter that defines a DB2 subsystem.

DSN3114I *csect-name* **GROUP ATTACH NAME IS NOT ALLOWED WITH THIS RELEASE OF MVS.** *ssnm* **IS NOT AVAILABLE**

Explanation: DB2 found an installation-specified group attachment name specified in the subsystem definition parameter, IEFSSNxx, but DB2 group attachment is not supported with this release of MVS. DB2's group attachment feature requires MVS/ESA SP4.2.2 or a later release. The DB2 subsystem *ssnm* is not available.

System Programmer Response: Delete the group attachment name in the subsystem definition parameter and re-IPL.

DSN3115I *csect-name* **UNABLE TO REGISTER GROUP ATTACH NAME, NAME/TOKEN RC =** *xx***.** *ssnm* **IS NOT AVAILABLE**

Explanation: DB2 is unable to register the installation-specified group attach name with MVS. The group attach name is specified in the subsystem definition parameter. *xx* is the hexadecimal return code from the MVS Name/Token service. Subsystem *ssnm* is not available.

System Action: This DB2 subsystem is not available.

System Programmer Response: Refer to MVS documentation about the Name/Token macro service to determine the reason for the *xx* return codes.

DSN3116I *csect-name* **THE VERSION OF THE DB2 EARLY CODE IS INCOMPATIBLE WITH THIS VERSION OF MVS.** *ssnm* **IS NOT AVAILABLE**

Explanation: This version of DB2 early code requires MVS/ESA 4.2.0. Subsystem *ssnm* is not available.

System Programmer Response: The version of the DB2 early code that was loaded from the LINKLIST library is not compatible with the release of MVS that you are using. Change the concatenation order of the LINKLIST library so that a compatible release of DB2 early code is used.

DSN3201I ABNORMAL EOT IN PROGRESS FOR USER=xxxxxxxx CONNECTION-ID=yyyyyyyy CORRELATION-ID=zzzzzzzzzzzz JOBNAME=aaaaaaaa TCB=99999999

Explanation: Abnormal termination started for the agent with the values shown for USER, CONNECTION-ID, CORRELATION-ID, JOBNAME and TCB address. These values are the last known set of identifiers for the terminating agent.

The abnormal termination could be the result of a failure in the allied agent's address space or the result of an operator cancel command.

The value for the USER and/or CORRELATION-ID might be blank. If the terminating agent is connected to DB2 at the IDENTIFY level and was not previously signed on, or was not previously authorized to a plan at the time of the failure, then no CORRELATION-ID is associated with the agent. Otherwise, the values for the USER, CONNECTION-ID, CORRELATION-ID, and JOBNAME are the last values established to DB2 for this connection. They might represent the current activity of the agent. The TCB value is the address of the TCB that is terminating. Previous DB2 work by this agent

might have completed successfully. Correlation IDs beginning with '0nn', where nn is a number from 01 to 28, identify system agents.

This message is issued by the following CSECT: DSN3EOTS

System Action: The agent was previously queued to a System Services service task for termination processing. This message indicates that the agent was taken from the queue for processing. Any uncommitted database changes are rolled back.

User Response: Your job or TSO session cannot be canceled. The PA1 key has no effect in this circumstance. To avoid long waits when your application program is canceled or terminates abnormally, issue frequent commits.

System Programmer Response: See the Problem Determination section for this message. The MVS CANCEL and FORCE commands have no effect and should not be issued. DB2 should not be canceled. If an extensive rollback is in progress, the subsequent DB2 restart might take a very long time because of additional log activity.

Problem Determination: You can detect a deferred termination condition for a task by examining several indicators. Some or all of the following might be present:

- The allied address space might be swapped out and appear to be in a never-ending WAIT condition.
- The MVS commands CANCEL and FORCE appear to have no effect.
- The allied task holds an MVS-shared ENQ on resource SYSZDSN3.ERLYOLRHerly-block-address.
- During abnormal termination of the agent associated with the failing task, but before this message was written, the task's connection appears on the -DISPLAY THREAD output with a QD status. See message DSNV404I for the definition of this status code.
- This message, DSN3201I, is written to the MVS console after the agent is removed from the service task work queue when termination processing begins.
- During abnormal termination of the agent associated with the failing task, the task's connection appears on the -DISPLAY THREAD output with a D status. See message DSNV404I for the definition of this status code.

DSN3458I *csect-name* **MODULE** *modname* **MUST HAVE THE AMODE (31) ATTRIBUTE**

Explanation: An authorization exit load module was not link-edited with the 31-bit addressing mode (AMODE) attribute. Either load module DSN3@ATH or DSN3@SGN is specified by 'modname'.

System Action: Subsystem startup is terminated.

System Programmer Response: Relink-edit the authorization exit module specifying the attributes AMODE(31), RMODE(ANY).

Problem Determination: Check the load module attributes used for the link-edit.

DSN3580I CONNECTION FOR [EOM | FEOT | IDEN] GAVE RC=X xxxxxxxx, REASON=X xxxxxxxx

Explanation: A nonzero return code has been returned to DSN3AMI2 from the SSSS connect to subsystem interface call. The variables in the message indicate which SSI call is involved and the actual return and reason codes associated with it.

This message is issued by the following CSECT: DSN3AMI2

System Action: The current task (TCB) is abended with a system completion code of X'04E' and with an abend reason code of '00F30580' The DB2 subsystem terminates.

Operator Response: Notify the system programmer.

System Programmer Response: Restart the DB2 subsystem.

Problem Determination: The trace table and stack storage associated with the EB in register 6 must be examined to locate the error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 5.

DSN7... Messages

DSN7000I *csect-name* **REQUIRED CSECT DSN6GRP COULD NOT BE FOUND IN SYSTEM PARAMETERS LOAD MODULE.**

Explanation: The required CSECT DSN6GRP was not found in the system parameters load module.

System Action: The DB2 subsystem terminates with reason code 00F70001.

Operator Response: Restart DB2 with the correct system parameters load module.

System Programmer Response: Reassemble the system parameters load module and include the DSN6GRP macro.

DSN7001I *csect-name* **DATA SHARING SPECIFIED IN SYSTEM PARAMETERS, BUT NOT RUNNING ON A MVS SYSTEM LEVEL WHICH IS REQUIRED FOR DATA SHARING.**

Explanation: A DB2 subsystem was started with the data sharing option, but MVS is not at the required level. DB2 data sharing requires MVS Version 5 Release 1.0 or a later release.

System Action: The DB2 subsystem terminates with reason code 00F70002.

Operator Response: Restart DB2 on MVS Version 5 Release 1.0 or a later release.

DSN7100I *csect-name*

Explanation: This message indicates the beginning of the output from a DISPLAY GROUP command. It is the first line of a multi-line message response.

DSN7101I ***** BEGIN DISPLAY OF GROUP(***group-name***) GROUP LEVEL(***group-level***)**

Explanation: This message is a line of output from a DISPLAY GROUP command.

group-name is the name of the data sharing group.

group-level is a string of three numeric characters:

- Version
- Release
- Modification level

group-level is the highest release with which any DB2 in the data sharing group has ever been started.

DSN7102I **----------**

Explanation: This message is a line of output from a DISPLAY GROUP command.

DSN7103I **DB2 DB2 SYSTEM IRLM**

Explanation: This message is a line of output from a DISPLAY GROUP command.

DSN7104I **MEMBER ID SUBSYS CMDPREF STATUS LVL NAME SUBSYS IRLMPROC**

Explanation: This message is a line of output from a DISPLAY GROUP command.

MEMBER Name of the DB2 data sharing member.

ID Internally assigned ID for each data sharing member.

SUBSYS Subsystem name of the data sharing member.

CMDPREF Command prefix of the data sharing member.

STATUS State of the data sharing member which can be 'ACTIVE', 'FAILED', 'QUIESCED', 'QI', 'QR', 'QC', 'QIC', 'QIR', or 'QICR' where:

- Active status means the member is currently up and running.
- Failed status means the member has terminated abnormally.
- Quiesced status means the member is down normally.
- QI status means the member is down with indoubt URs.
- QR status means the member is down with resynchronization responsibility.
- QC status means the member is down with group buffer pool castout responsibility.
- QICR is a possible combination of the above quiesced states.

SYSTEM NAME Name of the MVS system on which the data sharing member runs.

LVL String of three numeric characters as follows:

- DB2 Version
- DB2 Release
- DB2 Modification level

IRLM SUBSYS The accompanied IRLM's subsystem name for this DB2.

IRLMPROC The accompanied IRLM's startup procedure name.

DSN7105I **-------- --- ---- -------- -------- --- -------- ---- --------**

Explanation: This message is a line of output from a DISPLAY GROUP command.

DSN7106I *member-name subsystem-name command-prefix member-status mvs-system-name irlm-subsystem-name irlm-procedure-name*

Explanation: This message is a line of output from a DISPLAY GROUP command. The *member-status* can be ACTIVE, QUIESCED, or FAILED.

QUIESCED This is a normal quiesced state, as the result of a normal STOP DB2 command.

Q The member is quiesced, but with additional conditions. Q (quiesced) can be paired with one or more of the following letters:

I Indoubt units of recovery (URs) are outstanding. This means retained locks are held.

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C There was a castout error. The last updated of the page set or partition could not write from the coupling facility to DASD.

Make sure there is connectivity from the coupling facility to DASD before restarting DB2.

R There is retained information needed for DB2 to perform resynchronization with one or more remote locations.

When DB2 is restarted, this resynchronization occurs.

The *subsystem-name*, *command-prefix*, *irlm-subsystem-name*, and *irlm-procedure-name* show '****' if this information is unknown.

DSN7107I GROUP ATTACH NAME(*group-attach***)**

Explanation: This message is a line of output from a DISPLAY GROUP command.

group-attach is the group attach name for the data sharing group.

DSN7108I NUMBER LOCK ENTRIES: *nnnnnnnnnn*

Explanation: This line of output from a DISPLAY GROUP command shows information about the LOCK1 coupling facility structure. The maximum number of lock table entries is displayed.

DSN7109I SCA STRUCTURE SIZE: *nnnnnn* **KB, STATUS =** *xx***, SCA IN USE:** < *nnn* **%**

Explanation: This message is a line of output from a DISPLAY GROUP command.

If the % value is > 0 but < 1, then a "<" character is shown before the 1 % value, e.g. "< 1 %". This can happen if the shared communications area (SCA) structure is very large or if only a small number of SCA entries are in use.

The SCA status can have following values:

IN SCA is in initialization phase.

AC SCA is active.

DS SCA loss of connectivity, delayed action started.

DC SCA loss of connectivity, delayed action completed.

QS SCA rebuild quiesce function started.

QC SCA rebuild quiesce function completed.

CS SCA rebuild connect function started.

CC SCA rebuild connect function completed.

OS SCA rebuild connect complete function started.

RS SCA rebuild resource manager invocation started.

RC SCA rebuild resource manager invocation completed.

OC SCA rebuild connect complete function completed.

LS SCA rebuild cleanup function started.

US SCA rebuild resource manager invocation started.

UC SCA rebuild resource manager invocation completed.

LC SCA rebuild cleanup function completed.

PS SCA rebuild process complete function started.

PC SCA rebuild process complete function completed.

SS SCA rebuild stop function started.

SC SCA rebuild stop function completed.

ES SCA rebuild stop complete function started.

EC SCA rebuild stop complete function completed.

VS SCA volatility change function started.

VC SCA volatility change function completed.

TE SCA is in termination phase.

DSN7110I LOCK1 STRUCTURE SIZE: *nnnnnnn* **KB, LOCK1 IN USE:** < *nnn* **%**

Explanation: This line of output from a DISPLAY GROUP command shows the size and the % in use value of the LOCK1 coupling facility structure.

If the % value is > 0 but < 1, then a "<" character is shown before the 1 % value, e.g. "< 1 %". This can happen if the LOCK1 structure is vary large or only a small number of LOCK1 entries are in use. The % value shown is based on the largest value of either "lock entries in use" or "list entries in use".

DSN7111I NUMBER LIST ENTRIES: *nnnnnnnnnn***, LIST ENTRIES IN USE:** < *nnnnnnnnnn*

Explanation: This line of output from a DISPLAY GROUP command shows information about the LOCK1 coupling facility structure. The maximum number of modify lock list entries and the number of those entries currently in use are displayed. (MVS documentation refers to these list entries as “record data.”)

DSN7112I * END DISPLAY OF GROUP(***group-name***)**

Explanation: This message is the last line of output from a DISPLAY GROUP command.

DSN7113I DISPLAY TERMINATED DUE TO INSUFFICIENT MESSAGE SPACE.

Explanation: There is not enough storage available to store the required information from this command.

System Action: The DB2 subsystem displays the group information, but some information is missing.

DSN7114I XCF OR STRUCTURE INFORMATION NOT AVAILABLE.

MVS *nnnnnnnn* **RETURN CODE=***xxxxxxxx***,**

MVS *nnnnnnnn* **REASON CODE=***yyyyyyyy***.**

Explanation: An error occurred during the query of the cross-system coupling facility (XCF) or CF structure information.

nnnnnnnn could be IXCQUERY or IXLMG.

System Action: The DB2 subsystem displays the group, but some XCF or coupling facility structure information is missing. Refer to *MVS/ESA Programming: Sysplex Services Reference* for an explanation of IXCQUERY or IXLMG return and reason codes.

DSN7120I DB2 PARALLEL PARALLEL

Explanation: This message is a line of output from a DISPLAY GROUP command with the DETAIL option.

This message is issued by the following CSECT: DSN7GCMD

DSN7121I MEMBER COORDINATOR ASSISTANT

Explanation: This message is a line of output from a DISPLAY GROUP command with the DETAIL option.

This message is issued by the following CSECT: DSN7GCMD

DSN7122I -------- ---------- ---------

Explanation: This message is a line of output from a DISPLAY GROUP command with the DETAIL option.

This message is issued by the following CSECT: DSN7GCMD

DSN7123I *member-name parallel-coordinator parallel-assistant*

Explanation: This message is a line of output from a DISPLAY GROUP command with the DETAIL option. This message is only issued for ACTIVE DB2 members that support Sysplex query parallelism.

This message is issued by the following CSECT: DSN7GCMD

parallel-coordinator Indicates whether this DB2 member can coordinate parallel processing.

parallel-assistant Indicates whether this DB2 member can assist with parallel processing.

The *parallel-coordinator* and *parallel-assistant* show '****' if this information is unknown (e.g. DB2 member is not ACTIVE).

DSN7401I *csect-name* **INCONSISTENT DATA SHARING PARAMETER DETECTED,** *parameter-name* **IN DB2 SYSTEM PARAMETERS (***sysparm-parm***) IS NOT EQUAL TO PARAMETER IN THE DB2 START-UP PROCEDURE (***start-parm***).**

Explanation: At least one data sharing parameter in the member's system parameters is not equal to the data sharing parameter value passed on the DB2 start-up procedure.

System Action: The DB2 subsystem terminates with reason code 00F70003.

Operator Response: Restart DB2 with the correct system parameters load module or inform the system programmer to change the DB2 start-up procedure.

System Programmer Response: Reassemble the system parameters load module. Make sure that the group name and the member name match the values in the DB2 start-up procedure, or correct the parameters on the DB2 start-up procedure.

DSN7403I *csect-name* **MEMBER(***member-name***) IS ALREADY ACTIVE ON SYSTEM(***mvs-system-name***).**

Explanation: The started DB2 subsystem is already active on another MVS system.

System Action: The DB2 subsystem terminates with reason code 00F70003.

Operator Response: If you want the DB2 subsystem to run on this MVS system, stop the DB2 subsystem on the other MVS. After the DB2 subsystem stops, restart the DB2 on this MVS.

DSN7404I *csect-name* **INVALID MEMBER(***member-name***) WAS FOUND IN DB2 XCF GROUP(***db2-group-name***). MEMBER HAS BEEN DELETED.**

Explanation: The invalid member was found in a DB2 data sharing group, which is a particular type of cross-system coupling facility (XCF) group. The invalid name *member-name* was found in data sharing group *db2-group-name* and was deleted. *member-name* might represent an unauthorized program, other than DB2 for MVS/ESA, that attempted to join the data sharing group.

System Action: The DB2 subsystem continues.

Operator Response: Report the occurrence of this message to your system programmer.

System Programmer Response: Investigate which unauthorized program joined the DB2 group and find its owner. This could indicate a security violation.

DSN7405I *csect-name* **MEMBER(***member-name***) UNABLE TO JOIN DATA SHARING GROUP(***group-name***),**

MVS IXCJOIN RETURN CODE=*xxxxxxxx***,**

MVS IXCJOIN REASON CODE=*yyyyyyyy***.**

Explanation: An unexpected error occurred when the data sharing DB2 member attempted to join the MVS cross-system coupling facility (XCF) data sharing group.

System Action: The DB2 subsystem terminates with reason code 00F70408.

Operator Response: Issue an MVS 'DISPLAY XCF,GROUP' command to ensure that XCF is functional; then try to restart the DB2 subsystem.

System Programmer Response: Refer to *MVS/ESA Programming: Sysplex Services Reference* for an explanation of the IXCJOIN return and reason codes.

DSN7406I *csect-name* **UNABLE TO QUERY DATA SHARING GROUP INFORMATION,**

MVS IXCQUERY RETURN CODE=*xxxxxxxx***,**

MVS IXCQUERY REASON CODE=*yyyyyyyy***.**

Explanation: An unexpected error occurred during the execution of the MVS IXCQUERY macro.

System Action: The DB2 subsystem terminates with reason code 00F70406.

Operator Response: Issue an MVS DISPLAY XCF,GROUP command to ensure that XCF is functional. Then try to restart the DB2 subsystem again.

System Programmer Response: Refer to *MVS/ESA Programming: Sysplex Services Reference* for an explanation of the IXCQUERY return and reason codes.

DSN7407I *csect-name* **AUTOMATIC RESTART MANAGER** *function* **FAILED.**

MVS IXCARM RETURN CODE = *xxxxxxxx***,**

MVS IXCARM REASON CODE = *yyyyyyyy***.**

Explanation: DB2 encountered an error using the specified MVS automatic restart manager (ARM) function.

System Action: DB2 continues. However, if DB2 abnormally terminates, the MVS ARM cannot automatically restart DB2.

System Programmer Response: Refer to *MVS/ESA Programming: Sysplex Services Reference* for the function, return code, and reason code from the IXCARM request.

DSN7408I *csect-name* **ARM EVENT EXIT FAILED.**

DB2 SUBSYSTEM *ssnm* **NOT RESTARTED.**

MVS IEFSSI RETURN CODE = *xxxxxxxx***,**

MVS IEFSSI REASON CODE = *yyyyyyyy***.**

Explanation: The DB2 ARM event exit encountered an error while attempting to define the DB2 subsystem to MVS.

System Action: The automatic restart of the DB2 subsystem is stopped.

System Programmer Response: Refer to *MVS/ESA Programming: Assembler Services Reference* for return and reason codes from the IEFSSI request. If the IEFSSI return code and reason code are 0, look in the console log for previous messages that indicate why the definition of the DB2 subsystem failed. You can manually start DB2 by using the -START DB2 command on any system where the DB2 subsystem is defined.

DSN7409I *csect-name* **MEMBER(***member-name***) UNABLE TO QUIESCE FROM DATA SHARING GROUP(***group-name***),**

MVS IXCQUIES RETURN CODE=*xxxxxxxx***,**

MVS IXCQUIES REASON CODE=*yyyyyyyy***.**

Explanation: An unexpected error occurred when the data sharing DB2 member attempted to place itself in an MVS cross-system coupling facility (XCF) quiesced state.

System Action: The DB2 subsystem termination continues.

Operator Response: Inform your system programmer.

System Programmer Response: Refer to *MVS/ESA Programming: Sysplex Services Reference* for an explanation of the IXCQUIES return and reason codes.

DSN7501A *csect-name* **SCA STRUCTURE** *sca-structure-name* **CONNECTIVITY FAILURE.**

Explanation: The specified DB2 member lost connectivity to the shared communication area (SCA) structure.

System Action: The specified DB2 disconnects from the SCA and terminates with reason code 00F70600.

Operator Response: Notify the system programmer.

System Programmer Response: Find out why the link from this central processor complex (CPC) to the SCA structure was lost. After fixing it, restart DB2.

DSN7502I *csect-name* **SCA STRUCTURE** *sca-structure-name* **FAILURE, ATTEMPT TO REBUILD IS IN PROGRESS.**

Explanation: The specified DB2 member detected the shared communications area (SCA) structure failure.

System Action: DB2 tries to rebuild the SCA structure on a coupling facility in the preference list for the coupling facility.

Operator Response: Wait for message DSN7503I or DSN7504A.

DSN7503I *csect-name* **SCA STRUCTURE** *sca-structure-name* **REBUILD SUCCESSFUL.**

Explanation: This member successfully connected to a shared communications area (SCA) structure on the same or an alternate coupling facility and completed restoration of its information in the shared communications area (SCA).

System Action: DB2 processing continues.

DSN7504I *csect-name* **SCA STRUCTURE** *sca-structure-name* **REBUILD UNSUCCESSFUL. REASON CODE =** *xx***.**

Explanation: This member has not successfully connected to a shared communication area (SCA) structure on an alternate coupling facility and completed restoration of its information in the shared communications area (SCA). This message follows message DSN7502I.

04 An operator requested to stop the rebuild process.

08 A DB2 resource manager requested to stop the rebuild process.

12 The new SCA structure failed during the rebuild process.

16 A DB2 member lost connectivity to the new SCA in the rebuild process.

20 An MVS service used during the rebuild process failed. A message was issued from the failed MVS service.

System Action: This DB2 member terminates with reason code 00F70601. Other members can continue processing.

System Programmer Response: See the termination code for more details.

DSN7505A *csect-name* **THERE IS A SHORTAGE OF FREE STORAGE IN SCA STRUCTURE** *sca-structure-name*

Explanation: The amount of free storage in the shared communications area (SCA) coupling facility structure is low. The SCA is 75 percent full. Because SCA storage space is required by some DB2 commands and processes, the availability of those processes might be affected. Completely running out of SCA storage can cause DB2 subsystem outages.

This message stays on the MVS console and is highlighted.

System Action: DB2 processing continues.

This message might remain highlighted and might not be automatically deleted in a pre SP5.2.1-JES3 environment.

Operator Response: If the message remains highlighted after the error situation is cleared up, manually delete the message from the console.

System Programmer Response: You can monitor the amount of SCA storage in use with the DISPLAY GROUP command.

You can free SCA storage by removing exception conditions. Another thing you can do is issue START DATABASE commands with the SPACENAM option or use the RECOVER utility to remove pages from the logical page list (LPL).

If you don't do anything to reclaim space, message DSN7512A appears when the SCA is 90 percent full.

DSN7506A *csect-name* **CONNECT TO THE SCA STRUCTURE** *sca-structure-name* **FAILED.**

MVS IXLCONN RETURN CODE=*xxxxxxxx***,**

MVS IXLCONN REASON CODE=*yyyyyyyy***.**

Explanation: DB2 cannot connect to the shared communications area (SCA) coupling facility structure.

System Action: DB2 startup terminates with reason code 00F70602.

System Programmer Response: DB2 uses the MVS IXLCONN service to connect to the SCA structure. Refer to *MVS/ESA Programming: Sysplex Services Reference* for return and reason codes from the IXLCONN request.

DSN7507I *csect-name* **SCA STRUCTURE** *sca-structure-name* **IS ALLOCATED IN A VOLATILE STRUCTURE.**

Explanation: The shared communications area (SCA) structure is volatile.

System Action: DB2 processing continues.

System Programmer Response: One DB2 issues this message whenever the structure has the volatile attribute. DB2 detects this either on the first connection to the SCA or on the attribute changes later. DB2 always requests a nonvolatile SCA. If this is not what you want, change the MVS CFRM administrative policy and request a rebuild of the SCA with the MVS SETXCF START,REBUILD command.

DSN7508I *csect-name* **ACCESS TO THE SCA STRUCTURE** *sca-structure-name* **FAILED.**

MVS IXLLIST RETURN CODE = *xxxxxxxx*,

MVS IXLLIST REASON CODE = *yyyyyyyy*.

Explanation: DB2 encountered an error in accessing the shared communications area (SCA) structure.

System Action: DB2 terminates with reason code 00F70603.

System Programmer Response: DB2 uses the MVS IXLLIST service to access the SCA structure. Refer to *MVS/ESA Programming: Sysplex Services Reference* for return and reason codes from the IXLLIST request.

DSN7509I *csect-name* **SCA STRUCTURE** *sca-structure-name* **IS ALLOCATED IN A NONVOLATILE STRUCTURE.**

Explanation: The SCA structure is now contained in a nonvolatile coupling facility structure.

System Action: DB2 processing continues.

DSN7510I *csect-name* **SCA STRUCTURE** *sca-structure-name* **REBUILD REQUEST RECEIVED, BUT SUBSYSTEM IS NOT READY TO PARTICIPATE.**

Explanation: The DB2 subsystem received a request from MVS to rebuild the shared communications area (SCA), but DB2 is not ready to participate in this process because DB2 startup has not yet completed.

System Action: DB2 terminates with reason code 00F70604. The SCA rebuild process might continue for other DB2s in the data sharing group.

Operator Response: Wait until the SCA rebuild process is finished and then start the failed DB2 again.

DSN7511I *csect-name* **RESPONSE TO MVS REBUILD COMPLETE OF SCA STRUCTURE** *sca-structure-name* **FAILED.**

MVS IXLREBLD RETURN CODE = *xxxxxxxx*,

MVS IXLREBLD REASON CODE = *yyyyyyyy*.

Explanation: DB2 encountered an error during the rebuild of the shared communications area (SCA) structure.

System Action: DB2 stops.

System Programmer Response: DB2 uses the MVS IXLREBLD service during the SCA structure rebuild. Refer to *MVS/ESA Programming: Sysplex Services Reference* for return and reason codes from the IXLREBLD request.

DSN7512A *csect-name* **THERE IS A CRITICAL SHORTAGE OF FREE STORAGE IN SCA STRUCTURE** *sca-structure-name*

Explanation: The amount of free storage in the shared communications area (SCA) coupling facility structure is critically low. The SCA is 90 percent full.

This message stays on the MVS console and is highlighted.

System Action: DB2 processing continues. However, DB2 limits use of SCA to critical information. Some utilities or commands that cannot be completed can cause one or more members of the group to come down.

This message might remain highlighted and might not be automatically deleted in a pre SP5.2.1-JES3 environment.

Operator Response: If the message remains highlighted after the error situation is cleared up, manually delete the message from the console.

System Programmer Response: You can monitor the amount of SCA storage in use with the DISPLAY GROUP command.

You can free SCA storage by removing exception conditions. Another thing you can do is issue START DATABASE commands with the SPACENAM option or use the RECOVER

utility to remove pages from the logical page list (LPL). Then restart any failed DB2s.

If your actions do not free up enough space, or if the problem continues to occur, you have the following options, depending on what level of MVS and the coupling facility control code you are running with:

- If all members of the group are running with MVS Version 5 Release 2 and with a coupling facility control code level greater than 0, issue the SETXCF START,ALTER command to increase the size of the SCA. The size you specify must be less than or equal to the maximum size defined the CFRM policy for the SCA structure.

  If the maximum size (SIZE in the CFRM policy) is still not big enough, take the actions described below for MVS Version 5 Release 1 systems.
- If any or all members of the group are running with MVS Version 5 Release 1 or with a coupling facility control code level of 0, increase the storage for the SCA in the CFRM policy. Then issue the MVS SETXCF START,REBUILD command to rebuild the structure.

Refer to *Data Sharing: Planning and Administration* for more detailed recovery information.

DSN7513I *csect-name* **SCA STRUCTURE** *sca-structure-name* **HAS ADEQUATE FREE STORAGE**

Explanation: The shared communications area (SCA) coupling facility structure has adequate free storage to function properly.

This message is shown in the following circumstances:

- After the SCA was rebuilt.
- After the SCA usage goes below 67%, after its usage was up to 75% or higher.

System Action: DB2 processing continues.

DSN7514I *csect-name* **RESPONSE TO AN MVS REBUILD RELATED EVENT FOR THE SCA STRUCTURE** *sca-structure-name* **FAILED.**

MVS IXLEERSP RETURN CODE = *xxxxxxxx***,**

MVS IXLEERSP REASON CODE = *yyyyyyyy***.**

Explanation: DB2 encountered an error during the rebuild of the shared communications area (SCA) structure.

System Action: DB2 terminates.

System Programmer Response: DB2 uses the MVS IXLEERSP service to respond to SCA structure rebuild. Refer to *MVS/ESA Programming: Sysplex Services Reference* for return and reason codes from the IXLEERSP request.

DSN8... Messages

DSN8000I REQUEST IS: *request*

Explanation: The input statement is listed as received.

This message is issued by the following CSECTs: DSN8BD3, DSN8BF3

System Action: The request is listed.

User Response: See if the input request is what you want.

DSN8001I *csect* **EMPLOYEE NOT FOUND**

Explanation: The 'I' or 'list' request found no employee data that match your request.

System Action: No employees are listed.

User Response: If no employee data was expected to be found, continue.

Problem Determination: If the error is unexpected, list the contents of the employee and department views VEMP and VDEPT to determine why the entry is missing.

DSN8002I *csect* **EMPLOYEE SUCCESSFULLY ADDED**

Explanation: Employee data was added as requested.

System Action: The request was executed successfully.

DSN8003I *csect* **EMPLOYEE SUCCESSFULLY ERASED**

Explanation: Data for an employee was erased as requested.

System Action: The request was executed successfully.

DSN8004I *csect* **EMPLOYEE SUCCESSFULLY UPDATED**

Explanation: Data for an employee was updated as requested.

System Action: The request was executed successfully.

DSN8005E *csect* **EMPLOYEE EXISTS ALREADY, ADD NOT DONE**

Explanation: A request was made to add data for a new employee, but the employee number already exists.

System Action: No employee data is added.

User Response: Display the existing employee data. If this is the desired employee, update the employee entry. Otherwise, choose a new employee number.

Problem Determination: List the contents of the employee view, VEMP, and the department view, VDEPT.

DSN8006E *csect* **EMPLOYEE DOES NOT EXIST, ERASE NOT DONE**

Explanation: The erase requested was not performed. The employee number requested was not present in the table.

System Action: No employee data is erased.

User Response: Determine if the employee data to be erased should exist. Verify that the correct search criteria and data were entered. If appropriate, correct the entries and continue processing.

Problem Determination: List the contents of the employee view, VEMP, and the department view, VDEPT.

DSN8007E *csect* **EMPLOYEE DOES NOT EXIST, UPDATE NOT DONE**

Explanation: The update requested was not performed. The employee number requested was not present in the table.

System Action: No employee data is updated.

User Response: Verify that the correct search criteria and data were entered.

Problem Determination: List the contents of the employee table (VPHONE, VEMPLP, or EMP) and see if the employee number to be updated is in the table. Correct the update request or the table.

DSN8008I *csect* **NO EMPLOYEE FOUND IN TABLE**

Explanation: No employees match the selection criteria.

System Action: No employee data is listed.

User Response: If no employee data was expected, continue processing.

Problem Determination: List the contents of the VPHONE view and the underlying tables.

DSN8011I *csect* **DEPARTMENT NOT FOUND**

Explanation: No departments match the selection criteria.

System Action: No departments are listed.

User Response: If no departments are expected to be found, continue.

Problem Determination: If the error is unexpected, list the contents of the department views VDEPT and VDEPMG1 and their underlying tables to determine why the entry is missing.

DSN8012I *csect* **DEPARTMENT SUCCESSFULLY ADDED**

Explanation: A department was added as requested.

System Action: The request was executed successfully.

DSN8013I *csect* **DEPARTMENT SUCCESSFULLY ERASED**

Explanation: Data for a department was erased as requested.

System Action: The request was executed successfully.

DSN8014I *csect* **DEPARTMENT SUCCESSFULLY UPDATED**

Explanation: Data for a department was updated as requested.

System Action: The request was executed successfully.

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DSN8015E *csect* **DEPARTMENT EXISTS ALREADY, ADD NOT DONE**

Explanation: You requested that a new department be added, but the department exists already.

System Action: No departments are added.

User Response: Display data for the existing department. If it is what you want, continue. If not, you can update data for this department or choose a new department id.

Problem Determination: If the error is unexpected, list the contents of the department views VDEPT and VDEPMG1 and their underlying tables to see if the data differs from what is expected.

DSN8016E *csect* **DEPARTMENT DOES NOT EXIST, ERASE NOT DONE**

Explanation: The erase request found no departments which match your request.

System Action: No department data is erased.

User Response: See if the department data to be erased should exist. Did you enter the correct combination of search criteria and data? If not, correct the entries and continue.

Problem Determination: If the error is unexpected, list the contents of the department views VDEPT and VDEPMG1 and their underlying tables to determine why the entry is missing.

DSN8017E *csect* **DEPARTMENT DOES NOT EXIST, UPDATE NOT DONE**

Explanation: The update request found no department data which matches your request.

System Action: No department data is updated.

User Response: See if the department data to be updated should exist. If you did not enter the correct combination of search criteria and data, correct the entries and continue.

Problem Determination: If the error is unexpected, list the contents of the department views VDEPT and VDEPMG1 and their underlying tables to determine why the entry is missing.

DSN8018I *csect* **CURRENT DEPARTMENT NOT FOUND**

Explanation: A request was made by a 'current' department to reference a 'higher' department. The 'current' department was not found.

System Action: No department data is processed.

User Response: If the 'current' department was not expected to exist, continue processing.

Problem Determination: List the contents of the department views VDEPMG1, VEMP, VASTRDE1, and VASTRDE2 and their underlying tables.

DSN8019E *csect* **NO HIGHER DEPARTMENT EXISTS**

Explanation: A request was made by a 'current' department to reference a 'higher' level of the department structure. A 'higher' level does not exist for the requested 'current' department.

System Action: No department data is processed.

User Response: If a 'higher' department was not expected to be found, continue processing.

Problem Determination: List the contents of the department views VDEPMG1, VEMP, VASTRDE1, and VASTRDE2 and their underlying tables.

DSN8021I *csect* **ACTIVITY NOT FOUND**

Explanation: No activities match the selection criteria.

System Action: No activity is listed.

User Response: If no activity was expected to be found, continue processing.

Problem Determination: List the contents of the activity views VPROJRE1, VACT, and VPROJACT and their underlying tables.

DSN8022I *csect* **ACTIVITY SUCCESSFULLY ADDED**

Explanation: An activity was added as requested.

System Action: The request was executed successfully.

DSN8023I *csect* **ACTIVITY SUCCESSFULLY ERASED**

Explanation: An activity was erased as requested.

System Action: The request was executed successfully.

DSN8024I *csect* **ACTIVITY SUCCESSFULLY UPDATED**

Explanation: An activity was updated as requested.

System Action: The request was executed successfully.

DSN8025E *csect* **ACTIVITY EXISTS ALREADY, ADD NOT DONE**

Explanation: The addition requested was not performed. The activity requested was already present.

System Action: No activity is added.

User Response: If the activity was expected to already exist, continue processing.

Problem Determination: List the contents of the activity views VPROJRE1, VACT, and VPROJACT and their underlying tables.

DSN8026E *csect* **ACTIVITY DOES NOT EXIST, ERASE NOT DONE**

Explanation: The erase requested was not performed. The activity requested was not found.

System Action: No activity is erased.

User Response: If the activity was not expected to be found, continue processing.

Problem Determination: List the contents of the activity views VPROJRE1, VACT, and VPROJACT and their underlying tables.

DSN8027E *csect* **ACTIVITY DOES NOT EXIST, UPDATE NOT DONE**

Explanation: The update requested was not performed. The activity requested was not found.

System Action: No activity is updated.

User Response: Determine if the activity to be updated should exist. Verify that the correct search criteria and data were entered. If appropriate, correct the entries and continue processing.

Problem Determination: List the contents of the activity views VPROJRE1, VACT, and VPROJACT and their underlying tables.

DSN8028I *csect* **ACTIVITY TYPE NOT FOUND, PLEASE ADD IT INTERACTIVELY**

Explanation: The add or update was not performed. The activity type entered was not found.

System Action: No activity is listed.

User Response: If the activity type was not expected to be found, add it interactively.

Problem Determination: List the contents of the activity view, VACT, and its underlying tables.

DSN8031I *csect* **PROJECT NOT FOUND**

Explanation: No projects match the selection criteria.

System Action: No projects are listed.

User Response: If no projects are expected to be listed, continue.

Problem Determination: If the error is unexpected, list the contents of the project view VPROJ and its underlying tables to determine why the entry is missing.

DSN8032I *csect* **PROJECT SUCCESSFULLY ADDED**

Explanation: A project was added as requested.

System Action: The request was executed successfully.

DSN8033I *csect* **PROJECT SUCCESSFULLY ERASED**

Explanation: A project was erased as requested.

System Action: The request was executed successfully.

DSN8034I *csect* **PROJECT SUCCESSFULLY UPDATED**

Explanation: The update was performed as requested.

System Action: The request was executed successfully.

DSN8035E *csect* **PROJECT EXISTS ALREADY, ADD NOT DONE**

Explanation: You requested that a new project be added, but the project exists already.

System Action: The request was not executed successfully.

User Response: Display the existing project. If it is what you want, continue. If not, you can update this project or choose a new project id.

Problem Determination: If the error was unexpected, list the contents of the project view VPROJ and its underlying tables to see if the data differs from what is expected.

DSN8036E *csect* **PROJECT DOES NOT EXIST, ERASE NOT DONE**

Explanation: The erase request found no project which matches your request.

System Action: No projects are erased.

User Response: See if the project to be erased should exist. Did you enter the correct combination of search criteria and data? If not, correct the entries and continue.

Problem Determination: If the error was unexpected, list the contents of the project view VPROJ and its underlying tables to determine why the entry is missing.

DSN8037E *csect* **PROJECT DOES NOT EXIST, UPDATE NOT DONE**

Explanation: The update request found no project which matches your request.

System Action: No projects are updated.

User Response: See if the project to be updated should exist. If you did not enter the correct combination of search criteria and data, correct the entries and continue.

Problem Determination: If the error is unexpected, list the contents of the project view VPROJ and its underlying tables to determine why the entry is missing.

DSN8038I *csect* **CURRENT PROJECT NOT FOUND**

Explanation: A request was made by a 'current' project to reference a 'higher' project. The 'current' project was not found.

System Action: No project data is processed.

User Response: If the 'current' project was not expected to be found, continue processing.

Problem Determination: List the contents of the project views VPROJRE1, VDEPT, VEMPPROJACT, VEMP, VSTAFAC1, VSTAFAC2, VPSTRDE1, and VPSTRDE2 and their underlying tables.

DSN8039E *csect* **NO HIGHER PROJECT EXISTS**

Explanation: A request was made by a 'current' project to reference a 'higher' level of the project structure. A 'higher' level does not exist for the requested 'current' project.

System Action: No project data is processed.

User Response: If a 'higher' project was not expected to be found, continue processing.

Problem Determination: List the contents of the project views VPROJRE1, VDEPT, VEMPPROJACT, VEMP, VSTAFAC1, VSTAFAC2, VPSTRDE1, and VPSTRDE2 and their underlying tables.

DSN8041I *csect* **STAFFING NOT FOUND**

Explanation: No project staffing matches the selection criteria.

System Action: No project staffing is listed.

User Response: If no project staffing was expected to be found, continue processing.

Problem Determination: List the contents of the project activity views VPROJRE1, VEMPPROJACT, VACT, and VEMP and their underlying tables.

DSN8042I *csect* **STAFFING SUCCESSFULLY ADDED**

Explanation: A project staffing was added as requested.

System Action: The request was executed successfully.

DSN8043I *csect* **STAFFING SUCCESSFULLY ERASED**

Explanation: A project staffing was erased as requested.

System Action: The request was executed successfully.

DSN8044I *csect* **STAFFING SUCCESSFULLY UPDATED**

Explanation: A project staffing was updated as requested.

System Action: The request was executed successfully.

DSN8045E *csect* **STAFFING EXISTS ALREADY, ADD NOT DONE**

Explanation: A request was made to add a project staffing, but the project staffing already exists.

System Action: No project staffing is added.

User Response: Display the existing project staffing. If this is the desired project staffing, update it. Otherwise, choose a new project staffing.

Problem Determination: List the contents of the project activity views VPROJRE1, VEMPPROJACT, VACT, and VEMP and their underlying tables.

DSN8046E *csect* **STAFFING DOES NOT EXIST, ERASE NOT DONE**

Explanation: The project staffing was not erased as requested.

System Action: No project staffing is erased.

User Response: Determine if the project staffing to be erased should exist. Verify that the correct search criteria and data were entered. If appropriate, correct the entries and continue processing.

Problem Determination: List the contents of the project activity views VPROJRE1, VEMPPROJACT, VACT, and VEMP and their underlying tables.

DSN8047E *csect* **STAFFING DOES NOT EXIST, UPDATE NOT DONE**

Explanation: The update was not performed because the project staffing requested was not found.

System Action: No project staffing is updated.

User Response: Determine if the project staffing to be updated should exist. Verify that the correct search criteria and data were entered. If appropriate, correct the entries and continue processing.

Problem Determination: List the contents of the project activity views VPROJRE1, VEMPPROJACT, VACT, and VEMP and their underlying tables.

DSN8051I *csect* **PROGRAM ENDED**

Explanation: The application program finished.

DSN8053I *csect* **ROLLBACK SUCCESSFUL, ALL UPDATES REMOVED**

Explanation: After any SQLWARNING or SQLERROR, all updates are removed via a ROLLBACK statement to prevent invalid updates.

System Action: The ROLLBACK was executed successfully.

User Response: Correct the prior error.

DSN8056I *csect* **NO MORE DATA TO DISPLAY**

Explanation: The last page of data has been displayed.

System Action: No more data is shown on screen.

User Response: If you expect no more data to be displayed, continue.

Problem Determination: If more displayed data is expected, list the contents of the view and the underlying tables to see if the data differs from what is expected.

DSN8057I *csect* **FURTHER ENTRIES IN TABLE - UPDATE POSSIBLE**

Explanation: More data exists beyond that shown on the screen.

System Action: No more data is shown on screen.

User Response: Update entries as needed.

DSN8058I *csect* **PRESS PA1 FOR NEXT PAGE / ENTER FOR SELECTION MENU**

Explanation: Press the PA1 key to see the data on the next page or press the ENTER key to return to the selection menu.

User Response: Press the PA1 key or the ENTER key depending on the function you want to perform.

DSN8060E *csect* **SQL ERROR, RETURN CODE IS: sqlcode**

Explanation: The SQL statement did not execute correctly. The 'sqlcode' can be found elsewhere in this manual. This may be an SQL error or an SQL warning.

System Action: The request was not executed successfully.

User Response: Refer to “Section 2. SQL Return Codes” on page 2-1 for more information about the error.

Problem Determination: Determine which SQL statement in

the application program caused the error and see if it is reproducible. Follow the diagnosis approach suggested for the sqlcode.

DSN8061E *csect* **ROLLBACK FAILED, RETURN CODE IS: sqlcode**

Explanation: The SQL ROLLBACK statement was not executed correctly.

System Action: The request was not executed successfully.

User Response: Refer to “Section 2. SQL Return Codes” on page 2-1.

Problem Determination: Determine which SQL statement in the application program caused the error and see if it is reproducible. Follow the diagnosis approach suggested for the sqlcode.

DSN8062E *csect* **AN OBJECT WAS NOT SELECTED**

Explanation: You did not specify an object code on the input line.

System Action: None.

User Response: Select one of the object codes listed on the panel.

DSN8064E *csect* **INVALID DL/I STC-CODE ON GU MSG:** *status-code*

Explanation: In attempting to get a message from IMS, an unexpected status-code was received.

System Action: The application program is terminated.

Problem Determination: Refer to the messages and codes manual for IMS/VS to determine the reason for the unexpected status code.

DSN8065E *csect* **INVALID DL/I STC-CODE ON ISRT MSG:** *status-code*

Explanation: In attempting to insert a message for IMS, an unexpected status-code was received.

System Action: The application program is terminated.

Problem Determination: Refer to the messages and codes manual for IMS/VS to determine the reason for the unexpected status code.

DSN8066E *csect* **UNSUPPORTED PFK OR LOGIC ERROR**

Explanation: The sample application found an unsupported program function key or logic error while trying to execute a request.

System Action: The request was not executed successfully.

User Response: Report the error in the application program.

DSN8067E *csect* **UNSUPPORTED SEARCH CRITERIA FOR OBJECT**

Explanation: You entered a search criteria value and an object value that do not find any selections.

System Action: The request was not executed successfully.

User Response: Enter new search criteria values.

Problem Determination: If the values you entered are expected to provide valid selections, check the contents of the view and the underlying tables to see if the data differs from what is expected. If after checking the view and the underlying tables, you find the search criteria values you entered should provide valid selections, the error is in the sample program. Report the error.

DSN8068E *csect* **INVALID REQUEST SHOULD BE 'L' OR 'U'**

Explanation: The input must begin with `'L'` or `'U'`.

System Action: The request is ignored.

User Response: Correct the input request.

DSN8069E *csect* **NO VALID SELECTIONS QUALIFY FOR THIS REQUEST**

Explanation: You entered a search criteria value and a data values that do not find any selections.

System Action: The request was not executed successfully.

User Response: Enter new search criteria values.

Problem Determination: If the criteria values you entered are expected to provide valid selections, check the contents of the view and the underlying tables to see if the data differs from what is expected. If after checking the view and the underlying tables, you find the search criteria values you entered should provide valid selections, the error is in the sample program. Report the error.

DSN8070E *csect* **VITAL DATA IS MISSING IN TABLE TOPTVAL**

Explanation: No valid entries exist in the table that contains possible valid entries.

System Action: The request was not executed successfully.

User Response: There is no valid entry you can enter. Report the error in the sample program.

DSN8072E *csect* **INVALID SELECTION ON SECONDARY SCREEN**

Explanation: You gave an invalid line number.

System Action: The request was not executed successfully.

User Response: You entered a number that is not in the list on the left under the heading NO for line number. Enter a valid number.

Problem Determination: If the line number you entered is in the list on the left under the heading NO for line number, then the error is in the sample program.

DSN8073E *csect* **SPECIFIED LINE-NUMBER NOT FOUND IN PREVIOUS SCREEN**

Explanation: You gave an invalid line number.

System Action: The request was not executed successfully.

User Response: You entered a number that is not in the list on the left under the heading NO for line number. Enter a valid number. If the line number is in the previous screen, then this is an error in the sample program. Report the error.

DSN8074E *csect* **DATA IS TOO LONG FOR SEARCH CRITERIA**

Explanation: You entered a data value that has too many characters for the type of search criterion you selected. For example, department ids have a maximum of 3 characters and most other ids have a maximum of 6 characters.

System Action: The request was not executed successfully.

User Response: Enter a data value with the correct number of characters.

DSN8075E *csect* **MESSAGE FORMAT ROUTINE ERROR, RETURN CODE IS:** *sqlcode*

Explanation: There is an error in the parameters passed to the SQLCA formatting routine, DSNTIAR.

System Action: The SQLCA could not be formatted properly.

User Response: This is an error in the program. Check the return code listing of DSNTIAR in Section 3 of *Application Programming and SQL Guide*. Report the error.

DSN8076E *csect* **VITAL DATA IS MISSING IN TABLE 'TDSPTXT'**

Explanation: No valid entries exist in the table that contains possible valid entries.

System Action: The request was not executed successfully.

User Response: There is no valid entry you can enter. Report the error in the application program.

DSN8079E CONNECTION TO DB2 NOT ESTABLISHED

Explanation: Sample programs DSN8SC3, DSN8SP3, and DSN8HC3 cannot be called directly from TSO. Instead, they must be called from the ISPF sample connection manager, DSN8SCM or DSN8SPM.

This message is issued by the following CSECTs:

DSN8SC3 DSN8SP3 DSN8HC3

System Action: The program ends.

User Response: Call the desired program through the connection manager, DSN8SCM or DSN8SPM.

DSN8080E APPLICATION TERMINATED WITH CALL ATTACH REASON CODE *reason-code*

Explanation: The call attachment facility service requested by the application program did not execute successfully.

This message is issued by the following CSECTs: DSN8SCM, DSN8SPM

System Action: The requested service is not executed.

User Response: Notify the system programmer.

System Programmer Response: Check the call attachment facility reason code.

Problem Determination: Follow the failure analysis procedures for the call attachment facility reason code.

DSN8081E RESULTS FROM THE CALL ATTACH TRANSLATE SERVICE

Explanation: The call attachment facility OPEN service that was requested from the application program did not execute successfully. The TRANSLATE service was requested to provide information about the OPEN failure.

This message is issued by the following CSECTs: DSN8SCM, DSN8SPM

System Action: The requested OPEN service was not executed.

User Response: Refer to “Section 2. SQL Return Codes” on page 2-1.

Problem Determination: Refer to “Section 2. SQL Return Codes” on page 2-1 for more information about the error.

DSN8082E THE DISCONNECT TERMINATED WITH REASON CODE *reason-code*

Explanation: The call attachment facility DISCONNECT service requested by the application program did not execute successfully.

This message is issued by the following CSECTs: DSN8SCM, DSN8SPM

System Action: The requested DISCONNECT service is not executed.

User Response: Notify the system programmer.

System Programmer Response: Check the call attachment facility reason code.

Problem Determination: Follow the failure analysis procedures for the call attachment facility reason code.

DSN8083E AN UNKNOWN SERVICE *service* **WAS REQUESTED**

Explanation: The user is requesting an invalid service.

This message is issued by the following CSECTs: DSN8SCM, DSN8SPM

System Action: The requested service was not executed.

User Response: Notify the system programmer.

System Programmer Response: The service request must be a valid call attachment facility service. Ensure that the request is one of the services supported by the call attachment facility.

Problem Determination: There is an error in the Sample Application Program.

DSN8200E *csect* **INVALID DEPARTMENT NUMBER, EMPLOYEE NOT ADDED**

Explanation: The employee number that is to be added refers to a department number that is not contained in the table DEPT.

System Action: The employee number is not added.

User Response: Ensure that the correct department number was entered.

Problem Determination: List the contents of the department table DEPT.

DSN8202E *csect* **EMPLOYEE NUMBER HAS DEPENDENT ROWS, NOT ERASED**

Explanation: The employee number to be erased is the same as a responsible employee number in the table PROJ or an employee number in the table EMPPROJACT. The employee number cannot be erased from the table EMP.

System Action: No employee data is erased.

User Response: Ensure that the correct employee number was entered.

Problem Determination: List the contents of the PROJ and EMPPROJACT tables.

DSN8203E *csect* **INVALID WORK DEPT, EMPLOYEE NOT UPDATED**

Explanation: The employee that is to be updated has a department number that is not contained in the table DEPT. The update cannot be completed.

System Action: No employee data is updated.

User Response: Ensure that the correct department number was entered.

Problem Determination: List the contents of the employee table DEPT.

DSN8210I *csect* **INVALID MGRNO, DEPARTMENT NOT ADDED**

Explanation: The department that is to be added has a manager number that is not contained in the table EMP. The add cannot be completed.

System Action: No department is added.

User Response: Ensure that the correct manager number was entered.

Problem Determination: List the contents of the employee table EMP.

DSN8212E *csect* **DEPARTMENT NUMBER HAS DEPENDENT ROWS, NOT ERASED**

Explanation: The department number that is to be erased is the same as a project department number in table PROJ. The department cannot be erased.

System Action: No department data is erased.

User Response: Ensure that the correct department number was entered.

Problem Determination: List the contents of the project table PROJ.

DSN8213E *csect* **INVALID ADMIN DEPT ID, DEPARTMENT NOT ADDED**

Explanation: The department that is to be added has a department number that is not contained in the table DEPT. The add cannot be completed.

System Action: No department is added.

User Response: Ensure that the correct department number was entered.

Problem Determination: List the contents of the employee table DEPT.

DSN8214E *csect* **INVALID MANAGER ID, DEPARTMENT NOT UPDATED**

Explanation: The department that is to be updated has a manager number that is not contained in the table EMP. The update cannot be completed.

System Action: No department data is updated.

User Response: Ensure that the correct manager number was entered.

Problem Determination: List the contents of the employee table EMP.

DSN8215E *csect* **INVALID ADMIN DEPT ID, DEPARTMENT NOT UPDATED**

Explanation: The department that is to be updated has a administrative department number that is not in the table DEPT. The update cannot be completed.

System Action: No department data is updated.

User Response: Ensure that the correct department number was entered.

Problem Determination: List the contents of the employee table DEPT.

DSN8216E *csect* **DEPT NOT AT SPECIFIED LOCATION, EMPLOYEE NOT ADDED**

Explanation: The employee number that is to be added refers to a department number whose LOCATION field in the DEPT table is different from that specified for the employee. The add cannot be completed.

System Action: No employee is added.

User Response: Ensure that the correct department number was entered.

Problem Determination: List the contents of the department table DEPT.

DSN8217E *csect* **DEPT NOT AT SPECIFIED LOCATION, EMP NOT UPDATED**

Explanation: The employee number that is to be updated refers to a department number whose LOCATION field in the DEPT table is different from that specified for the employee. The update cannot be completed.

System Action: No employee data is updated.

User Response: Ensure that the correct department number was entered.

Problem Determination: List the contents of the department table DEPT.

DSN8220E *csect* **INVALID PROJECT NUMBER, ACTIVITY NOT ADDED**

Explanation: The activity that is to be added contains a project number that is not contained in the table PROJ. The add cannot be completed.

System Action: The activity is not added.

User Response: Ensure that the correct project number was entered.

Problem Determination: List the contents of the project table PROJ.

DSN8222E *csect* **ACTIVITY HAS DEPENDENT ROWS, NOT ERASED**

Explanation: The activity that is to be erased from table PROJACT is the same as the corresponding activity in the table EMPPROJACT. The activity cannot be erased from the table PROJACT.

System Action: No activity data is erased.

User Response: Ensure that the correct activity was entered.

Problem Determination: List the contents of the PROJACT and EMPPROJACT tables.

DSN8223E *csect* **ACTIVITY HAS DEPENDENT ROWS, NOT UPDATED**

Explanation: A start date in table PROJACT is to be updated, but there is a project staffing for this activity in table EMPPROJACT. The start date in table PROJACT cannot be updated.

System Action: No activity data is updated.

User Response: Ensure that the correct start date was entered.

Problem Determination: List the contents of the project-activity-staffing table EMPPROJACT and project-activity table PROJACT.

DSN8230E *csect* **INVALID DEPARTMENT NUMBER, PROJECT NOT ADDED**

Explanation: The project that is to be added contains a department number that is not present in the table DEPT. The add cannot be completed.

System Action: No project is added.

User Response: Ensure that the correct department number was entered.

Problem Determination: List the contents of the department table DEPT.

DSN8231E *csect* **INVALID RESPONSIBLE ID, PROJECT NOT ADDED**

Explanation: The project that is to be added contains an employee number that is not contained in the table EMP. The add cannot be completed.

System Action: No project is added.

User Response: Ensure that the correct employee number was entered.

Problem Determination: List the contents of the employee table EMP.

DSN8233E *csect* **PROJECT NUMBER HAS DEPENDENT ROWS, NOT ERASED**

Explanation: A project number in table PROJ is to be erased, but it is the same as a project number in table PROJACT. The project cannot be erased from table PROJ.

System Action: No project is erased.

User Response: Ensure that correct project number was entered.

Problem Determination: List the contents of the PROJ and PROJACT tables.

DSN8235E *csect* **INVALID MAJOR PROJECT ID, PROJECT NOT ADDED**

Explanation: The project that is to be added contains a major project ID that is not contained in the table PROJ. The add cannot be completed.

System Action: No project is added.

User Response: Ensure that the correct major project number was entered.

Problem Determination: List the contents of the project table PROJ.

DSN8236E *csect* **INVALID ASSOCIATE DEPT ID, PROJECT NOT UPDATED**

Explanation: The project that is to be updated has a department number that is not contained in the table DEPT. The update cannot be completed.

System Action: No project data is updated.

User Response: Ensure that the correct department number was entered.

Problem Determination: List the contents of the department table DEPT.

DSN8237E *csect* **INVALID RESPONSIBLE ID, PROJECT NOT UPDATED**

Explanation: The project that is to be updated has a employee number that is not contained in the table EMP. The update cannot be completed.

System Action: No project data is updated.

User Response: Ensure that the correct employee number was entered.

Problem Determination: List the contents of the employee table EMP.

DSN8238E *csect* **INVALID MAJOR PROJECT ID, PROJECT NOT UPDATED**

Explanation: The project that is to be updated has a major project number that is not contained in the table PROJ. The update cannot be completed.

System Action: No project data is updated.

User Response: Ensure that the correct project number was entered.

Problem Determination: List the contents of the project table PROJ.

DSN8240E *csect* **INVALID EMPLOYEE NUMBER, STAFFING NOT ADDED**

Explanation: The staffing that is to be added refers to an employee number that is not present in table EMP. The add cannot be completed.

System Action: No staffing is added.

User Response: Ensure that the correct employee number was entered.

Problem Determination: List the contents of employee table EMP.

DSN8242E *csect* **INVALID PROJECT ACTIVITY DATA, STAFFING NOT ADDED**

Explanation: The staffing that is to be added refers to a project number, activity number, and start date that is not present in table PROJACT. The add cannot be completed.

System Action: No staffing is added.

User Response: Ensure that the correct project number, activity number, and start date were entered.

Problem Determination: List the contents of the project table PROJACT.

DSN8243E *csect* **INVALID START DATE, STAFFING NOT UPDATED**

Explanation: The start date given is not currently in the project-activity table PROJACT. The update cannot be completed.

System Action: No staffing data is updated.

User Response: Ensure that the correct start date was entered.

Problem Determination: List the contents of the project-activity table PROJACT and the project-activity-staffing table EMPPROJACT.

DSN9... Messages

DSN9000I KEYWORD *keyword-name* APPEARS MORE THAN ONCE

Explanation: The same keyword (specified in the messages as 'keyword-name') appears more than once in the command. This message will be issued for each occurrence of the keyword after the first.

This message is issued by the following CSECT: DSN9SCND

System Action: Processing for the command is terminated.

System Programmer Response: Correct the command by using the keyword only once, and reenter the command.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

DSN9001I KEYWORD *keyword-name* IS INVALID

Explanation: The keyword (specified in the message as 'keyword-name') is unknown or undefined. The keyword may be misspelled, or the keyword may not be applicable to the command being processed.

This message is issued by the following CSECT: DSN9SCND

System Action: Processing for the command is terminated.

System Programmer Response: Correct the keyword, and reissue the command.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

DSN9002I UNBALANCED PARENTHESES WERE FOUND FOLLOWING KEYWORD *keyword-name*

Explanation: An invalid combination of parentheses has been encountered following the keyword (specified in the message as 'keyword-name'). Parenthesis must be paired open and close, and a close parenthesis must follow an open parenthesis before another open parenthesis is encountered.

This message is issued by the following CSECT: DSN9SCND

System Action: Processing for the command is terminated.

System Programmer Response: Correct the error, and reissue the command.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

DSN9003I KEYWORD *keyword-name* PARAMETER CONTAINS UNBALANCED APOSTROPHES

Explanation: An odd number of apostrophes is present in a parameter. If the parameter is a quoted string, it must have one apostrophe at each end of the string. If an apostrophe is to appear within the string, two adjacent apostrophes must be entered. If the parameter is a hexadecimal value, it must be entered as X'hex characters'.

This message is issued by the following CSECT: DSN9SCND

System Action: Processing for the command is terminated.

System Programmer Response: Correct the error, and reissue the command.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

DSN9004I KEYWORD *keyword-name* RANGE (c) INCORRECTLY SPECIFIED

Explanation: The range for a keyword (specified in the message as 'keyword-name') was incorrectly specified using the syntax character specified in the message as 'c'. The standard syntax character used to denote a range is a colon (:). Either the ending limit of the range was omitted or a subset was specified within the range.

Examples of this error are LINE(1:) and GROUP(A*:B*).

Examples of a correctly specified range are LINE(1:3) and GROUP(A:B).

This message is issued by the following CSECT: DSN9SCND

System Action: Processing for the command is terminated.

System Programmer Response: Refer to *Command Reference* to verify that the command you are using allows a range for the given keyword. Correct the error, and reissue the command.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

DSN9005I KEYWORD *keyword-name* SUBSET (c) INCORRECTLY SPECIFIED

Explanation: The subset for a keyword (specified in the message as 'keyword-name') was incorrectly specified for use with the syntax character 'c' in the message. The standard syntax character used to denote a subset is an asterisk (*).

For example, consider a group of objects named BLACK, BLUE, GREEN, RED, and WHITE. You may either explicitly specify BLACK and BLUE, or you may specify BL*, meaning all members of the group whose names begin with BL. The character that follows the asterisk must be a blank, comma, close parenthesis, or colon.

Examples of such an error are NAME(BL*CK) and NAME(*LUE).

Examples of correct specification are NAME(BL*) and UNIT(2*).

This message is issued by the following CSECT: DSN9SCND

System Action: Processing for the command is terminated.

System Programmer Response: Refer to *Command Reference* to be sure that the command you are using allows a subset for the named keyword. Correct the error, and reissue the command.

Problem Determination: Obtain a copy of the system or terminal log to verify command entry.

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DSN9006I KEYWORD *keyword-name* **ASTERISK (c) INCORRECTLY USED**

Explanation: For the keyword specified in the message (as 'keyword-name'), an asterisk (c) was used as the first character of a parameter to specify ALL. However, the asterisk appears in a list, or the characters in juxtaposition are not a blank, comma, equal sign, or parentheses.

Examples of such errors are LINE(LINE1,*,LINE7), NAME(**), and GROUP(PQR:*).

Examples of correct specification are UNIT(*) and LINE=* etc.

This message is issued by the following CSECT: DSN9SCND

System Action: Processing for the command is terminated.

System Programmer Response: Refer to *Command Reference* to be sure the command you are using allows specification of ALL for the given keyword. Correct the error, and reissue the command.

Problem Determination: Obtain a copy of the system or terminal log to verify command entry.

DSN9007I THIS COMMAND REQUIRES ONE OF THE FOLLOWING KEYWORDS BE SPECIFIED, *keyword1 keyword2 keyword3 keyword4 keyword5 keyword6 keyword7 keyword8*

Explanation: One of the keywords identified in the list must be specified on this command, but none of these keywords was present.

This message is issued by the following CSECT: DSN9SCND

System Action: Processing for the command is terminated.

System Programmer Response: Identify the appropriate keyword from the list, include that keyword, and reissue the command. Refer to *Command Reference* for descriptions of the keywords.

Problem Determination: Obtain a copy of the system or terminal log to verify command entry.

DSN9008I KEYWORD *keyword-name* **MAY NOT BE NEGATED**

Explanation: The negation characters (NO) appear in front of the keyword (specified in the message as 'keyword-name'), but negating this keyword is not allowed. As an example, consider a keyword called PRINT that could indicate that you want something printed. If you did not want the material to be printed, you might specify NOPRINT. This process of prefixing a keyword with the characters NO is called negation. While negation may be meaningful on some keywords, it is not allowed on all keywords.

This message is issued by the following CSECT: DSN9SCND

System Action: Processing for the command is terminated.

System Programmer Response: Reenter the command, but do not negate the named keyword. Refer to *Command Reference* for further information concerning this command.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

DSN9009I KEYWORD *keyword-name* **IS MISSING AND MUST BE SPECIFIED**

Explanation: The keyword specified in the message (as 'keyword-name') must be present, but it was not entered. This keyword must be present in order for the command to process properly.

This message is issued by the following CSECT: DSN9SCND

System Action: Processing for the command is terminated.

System Programmer Response: Enter the command again, and include the specified keyword.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

DSN9010I REQUIRED PARAMETER FOR KEYWORD *keyword-name* **IS MISSING**

Explanation: A parameter must be specified for the keyword specified in the message (as 'keyword-name'), but no parameter was entered.

As an example of this error, consider a keyword called PRIORITY whose value can range from 0 to 9. Specification of PRIORITY(1) is acceptable, but, if you specify PRIORITY with no parameter value, the keyword is meaningless.

This message is issued by the following CSECT: DSN9SCND

System Action: Processing for the command is terminated.

System Programmer Response: Supply appropriate parameters for the specified keyword and reissue the command. Refer to *Command Reference* for valid parameter values.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

DSN9011I PARAMETER(S) CANNOT BE SPECIFIED FOR KEYWORD *keyword-name*

Explanation: No parameter(s) can be specified for the keyword specified in the message (as 'keyword-name'). You may have misspelled the keyword-name, causing it to be interpreted as a different keyword, or the parameter may actually belong with another keyword instead of the one on which you entered it.

This message is issued by the following CSECT: DSN9SCND

System Action: Processing for the command is terminated.

System Programmer Response: Correct the error, and reissue the command. Refer to *Command Reference* for details on how to enter the command.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

DSN9012I KEYWORD *keyword-name* **PARAMETER(S) MUST BE HEXADECIMAL**

Explanation: Parameter values for the keyword specified in the message (as 'keyword-name') must be hexadecimal values. The value must be specified as X'hex characters'. Hexadecimal characters are defined as the numeric digits 0 through 9 and the letters A through F. Either uppercase or lowercase is acceptable for the letters A through F.

As an example of this error, consider the keyword OFFSET, for which you are expected to enter a hexadecimal value. If you

enter OFFSET(X'2C'), it is acceptable. However, entering OFFSET(Jones) is not acceptable.

This message is issued by the following CSECT: DSN9SCND

System Action: Processing for the command is terminated.

System Programmer Response: Reissue the command, but ensure that the parameters for the named keyword are hexadecimal values.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

DSN9013I KEYWORD *keyword-name* **PARAMETER** *parameter value* **EXCEEDS ALLOWABLE LENGTH OF** *nn*

Explanation: The parameter value (specified in the message as 'parameter value') exceeds the limit of 'nn' characters in length.

As an example of this type of error, consider a PRIORITY keyword whose value may range from zero to nine. If you specify PRIORITY(21) or PRIORITY(006), the value you have entered exceeds the limit of one character.

This message is issued by the following CSECT: DSN9SCND

System Action: Processing for the command is terminated.

System Programmer Response: Refer to *Command Reference* for a list of acceptable parameters. Correct the error, and reissue the command.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

DSN9014I KEYWORD *keyword-name* **LIMIT OF** *nn* **PARAMETER(S) EXCEEDED**

Explanation: Too many parameters have been specified for the keyword that is specified in the message. The command processor does not accept more than the limit (specified in the message as 'nn') of parameters. This error is probably caused by entering too many parameters. It could also be caused by a missing close parenthesis that has not yet been detected.

This message is issued by the following CSECT: DSN9SCND

System Action: Processing for the command is terminated.

System Programmer Response: Reissue the command, and enter no more than the specified limit of parameters for the given keyword. If necessary, issue the command more than once to process all the desired parameter values. Refer to *Command Reference* for further details.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

DSN9015I PARAMETER *parameter-value* **IS UNACCEPTABLE FOR KEYWORD** *keyword-name*

Explanation: The parameter value specified in the message is not an acceptable value for the named keyword.

As an example, consider a keyword called PRINT that can have parameters of YES or NO. Specification of PRINT(YES) or PRINT(NO) is valid. However, specification of PRINT(MAYBE) is unacceptable.

This message is issued by the following CSECT: DSN9SCND

System Action: Processing for the command is terminated.

System Programmer Response: Refer to *Command Reference* for a list of acceptable parameters. Correct and reissue the command.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

DSN9016I *verb-name* **COMMAND REJECTED, UNAUTHORIZED REQUEST**

Explanation: The command specified in the message (as 'verb-name') requires that you have proper authorization in order to use the command. You do not have the required authorization.

This message is issued by the following CSECT: DSN9SCNP

System Action: The command is not executed. Processing is terminated.

Operator Response: If the command must be executed on behalf of the user and your installation operating procedures permit it, enter the command on request.

System Programmer Response: Contact the system programmer responsible for system security, and request that this person grant you authorization to use the command. Otherwise, you must have someone who is authorized issue the command for you. If necessary, request the system operator to enter the command for you.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

DSN9017I FAILURE WHILE PROCESSING *verb-name pkw-name* **COMMAND, PROCESSING TERMINATED**

Explanation: The DB2 command processor has abended while processing the command (specified in the message as 'verb-name pkw-name'). The error is been recorded in SYS1.LOGREC, and an SVC dump is requested. The command may have partially completed. Refer to any prior response messages to determine what has been done.

This message is issued by the following CSECT: DSN9SCNP

System Action: Processing for the command is terminated.

Operator Response: If a dump was produced, have it printed. Print a copy of the contents of the SYS1.LOGREC data set for the time period involved. Forward these items with a copy of the system log to the system programmer.

System Programmer Response: Reissue the command. If a second failure occurs, consult your supervisor.

Problem Determination: Obtain a copy of the system or terminal log to verify command entry. Contact the system operator to make sure that diagnostic information is forwarded to you.

DSN9018I *csect-name* **ABORTING** *verb-name* **PROCESSING DUE TO INSUFFICIENT STORAGE AVAILABLE**

Explanation: The command processor was unable to obtain sufficient storage to complete processing of any response messages generated by the invoked command.

This message is issued by the following CSECTs: DSN9SCN8, DSN9SCNF

System Action: Processing for the command is terminated abnormally.

Operator Response: Notify the system programmer before attempting to reissue the command.

System Programmer Response: Determine the reason for insufficient storage available to the command. If a cursory examination of the system indicates that the region sizes for DB2 are sufficient, and the current workload does not seem excessive, then a MVS Console dump (MVS DUMP command) may be required.

Insure that any retry steps defined by the command are performed prior to reissuing the command.

Problem Determination: The invoked command had completed processing and returned to the Command Preprocessor when an attempt was made to obtain storage from the address space from which the command was entered. Since sufficient storage was unavailable, no response messages from the invoked command are available.

DSN9019I VERB *verb-name* **IS NOT A KNOWN COMMAND**

Explanation: The command represented by the verb specified in the message is not known to the system; it is an undefined command. A possible cause for this error is that you made a spelling error while entering the command.

This message is issued by the following CSECT: DSN9SCND

System Action: Processing for the command is terminated.

System Programmer Response: Refer to *Command Reference* for the correct command format.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

DSN9020I ONLY ONE OF THE FOLLOWING KEYWORDS MAY BE SPECIFIED ON THIS COMMAND, *keyword1 keyword2 keyword3 keyword4 keyword5 keyword6 keyword7 keyword8*

Explanation: Only one of the identified keywords can be specified at the same time on this command.

This message is issued by the following CSECT: DSN9SCND

System Action: Processing for the command is terminated.

System Programmer Response: Identify the appropriate keyword from the list, include only that keyword, and reissue the command. Refer to *Command Reference* for descriptions of the keywords.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

DSN9021I VERB *verb-name* **REQUIRED KEYWORD IS MISSING**

Explanation: The command specified in the message (as 'verb-name') was entered, but at least one required keyword is missing. The command processor was unable to determine which keyword or keywords were missing.

This message is issued by the following CSECT: DSN9SCND

System Action: Processing for the command is terminated.

System Programmer Response: Refer to *Command Reference* for the proper format of the named command, and then reenter the command.

Problem Determination: Obtain a copy of the system or terminal log to verify command entry. If a failure is suspected, take a storage dump.

DSN9022I *csect-name verb-name pkw-name* **NORMAL COMPLETION**

Explanation: All synchronous processing for the command specified in the message as 'verb-name pkw-name' completed successfully. Any tasks executing asynchronously for the specified command might still be executing when this message is displayed.

System Action: Synchronous processing for the specified command is complete. Subsequent system actions defined by the command are documented in *Command Reference*.

DSN9023I *csect-name verb-name pkw-name* **ABNORMAL COMPLETION**

Explanation: The command specified in the message as 'verb-name pkw-name' completed unsuccessfully. The command issued one or more error messages before this message. The name of the CSECT that issued the message is shown at the beginning of the message as a diagnostic aid.

System Action: Processing for the command ended.

System Programmer Response: Proceed as indicated by previous error messages.

DSN9024I KEYWORD *keyword-name* **PARAMETER MAY NOT SPECIFY A RANGE OF VALUES**

Explanation: The parameter of the keyword specified in the message specifies a range using the colon operator, (for instance, 1:3), but a range of values is not allowed.

As an example, consider a keyword called CLASS. You might enter CLASS(1,2,3) to specify classes 1, 2, and 3, or you might enter CLASS(1:3). However, not all commands allow you to specify a range of values.

This message is issued by the following CSECT: DSN9SCND

System Action: Processing for the command is terminated.

System Programmer Response: Correct the keyword parameter, and reenter the command.

Problem Determination: Obtain a copy of the system or terminal log to verify command entry.

DSN9025I *csect-name verb-name pkw-name* **NORMAL COMPLETION FOR SYNCHRONOUS PHASE, AND IN PROGRESS FOR ASYNCHRONOUS PHASE.**

Explanation: All synchronous processing for the command specified as 'verb-name pkw-name' in this message completed successfully. Any tasks executing asynchronously for the specified command might still be executing when this message is displayed.

System Action: Synchronous processing for the specified command is complete. Subsequent system actions defined by the command that can occur during the asynchronous phase of command processing are documented in *Command Reference*.

DSN9026I KEYWORD *keyword-name* PARAMETER(S) MUST BE ALPHABETIC
DSN9027I KEYWORD *keyword-name* PARAMETER(S) MUST BE ALPHAMERIC
DSN9028I KEYWORD *keyword-name* PARAMETER(S) MUST BE NUMERIC

Explanation: Parameter values for the keyword (specified on these messages) must be of a specific type, such as all ALPHABETIC or all ALPHAMERIC / NATIONAL characters, or all NUMERIC values.

As an example of this type of error, consider the keyword NAME, where you are expected to enter a person's last name. If you enter NAME(Jones) it is acceptable, but if you enter NAME(Jon4s), it is not acceptable.

As a second example, consider a keyword WEIGHT that specifies a numeric weight. Entering WEIGHT(47) is acceptable, but entering WEIGHT(4u) is not.

These messages are issued by the following CSECT: DSN9SCND

System Action: Processing for the command is terminated.

System Programmer Response: Reissue the command but ensure that the parameters for the named keyword are of the required type.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

DSN9029I *csect-name* FAILURE WHILE PROCESSING A COMMAND

Explanation: A failure has been encountered while processing a command. The command may or may not have been executed. The error has been recorded in the system error log (the SYS1.LOGREC data set), and an SVC dump was attempted.

System Action: Processing for the command is terminated.

Operator Response: If a dump was produced, have it printed. Print a copy of the contents of the SYS1.LOGREC data set for the time period involved. Forward these items with a copy of the system log to the system programmer.

System Programmer Response: Reissue the command. If a second failure occurs, consult your supervisor or the system programmer.

Problem Determination: Obtain a copy of the system or terminal log to verify command entry. Contact the system operator to make sure that diagnostic information is forwarded to the system programmer.

DSN9030I KEYWORD *keyword-name* PARAMETER MAY NOT SPECIFY A SUBSET OF VALUES

Explanation: The parameter for the keyword specified in the message identifies a subset using the asterisk operator (for instance, ABC*), but a subset is not allowed.

As an example, consider a keyword called NAME, for which you can specify people's names. You might specify NAME(ROBERT ROBERTS ROBINSON) to enter three names, or you might specify NAME(ROB*) to indicate all names that begin with the characters ROB. However, not all commands allow you to specify a subset of values in this way.

This message is issued by the following CSECT: DSN9SCND

System Action: Processing for the command is terminated.

System Programmer Response: Correct the keyword parameter, and reenter the command.

Problem Determination: Obtain a copy of the system or terminal log to verify command entry.

DSN9031I SYNTAX ERROR DETECTED FOLLOWING KEYWORD *keyword-name*

Explanation: The text that follows the named keyword contains invalid syntax.

As an example, consider specification of CLASS==A. The double equal signs do not conform to the rules of syntax and make the keyword meaningless. This is just one example of invalid syntax. It is not practical to try to illustrate every possible error here. You could, however, correctly specify CLASS=A or CLASS(A).

This message is issued by the following CSECT: DSN9SCND

System Action: Processing for the command is terminated.

System Programmer Response: Examine the text following the named keyword to ensure that no errors were made as the command was entered. Ensure that you have followed the rules for command entry, and reenter the command.

Problem Determination: Obtain a copy of the system or terminal log to verify command entry.

DSN9032I REQUESTED FUNCTION IS NOT AVAILABLE

Explanation: An attempt was made to invoke a command processor that was not loaded. An example of this is invoking -START DDF or -STOP DDF when DDF is not loaded (not selected during the installation process).

This message is issued by the following CSECT: DSN9SCNP

System Action: The requested function is not performed.

User Response: Determine what function was requested. Do not invoke this function until DB2 is reinstalled and DDF is selected.

Problem Determination: Look at the console log to determine which command caused the error.

DSN9033I KEYWORD *name1* REQUIRES KEYWORD *name2*

Explanation: When keyword 'name1' is specified, keyword 'name2' must also be specified.

This message is issued by the following CSECT: DSN9SCND

System Action: Processing for the command terminates.

User Response: Resubmit the command with the missing keyword.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

DSN9034I THE TOTAL LENGTH OF COMMAND RESPONSE MESSAGES EXCEEDED ITS LIMIT. DISPLAY IS TERMINATED.

Explanation: The total length of all response messages returned from a single DB2 command exceeded the internal limit set by the system. The message chain was truncated. This message was appended at the end of the chain to inform the user of the termination of the report.

This message is issued by the following CSECT: DSN9SCNP

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Section 4. DB2 Codes 4-3

X'C1.....' Codes 4-5

X'C2.....' Codes 4-13

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X'F1.....' Codes 4-377

X'F3.....' Codes 4-379

X'F7.....' Codes 4-415

X'F9.....' Codes 4-419

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Section 4. DB2 Codes

This section contains DB2 abend reason codes and reason codes. In addition, this section contains DB2 instrumentation facility interface reason codes.

Conventions used in DB2 abend reason codes are described in “Section 1. Introduction” on page 1-1.

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X'C1.....' Codes

00C10002

Explanation: The DB2 call attachment facility control block (the CAB) indicated that a thread was present when it should not have been present.

This abend reason code is issued by the following CSECT: DSNACA00

User Response: Notify your system programmer.

System Programmer Response: Collect a DSNTRACE trace stream and request a SYSABEND or SYSUDUMP dump.

Problem Determination: This is probably a call attachment facility error.

00C10003

Explanation: The DB2 call attachment facility received control after a nonstandard entry that did not use the call attachment facility language interface.

This abend reason code is issued by the following CSECT: DSNACA00

User Response: Modify or repair your application so that DSNACA00, the main call attachment facility code will receive control only through the language interface.

Problem Determination: This is probably a user error.

00C10004

Explanation: The call attachment facility encountered an error retrieving a trace message during processing of a call attachment facility request.

This abend reason code is issued by the following CSECT: DSNACA00

User Response: Notify your system programmer.

System Programmer Response: Collect a DSNTRACE trace stream and request a SYSABEND or SYSUDUMP dump.

Problem Determination: This is probably a call attachment facility error.

00C10005

Explanation: The application program passed an ECB address of 0 to the call attachment facility on a CONNECT call. The trace message preceding the abend indicates whether the ECB was a start-up or termination ECB.

This abend reason code is issued by the following CSECT: DSNACA00

User Response: Correct the application program that makes the CONNECT call to DSNALI. Ensure that the CONNECT call uses a valid ECB address.

Problem Determination: See the Explanation above.

00C10201

Explanation: The application program passed two CONNECT calls to the call attachment facility (CAF) from the same TCB. The first CONNECT could have been either implicit or explicit.

This abend reason code is issued by the following CSECT: DSNACA00

User Response: You can continue processing with a corrected request.

Problem Determination: See the Explanation above.

00C10202

Explanation: The application program passed two OPEN commands to the call attachment facility (CAF) from the same TCB. The first OPEN could have been either implicit or explicit.

This abend reason code is issued by the following CSECT: DSNACA00.

User Response: You can continue processing with a corrected request.

Problem Determination: See the Explanation above.

00C10203

Explanation: A CLOSE command was issued when there was no active OPEN.

This abend reason code is issued by the following CSECT: DSNACA00

User Response: You can continue processing with a corrected request.

Problem Determination: See the Explanation above.

00C10204

Explanation: A DISCONNECT command was issued when there was no active CONNECT.

This abend reason code is issued by the following CSECT: DSNACA00

User Response: You can continue processing with a corrected request.

Problem Determination: See the Explanation above.

00C10205

Explanation: A TRANSLATE command was issued when the DB2 subsystem was not connected to the call attachment facility (CAF).

This abend reason code is issued by the following CSECT: DSNACA00

User Response: You can continue processing with a corrected request.

Problem Determination: See the Explanation above.

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00C10206

Explanation: One of the following conditions exists:

- The wrong number of parameters were issued.
- The end-of-list bit was off.

This abend reason code is issued by the following CSECT: DSNACA00

User Response: You can continue processing with a corrected request.

Problem Determination: See the Explanation above.

00C10207

Explanation: The application program passed an unrecognized function parameter to the call attachment facility (CAF).

This abend reason code is issued by the following CSECT: DSNACA00

User Response: You can continue processing with a corrected request.

Problem Determination: See the Explanation above.

00C10208

Explanation: The call attachment facility (CAF) received requests from the same TCB to CONNECT to the DB2 subsystem and to another subsystem.

This abend reason code is issued by the following CSECT: DSNACA00

User Response: You can continue processing with a corrected request.

Problem Determination: See the Explanation above.

00C10209

Explanation: The call attachment facility (CAF) received an explicit call to DSNALI from a DB2 stored procedure. This is not allowed.

This abend reason code is issued by the following CSECT: DSNACA00

User Response: You can continue processing with a corrected request.

00C10824

Explanation: The CAB is reset and a new connection may be made.

This abend reason code is issued by the following CSECT: DSNACA70

User Response: You can continue processing.

Problem Determination: See the Explanation associated with message DSNA824I.

00C10831

Explanation: The call attachment facility (CAF) has detected a release level incompatibility between itself and DB2. Either the current CAF or DB2 release levels do not support coexistence, or the SPE level of the lower level release does not meet the compatibility requirements for coexistence between the two releases.

This reason code is issued by the following CSECT: DSNACA70

System Action: The connection is not successful.

User Response: If you used JCL or a TSO logon procedure to invoke CAF, check to insure the correct DB2 libraries are defined in your JOBLIB and STEPLIB allocations. See your system programmer if you invoke CAF using procedures supplied by your system programmer.

Problem Determination: If CAF trace (DSNTRACE) is active, message DSNA831E will indicate the release levels of CAF and the DB2 subsystem.

00C12001

Explanation: The DB2 RRSAF attachment facility function AUTH SIGNON was invoked by a program that was not APF authorized. This condition can indicate a security violation.

System Action: The application is abended.

User Response: The AUTH SIGNON function can only be invoked from an APF authorized program. Either modify your program to use the RRSAF attachment facility function SIGNON which may be invoked from a non-authorized program, or contact your security administrator to make the changes required to make your program an APF authorized program.

Problem Determination: This is a user error.

This abend reason code is issued by the following CSECT: DSNARA00

00C12002

Explanation: An abend has occurred during an attempt to access the caller-provided subsystem name parameter while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The application is abended.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs, this register indicates which parameter caused the error.

This abend reason code is issued by the following CSECT: DSNARA00

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 49.

00C12003

Explanation: An abend has occurred during an attempt to access the caller-provided *ribptr* parameter while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The application is abended.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs, this register indicates which parameter caused the error.

This abend reason code is issued by the following CSECT: DSNARA00

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 49.

00C12004

Explanation: An abend has occurred during an attempt to access the caller-provided *eibptr* parameter while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The application is abended.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs, this register indicates which parameter caused the error.

This abend reason code is issued by the following CSECT: DSNARA00

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 49.

00C12005

Explanation: The DB2 RRSAF attachment facility received control after a nonstandard entry that did not use the call attachment facility language interface.

System Action: The application is abended.

User Response: Modify or repair your application so that DSNACA00, the main call attachment facility code, will receive control only through the language interface.

Problem Determination: This is probably a user error.

This abend reason code is issued by the following CSECT: DSNARA00

00C12006

Explanation: An abend has occurred during an attempt to access the caller-provided termination ECB parameter while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The application is abended.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs, this register indicates which parameter caused the error.

This abend reason code is issued by the following CSECT: DSNARA00

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 49.

00C12007

Explanation: An abend has occurred during an attempt to access the caller-provided startup ECB parameter while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The application is abended.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs, this register indicates which parameter caused the error.

This abend reason code is issued by the following CSECT: DSNARA00

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 49.

00C12008

Explanation: An abend has occurred during an attempt to access the caller-provided correlation parameter while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The application is abended.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs, this register indicates which parameter caused the error.

This abend reason code is issued by the following CSECT: DSNARA00

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 49.

00C12009

Explanation: An abend has occurred during an attempt to access the caller-provided accounting token parameter while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The application is abended.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs, this register indicates which parameter caused the error.

This abend reason code is issued by the following CSECT: DSNARA00

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 49.

00C12010

Explanation: An abend has occurred during an attempt to access the caller-provided accounting interval parameter while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The application is abended.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs, this register indicates which parameter caused the error.

This abend reason code is issued by the following CSECT: DSNARA00

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 49.

00C12011

Explanation: An abend has occurred during an attempt to access the caller-provided authid parameter while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The application is abended.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs, this register indicates which parameter caused the error.

This abend reason code is issued by the following CSECT: DSNARA00

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 49.

00C12012

Explanation: An abend has occurred during an attempt to access the caller-provided secondary authid parameter while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The application is abended.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs, this register indicates which parameter caused the error.

This abend reason code is issued by the following CSECT: DSNARA00

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 49.

00C12013

Explanation: An abend has occurred during an attempt to access the caller-provided ACEE parameter while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The application is abended.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs, this register indicates which parameter caused the error.

This abend reason code is issued by the following CSECT: DSNARA00

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 49.

00C12014

Explanation: An abend has occurred during an attempt to access the caller-provided plan name parameter while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The application is abended.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs, this register indicates which parameter caused the error.

This abend reason code is issued by the following CSECT: DSNARA00

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 49.

00C12015

Explanation: An abend has occurred during an attempt to access the caller-provided collection parameter while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The application is abended.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs, this register indicates which parameter caused the error.

This abend reason code is issued by the following CSECT: DSNARA00

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 49.

00C12016

Explanation: An abend has occurred during an attempt to access the caller-provided reuse parameter while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The application is abended.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs, this register indicates which parameter caused the error.

This abend reason code is issued by the following CSECT: DSNARA00

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 49.

00C12018

Explanation: An abend has occurred during an attempt to access the caller-provided user-id parameter while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The application is abended.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs, this register indicates which parameter caused the error.

This abend reason code is issued by the following CSECT: DSNARA00

00C12019

Explanation: An abend has occurred during an attempt to access the caller-provided applname parameter while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The application is abended.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs, this register indicates which parameter caused the error.

This abend reason code is issued by the following CSECT: DSNARA00

00C12019

Explanation: An abend has occurred during an attempt to access the caller-provided applname parameter while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The application is abended.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs, this register indicates which parameter caused the error.

This abend reason code is issued by the following CSECT: DSNARA00

00C12201

Explanation: The application program invoked IDENTIFY while it was already connected to DB2.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued by the following CSECT: DSNARA00

00C12202

Explanation: The application program invoked the CREATE THREAD function request while there was already a thread created.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued by the following CSECT: DSNARA00

00C12203

Explanation: A TERMINATE THREAD command was issued when there was no active thread.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued by the following CSECT: DSNARA00

00C12204

Explanation: The application issued a function request other than IDENTIFY when no connection with DB2 existed. Only IDENTIFY may be issued when a connection does not exist.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued by the following CSECT: DSNARA00

00C12205

Explanation: The task that invoked the DB2 RRSAF attachment facility function SWITCH TO has not yet been identified to the DB2 subsystem specified in the request.

System Action: The SWITCH TO function is performed.

User Response: Use IDENTIFY to connect to a DB2 subsystem before attempting to invoke any other function at the specified subsystem.

This reason code is issued by the following CSECTs: DSNARA00

00C12206

Explanation: One of the following conditions exists:

- The wrong number of parameters were issued.
- The end-of-list bit was off.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued by the following CSECT: DSNARA00

00C12207

Explanation: The application program either omitted the function name parameter or passed an unrecognized function parameter to the RRSAF.

System Action: The application is abended.

User Response: Modify or repair your application to pass a valid function request to RRSAF.

Problem Determination: This reason code is issued by the following CSECT: DSNARA00

00C12208

Explanation: The application program issued an IDENTIFY function request but omitted the *ribptr* parameter from the parameter list. An *ribptr* parameter is a required parameter on an IDENTIFY request.

System Action: The IDENTIFY request is rejected.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued by the following CSECT: DSNARA00

00C12209

Explanation: The application program issued an IDENTIFY function request but omitted the *eibptr* parameter from the parameter list. An *eibptr* parameter is a required parameter on an IDENTIFY request.

System Action: The IDENTIFY request is rejected.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued by the following CSECT: DSNARA00

00C12212

Explanation: The application program issued a CREATE THREAD function request and did not specify a plan name and also did not specify a collection name. If a plan name is not provided, then a collection name must be supplied.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued by the following CSECT: DSNARA00

00C12214

Explanation: The application program issued a TRANSLATE function request but omitted the *sqlca* parameter from the parameter list. An sqlca parameter is a required parameter on a TRANSLATE request.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued by the following CSECT: DSNARA00

00C12216

Explanation: The application program issued an SQL or IFI function request without a DB2 connection. SQL or IFI requests cannot be issued until IDENTIFY, SIGNON and CREATE THREAD processing have been completed.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued by the following CSECT: DSNARA00

00C12217

Explanation: The application program issued a CREATE THREAD function request without having completed SIGNON processing. At least one successful SIGNON must be completed before a CREATE THREAD request can be issued.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued by the following CSECT: DSNARA00

00C12218

Explanation: The application program issued an SQL or IFI function request without completing SIGNON and CREATE THREAD processing. SQL or IFI requests cannot be issued until SIGNON and CREATE THREAD processing is complete.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued by the following CSECT: DSNARA00

00C12219

Explanation: The application program issued an SQL or IFI function request without completing CREATE THREAD processing. SQL or IFI requests cannot be issued until CREATE THREAD processing is complete.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued by the following CSECT: DSNARA00

00C12822

Explanation: The RRSAF received an explicit call to DSNRLI from a DB2 stored procedure. This is not allowed.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued by the following CSECT: DSNARA00

00C12823

Explanation: An attempt was made to initiate a stored procedure for a task, but one already exists. This is not allowed.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued by the following CSECT: DSNARA00

00C12824

Explanation: The previous connection to DB2 has been terminated. Cleanup processing was performed and the RRSAF is now ready to process additional IDENTIFY requests.

User Response: You can continue processing, and issue an IDENTIFY request.

Problem Determination: This reason code is issued by the following CSECT: DSNARA00

00C12825

Explanation: An attempt was made to terminate a stored procedure for a task, but no stored procedure exists. This is not allowed.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued by the following CSECT: DSNARA00

00C12831

Explanation: The release of the RRSAF code is not compatible with the earlier release of the DB2 program.

System Action: The connection is not made.

User Response: Ensure that the release of the RRSAF library is not later than the release of DB2 to which you are attempting to connect.

Problem Determination: This problem can be caused by improper DB2 data set allocation in a LOGON procedure or CLIST.

This reason code is issued by the following CSECT: DSNARA70

X'C2.....' Codes

00C20021

Explanation: A member of a DB2 data sharing group was unable to perform a global drain because a physical close failure occurred in a peer DB2 due to an exceptional state or CASTOUT process failure. DSNT501I is sent to the console to report the condition.

System Action: A 'resource not available' return code, reason code, and object name are sent back to the requesting function.

This returned reason code is issued by the following CSECT: DSNB1LDA

00C20031

Explanation: An attempt to acquire a page latch in either shared mode or exclusive mode was rejected due to a time-out on the agent's wait time.

System Action: A 'resource not available' return code, reason code, and object name are sent back to the requesting function.

System Programmer Response: A diagnostic dump with reason code 00C2010F should follow 00C20031.

This reason code is issued by the following CSECTs: DSNB1LTX, DSNB1LTS

00C20069 .

Explanation: DB2 is unable to perform the drain function on an object (a table space, an index space, or a partition) because a DB2 member in the data sharing group was in the process of restarting.

System Action: If the problem was encountered by DB2 when trying to automatically recover a group buffer pool recovery pending (GRECP) object following the failure of a group buffer pool (GBP), then DB2 issues message DSNB350I or DSNB351I to the console with this reason code indicating that the object cannot be automatically recovered.

Otherwise, a 'resource not available' return code, reason code and object name are sent back to the requesting function. DSNT501I is sent to the console to report the condition.

System Programmer Response: If DSNB350I or DSNB351I messages were issued, wait for the failed DB2 member to complete its restart processing and then recover the GRECP objects as indicated in the "System Programmer Response" for DSNB350I or DSNB351I.

00C2006A

Explanation: DB2 was unable to perform the drain function on an object (table space, index space, or partition) because the object was held by one or more indoubt threads.

System Action: If the problem was encountered by DB2 when trying to automatically recover a group buffer pool recovery pending (GRECP) object following the failure of a group buffer pool (GBP), then DB2 issues message DSNB350I or DSNB351I to the console with this reason code indicating that the object cannot be automatically recovered.

System Programmer Response: Use the DB2 DISPLAY DB CLAIMERS command to find the indoubt threads. If the threads have been left indoubt because DB2 or a transaction manager was unable to automatically resolve the indoubts, you can use the DB2 RECOVER INDOUBT command to resolve the indoubt thread and remove the indoubt claimer on the object (the DB2 RECOVER INDOUBT command should only be used when automatic resolution does not work).

If DSNB350I or DSNB351I messages were issued, then after you resolve the indoubt threads, recover the GRECP objects as indicated in the "System Programmer Response" for DSNB350I or DSNB351I.

00C200A1

Explanation: This is a DB2 internal error. The caller of the buffer manager (BM) is trying to release a page latch that is not currently held.

This abend reason code is issued by the following CSECTs:

DSNB1REL	DSNB1RWI	DSNIB	DSNICLAP
DSNICUMW	DSNICUR	DSNIDILS	DSNIDLEO
DSNIFFRE	DSNIFNP	DSNIGLOK	DSNILGBW
DSNILREP	DSNILSMG	DSNIMSCU	DSNIMS1W
DSNIOSL2	DSNIOW	DSNIPOCI	DSNIRELS
DSNIRELU	DSNIREPR	DSNIRFNX	DSNISEGD
DSNISEGF	DSNISFS	DSNISFXL	DSNISGAU
DSNISGFO	DSNISGNS	DSNISGRT	DSNISGSU
DSNISMFO	DSNISMRT	DSNISMSU	DSNIUPPR
DSNIUSME	DSNI1OP		

System Action: The requesting application process is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00C200A2

Explanation: This is a DB2 internal error. The caller of the buffer manager (BM) is trying to get a page latch that is currently held on the requesting page.

This abend reason code is issued by the following CSECTs:

DSNB1GET	DSNB1SWS	DSNB1GNV	DSNBLTCH
DSNIB	DSNICLAP	DSNICUMW	DSNICUR
DSNIDEFR	DSNIFFRE	DSNIFNP	DSNIGLOK
DSNILSMG	DSNILSMU	DSNIMS1W	DSNIRELS
DSNIRELU	DSNIREPR	DSNIRFNX	DSNIRNXT
DSNISEGF	DSNISFS	DSNISFXL	DSNISGAU
DSNISGFO	DSNISGNS	DSNISGRT	DSNISMRT
DSNIUSME	DSNI1OP		

System Action: The requesting application process is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

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Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00C200A3

Explanation: This is a DB2/MVS internal error. The execution unit driving a buffer manager (BM) asynchronous function, which would normally run indefinitely, has been canceled. However, work being done by the execution unit is allowed to complete before the execution unit terminates.

This abend reason code is issued by the following CSECTs:

DSNB1CMS DSNB5COM DSNB5RAP

System Action: The affected asynchronous function is terminated. If the affected function is the deferred write processor (DSNB1CMS), DB2 is abended with the abend code '00C200D3'.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump. Start DB2 if it is abended.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00C200A4

Explanation: This code usually indicates a problem internal to DB2; however, the problem can result from errors in other products. An unexpected reason code was returned by the media manager function when it was invoked to process a database I/O request.

System Action: The requesting execution unit is abended.

User Response: Notify the system programmer and rerun the application.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The unexpected media manager reason code is saved in register 8.

Check the MVS console log for an IOS error message indicating the type of I/O error that occurred. If an IOS message was issued, follow the problem determination directions for that message.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 10, 12.

This abend reason code is issued by the following CSECTs:

DSNB5COM DSNB5FOR DSNB5RAP DSNB5RDP DSNB5PCO

00C200A5

Explanation: Typically, this indicates a problem internal to DB2; however, the problem can result from errors in other products. DB2 was unable to drain a page set in preparation for page set cleanup processing. This might be caused by one of the following:

- An IRLM out-of-storage condition
- An internal error in the lock acquisition function

This abend reason code is issued by the following CSECT: DSNB1CFC

System Action: The execution unit driving this function proceeds normally. The abend status is recorded in SYS1.LOGREC.

Operator Response: Notify the system programmer and print the SYS1.LOGREC.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem. Restart DB2.

Problem Determination: The unexpected reason code returned by the drain function in register 8 might help determine the cause of the problem. If the problem is caused by an unavailable DB2 resource, message DSNT500I might also be issued.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5.

00C200A6

Explanation: This is a DB2/MVS internal error. The execution unit scheduled by the buffer manager (BM) subcomponent of DB2 to drive the page set cleanup function has been canceled.

This abend reason code is issued by the following CSECT: DSNB1CFC

System Action: DB2 is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump. Restart DB2.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Refer to similar reason code '00E50013'.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00C200A8

Explanation: An error code other than timeout, insufficient storage, or an MVS system error was returned by the IRLM LOCK request invoked by DB2 to acquire any of the following locks:

- SYSLGRNG or SYSLGRNX recording lock on a table space
- Group buffer pool-dependent conversion lock on a page set or partition
- Group buffer pool start or stop lock
- ALTER BUFFERPOOL lock

This is a DB2 or IRLM internal error.

System Action: The requesting execution unit abends.

User Response: Notify the system programmer and rerun the application.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECTs: DSNB1SCR, DSNB1DLK

00C200A9

Explanation: A return code greater than 4 was returned by the IRLM UNLOCK request invoked by DB2 to release any of the following locks:

- SYSLGRNG or SYSLGRNX recording lock on a table space
- Group buffer pool dependent conversion lock on a page set or partition
- Group buffer pool start or stop lock
- ALTER BUFFERPOOL lock.

This is a DB2 or IRLM error.

System Action: The requesting execution unit is abended.

User Response: Notify the system programmer and rerun the application.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The unexpected IRLM reason code is saved in register 8. It might help determine the cause of the error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

This abend reason code is issued by the following CSECTs: DSNB1SCR, DSNB1DLK

00C200AA

Explanation: This is a DB2 internal error. The caller of the buffer manager (BM) is trying to change a page latch type, but the requesting agent already holds this latch type on this page.

This abend reason code is issued by the following CSECT: DSNBCLTH

System Action: The requesting application process is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00C200AB

Explanation: This is a DB2 internal error. The caller of the buffer manager (BM) is trying to get another page latch, which would cause the total number of page latches held by the caller to exceed the maximum allowable number of 2.

This abend reason code is issued by the following CSECTs: DSNBLTCH DSNB2LTH

System Action: The requesting application process is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00C200AD

Explanation: This is a DB2 internal error. The caller of the buffer manager (BM) is trying to get a page latch for a page that belongs to one type of page set (index or data). However, the caller already holds a page latch on another page that belongs to a different type of page set.

This abend reason code is issued by the following CSECT: DSNB2LTH

System Action: The requesting application process is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00C200AE

Explanation: This is a DB2 internal error. The caller of the buffer manager (BM) is trying to get a page latch on a page for which there are latch waiters, but no latch holders.

This abend reason code is issued by the following CSECTs: DSNB1LTS DSNB1LTX

System Action: The requesting application process is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00C200AF

Explanation: This is a DB2 internal error. The caller of the buffer manager(BM) is attempting to update a page under the critical mode without holding an exclusive latch on the page.

This abend reason code is issued by the following CSECT: DSNB1SWS

System Action: The requesting application process is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00C200B0

Explanation: Typically, this indicates a problem internal to DB2, however the problem can result from errors in other products. The buffer address passed by the buffer manager (BM) invokers does not contain the requested page. The buffer manager detected this error by comparing the information stored in the buffer control block (BB) with the information passed with the buffer manager by its invokers. The information that is compared is the page set piece block, the page number, and the buffer address.

This abend reason code is issued by the following CSECTs:

DSNB1REL	DSNB1RWI	DSNB1SWS
DSNB1GNV	DSNB5COM	

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination:

The following general purpose registers (GPRs) contain the indicated diagnostic information:

GPR	Content
7	Address of the page buffer
8	Address of the page set block (PB)

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 10, 12.

00C200B1

Explanation: This is a DB2 internal error. Either the buffer manager (BM) subcomponent of DB2 is unable to locate the requesting page in the buffer pool or the invoker of the buffer manager is attempting to decrease the buffer use count which is already 0.

This abend reason code is issued by the following CSECTs:

DSNB1REL	DSNB1RWI	DSNB1SWS

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00C200B2

Explanation: This is a DB2 internal error. The buffer's write intent count is already 0 and the buffer manager (BM) invoker is attempting to decrease it.

This abend reason code is issued by the following CSECT: DSNB1RWI

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00C200B3

Explanation: This is a DB2 internal error. The buffer manager (BM) subcomponent of DB2 is unable to open a page set required by the requesting function. The page size or the page set piece size passed by the buffer manager invoker is invalid. The page set piece size is expressed by n, where 2 to the power of n is the total number of pages that can be contained within a page set piece. This error was detected during open page set processing.

This abend reason code is issued by the following CSECT: DSNB1OPS.

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00C200B4

Explanation: This is a DB2 internal error. The buffer manager (BM) subcomponent of DB2 is unable to open a page set required by the requesting function. The highest page set piece number passed by the buffer manager invoker exceeds the maximum value allowed. The maximum number of data sets that can be defined for a given page set is dependent on the page set piece size. This error was detected during open page set processing.

This abend reason code is issued by the following CSECT: DSNB1OPS

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00C200B5

Explanation: This is a DB2 internal error. The buffer manager (BM) subcomponent of DB2 is unable to open a page set required by the requesting function. During the open page set processing, the page set options passed by the buffer manager invoker were in conflict with the same page set that was opened earlier. The page set options are the writing protocol (SYSTEM or UW), the recovery option (recoverable or unrecoverable), and the page size.

This abend reason code is issued by the following CSECT: DSNB1OFA

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00C200B6

Explanation: Typically, this indicates a problem internal to DB2; however, the problem can result from errors in other products. The buffer manager (BM) subcomponent of DB2 is unable to reallocate a data set that is required after extending a data set to a new volume. The data set reallocation was requested and the corresponding data set was not opened. This error was detected during open page set piece processing.

This abend reason code is issued by the following CSECT: DSNB1OPP

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 10, 12.

00C200B7

Explanation: Typically, this indicates a problem internal to DB2; however, the problem can result from errors in other products. The buffer manager (BM) subcomponent of DB2 is unable to open a page set required by the requesting function. The linear page set was not formatted contiguously. This error was detected during open page set processing.

This abend reason code is issued by the following CSECT: DSNB1OPS

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 10, 12.

00C200B8

Explanation: This is a DB2 internal error. DB2 is unable to update the SYSLGRNG or SYSLGRNX page set. The utility returned an unexpected reason code.

This abend reason code is issued by the following CSECT: DSNB1SWS

System Action: A 'resource not available' code is returned. This reason code and the table space name are recorded in the cursor table (CT) and made available to the user in the SQLCA or in messages.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5.

00C200BA

Explanation: This is a DB2 internal error. DB2 has encountered an unexpected error while attempting to access a system page of a page set.

This abend reason code is issued by the following CSECTs: DSNB1CPP, DSNB1OPP

System Action: The requesting execution unit is abended. The SVC dump and the SYS1.LOGREC recording are requested.

Operator Response: Notify the system programmer, print the SYS1.LOGREC and the SVC dump.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for failure for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00C200BB

Explanation: This is a DB2 internal error to indicate that an invalid buffer pool ID is specified.

This abend reason code is issued by the following CSECT: DSNBRBPA

System Action: The requesting application process is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00C200BC

Explanation: This is a DB2 internal error. The Buffer Manager (BM) subcomponent of DB2 has discovered that the BM invoker is attempting to release the page which does not belong to the work file database.

This abend reason code is issued by the following CSECT: DSNB1REL

System Action: The requesting execution unit is abnormally terminated.

Operator Response: Notify the system programmer, and print the SYS1.LOGREC and the SVC dump.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5.

00C200BD

Explanation: This is a DB2 internal error. The caller of the buffer manager (BM) is still holding a page latch on the page which is currently being released by the application.

This abend reason code is issued by the following CSECT: DSNB1REL

System Action: The requesting application process is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00C200BE

Explanation: This is a DB2 internal error. The buffer manager (BM) is trying to dequeue a page latch waiter from the wait queue, but there are no waiters.

This abend reason code is issued by the following CSECTs: DSNB1CLT DSNB1ULT

System Action: The requesting application process is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00C200C0

Explanation: DB2 is unable to perform I/O processing for the requesting function. An error code (other than a permanent I/O error) was returned by the media manager during the I/O backend processing.

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The unexpected media manager reason code is saved in register 8. It might help determine the cause of the failure.

Check the MVS console log for an IOS error message indicating the type of I/O error that occurred. If an IOS message was issued, follow the problem determination directions for that message.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 10, 12.

This abend reason code is issued by the following CSECTs:

DSNB5COM DSNB5FOR DSNB5RAP DSNB5PCO DSNB5RDP

00C200C1

Explanation: The page version number in the database page header is outside the valid range of values. This can be caused by one of the following:

- Copying data sets improperly from another DB2 subsystem.
- In a CREATE TABLESPACE statement, specifying a VCAT catalog name that is the same as the name of an object in another DB2 subsystem on the same processor.
- Conditionally starting DB2 to a prior time with an invalid RBA range.
- Incorrect use of the REPAIR utility (modifying the page RBA).
- The page was damaged by a DB2 system error.

• TOD clock values are out of synch between systems in a Parallel Sysplex.

System Action: The requesting execution unit is abended. If DSNB1SWS issues the ABEND, then it is preceded by a DSNT500I message indicating which page is in error and a DSNI004I message indicating the page set is put in STOPE mode.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

User Response: One of the following:

- If the data set was copied from another DB2 subsystem, run DSN1COPY with the RESET option to set the log RBAs in each page to 0.
- If a table space was created with the wrong VCAT catalog name, drop the object and create it again.
- If DB2 was conditionally started with an invalid RBA range, correct the RBA range and restart DB2 with conditions again.
- If the page was damaged by the REPAIR utility, restore it with the RECOVER utility using the PAGE option.
• If you are running data sharing, check the counnectivity of the system to the sysplex timers. The TOD clock values of all systems in the sysplex should all be within one microsecond. TOD clock values will not drift more than one microsecond apart unless a sysplex timer is malfunctioning.
- Otherwise, inform your system programmer that you suspect an error.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The following general purpose registers (GPRs) contain the indicated diagnostic information:

GPR	Content
7	Address of the page buffer
8	Address of the page set block (PB)

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 13, 33.

This abend reason code is issued by the following CSECT: DSNB1SWS.

00C200C2

Explanation: This is a DB2 internal error. The buffer manager (BM) subcomponent of DB2 has discovered that the BM invoker is attempting to decrease the page's write intent count (WIC), but the invoker has no write intent request outstanding.

This abend reason code is issued by the following CSECT: DSNB1RWI

System Action: The BM does not decrease the page's WIC as requested, and the execution unit driving this function is abended. An SVC dump is requested and the abend status is recorded in the SYS1.LOGREC.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 13, 19, 33.

00C200C3

Explanation: This is a DB2 internal error. The buffer manager (BM) subcomponent of DB2 discovered that the BM invoker is attempting to set the page's write intent count (WIC), but the invoker has no read intent request outstanding.

This abend reason code is issued by the following CSECT: DSNB1SWS

System Action: The BM does not increase the page's WIC as requested, and the execution unit driving this function is abended. An SVC dump is requested and the abend status is recorded in the SYS1.LOGREC.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 19, 33.

00C200C5

Explanation: This is a DB2 internal error. The buffer manager (BM) subcomponent of DB2 discovered that its invoker was attempting to decrease the write dependency count (WDC) for a buffer. However, the buffer contains database updates that have not yet been written back to DASD. The buffer manager makes the buffer available for reassignment.

This abend reason code is issued by the following CSECTs: DSNB1REL DSNB1RWI

System Action: The buffer manager does not decrease the WDC as requested, and the execution unit driving this function proceeds normally. An SVC dump is requested and the abend status is recorded in SYS1.LOGREC.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 13, 19, 33.

00C200C6

Explanation: This is a DB2 internal error. The buffer manager (BM) subcomponent of DB2 has discovered that the BM invoker is attempting to release a page that was not held by the invoker or the page has an unbalanced write intent (for example, reset write intent has not yet been issued prior to releasing the page).

This abend reason code is issued by the following CSECTs: DSNB1REL DSNB1RWI

System Action: The BM does not release the page as requested, and the execution unit driving this function termi-

nates abnormally. An SVC dump is requested and the abend status is recorded in the SYS1.LOGREC.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 13, 19, 33.

00C200C7

Explanation: An error code, other than timeout, insufficient storage, or MVS system error, was returned by the IRLM LOCK request. The IRLM LOCK request was invoked to acquire an open lock to perform a physical open or close.

This abend reason code is issued by the following CSECT: DSNB1LCK

System Action: The requesting execution unit is abended.

User Response: Rerun the application.

Operator Response: Print the SYS1.LOGREC and request the SVC dump.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The unexpected IRLM reason code is saved in register 8. It may help determine the cause of the error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00C200C8

Explanation: A return code greater than 4 was returned by the IRLM UNLOCK request invoked to release a open lock after completing a physical open or close.

This abend reason code is issued by the following CSECT: DSNB1ULK

System Action: The requesting execution unit is abended.

User Response: Rerun the application.

Operator Response: Print the SYS1.LOGREC and request the SVC dump.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The unexpected IRLM reason code is saved in register 8. It may help determine the cause of the error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00C200C9

Explanation: The buffer manager (BM) subcomponent of DB2 discovered a damaged PBG control block while attempting to write a check point log record.

This abend reason code is issued by the following CSECT: DSNB1CHK

System Action: DB2 is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump. Restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 33.

00C200CB

Explanation: The buffer manager (BM) subcomponent of DB2 discovered a damaged ABG or AB control block while attempting to write a checkpoint.

This abend reason code is issued by the following CSECT: DSNB1CHK

System Action: DB2 is abnormally terminated; if processing were to continue, an invalid checkpoint would be created which would damage data on a subsequent DB2 restart.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump. Restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5.

00C200CC

Explanation: The buffer manager (BM) subcomponent of DB2 discovered a close task has been waiting for prefetch to complete for two checkpoints.

This abend reason code is issued by the following CSECT: DSNB1CHK

System Action: An SVC dump is produced and checkpointing continues.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00C200CD

Explanation: This usually indicates a problem internal to DB2. However, the problem can result from errors in other products. An unexpected reason code was returned by the Asynchronous Data Mover Facility when it was called to move a set of pages between the virtual buffer pool and the hiperpool.

This abend reason code is issued by the following CSECT: DSNB1GHP

System Action: The page-move operation is terminated. An SVC dump is requested and the abend status is recorded in SYS1.LOGREC.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The unexpected Asynchronous Data Mover Facility reason code is saved in register 8. It might help determine the cause of the error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00C200CF

Explanation: DB2 could not acquire enough virtual storage for allocating private buffers for an internal castout process. The castout operation is queued until an existing castout process becomes available.

System Action: The requesting execution unit is abended. No dump is produced.

Problem Determination: This abend reason code is issued by the following CSECT: DSNB5PCO

00C200D0

Explanation: The buffer manager (BM) subcomponent of DB2 is unable to perform I/O processing for the requesting function. A prior abend has occurred in the buffer manager (BM) I/O termination exit routine. Retry of the prior abend is not allowed by MVS.

This abend reason code is issued by the following CSECT: DSNB5UTX

System Action: DB2 is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump. Restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The functional recovery routine (FRR) parameter list was recorded in the SDWA variable recording area (VRA) when the original abend occurred. Examine the VRA to determine whether the media manager request block (MMRB) is properly passed by the media manager.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00C200D1

Explanation: The buffer manager (BM) subcomponent of DB2 is unable to perform I/O processing for the requesting function. A prior abend has occurred in the buffer manager I/O termination exit routine. An attempt to retry and to continue main line processing (after completion of processing of this prior abend) resulted in recursion to the I/O termination exit routine's functional recovery routine (FRR).

This abend reason code is issued by the following CSECT: DSNB5UTX

System Action: DB2 is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump. Restart DB2.

Problem Determination: The FRR parameter list was recorded in the SDWA variable recording area (VRA) when the original abend occurred. Examine the VRA to determine whether the media manager request block (MMRB) is properly passed by the media manager.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00C200D2

Explanation: The buffer manager (BM) subcomponent of DB2 is unable to perform I/O processing for the requesting function. A prior abend has occurred in the buffer manager I/O error exit routine during processing of a database I/O error.

This abend reason code is issued by the following CSECT: DSNB5UEX

System Action: DB2 is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump. Restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The functional recovery routine (FRR) parameter list was recorded in the SDWA variable recording area (VRA) when the original abend occurred. Examine the VRA to determine whether the media manager request block (MMRB) is properly passed by the media manager. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00C200D3

Explanation: A prior abend occurred in a 'must complete' processing window of a buffer manager (BM) function.

This abend reason code is issued by the following CSECT: DSNB1RRR

System Action: DB2 is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump. Restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: See the Problem Determination section of the original abend code.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00C200D4

Explanation: A prior abend occurred in an I/O processing window of a buffer manager (BM) function. I/O functional recovery cannot be reliably performed because the tracking data required to do so is incomplete. The required data is probably missing because the functional recovery routine (FRR) that is protecting the abending I/O processing function was bypassed by MVS.

This abend reason code is issued by the following CSECT: DSNB1RRR

System Action: DB2 is abended.

Operator Response: Notify the system programmer, and print the SYS1.LOGREC and the SVC dump. Restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: See the Problem Determination section of the original abend code.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00C200D5

Explanation: An abend occurred in the I/O termination exit routine while resuming the suspended execution unit. The status of resume was 'indoubt' at the time of the abend.

This abend reason code is issued by the following CSECT: DSNB5UTX

System Action: DB2 is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump. Restart DB2. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The functional recovery routine (FRR) parameter list was recorded in the SDWA variable recording area (VRA) when the original abend occurred. Examine the VRA to determine whether the media manager request block (MMRB) is properly passed by the media manager. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00C200D6

Explanation: An abend occurred in the I/O termination exit routine while resuming the suspended execution unit. The status of resume was 'indoubt' at the time of the abend.

This abend reason code is issued by the following CSECT: DSNB5UTX

System Action: DB2 is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump. Restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The functional recovery routine (FRR) parameter list is recorded in the SDWA variable recording area (VRA) when the original abend occurred. Examine the VRA to determine whether the media manager request block (MMRB) is properly passed by the media manager. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00C200D7

Explanation: A prior abend occurred while resuming a suspended execution unit. The status of resume was 'indoubt' at the time of the abend.

This abend reason code is issued by the following CSECT: DSNB1RRR

System Action: DB2 is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump. Restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: See the Problem Determination section of the original abend code.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00C200D8

Explanation: This is a DB2 internal error. The buffer manager (BM) subcomponent of DB2 discovered that some buffer manager resources are inconsistent.

This abend reason code is issued by the following CSECTs: DSNB5COM DSNB1CMS

System Action: DB2 is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump. Restart DB2.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00C200E0

Explanation: A table space or index space cannot be accessed because DB2 is unable to create the referenced virtual buffer pool. The referenced virtual buffer pool size was zero, which indicates to DB2 that this buffer pool should not be activated. DB2 message DSNB602I was issued to inform the operator of the error. This reason code and the table space or index space name are recorded in the cursor table (CT) and made available to the user in the SQLCA.

This abend reason code is issued by the following CSECTs: DSNB1OPP DSNB1OPS

System Action: An SQLCODE -904 (resource not available) is returned to the user. The SVC dump and the SYS1.LOGREC recording are not requested.

System Programmer Response: Analyze the virtual storage content of the *ssnm*DBM1 address space to determine further action. If appropriate, use the ALTER TABLESPACE or ALTER INDEX statement to modify the affected table space or index to indicate a usable buffer pool. To determine a usable buffer pool, use the DISPLAY BUFFERPOOL command. If necessary, use the ALTER BUFFERPOOL command to activate the failing buffer pool by setting its VPSIZE to a nonzero value.

00C200E1

Explanation: The buffer manager (BM) subcomponent of DB2 is unable to open a data set that is required to be accessed by the requesting function. An error was returned by the media manager CONNECT function, which was invoked to open a VSAM data set. DB2 message DSNB204I was issued to inform the operator of the error condition. This reason code and the data set name are recorded in the cursor table (CT) and made available to the user in the SQLCA or in messages.

This abend reason code is issued by the following CSECT: DSNB1OST

System Action: A 'resource not available' code is returned to the user. Abend status is recorded in SYS1.LOGREC.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to system message IEC161I and DB2 message DSNB204I for assistance in determining the cause of the error. Correct the situation, and notify the user to invoke the application again.

Problem Determination: The unexpected media manager return code is saved in register 8. It may help determine the cause of the failure.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 10, 12.

00C200E2

Explanation: The buffer manager (BM) subcomponent of DB2 is unable to open a data set that is required by the requesting function. An error was returned by the dynamic allocation function that was invoked to allocate a VSAM data set. DB2 message DSNB207I was issued to inform the operator of the error condition. This reason code and the data set name are recorded in the cursor table (CT) and made available to the user in the SQLCA or in messages.

This abend reason code is issued by the following CSECT: DSNB1OST

System Action: A 'resource not available' code is returned to the user. Abend status is recorded in SYS1.LOGREC.

User Response: Notify the system programmer. Invoke the application again after the system programmer has corrected the error.

System Programmer Response: The error code returned from the dynamic allocation function was externalized in the DSNB207I message. Refer to the appropriate MVS publication for an explanation of this error code. Correct the situation, and notify the user to invoke the application again.

Problem Determination: The unexpected dynamic allocation return code is saved in register 8. It may help determine the cause of the failure.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 10, 12.

00C200E5

Explanation: The buffer manager (BM) subcomponent of DB2 is unable to perform the I/O operation on a data set that is required by the requesting function. A logical I/O error was detected by the buffer manager I/O functions. The logical I/O error indicates that a requested page (read operation) resides within the error page range of the data set. This reason code and the data set name are recorded in the cursor table (CT) and made available to the user in the SQLCA or in messages.

This abend reason code is issued by the following CSECT: DSNB1GET

System Action: A 'resource not available' code is returned to the user.

User Response: Notify the system programmer. Invoke the application after the system programmer has corrected the error.

Operator Response: Use the -DISPLAY DB command to obtain the error page range. Notify the system programmer.

System Programmer Response: The error page range can be located from the console sheet or through the -DISPLAY DB command. Correct the error pages with the recovery utility, and notify the user to invoke the application again. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 10, 12.

00C200E6

Explanation: The buffer manager (BM) subcomponent of DB2 is unable to perform the I/O operation on a data set that is required by the requesting function. A permanent I/O error was detected by the media manager during preformat processing. This reason code and the data set name are recorded in the cursor table (CT) and made available to the user in the SQLCA or in messages.

This abend reason code is issued by the following CSECT: DSNB5FOR

System Action: A 'resource not available' code is returned to the user.

User Response: Notify the system programmer. Invoke the application after the system programmer has corrected the error.

System Programmer Response: Recover the entire data set with the recovery utility, and notify the user to invoke the application again. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 10, 12.

Check the MVS console log for an IOS error message indicating the type of I/O error that occurred. If an IOS message was issued, follow the problem determination directions for that message.

00C200E8

Explanation: The virtual buffer pool (indicated in the SQLCA) cannot be created because of insufficient virtual storage. Message DSNB603I or DSNB605I was issued to inform the operator of the error. This reason code and the buffer pool ID are recorded in the cursor table (CT) and made available to the user in the SQLCA or in messages.

This abend reason code is issued by the following CSECTs: DSNIBMOC DSNIWKFD DSNB1ABS DSNB1AHS DSNB1BHP DSNB1BVP DSNB1CHS

System Action: An SQLCODE -904 (resource not available) is returned to the user. The SVC dump and the SYS1.LOGREC recording are not requested.

Operator Response: Notify the system programmer.

System Programmer Response: Analyze the virtual storage content of the *ssnm*DBM1 address space to determine further action. If appropriate, use the ALTER TABLESPACE or ALTER INDEX statement to indicate use of a different buffer pool. Otherwise, use ALTER BUFFERPOOL commands to balance virtual storage usage for all buffer pools.

00C200E9

Explanation: A buffer could not be assigned in the virtual buffer pool (indicated in the SQLCA) because all buffers in the virtual buffer pool are in a nondisplaceable state. (Buffers are in a nondisplaceable state when they contain actively referenced pages or updated pages for which writes are pending.)

Message DSNB601I was issued to inform the operator of the error. This reason code and the buffer pool ID are recorded in the cursor table (CT) and made available to the user in the SQLCA or in messages.

This abend reason code is issued by the following CSECTs: DSNB1GWB DSNIBMOC DSNIWKFD

System Action: An SQLCODE -904 (resource not available) is returned to the user. The SVC dump and the SYS1.LOGREC recording are not requested.

Operator Response: Notify the system programmer.

System Programmer Response: Reduce concurrent activity by reducing the number of DB2 threads, or, if necessary, increase the size of the failing virtual buffer pool by using the ALTER BUFFERPOOL command.

00C200EA

Explanation: DB2 is unable to perform the drain function on an object (a table space, an index space, or a partition) because the object was held by other claimers and the drain request timed out waiting for the claim count to reach zero.

System Action: If the problem was encountered by DB2 when trying to automatically recover a group buffer pool recovery pending (GRECP) object following the failure of a group buffer pool (GBP), then DB2 issues message DSNB350I or DSNB351I to the console with this reason code indicating that the object cannot be automatically recovered.

Otherwise, a 'resource not available' return and reason code are sent back to the requesting function. DB2 message DSNT500I is sent to the console. The reason code and the object name are recorded in the cursor table (CT) and made available to the user in the SQLCA or in the message.

System Programmer Response: Take one of these actions:

- Reevaluate the utility timeout factor on installation panel DSNTIPI and increase it, if necessary.
- Find the threads holding the object through the -DISPLAY DB CLAIMERS command on the object. Either terminate those threads or wait until no one holds the object. Then invoke the application again.

If DSNB350I or DSNB351I messages were issued, then after you take one of the actions above, recover the GRECP objects as indicated in the "System Programmer Response" for DSNB350I or DSNB351I.

00C200EB

Explanation: A data sharing group member is not able to perform a global drain request on an object (a table space, an index space, or a partition). One or more peer members in the group hold retained locks on the object. Message DSNT501I is sent to the console to report the condition.

System Action: A 'resource not available' return code, reason code, and object name are sent back to the requesting function.

System Programmer Response: Use the DISPLAY DATABASE command with the LOCKS option to display the member names owning the retained locks. You must restart those subsystems to remove the 'resource unavailable' condition.

Problem Determination: This reason code is issued by the following CSECT: DSNB1DRA

00C200EC

Explanation: A member of a DB2 data sharing group was unable to perform a global drain request on an object (a table space, an index space, or a partition). One or more peer DB2s in the group failed to drain the object because some error occurred. Both the DB2 running the request and the peer DB2 send DB2 message DSNT500I to the console to report the problem.

System Action: A 'resource not available' return code, reason code and object name are sent back to the requesting function.

Operator Response: Notify the system programmer.

System Programmer Response: Retrieve the DSNT501I messages from the console and analyze the corresponding reason and error codes.

Problem Determination: This reason code is issued by the following CSECT: DSNB1DRA

00C200ED

Explanation: DB2, in a data sharing environment, detected that the requested use of a type 1 index with a SUBPAGES value greater than 1 would have caused the index to become group buffer pool dependent. DB2 does not allow type 1 indexes with a SUBPAGES value greater than 1 to become group buffer pool dependent.

System Action: The use of the index is not allowed.

User Response: If the index is to be used in group buffer pool dependent mode, then either the index should be converted to a type 2 index or it should be converted to a type 1 index with SUBPAGES 1.

00C200F0

Explanation: DB2 encountered an error on an IXLCACHE request while trying to write a page to the group buffer pool during physical lock (P-lock) negotiation.

System Action: The requesting execution unit abends. The error is recorded to SYS1.LOGREC, but the dump is suppressed and the abend is retried in the functional recovery. Another group member, requesting the P-lock that caused the negotiation on this member, receives a resource not available code of 00C20252, and its P-lock request is denied.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSNB5SCM

00C200F1

Explanation: The buffer manager (BM) subcomponent of DB2 is unable to unallocate a DB2 data set. An error was returned by the dynamic unallocation function that was invoked to unallocate a data set. This reason code and the data set name are recorded in the cursor table (CT) and made available to the user in the SQLCA or in messages.

This abend reason code is issued by the following CSECT: DSNB1CST

System Action: A 'resource not available' code is returned to the user. The SVC dump and the SYS1.LOGREC recording are requested.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The unexpected dynamic unallocation reason code is saved in register 8. It may help determine the cause of the failure. Refer to the appropriate MVS publication for an explanation of the error code.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 10, 12.

00C200F2

Explanation: The buffer manager (BM) subcomponent of DB2 is unable to close a DB2 data set. An error was returned by the media manager DISCONNECT function that was invoked to close a data set. This reason code and the data set name are recorded in the cursor table (CT) and in the SQLCA or in messages.

This abend reason code is issued by the following CSECT: DSNB1CST

System Action: A 'resource not available' code is returned to the user. The SVC dump and the SYS1.LOGREC recording are requested.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The unexpected media manager disconnect reason code is saved in register 8 and may help determine the cause of the failure. Locate the corresponding IEC161I message in the operator console sheet, and refer to the appropriate MVS publication for assistance in determining the cause of the error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 10, 12.

00C200F3

Explanation: DB2 is unable to obtain one of the following locks:

- SYSLGRNG or SYSLGRNX recording lock on a table space
- Group buffer pool dependent conversion lock on a page set or partition
- Group buffer pool start or stop lock
- ALTER BUFFERPOOL lock

The IRLM LOCK request detected a timeout error.

System Action: A 'resource not available' code is returned to the user. This reason code and the data set name are recorded in the cursor table (CT) and are available to the user in the SQLCA or in messages.

User Response: Resubmit the failing application.

Problem Determination: This abend reason code is issued by the following CSECTs: DSNB1SCR, DSNB1DLK.

00C200F4

Explanation: DB2 is unable to obtain one of the following locks:

- SYSLGRNG or SYSLGRNX recording lock on a table space
- Group buffer pool dependent conversion lock on a page set or partition
- Group buffer pool start or stop lock
- ALTER BUFFERPOOL lock

The IRLM LOCK request detected an out-of-storage condition.

System Action: A 'resource not available' code is returned to the user. This reason code is recorded in the cursor table

(CT) and is available to the user in the SQLCA or in messages.

User Response: Resubmit the failing application.

Problem Determination: This abend reason code is issued by the following CSECTs: DSNB1SCR, DSNB1DLK

00C200F6

Explanation: The buffer manager (BM) subcomponent of DB2 is unable to open a data set that is required to be accessed by the requesting function. The data set has been migrated by DFHSM and the data set must be recalled before being accessed. Since the RECALL(yes) option was selected by the installation, a recall for the migrated data set has been initiated. A recall was not complete after the amount of time specified in the RECALL option had elapsed.

This reason code and the data set name are recorded in the cursor table (CT) and made available to the user in the SQLCA or in messages. The data set name and the reason code indicated are the last migrated data set requested. Other migrated data sets within the table space may exist. For each one that exists, a DSNT500I message containing the data set name and reason code has been sent to the console.

This abend reason code is issued by the following CSECT: DSNB1RST

System Action: A 'resource not available' code is returned to the user. A DSNT500I message is sent to the console.

User Response: After the data set has been restored, rerun the application program, transaction, or query. If necessary, contact the operator to find out the status of the migrated data set.

00C200F7

Explanation: The page found in the buffer is not the page requested by the buffer manager. The buffer manager detected the error by comparing the page number of the page returned with the requested page number. This error may be caused by one of the following:

- Either the VTOC or VVDS is damaged, causing multiple data sets to occupy the same extents on DASD.
- The page was altered incorrectly by a non-DB2 facility or a DB2 service aid.
- An internal DB2 error damaged the page. The recovery log will be required for problem determination.

This abend reason code is issued by the following CSECT: DSNB1GET

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The following general purpose registers (GPRs) contain the indicated diagnostic information:

GPR	Content
7	Address of the page buffer
8	Address of the page set block (PB)

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 10, 12, 28, 29, 30.

00C200F8

Explanation: The buffer manager (BM) subcomponent of DB2 is unable to perform the I/O operation on a data set. A physical I/O error was detected by the buffer manager I/O functions.

This reason code and the data set name are recorded in the cursor table (CT) and made available to the user in the SQLCA or in messages.

This abend reason code is issued by the following CSECTs: DSNB1GET DSNB5COM

System Action: A 'resource not available' code is returned to the user. A DSNB224I message is issued, unless it has already been issued 10 times for the data set.

If the I/O is a write operation, or if the I/O is a read operation performed during restart or rollback, then the error page range of the data set is updated. A DSNU086E message is issued indicating the data set name and its corresponding I/O error page range, unless it has already been issued 10 times for the data set.

User Response: Notify the system programmer. Invoke the application after the system programmer has corrected the error.

Operator Response: Use the -DISPLAY DB command to obtain the error page range. Notify the system programmer.

System Programmer Response: The error page range can be located from the console sheet or with the -DISPLAY DB command. Correct the error pages with the recovery utility, and notify the user to invoke the application again. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 10, 12.

Check the MVS console log for an IOS error message indicating the type of I/O error that occurred. If an IOS message was issued, follow the problem determination directions for that message.

00C200F9

Explanation: DB2 is unable to open a data set that the requesting function must access. The data set was migrated by HSM and must be recalled before being accessed. DB2's attempt to initiate a recall of the migrated data set was unsuccessful.

This reason code and the data set name are recorded in the cursor table (CT) and made available to the user in the SQLCA or in messages. The data set name and the reason code indicated are the last requested migrated data set. Other migrated data sets might exist. For each existing data set, message DSNT500I containing the data set name and reason code was sent to the console.

System Action: A 'resource not available' code is returned to the user. A DSNT500I message is sent to the console.

User Response: Issue the HSM command (HRECALL) to restore the migrated data set. Rerun your application program, transaction, or query after the data set is restored.

Problem Determination: This abend reason code is issued by the following CSECT: DSNB1OST

00C200FA

Explanation: The buffer manager (BM) subcomponent of DB2 is unable to obtain an open lock to perform a physical open or close of a page set. A timeout error was detected by the IRLM LOCK request. The reason code and the database and page set names are recorded in the cursor table (CT). They are made available to the user in the SQLCA or in messages.

This abend reason code is issued by the following CSECT: DSNB1LCK

System Action: A 'resource not available' code is returned to the user.

User Response: Resubmit the failing application.

00C200FB

Explanation: The buffer manager (BM) subcomponent of DB2 is unable to obtain an open lock to perform a physical open or close of a page set. An out-of-storage condition was detected by the IRLM LOCK request. The reason code and the database and page set names are recorded in the cursor table (CT). They are available to the user in the SQLCA or in messages.

This abend reason code is issued by the following CSECT: DSNB1LCK

System Action: A 'resource not available' code is returned to the user.

User Response: Resubmit the failing application.

00C200FC

Explanation: The buffer manager (BM) subcomponent of DB2 is unable to obtain an open lock to perform a physical open or close of a page set. A system error was detected by the IRLM LOCK request. The reason code and the database and page set names are recorded in the cursor table (CT). They are made available to the user in the SQLCA or in messages.

This abend reason code is issued by the following CSECT: DSNB1LCK

System Action: A 'resource not available' code is returned to the user.

User Response: Resubmit the failing application.

00C200FD

Explanation: The buffer manager is unable to perform the I/O operation on a data set due to an error on page's parity flag detected by the buffer manager's I/O function.

This abend reason code is issued by the following CSECT: DSNB1GET

System Action: A 'resource not available' return code is returned to the user. The related reason code 00C200FD, the page number, the page set name, and the data base name in question are recorded in the cursor table (CT) and made available to the user in the SQLCA.

Operator Response: Notify the system programmer.

System Programmer Response: The error page can be found via SQLCA. Correct the error pages with the recovery utility, and notify the user to invoke the application again.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for failure for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 10, 12.

00C200FE

Explanation: DB2 is unable to open a data set that the requesting function must access. The data set was migrated by DFHSM and must be recalled before being accessed. Since the RECALL(no) option was selected by the installation, recall for the migrated data set was not initiated.

This reason code and the data set name are recorded in the cursor table (CT) and made available to the user in the SQLCA or in messages. The data set name and the reason code indicated are the last migrated data set requested. Other migrated data sets within the table space might exist. For each existing data set, message DSNT500I containing the data set name and reason code has been sent to the console.

System Action: A 'resource not available' code is returned to the user. A DSNT500I message is sent to the console.

User Response: Notify the system programmer. After the data set is restored, rerun the application program, transaction, or query.

System Programmer Response: Issue the DFHSM command (HRECALL) to restore the migrated data set.

Problem Determination: This abend reason code is issued by the following CSECT: DSNB1OST

00C200FF

Explanation: An attempted open of a page set failed because DB2 has reached the MVS limit on concurrent open data sets.

This reason code is issued by the following CSECT: DSNB1OST

System Action: A 'resource not available' (SQLCODE -904) is returned to the user and the requested open is not performed. This reason code and the data set name are recorded in the cursor table (CT) and made available to the user in the SQLCA. A DSNB207I message is displayed on the operator console. The SVC dump and the SYS1.LOGREC recording are not requested.

Operator Response: Notify the system programmer.

System Programmer Response: Reduce the number of page sets that must be kept open by DB2 by limiting the amount of concurrent activity.

Problem Determination: Collect the following diagnostic item from "Appendix B. Problem Determination" on page X-5: 1.

00C20101

Explanation: The sharing attribute is inconsistent between the header page of a data set and the DBD. This reason code and the data set name are made available to the user in the SQLCA or in messages.

This reason code is issued by the following CSECT: DSNB1OPP

System Action: A "resource not available" code is returned to the user.

User Response: Notify the system programmer.

System Programmer Response: First determine whether the database is shared, and whether it is owned by this system. This can be achieved by issuing a SELECT on the SYSIBM.SYSDATABASE catalog table, where the database name is the database you are checking, and by examining the ROSHARE column.

If the DB2 catalog indicates that it is a ROSHARE OWNER database, the problem can be corrected by the REPAIR utility or the -STOP DATABASE command. The -STOP DATABASE command will reformat the header page and make it consistent with the DBD.

If the database is ROSHARE READ on this system, then check the definition of the database on the owning system. If, on the owning system, the database is no longer defined as ROSHARE OWNER, then the table space or index should be dropped on the system on which the error was detected, since the database has been altered to nonshared by the owning system. However, if the database is defined as ROSHARE OWNER on the owning system, then issue a -STOP DATABASE with the SPACENAM parameter from the owning system, which will make the header page consistent with the owner's DBD, and force this change to DASD, making it available to other systems.

If it is a nonshared database, then the sharing attribute can only be corrected via the REPAIR utility.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1.

00C20102

Explanation: A read-only system attempted to access an inconsistent data set. This reason code and the data set name are made available to the user in the SQLCA or in messages.

This reason code is issued by the following CSECT: DSNB1OPP

System Action: A “resource not available” code is returned to the user.

User Response: Notify the system programmer.

System Programmer Response: On the system in which the database is defined as ROSHARE OWNER, perform the following tasks:

- Use the -DISPLAY DATABASE command to insure there is no exceptional state for this table space or index.
- Issue the -STOP DATABASE command with the SPACENAM parameter to stop this table space or index.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1.

00C20103

Explanation: DB2 is unable to access a data set because its # system page is inaccessible. This reason code and the data set name are available to the user in the SQLCA or in messages.

This reason code is issued by the following CSECT: DSNB1OPP

System Action: A "resource not available" code is returned to the user.

User Response: Notify the system programmer.

System Programmer Response: Determine why the system # page is inaccessible by examining any error messages that appeared on the console at the time of the error, or by issuing a -DISPLAY DATABASE command. Take the appropriate action to correct the situation.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1.

00C20104

Explanation: DB2 is unable to access a shared data set because it was down leveled by a DSN1COPY job, or a REPAIR utility with REPLACE RESET specified. This reason code and the data set name are made available to the user in the SQLCA or in messages.

This reason code is issued by the following CSECT: DSNB1OPP

System Action: A “resource not available” code is returned to the user.

User Response: Notify the system programmer.

System Programmer Response: On the system in which the database is defined as ROSHARE OWNER, perform the following tasks:

- Use the -DISPLAY DATABASE command to insure there is no exceptional state for this table space or index.
- Issue the -STOP DATABASE command with the SPACENAM parameter to stop this table space or index.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1.

00C20105

Explanation: The page set creation timestamp is inconsistent between the header page and the DBD. This reason code and the data set name are made available to the user in the SQLCA or in messages.

This reason code is issued by the following CSECT: DSNB1OPP

System Action: A “resource not available” is returned to the user.

User Response: Notify the system programmer.

System Programmer Response: First determine whether the database is shared, and whether it is owned by this system. This can be achieved by issuing a SELECT on the SYSIBM.SYSDATABASE catalog table, where the database name is the database you are checking, and examining the ROSHARE column.

For a data set in a ROSHARE OWNER database, if the failure occurs on a CREATE TABLESPACE or CREATE INDEX, the timestamp mismatch indicates that the table space or index was previously dropped, but DB2 was unable to delete the data set. In this case, the data set must be deleted using AMS DELETE CLUSTER before the CREATE can take place.

For a data set in a ROSHARE OWNER database at any time other than CREATE TABLESPACE or CREATE INDEX, the inconsistent timestamp can be corrected by first stopping the table space or index via the -STOP DATABASE command with the SPACENAM parameter, and then issuing the -START

DATABASE command to start it. The -STOP DATABASE command will reformat the header page using the information retrieved from the DBD.

For a data set in a ROSHARE READ database, a timestamp mismatch indicates that the table space or index has been dropped and re-created on the owning system, and must also be dropped and re-created on this system.

For a data set in a nonshared database, the timestamp value in the header page can only be corrected via the REPAIR utility.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1.

00C20106

Explanation: An update was attempted on a database defined as ROSHARE READ. This reason code and the data set name are made available to the user in the SQLCA or in messages.

This reason code is issued by the following CSECTs: DSNB1SWS DSNB5FOR.

System Action: A "resource not available" code is returned to the user.

User Response: An update operation is not allowed in this database. Check to insure that the target of the update was correct, and also that the database is defined as ROSHARE READ. If the update should occur, then it should be issued on the system in which the database was defined as ROSHARE OWNER.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1,

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00C20107

Explanation: An update was attempted in a ROSHARE OWNER database, but the data set was opened in RO mode. This reason code and the data set name are made available to the user in the SQLCA or in messages.

This reason code is issued by the following CSECTs: DSNB1SWS DSNB5FOR.

System Action: A "resource not available" code is returned to the user.

User Response: Notify the system programmer.

System Programmer Response: Issue the -STOP DATABASE command with the SPACENAM parameter to explicitly stop this table space/index space and then issue the -START DATABASE ACCESS(RW) command.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1.

00C20108

Explanation: An object in a ROSHARE OWNER database cannot be accessed. At least one system with the database defined as ROSHARE READ is still accessing it. This reason code and the data set name are made available to the user in the SQLCA or in messages.

This reason code is issued by the following CSECT: DSNB1OST

System Action: A "resource not available" code is returned to the user.

User Response: Notify the system programmer.

System Programmer Response: Insure that there are no systems on which the database is defined as ROSHARE READ that are still accessing the database. Issue the -STOP DATABASE command with the SPACENAM parameter on the ROSHARE READ systems that are accessing the database.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1.

00C20109

Explanation: An object in a ROSHARE READ database cannot be accessed. The system with the database defined as ROSHARE OWNER still has RW access. This reason code and the data set name are made available to the user in the SQLCA or in messages.

This reason code is issued by the following CSECT: DSNB1OST

System Action: A "resource not available" code is returned to the user.

User Response: Notify the system programmer.

System Programmer Response: On the system in which the database is defined as ROSHARE OWNER, perform the following tasks:

- Use the -DISPLAY DATABASE command to insure there are no exceptional states for this table space or index.
- Issue the -STOP DATABASE command with the SPACENAM parameter to stop this table space or index.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1.

00C2010A

Explanation: DB2 is attempting to open a shared data set in a ROSHARE READ database, but the system cannot locate the data set. The table space or index might already be dropped from the owning system.

System Action: A 'resource not available' code is returned to the user. This reason code and the data set name are made available to the user in the SQLCA or in messages.

User Response: Notify the system programmer.

System Programmer Response: Run IDCAMS LISTCAT to verify the existence of this data set. Verify whether the associated table space or index exists in the database defined as ROSHARE OWNER. If not, issue DROP TABLESPACE or INDEX on all systems in which the database is defined as ROSHARE READ.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1.

This reason code is issued by the following CSECT: DSNB1OST

00C2010B

Explanation: DB2 is attempting to open a shared data set in a database defined for ROSHARE, but the data set cannot be accessed because it is not defined with SHAREOPTIONS(1,3).

System Action: A 'resource not available' code is returned to the user. This reason code and the data set name are made available to the user in the SQLCA or in messages.

User Response: Notify the system programmer.

System Programmer Response: Ensure that this data set belongs to a shared database, and check the SHAREOPTIONS using IDCAMS LISTCAT. If so, use AMS ALTER SHAREOPTIONS to alter the data set to SHAREOPTIONS(1,3), and resubmit the failing application.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1.

This reason code is issued by the following CSECT: DSNB1OST

00C2010C

Explanation: DB2 was unable to update the high-used RBA in the VSAM volume data set (VVDS) when it was ready to close a data set. VVDS must be updated to reflect data loaded by a RECOVER, LOAD, or REORG utility job. Message DSNB200I is issued to the console with the VSAM media manager return codes.

This reason code and the data set name are recorded in the cursor table (CT) and made available in the SQLCA or in messages.

This reason code is issued by the following CSECT: DSNB1CST

System Action: A 'resource not available' code is returned to the user. A DSNB200I message is issued to the console. DB2 continues to close the data set.

User Response: Contact the system programmer. Restart or rerun the RECOVER, LOAD, or REORG job after the system programmer corrects the error.

System Programmer Response: Refer to system messages IEC161I and DB2 message DSNB200A for assistance in determining the cause of the error. Correct the condition, and notify the user to reinvoke the application.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 10, 11.

00C2010D

Explanation: DB2 was unable to open a required data set because an unexpected level ID was encountered.

If the data set is an index data set, then you might have index types that do not match.

The reason code and the data set name are recorded in the cursor table (CT) and made available in the SQLCA or in messages.

System Action: A 'resource unavailable' code is returned to the user. Message DSNB232I is issued to the console if it was not already issued for the data set. Message DSNB232I might not be issued if you have index types that do not match. DB2 failed to open the data set.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to message DSNB232I for help in determining the cause of the error. Run the utility REPAIR LEVELID and then tell the user to rerun the application.

Message DSNB232I might not be issued if the index data set has types that are mismatched. If you have run installation job DSNTIJID to initialize an index data set, then your catalog indexes are now type 2 indexes. You might have mismatched index types if a user index data set is restored from a backup taken prior to the time the index type was ALTERed.

Run the utility RECOVER INDEX to restore the index.

Problem Determination: This reason code is issued by the following CSECT: DSNB1OPD

00C2010E

Explanation: This is a DB2 internal error. DB2 encountered a problem while trying to add a page to the logical page list (LPL).

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print SYS1.LOGREC, and request an SVC dump.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This reason code is issued by the following CSECT: DSNB1LPL

00C2010F

Explanation: This dump provides assistance for diagnosing the page latch time-out problem after 00C20031 is returned as the reason code for 'resource not available'.

System Action: The requesting execution unit is abended to take a diagnostic dump then recovered to return an SQLCODE -904 (resource not available) to the user with the 00C20031 reason code. The resource name is also provided.

User Response: Contact the system programmer to determine why the resource is unavailable. Print the SYS1.LOGREC and the SVC dump.

This reason code is issued by the following CSECTs: DSNB1LTX, DSNB1LTS.

00C20203

Explanation: DB2 cannot connect to a group buffer pool. The group buffer pool is not usable by this release of DB2. This DB2 subsystem is a member of a data sharing group containing DB2 members of different release levels. A later release level of DB2 specified an option for this group buffer pool that is not supported by the previous DB2 releases. The presence of this option makes the group buffer pool inaccessible to the previous DB2 releases.

System Action: DB2 takes the following actions:

- Unless already issued, message DSNB301E is sent to the console with this reason code to indicate that a connect failure occurred.
- SQLCODE -904 (resource not available) is returned to the user with this reason code. The resource type and resource name are also returned.

User Response: Contact the system programmer.

System Programmer Response: Do one of the following:

- Issue the -ALTER GROUPBUFFERPOOL command from a DB2 that is at the later release level to remove the new option so that previous release levels of DB2 can access the group buffer pool.
- Migrate the previous release levels to the current release.

Problem Determination: This reason code is issued by the following CSECT: DSNB1GC0

00C20204

Explanation: DB2 is unable to connect to a group buffer pool because MVS detected a problem on the IXLCONN request.

System Action: SQLCODE -904 (resource not available) and the group buffer pool name are returned to the user. Unless already issued for the IXLCONN code, message DSNB301E, which contains this reason code and the IXLCONN code, is issued to the console.

User Response: Contact the system programmer.

Problem Determination: The reason code returned by the IXLCONN request is given in message DSNB301E.

If the connection problem was caused by insufficient storage in a coupling facility, tell the MVS system administrator to alleviate the storage constraint problem by making additional storage available to the involved coupling facility, or by changing the active MVS CFRM administrative policy to redefine the coupling facility structure to a different coupling facility. Another alternative is to have the database administrator reassign those inter-DB2 sharing page sets to a different DB2 buffer pool.

Refer to *MVS/ESA Programming: Sysplex Services Reference* for the MVS IXLCONN reason code.

This abend reason code is issued by the following CSECT: DSNB1GC1

00C20205

Explanation: DB2 is unable to access a group buffer pool because of a damage assessment pending (DAP) status against the group buffer pool.

System Action: The action DB2 takes depends on the situation, as follows:

- If DB2 tries to read a page from the group buffer pool and finds that the group buffer pool is in DAP status, the following actions are taken:
  - SQLCODE -904 (resource not available) is returned to the user with this reason code. The name of the group buffer pool is also returned.
- If DB2 tries to read a page from the group buffer pool for rollback, backout, or restart and finds that the group buffer pool is in DAP status, the following actions are taken:
  - The page is added to the logical page list (LPL) for the page set.
  - Message DSNB250E is issued to the console with this reason code.
- If DB2 tries to write a page to the group buffer pool and finds that the group buffer pool is in DAP status, the following actions are taken:
  - The page is added to the logical page list (LPL) for the page set.
  - Message DSNB250E is issued to the console with this reason code.
- If DB2 detects DAP status when it tries to connect the group buffer pool, or if DB2 detects a group buffer pool version ID mismatch after a successful connection, the following actions are taken:
  - The damage assessment process is triggered for this group buffer pool.
  - SQLCODE -904 (resource not available) is returned to the user with this reason code. The name of the group buffer pool is also returned.
  - Unless already issued, message DSNB301E, which contains this reason code, is issued to the console.

User Response: Contact the system programmer.

System Programmer Response: Message DSNB304I is issued when the group buffer pool is entered into DAP state and message DSNB305I is issued when the DAP status is cleared. During the damage assessment process, DB2 must determine which page sets or partitions might have had changed pages in the failed coupling facility structure and thus need to be recovered. Each page set/partition fitting this criteria is entered into 'group buffer pool recover pending (GRECP)' status. A page set/partition in GRECP status remains unavailable for read or update until it is recovered.

Problem Determination: This reason code is issued by the following CSECT: DSNB1GC0

00C20206

Explanation: An attempt was made to access a page which is currently in the logical page list (LPL). LPL pages are unavailable until recovery on the affected page set completes.

System Action: SQLCODE -904 (resource not available) is returned to the user with this reason code. The resource name is also given.

User Response: Contact the system programmer.

System Programmer Response: For those page sets in the LPL, use the RECOVER utility or the -START DATABASE command.

Problem Determination: This reason code is issued by the following CSECTs: DSNB1LPL DSNB1GET DSNB1SWS

00C20207

Explanation: DB2 is unable to connect to a group buffer pool because of a DB2 system error during connect processing. This is an internal DB2 problem.

System Action: A SYS1.LOGREC entry is produced and an SVC dump is requested for the original abend which caused this condition. After doing resource and latch recovery, DB2 retries the abend if retry is allowed. SQLCODE -904 (resource not available) is returned to the user with this reason code and the group buffer pool name. Unless already issued, message DSNB301E, which contains this reason code, is issued to the console.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This reason code is issued by the following CSECT: DSNB1GC1

00C20208

Explanation: The user attempted to access a group-buffer-pool-dependent page set or partition. However, the DB2 member was unable to connect to the group buffer pool because there was not enough hardware system area (HSA) storage in which to allocate the local cache vector (LCV).

System Action: DB2 disconnects from the group buffer pool and issues message DSNB301E with this reason code, if it has not yet been issued. DSNB301E is usually preceded by a DSNB306I message.

SQLCODE -904 is returned to the user with this reason code.

User Response: Contact the system programmer.

System Programmer Response: Refer to message DSNB306I.

Problem Determination:

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1,

This reason code is issued by the following CSECT: DSNB1GC1

00C20210

Explanation: An attempt was made to access a page set or partition which is currently in group buffer pool recovery pending (GRECP) status.

System Action: SQLCODE -904 (resource not available) is returned with this reason code. The resource name is also given. GRECP page sets or partitions remain unavailable until recovery against the affected page set or partition is complete.

User Response: Contact the system programmer to determine when the resource will be available for use.

System Programmer Response: Use the START DATABASE command with the ACCESS RW option to recover the page set or partition and remove the GRECP status. In extreme or unusual circumstances, you can also remove GRECP status as follows:

- RECOVER, either to currency, or to a prior point in time
- REPAIR SET with NORCVRPEND
- LOAD REPLACE
- START DATABASE with ACCESS FORCE (Not recommended. Specifying this option can result in inconsistent data.)

Problem Determination: This reason code is issued by the following CSECT: DSNB1OPP

00C20211

Explanation: DB2 is unable to access a group buffer pool because the group buffer pool is rebuilding, and the attempt to access the group buffer pool timed out waiting for the rebuild to complete.

System Action: 'Resource not available' return and reason codes are sent back to the requesting function.

User Response: Resubmit the request.

System Programmer Response: Use the DB2 DISPLAY GROUPBUFFERPOOL command or the MVS D XCF,STR command to monitor the status of the rebuild. Also, monitor the status messages that the DB2 members issue as the rebuild progresses (refer to messages DSNB331I, DSNB332I, and DSNB338I). If the rebuild is not progressing satisfactorally, you can use the MVS command SETXCF,STOP,REBUILD to stop the rebuild.

00C20220

Explanation: While DB2 was accessing a group buffer pool, MVS detected an environmental error during an IXLCACHE request from DB2.

System Action: The requesting execution unit abends.

Problem Determination: The IXLCACHE reason code saved in register 8 can help determine the cause of the error. Refer to *MVS/ESA Programming: Sysplex Services Reference* for the MVS IXLCACHE reason code.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECTs:

DSNB5BPL DSNB5GGP DSNB5PCO DSNB5SCM DSNB5SCO

00C20221

Explanation: While accessing a group buffer pool, DB2 received an unexpected error from MVS, which detected an invalid parameter on an IXLCACHE request from DB2. This code usually indicates a DB2 internal problem. However, the problem can result from errors in other products.

System Action: The requesting execution unit abends.

Problem Determination: The IXLCACHE reason code saved in register 8 can help determine the cause of the error. Refer to *MVS/ESA Programming: Sysplex Services Reference* for the MVS IXLCACHE reason code.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECTs:

DSNB5BPL DSNB5GGP DSNB5PCO DSNB5SCM DSNB5SCO

00C20222

Explanation: While accessing a page in a buffer pool, DB2 received an unexpected error from MVS, which detected an invalid parameter on an IXLVECTR request from DB2. This code usually indicates a DB2 internal problem. However, the problem can result from errors in other products.

System Action: The requesting execution unit abends.

Problem Determination: See the IXLVECTR return code in register 8 to help determine the cause of the error. Refer to *MVS/ESA Programming: Sysplex Services Reference* for the MVS IXLVECTR reason code.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECTs:

DSNB1LTS DSNB1LTX DSNB1RSS

00C20223

Explanation: DB2 encountered an error while invoking the IXLCACHE macro.

System Action: The requesting execution unit abends. DB2 terminates abnormally causing MVS to reset the castout locks.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSNB5PCO

00C20251

Explanation: DB2 is unable to obtain a physical lock (P-lock) because of an out-of-storage condition detected by IRLM.

System Action: SQLCODE -904 is returned to the user with this reason code. This reason code and the resource name are returned in the cursor table (CT) and made available to the user in the SQLCA.

Operator Response: Notify the system programmer.

System Programmer Response: IRLM exhausted the amount of virtual storage available to it to represent locks. Refer to code 00C90092 for methods to reduce the storage needed by IRLM.

Problem Determination: This reason code is issued by the following CSECT: DSNB1PER

00C20252

Explanation: DB2 is unable to obtain a physical lock (P-lock). Another DB2 holds the P-lock in an incompatible state, but is unable to downgrade because it does not have access to the corresponding group buffer pool.

System Action: SQLCODE -904 (resource not available) is returned to the user. The other DB2 produces additional diagnostic information in the form of messages, trace records, SYS1.LOGREC entries, and/or an SVC dump. This reason code and the resource name are returned in the cursor table (CT) and made available to the user in the SQLCA.

Problem Determination: This reason code is issued by the following CSECT: DSNB1PER

00C20254

Explanation: DB2 is unable to acquire or upgrade a physical lock (P-lock) because of an incompatible retained lock held by one or more other DB2 subsystems in the DB2 data sharing group. Retained locks are locks that persist across DB2 abnormal terminations.

System Action: SQLCODE -904 is returned to the user. This reason code and the resource name are returned in the cursor table (CT) and made available to the user in the SQLCA.

System Programmer Response: Use the -DISPLAY DATABASE command to display the DB2 member names owning the retained locks. You must restart those subsystems to remove the 'resource unavailable' condition.

Problem Determination: This reason code is issued by the following CSECT: DSNB1PER

00C20255

Explanation: DB2 is unable to obtain a physical lock (P-lock). This is a DB2 internal error.

System Action: SQLCODE -904 (resource not available) is returned to the user. This reason code and the resource name are returned in the cursor table (CT) and made available to the user in the SQLCA. The other DB2 produces additional diagnostic information in the form of messages, trace records, SYS1.LOGREC entries and/or an SVC dump.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This reason code is issued by the following CSECT: DSNB1PER

00C20256

Explanation: DB2 is unable to obtain a physical lock (P-lock). This is a DB2 internal error.

System Action: SQLCODE -904 (resource not available) is returned to the user. This reason code and the resource name are returned in the cursor table (CT) and made available to the user in the SQLCA. The other DB2 produces SYS1.LOGREC entries, and, depending on the type of abend, might also produce an SVC dump.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This reason code is issued by the following CSECT: DSNB1PER

00C20257

Explanation: DB2 is unable to obtain a physical lock (P-lock) because of an 'out of record list storage' condition that IRLM detected. The record list is that part of the coupling facility lock structure that IRLM uses to record 'modify locks' (those locks that would be retained in case of a failure).

System Action: SQLCODE -904 is returned to the user with this reason code. This reason code and the resource name are returned in the cursor table (CT) and made available to the user in the SQLCA.

System Programmer Response: Allocate a larger coupling facility lock structure by using the MVS SETXCF,REBUILD command. Make sure that the active MVS CFRM policy specifies a larger structure size for the IRLM coupling facility lock structure before you initiate the rebuild. You can use the MVS SETXCF,STOP,POLICY and SETXCF,START,POLICY commands to change the active MVS CFRM policy.

Problem Determination: This reason code is issued by the following CSECT: DSNB1PER

00C20258

Explanation: DB2 is not able to obtain a physical lock (P-lock) until a peer member restarts. Another DB2 holds the P-lock in an incompatible state but cannot downgrade until it completes its restart.

System Action: SQLCODE -904 (resource not available) is returned to the user. This reason code and the resource name are made available to the user in the SQLCA.

User Response: Resubmit the failing application. The P-lock becomes available after the peer member completes its restart processing.

Problem Determination: This reason code is issued by the following CSECT: DSNB1PER

00C20259

Explanation: This is a DB2 internal error. This reason code and the group buffer pool name are recorded in the cursor table (CT) and made available to the user in the SQLCA or in messages.

System Action: A 'resource not available' code is returned to the user. Abend status is recorded in SYS1.LOGREC.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This reason code is issued by the following CSECT: DSNB1SCR

00C2025A

Explanation: DB2 encountered an unexpected error from IRLM while trying to acquire a global lock for MBA (multiple buffer pool) object.

System Action: The requesting execution unit abends. A SYS1.LOGREC entry is written and an SVC dump is requested. Collect messages DSNT376I, DSNT500I, and DSNT501I for further diagnosis.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECTs: DSNB1BSD, DSNB1GIO, DSNB1PM2, DSNB1PMT

00C2025B

Explanation: DB2 encountered an unexpected error while trying to read from the shared communications area (SCA) for MBA (multiple buffer pool) object.

System Action: The requesting execution unit abends. A SYS1.LOGREC entry is written and an SVC dump is requested.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECTs: DSNB1BSD, DSNB1GIO, DSNB1PMT

00C2025C

Explanation: DB2 encountered an unexpected error while trying to write to the shared communications area (SCA) for MBA (multiple buffer pool) object.

System Action: The requesting execution unit abends. A SYS1.LOGREC entry is written and an SVC dump is requested.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSNB1BSD, DSNB1GIO, DSNB1PM2, DSNB1PMT

00C20260

Explanation: This is a DB2 internal error. Castout was unsuccessful because DB2 lost connectivity to the group buffer pool.

System Action: A 'resource not available' code is returned to the user.

User Response: Notify the system programmer.

System Programmer Response: Establish this DB2's connectivity to the group buffer pool before allowing operations that reference this group buffer pool.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This reason code is issued by the following CSECT: DSNB5PCO

00C20261

Explanation: This is a DB2 internal error. Castout was unsuccessful due to a group buffer pool structure failure.

System Action: A 'resource not available' code is returned to the user.

User Response: Notify the system programmer.

System Programmer Response: Establish this DB2's connectivity to the group buffer pool before allowing operations that reference this group buffer pool.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This reason code is issued by the following CSECT: DSNB5PCO

00C20262

Explanation: This is a DB2 internal error. Castout was unsuccessful due to errors in writing a page to DASD.

System Action: A 'resource not available' code is returned to the user.

User Response: Notify the system programmer.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This reason code is issued by the following CSECT: DSNB5PCO

00C20263

Explanation: This is a DB2 internal error. Castout was unsuccessful due to an unexpected error.

System Action: A 'resource not available' code is returned to the user. An SVC dump and the SYS1.LOGREC recording were requested.

User Response: Notify the system programmer.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This reason code is issued by the following CSECT: DSNB5PCO

00C20264

Explanation: DB2 is unable to acquire or upgrade a physical lock (P-lock) because at least one other DB2 subsystem in the data sharing group is holding an incompatible retained lock. The amount of time this DB2 can wait for a locked resource was exceeded. This reason code is only issued if the RETLWAIT installation parameter in DSN6SPRM is set to 'YES'. If RETLWAIT is set to 'NO' (this is the default), then any IRLM lock that conflicts with a retained lock will not wait, but instead will be immediately rejected (see reason code 00C20254).

System Action: An SQLCODE -904, -911 , -913 or -923 is issued, and message DSNT501I is issued. Also, message DSNT378I is issued.

System Programmer Response: Refer to the 'System Programmer Response' in message DSNT378I.

Problem Determination: This reason code is issued by the following CSECT: DSNB1PER

00C20267

Explanation: DB2 is unable to recover GRECP status for a table space or index because one of the sharing group members is currently performing a global drain request on the same object.

System Action: A DB2 message of DSNB350 or DSNB351 is issued.

User Response: Issue command DISPLAY DB to verify the GRECP/LPL status for the object. Subsequently, issue START DB command if the GRECP/LPL status still exists.

System Programmer Response: Refer to the 'System Programmer Response' in message DSNB350 or DSNB351.

This reason code is issued by the following CSECT: DSNB1DAA

00C20268

Explanation: DB2 is unable to continue processing the automatic recovery work for a table space or index from GRECP/LPL status because DB2 is unable to convert the page set P-lock into S mode. This condition occurs when a previous local drain operation fails on the table space or index in this DB2 or in other peer DB2s.

System Action: A DB2 message of DSNB350 or DSNB351 is issued.

User Response: Issue command START DB to explicitly recover the page set from GRECP/LPL status.

System Programmer Response: Refer to the 'System Programmer Response' in message DSNB350 or DSNB351.

Problem Determination: This reason code is issued by the following CSECT: DSNB1DAA

00C202A1

Explanation: DB2 encountered an unexpected error while trying to read from or write to the shared communications area (SCA).

System Action: The requesting execution unit abends. A SYS1.LOGREC entry is written and an SVC dump is requested.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSNB1GBS

00C202A2

Explanation: MVS returned an unexpected error from an IXLDISC request to disconnect a group buffer pool.

System Action: The requesting execution unit abends. A SYS1.LOGREC entry is written and an SVC dump is requested. The IXLDISC reason code is saved in register 8 for SYS1.LOGREC recording and the SVC dump.

System Programmer Response: Refer to *MVS/ESA Programming: Sysplex Services Reference* for the MVS IXLDISC reason code.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSNB1GD1

00C202A3

Explanation: MVS returned an unexpected error from an IXLFORCE request to deallocate a group buffer pool.

System Action: A SYS1.LOGREC entry is written and an SVC dump is requested. The IXLFORCE reason code is saved in register 8 for SYS1.LOGREC recording and the SVC dump.

System Programmer Response: Refer to *MVS/ESA Programming: Sysplex Services Reference* for the MVS IXLFORCE reason code.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSNB1GD1

00C202A4

Explanation: MVS detected an error on an IXLCONN request from DB2.

System Action: A SYS1.LOGREC entry is written and an SVC dump is requested. Unless already issued, message DSNB301E, which contains this reason code, is issued to the console. The IXLCONN reason code is saved in register 8 for SYS1.LOGREC recording and the SVC dump. This reason code and the group buffer pool name are returned to the user in the SQLCA.

System Programmer Response: Refer to *MVS/ESA Programming: Sysplex Services Reference* for the MVS IXLCONN reason code.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSNB1GC1

00C202A5

Explanation: The cache coupling facility structure attributes passed back by MVS on an IXLCONN request were incorrect.

System Action: A SYS1.LOGREC entry is written. The newly-connected group buffer pool is disconnected. If this is a non-rebuild connect then message DSNB301E, which contains this reason code, is issued to the console (unless it has already been issued). In the message this reason code and the group buffer pool name are returned to the user in the SQLCA. If this is a rebuild connect, then message DSNB330E, which contains this reason code, is issued to the console and this reason code is used to stop the rebuild.

Problem Determination: Check the SYS1.LOGREC variable recording area (VRA) for the following information:

- VRARRK30 - Error mask, set as follows:
  - If bit X'40' is set, DB2 specified a structure disposition of KEEP, but the structure was not allocated this way.
  - If bit X'20' is set, the data element size was not allocated as DB2 requested. VRARRK31 contains the requested data element size, and VRARRK32 contains the allocated data element size.
  - If bit X'10' is set, the allocated vector was not long enough to cover the corresponding buffer pool. VRARRK31 contains the requested vector length, and VRARRK32 contains the allocated vector length.

This abend reason code is issued by the following CSECT: DSNB1GC1

00C202A6

Explanation: This is a DB2 internal error. Unless already issued, message DSNB301E, which contains this reason code, is issued to the console.

System Action: A SYS1.LOGREC entry is written and an SVC dump is requested. The newly-connected group buffer pool is disconnected. This reason code and the group buffer pool name are returned to the user in the SQLCA.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSNB1GC1

00C202A7

Explanation: While processing an ALTER GROUPBUFFERPOOL command request, DB2 encountered an unexpected return code from the MVS IXCQUERY service.

System Action: The requesting execution unit abends. A SYS1.LOGREC entry is written. An SVC dump is requested if it appears to be a DB2 problem (return code 8 from IXCQUERY). Command processing is terminated.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSNB1AGB

00C202AA

Explanation: An error occurred in IRLM on a physical lock (P-lock) or change request from DB2. This a DB2 internal error.

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested. SQLCODE -904 is issued. This reason code and the resource name are returned in the SQLCA.

System Programmer Response: Examine SYS1.LOGREC for a previous error related to IRLM.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields in the VRA for this code are: VRARRK13, VRARRK14, VRARRK15, VRARRK30, and VRARRK33.

The information recorded with VRARRK30 is mapped as follows:

- IRLM return code (4 bytes)
- IRLM reason code (4 bytes)
- IRLM function code (1 byte)
- Lock state (1 byte)
- Flags from RLPLFLG1 (1 byte)
- Flags from RLPLFLG4 (1 byte)
- Returned cached state (1 byte)
- Unused (1 byte)
- P-lock exit reason code (2 bytes)

VRARRK33 records information from the RLPPL (mapped by DXRRLPPL) and is mapped as follows:

- RLPHSTAT (1 byte): Current held state of the P-lock by this DB2
- RLPCCSTA (1 byte): New cached state of the P-lock for this DB2
- RLPRSTAT (1 byte): Requested state of the P-lock by the other DB2 that is in conflict with the state held by this DB2
- Unused (1 byte)
- RLPWUID (8 bytes): Owning work unit

This abend reason code is issued by the following CSECT: DSNB1PER

00C202AB

Explanation: The IRLM UNLOCK request returned an error code when DB2 attempted to release a physical lock (P-lock). This is a DB2 internal error.

System Action: The requesting execution unit abends. The SVC dump and SYS1.LOGREC recording are requested.

User Response: Resubmit the failing application.

System Programmer Response: Request the SYS1.LOGREC and the SVC dump.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Sig-

nificant fields in the VRA for this code are: VRARRK13, VRARRK14, VRARRK15, VRARRK30, and VRARRK33.

The information recorded with VRARRK30 is mapped as follows:

- IRLM return code (4 bytes)
- IRLM reason code (4 bytes)
- IRLM function code (1 byte)
- Lock state (1 byte)
- Flags from RLPLFLG1 (1 byte)
- Flags from RLPLFLG4 (1 byte)
- Returned cached state (1 byte)
- Unused (1 byte)
- P-lock exit reason code (2 bytes)

VRARRK33 records information from the RLPPL (mapped by DXRRLPPL) and is mapped as follows:

- RLPHSTAT (1 byte): Current held state of the P-lock by this DB2
- RLPCCSTA (1 byte): New cached state of the P-lock for this DB2
- RLPRSTAT (1 byte): Requested state of the P-lock by the other DB2 that is in conflict with the state held by this DB2
- Unused (1 byte)
- RLPWUID (8 bytes): Owning work unit

This abend reason code is issued by the following CSECT: DSNB1PER

00C202AC

Explanation: There was an error during physical lock (P-lock) negotiation. This is a DB2 internal error.

System Action: An SVC dump and SYS1.LOGREC recording are requested. A 'resource unavailable' condition is returned to the P-lock requester that caused the conflict and the subsequent negotiation.

System Programmer Response: Request the SYS1.LOGREC and the SVC dump.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields in the VRA for this code are: VRARRK13, VRARRK14, VRARRK15, VRARRK30, and VRARRK33.

VRARRK33 records information from the RLPPL (mapped by DXRRLPPL) and is mapped as follows:

- RLPHSTAT (1 byte): Current held state of the P-lock by this DB2
- RLPCCSTA (1 byte): New cached state of the P-lock for this DB2
- RLPRSTAT (1 byte): Requested state of the P-lock by the other DB2 that is in conflict with the state held by this DB2
- Unused (1 byte)
- RLPWUID (8 bytes): Owning work unit

This abend reason code is issued by the following CSECT: DSNB1PPP

00C202AD

Explanation: DB2 could not start even one castout process. A probable cause is that no virtual storage is available to acquire private buffers for the castout process.

System Action: The requesting execution unit abends and DB2 terminates abnormally.

System Programmer Response: Restart DB2 after increasing the REGION parameter value on the *ssnm*DBM1 startup procedure to get more virtual storage.

Problem Determination: This abend reason code is issued by the following CSECT: DSNB5PCO

00C202AE

Explanation: IRLM returned an invalid cached state on a physical lock (P-lock) request from DB2. This is an internal error.

System Action: SQLCODE -904 is issued. A record is written to SYS1.LOGREC and an SVC dump is requested.

System Programmer Response: Examine SYS1.LOGREC for a preceding error related to IRLM.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields in the VRA for this code are: VRARRK13, VRARRK14, VRARRK15, VRARRK30, and VRARRK33.

The information recorded with VRARRK30 is mapped as follows:

- IRLM return code (4 bytes)
- IRLM reason code (4 bytes)
- IRLM function code (1 byte)
- Lock state (1 byte)
- Flags from RLPLFLG1 (1 byte)
- Flags from RLPLFLG4 (1 byte)
- Returned cached state (1 byte)
- Unused (1 byte)
- P-lock exit reason code (2 bytes)

VRARRK33 records information from the RLPPL (mapped by DXRRLPPL) and is mapped as follows:

- RLPHSTAT (1 byte): Current held state of the P-lock by this DB2
- RLPCCSTA (1 byte): New cached state of the P-lock for this DB2
- RLPRSTAT (1 byte): Requested state of the P-lock by the other DB2 that is in conflict with the state held by this DB2
- Unused (1 byte)
- RLPWUID (8 bytes): Owning work unit

This abend reason code is issued by the following CSECT: DSNB1PLK

00C202AF

Explanation: There was an incompatible physical lock (P-lock) held. This is a DB2 internal error.

System Action: An SVC dump and SYS1.LOGREC recording are requested. A 'resource unavailable' condition is returned to the P-lock requester that caused the conflict and the subsequent negotiation.

System Programmer Response: Request the SYS1.LOGREC and the SVC dump.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields in the VRA for this code are: VRARRK13, VRARRK14, VRARRK15, and VRARRK33.

VRARRK33 records information from the RLPPL (mapped by DXRRLPPL) and is mapped as follows:

- RLPHSTAT (1 byte): Current held state of the P-lock by this DB2
- RLPCCSTA (1 byte): New cached state of the P-lock for this DB2
- RLPRSTAT (1 byte): Requested state of the P-lock by the other DB2 that is in conflict with the state held by this DB2
- Unused (1 byte)
- RLPWUID (8 bytes): Owning work unit

This abend reason code is issued by the following CSECT: DSNB1PPP

00C202B0

Explanation: This is a DB2 internal error.

System Action: An SVC dump and SYS1.LOGREC recording are requested. A 'resource unavailable' condition is returned to the physical lock (P-lock) requester that caused the conflict and the subsequent negotiation.

User Response: Resubmit the failing application.

System Programmer Response: Request the SYS1.LOGREC and the SVC dump.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields in the VRA for this code are: VRARRK13, VRARRK14, VRARRK15, and VRARRK33.

VRARRK33 records information from the RLPPL (mapped by DXRRLPPL) and is mapped as follows:

- RLPHSTAT (1 byte): Current held state of the P-lock by this DB2
- RLPCCSTA (1 byte): New cached state of the P-lock for this DB2
- RLPRSTAT (1 byte): Requested state of the P-lock by the other DB2 that is in conflict with the state held by this DB2
- Unused (1 byte)
- RLPWUID (8 bytes): Owning work unit

This abend reason code is issued by the following CSECT: DSNB1PPP

00C202B1

Explanation: An error occurred during physical (P-lock) negotiation. This is a DB2 internal error.

System Action: An SQLCODE -904 is issued. A record is written to SYS1.LOGREC and an SVC dump is requested. This reason code and the resource name are returned in the SQLCA.

System Programmer Response: Examine SYS1.LOGREC for a previous error related to IRLM.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields in the VRA for this code are: VRARRK13, VRARRK14, VRARRK15, VRARRK30, and VRARRK33.

The information recorded with VRARRK30 is mapped as follows:

- IRLM return code (4 bytes)
- IRLM reason code (4 bytes)
- IRLM function code (1 byte)
- Lock state (1 byte)
- Flags from RLPLFLG1 (1 byte)
- Flags from RLPLFLG4 (1 byte)
- Returned cached state (1 byte)
- Unused (1 byte)
- P-lock exit reason code (2 bytes)

VRARRK33 records information from the RLPPL (mapped by DXRRLPPL) and is mapped as follows:

- RLPHSTAT (1 byte): Current held state of the P-lock by this DB2
- RLPCCSTA (1 byte): New cached state of the P-lock for this DB2
- RLPRSTAT (1 byte): Requested state of the P-lock by the other DB2 that is in conflict with the state held by this DB2
- Unused (1 byte)
- RLPWUID (8 bytes): Owning work unit

This abend reason code is issued by the following CSECT: DSNB1PER

00C202B2

Explanation: DB2 could not obtain a page set or partition physical lock (P-lock).

System Action: A 'resource unavailable' condition is returned to the user. This reason code and the resource name are returned in the cursor table (CT) and made available to the user in the SQLCA.

System Programmer Response: This problem might be caused by having multiple DB2 release levels in the DB2 data sharing group.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECTs: DSNB1PPP, DSNB1PPG.

00C202B3

Explanation: This is a DB2 internal error. The execution unit encountered an error while doing damage assessment for a group buffer pool.

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This reason code is issued by the following CSECTs: DSNB1DAO

00C202B4

Explanation: This is a DB2 internal error. The execution unit received an error return code while doing damage assessment for a group buffer pool.

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This reason code is issued by the following CSECTs: DSNB1CPX, DSNB1GC0, DSNB1GC1

00C202B5

Explanation: This is a DB2 internal error. The execution unit received an error return code while doing damage assessment for a group buffer pool.

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This reason code is issued by the following CSECTs: DSNB1GC0, DSNB1GC1

00C202B6

Explanation: This is a DB2 internal error. The execution unit received an error return code while trying to translate the DB2 member name to a member ID.

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This reason code is issued by the following CSECTs: DSNB1DA2

00C202B7

Explanation: This is a DB2 internal error. An unexpected error occurred during recovery processing from a group buffer pool link failure.

System Action: The requesting execution unit abends. A SYS1.LOGREC entry is written and an SVC dump is requested.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This abend reason code is issued by the following CSECT: DSNB1LNK

00C202C0

Explanation: DB2 timed out waiting for the use count on a group buffer pool to reach zero during rebuild quiesce processing for the group buffer pool. This is a DB2 internal problem.

System Action: The DB2 system agent that is processing the rebuild abends and takes a dump. The rebuild is stopped. Message DSNB335I is issued indicating this reason code as the reason why the rebuild stopped.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSNB1xxx

00C202C1

Explanation: DB2 encountered a problem trying to connect to the new group buffer pool coupling facility structure while trying to rebuild the group buffer pool.

System Action: A dump may or may not be taken depending on the nature of the error. The rebuild is stopped. Message DSNB335I is issued indicating this reason code as the reason why the rebuild stopped.

Problem Determination: Check the console log for previous error messages (for example, DSNB330E or DSNB306I) to determine why DB2 could not connect to the new group buffer pool structure.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSNB1RBC

00C202C2

Explanation: DB2 received an unexpected return and reason code from the MVS IXLREBLD macro during rebuild processing for a group buffer pool.

System Action: The DB2 system agent that is processing the rebuild abends and takes a dump. The rebuild is stopped. Message DSNB340I will be issued indicating that the IXLREBLD request failed and message DSNB335I is issued indicating this reason code as the reason why the rebuild stopped.

Problem Determination: See *MVS/ESA Programming: Sysplex Services Reference* for an explanation of the MVS IXLREBLD reason code.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSNB1xxx

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00C202C3

Explanation: DB2 received an unexpected return and reason code from the MVS IXLEERSP macro during rebuild processing for a group buffer pool.

System Action: The DB2 system agent that is processing the rebuild abends and takes a dump. The rebuild is stopped. Message DSNB340I is issued indicating that the IXLEERSP request failed and message DSNB335I is issued indicating this reason code as the reason why the rebuild stopped.

Problem Determination: See *MVS/ESA Programming: Sysplex Services Reference* for an explanation of the MVS IXLEERSP reason code.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSNB1xxx

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00C202C4

Explanation: DB2 detected that the number of changed pages in the new structure is greater than the number of changed pages in the original structure at the time that the rebuild of the group buffer pool was about to be completed.

System Action: DB2 abends and takes a dump. The rebuild is stopped. Message DSNB335I is issued indicating this reason code as the reason why the rebuild stopped.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSNB1xxx

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00C202D0

Explanation: DB2 is unable to respond to an event that was reported by MVS. This is a DB2 internal error.

System Action: DB2 terminates abnormally.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump. Restart DB2.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSNB5REE

00C202D1

Explanation: This is a DB2 internal error. DB2 encountered an unrecoverable error while trying to add a page to the logical page list (LPL).

System Action: The DB2 subsystem is abnormally terminated.

Operator Response: Notify the system programmer, print SYS1.LOGREC, and request an SVC dump.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This reason code is issued by the following CSECT: DSNB1LPL

00C20300

Explanation: This is a DB2 internal error. The execution unit attempted to access, claim, or drain a page set or partition, but the page set was not logically opened.

This reason code is issued by the following CSECTs: DSNB1CLM DSNIOPNP DSNISGSC DSNITFFS DSNIWPSC DSNUQUIA

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00C20301

Explanation: This is a DB2 internal error. The execution unit attempted to access, claim, or drain a logical partition, but the page set is not a type 2 nonpartitioned page set.

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This reason code is issued by the following CSECTs:

DSNB1LCM	DSNB1LDN	DSNB1CPP	DSNBWFOR
DSNBLCLM	DSNBDRN	DSNBDDRN	

00C20302

Explanation: This is a DB2 internal error. A page set was not logically opened by the execution unit that was attempting to do one of the following:

- Logical close a page set
- Physical close a page set or partition

This reason code is issued by the following CSECT: DSNB1DDN

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00C20303

Explanation: This is a DB2 internal error. A page set is not in-use, but an execution unit was attempting to do one of the following:

- Logical close a page set
- Physical close a page set or partition

This reason code is issued by the following CSECT: DSNB1CPS

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00C20304

Explanation: This is a DB2 internal error. During force write processing, the buffer manager detected that the write claim class count is not zero or there are pending updates on the page set or partition.

This reason code is issued by the following CSECT: DSNB1WFO

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00C20305

Explanation: This is a DB2 internal error. The execution unit attempted to access, claim, drain, open, or close a partition or piece, but the partition or piece number is invalid.

This reason code is issued by the following CSECTs: DSNB1ABP, DSNB1CLM, DSNB1CPP, DSNB1DCM, DSNB1DDN, DSNB1DRA, DSNB1GET, DSNB1SWS, DSNICLDR, DSNICLOS, DSNICLTO, DSNICMTC, DSNICMT2, DSNIDALC, DSNIERST, DSNIWPSC, DSNIOPNP, DSNIRCLS, DSNISGSC, DSNITFFS, DSNPXTN0, DSNUQUIA, DSNXISB2

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00C20306

Explanation: This is a DB2 internal error.

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print SYS1.LOGREC, and request an SVC dump.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This reason code is issued by the following CSECTs: DSNB1GET, DSNB1LTS, DSNB1LTX, DSNB1SWS

00C20307

Explanation: This is a DB2 internal error.

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print SYS1.LOGREC, and request an SVC dump.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This reason code is issued by the following CSECT: DSNBLTCH

X'C3.....' Codes

For information about the CICS transaction abend/dump code DSNC, refer to “Appendix A. CICS Transaction Abend/Dump Code” on page X-3.

00C30001

Explanation: The CICS attachment facility terminated because of errors that cannot be corrected. The attachment facility task-related user exit detected one of the following conditions:

- The life of task block (LOT) is invalid.
- The LOT and connection control table (CCT) element were disconnected before the end of a unit of recovery
- The previous application program support (APS) call failed and a commit call is being attempted

These symptoms might be caused by an overlay of the LOT and/or the CCT.

This abend reason code is issued by the following CSECTs: DSNCMSUB DSN2MSUB

System Action: The CICS attachment facility terminates.

Operator Response: Notify the system programmer.

System Programmer Response: Analyze the dumps and system console messages for storage violations.

Problem Determination: One or more control blocks do not pass validity checks. The most probable cause is that they were overlaid by some user application. A CICS dump (DSNC) and a subtask dump (system abend X'04E' with abend reason code 00C30001) were requested. Register 9 in the CICS transaction dump contains the address of the LOT.

If the LOT is valid, CLOTCCTE contains the CCT element address, and CCCTLOT contains the LOT address. Use these pointers (CLOTCCTE and CCCTLOT) to verify the validity of the LOT and the CCT element. Both control blocks should contain seven character eye catchers (DSNCLOT and DSNCCCT or DSN2LOT and DSN2CCT). If they are in error, check the application program for possible storage violations.

00C30002

Explanation: The CICS attachment facility was not able to start.

This abend reason code is issued by the following CSECTs: DSNCMSUB DSN2MSUB

System Action: The CICS attachment facility terminates.

Operator Response: Notify the system programmer.

Problem Determination: A subtask dump (system abend X'04E' with abend reason code 00C30002) is requested unless FRBRC2 equals 00F30013 or 00F30058. Within the dump, register 7 contains the address of the resource control table load module. In this load module, location CRCTCCTA contains the address of the connection control table (CCT) in subpool 99. The CCT contains the FRB control block for the IDENTIFY to DB2. The FRB control block begins at CCCTFRB within the CCT. You can also locate the FRB with the CCT control block by scanning the CCT for the FRB character string eye catcher. The FRB contains two fields, FRBRC1 and FRBRC2, which contain the return code and reason code from the IDENTIFY to the DB2 subsystem.

00C30003

Explanation: The CICS attachment facility could not complete a recover indoubt call because of the return and reason codes from DB2.

This abend reason code is issued by the following CSECTs: DSNCMSUB DSN2MSUB

System Action: The CICS attachment facility terminates. The unit of recovery (UR) is not resolved and remains indoubt.

Operator Response: Notify the system programmer.

Problem Determination: The return code from the recover indoubt process does not allow the CICS attachment facility to complete the unit of recovery (UR). If the UR included in the error is valid, an attempt should be made to resolve the UR manually, using the DB2 -RECOVER command.

A subtask dump (system abend X'04E' with abend reason code 00C30003) is requested. Register 7 contains the address of the resource control table. Location CRCTCCTA in load module DSNCRCTx or DSN2CTxx contains the address of the connection control table (CCT) in subpool 99.

The CCT contains the FRB control block, which can be located by scanning the CCT for the FRB character string eye catcher. FRBRC1 and FRBRC2 contain the return code and reason code from DB2.

A nonzero return code indicates problems specified by the reason code. Higher return codes (4, 8, and 12) indicate higher severity.

Examine the MVS console for DB2 messages that might indicate any related errors. If an SVC dump was also taken, print it as well as the SYS1.LOGREC to obtain further diagnostic information. The CICS SYSTEM LOG might help to determine the final disposition of the indoubt unit of work.

Register 6 in the subtask abend dump plus X'20' contains the address of a 16-byte area that contains the network id (NID). The last 8 bytes of the NID contain the store clock value that was passed to DB2 by CICS to identify the logical unit of work (LUW). This value can be used to correlate the DB2 unit of recovery with the CICS logical unit of work.

00C30004

Explanation: A thread subtask failed because of a validity check failure of a transaction-related life of task block (LOT).

This abend reason code is issued by the following CSECTs: DSNCEXT3 DSN2EXT3

System Action: The CICS attachment facility continues operation; however, the one subtask is abended and a subtask dump (system abend X'04E' with abend reason code 00C30004) is requested.

Because the LOT contains an ECB on which the CICS application is waiting and this error indicates the LOT was overlaid, the effect on the CICS application is unpredictable.

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Operator Response: Notify the system programmer.

Problem Determination: The most probable cause is that the LOT was overlaid by some user application. In the subtask abend dump, register 7 contains the address of the resource control table (RCT).

CRCTCCTA in the RCT contains the address of the CCT, and CCCTLN in the CCT contains its length. Register 9 contains the CCT element that was assigned to the application in error.

This CCT element address can be validated by ensuring that it lies within the CCT. If the CCT address is valid, CCCTLOT contains the address of the LOT in error. To determine the source of the error, analyze the subtask dump and check the CICS master terminal for any storage violation messages.

00C30005

Explanation: The CICS attachment facility could not complete a commit or abort call for a transaction because of return codes from the application program support call.

This abend reason code is issued by the following CSECTs: DSNCEXT3 DSN2EXT3

System Action: The CICS attachment facility continues operation, but the one subtask abends with a subtask dump (system abend X'04E' with abend reason code 00C30005). The CICS transaction that is associated with the abend is also abended with a CICS transaction dump

Operator Response: Notify the system programmer.

Problem Determination: The return code from the commit or abort does not allow the CICS attachment facility to complete the transaction's unit of recovery. Register 7 in the subtask dump contains the address of the resource control table (RCT).

Location CRCTCCTA in the RCT load module contains the address of the connection control table (CCT) in subpool 99. CCCTCSUB in the CCT contains the address of the subtask work area (CSUB or C2UB).

The subtask work area contains the FRB control block, which you can locate by scanning DSNCSUB or DSN2SUB for the FRB character string eye catcher. FRBRC1 and FRBRC2 contain the return code and reason code from DB2.

A nonzero return code indicates trouble specified by the reason code. Higher return codes (4, 8, and 12) indicate higher severity.

Refer to the reason code in "Section 4. DB2 Codes" on page 4-1 and prepare a search argument, using the reason code as the appropriate keyword. If the reason code is not listed, it is an internal code that is useful only as a keyword.

If an SVC dump was also taken, print it and the SYS1.LOGREC to obtain further diagnostic information.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00C30006

Explanation: The CICS attachment facility failed because of return codes from the MVS ATTACH macro while attempting to start a thread subtask.

This abend reason code is issued by the following CSECTs: DSNCMSUB DSN2MSUB

System Action: The CICS attachment facility terminates.

Operator Response: Notify the system programmer.

Problem Determination: A subtask dump (system abend X'04E' with abend reason code 00C30006) is requested. To determine why the ATTACH failed, use the MVS dump, MVS system trace, SYS1.LOGREC, and MVS console listing. Refer to the appropriate MVS publication to interpret the meaning of return codes from the MVS ATTACH macro.

00C30007

Explanation: The start of the CICS attachment facility failed because of return codes while attempting to establish a shutdown listen exit with DB2.

This abend reason code is issued by the following CSECTs: DSNCMSUB DSN2MSUB

System Action: The CICS attachment facility terminates.

Operator Response: Notify the system programmer.

Problem Determination: The return code from the establish exit process does not allow the CICS attachment facility to start. A subtask dump (system abend X'04E' with abend reason code 00C30007) is requested. Register 7 contains the address of the resource control table (RCT).

Location CRCTCCTA in the RCT load module (DSNCRCTx or DSN2CTxx) contains the address of the connection control table (CCT) in subpool 99. The CCT contains the FRB control block, which can be located by scanning the CCT for the FRB character string eye catcher. FRBRC1 and FRBRC2 contain the return code and reason code from DB2.

A nonzero return code indicates trouble specified by the reason code. Higher return codes (4, 8, and 12) indicate higher severity.

Refer to the reason code in "Section 4. DB2 Codes" on page 4-1. If the reason code is not listed, it is an internal code that is useful only as a keyword.

If an SVC dump was also taken, print it as well as the SYS1.LOGREC to obtain further diagnostic information.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00C30008

Explanation: The start of the CICS attachment facility failed while attempting to establish an ESTAE recovery exit. because of reasons indicated by the return codes.

This abend reason code is issued by the following CSECTs: DSNCMSUB DSN2MSUB

System Action: An X'04E' abend subtask dump is taken, and the CICS attachment facility remains partially initialized.

Operator Response: Notify the system programmer, and issue the DSNC STOP FORCE command.

Problem Determination: The return code from the ESTAE macro does not allow the CICS attachment facility to start. A subtask dump (system abend X'04E' with abend reason code 00C30008) is requested. To determine why the ESTAE failed, use the MVS dump, MVS system trace, SYS1.LOGREC, and MVS console listing. The MVS trace contains the return code from the ESTAE macro. Refer to the appropriate MVS publication for the meaning of return codes from the MVS ESTAE macro.

00C30009

Explanation: The CICS attachment facility failed because of the return code and reason code from DB2 for the SHOW INDOUBT units of recovery process.

This abend reason code is issued by the following CSECTs: DSNCMSUB DSN2MSUB

System Action: The CICS attachment facility terminates, and a subtask dump is requested.

Operator Response: Notify the system programmer.

Problem Determination: The return code from the SHOW INDOUBT process does not allow the CICS attachment facility to continue. A subtask dump (system abend X'04E' with abend reason code 00C30009) is requested. Register 7 contains the address of the resource control table (RCT).

Location CRCTCCTA in the RCT load module (DSNCRCTx or DSN2CTxx) contains the address of the connection control table (CCT) in subpool 99. The CCT contains the FRB control block, which can be located by scanning the CCT for the FRB character string eye catcher. FRBRC1 and FRBRC2 contain the return code and reason code from DB2.

A nonzero return code indicates trouble specified by the reason code. Higher return codes (4, 8, and 12) indicate higher severity. Analyze the subtask dump.

Refer to the reason code in “Section 4. DB2 Codes” on page 4-1. If the reason code is not listed, it is an internal code that is useful only as a keyword.

If an SVC dump was also taken, print it and the SYS1.LOGREC to obtain further diagnostic information.

If you suspect and error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00C30010

Explanation: An IDENTIFY call to DB2 from a CICS attachment facility connection subtask failed, indicating that DB2 is no longer active.

This abend reason code is issued by the following CSECTs: DSNCEXT3 DSN2EXT3

System Action: A subtask dump is requested for the failing task thread, and the automatic STOP of the CICS attachment facility is initiated.

Operator Response: Notify the system programmer.

Problem Determination: Some other error, which is the source of the failure, probably occurred prior to this action. Use the subtask dump, SYS1.LOGREC, MVS console listing, and any SVC dumps that might have been requested if DB2 failed.

00C30011

Explanation: The CICS attachment facility detected that a resource control table (RCT) entry was corrupted or overlaid since the CICS attachment facility was last started.

This abend reason code is issued by the following CSECTs: DSNCEXT3 DSN2EXT3

System Action: The CICS attachment facility abends CICS task with a CICS transaction abend.

Operator Response: Notify the system programmer.

System Programmer Response: Stop and then restart the CICS attachment facility to refresh the RCT.

Problem Determination: Analyze the CICS dumps to determine which CICS trans-id and corresponding RCT entries were affected. The CICS transaction dump contains the RCT storage at the time of the failure. Location CRCTAUWD in the affected RCT entry was altered since the CICS attachment facility was last started. This might be caused by an application program modifying storage it does not own (a CICS storage violation).

00C30020

Explanation: A previous error occurred during create thread processing which put the transaction in a must-abort state. The only request allowed in this state is a SYNCPOINT ROLLBACK.

This abend reason code is issued by the following CSECTs: DSNCEXT1 DSN2EXT1

System Action: The transaction is placed in a must-abort state and remains in that state until the transaction terminates or issues a SYNCPOINT ROLLBACK. Any SQL statement issued by a transaction while in a must-abort state receive an SQLCODE -906. SYNCPOINT requests without the ROLLBACK option cause an ASP7 abend.

User Response: If the create thread error was anticipated, and the transaction can correct the situation that caused the create thread error, the transaction might issue a SYNCPOINT ROLLBACK and continue processing.

System Programmer Response: If it is undesirable for a transactions to continue after create thread errors, reassemble the resource control table (RCT) and change the PCTEROP parameter to AEY9, or remove it completely and take the default.

Problem Determination: Unless PCTEROP=N906, this error reason code is preceded by a DSNC transaction dump, which provides diagnostic information about the create thread failure. The SQLCA also contains the SQL return code identifying the create thread error.

00C30021

Explanation: The CICS attachment facility detected an application which is using the instrumentation facility interface (IFI) and is link-edited with a back level version of the CICS attachment facility language interface module DSNCLI.

This abend reason code is issued by the following CSECTs: DSNCEXT1 DSN2EXT1

System Action: The transaction is abended with a DSNC abend. The life of task block (LOT) contains reason code 00C30021.

User Response: Relink-edit the application with the appropriate version of the CICS attachment facility language interface module DSNCLI which corresponds to the current CICS attachment facility maintenance level.

System Programmer Response: Ensure the appropriate level of the CICS attachment facility language interface module DSNCLI is available to all users. Discard any back level version of DSNCLI.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: If the problem continues to occur after link-editing the application again with the proper level of the CICS attachment facility language interface module, validate that the correct DSNCLI is being used.

The eye catcher in DSNCLI should have the proper maintenance level identified. Look at the DSNCLI, which is actually link-edited with the application to ensure the proper level.

00C30100

Explanation: An application attempted to issue an SQL request when the CICS attachment was not operational. This reason code results when the attachment is in STANDBY mode and the RCT STANDBY option is “SQLCODE.”

System Action: The SQL request is not executed.

User Response: Wait until the CICS attachment facility is started. Then resubmit the transactions that failed.

Operator Response: Restart the CICS attachment facility after ensuring that DB2 is active.

System Programmer Response: Collect any dumps produced by the CICS attachment facility or DB2, the MVS system console log, and any record of -STOP DB2 commands that might have been issued. Determine if the termination of the CICS attachment facility was the result of a DB2 stop command or abnormal termination of DB2.

Problem Determination: The CICS attachment facility was in standby mode. This occurs if DB2 stops and the RCT STANDBY option is “SQLCODE.” Locate all the CICS attachment facility dumps and all DB2 termination dumps. Follow the problem determination procedures documented for the error conditions that caused the dumps to be produced.

00C30805

Explanation: The caller's connection with DB2 terminated because the CICS attachment facility is terminating in stop force mode. This reason code indicates that the CICS attachment facility is terminating because stop force was initiated. Stop force was probably initiated by the DSNC STOP FORCE command, the STOP DB2 MODE(FORCE) command, DB2 abnormally terminating, or the CICS attachment facility abnormally terminating. If a command was not used to cause stop force processing, abnormal termination dumps are produced by either DB2 if it is abnormally terminating, or by the CICS attachment facility if it is abnormally terminating.

This abend reason code is issued by the following CSECTs: DSNCEXT1 DSN2CEXT1

System Action: All current requests are returned with an indication that the CICS attachment facility is terminating.

User Response: Wait until the CICS attachment facility is restarted; then resubmit the transactions that failed.

Operator Response: Restart the CICS attachment facility after ensuring that DB2 is active.

System Programmer Response: Collect any dumps produced by the CICS attachment facility or DB2, the MVS system console log, and any record of DSNC STOP commands that might have been issued. Determine if the termination of the CICS attachment facility was the result of a STOP command or abend.

Problem Determination: The CICS attachment facility was forced into termination. This occurs if the DSNC STOP FORCE command is issued, if the CICS attachment facility detected an unexpected condition, if the DB2 STOP MODE(FORCE) command was issued, or if DB2 abnormally terminated. If the stop command with the force option was not issued, locate all the CICS attachment facility abnormal termination dumps and all DB2 abnormal termination dumps. Follow the problem determination procedures documented for the error conditions that caused the dumps to be produced.

X'C5.....' Codes

For these codes, the standard documentation to be collected is a SYSUDUMP and a printout of the DSNTRACE data set. The standard SPUFI documentation is a SYSUDUMP and a printout of the ISPF log for this session. A SYSUDUMP data set must be allocated in advance to collect your dump. A DSNTRACE data set must be allocated in advance to collect your DSN trace stream unless you are running in the background, in which case the SYSTSPRT data set contains the DSNTRACE output. ISPF normally runs with an active log data set. ISPF suppresses dumps unless it is invoked with the TEST parameter. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

In the TSO attachment facility, the user can control whether or not message IDs are displayed. To see them, type PROFILE MSGID. To suppress them, type PROFILE NOMSGID.

The following abends can occur in the TSO attachment facility.

00C50001

Explanation: This is probably a DB2 subsystem error. DSNESM30 has detected an illegal value in the YTYPE portion of the SQLTYPE field of the SQLDA.

This abend reason code is issued by the following CSECT: DSNESM30

User Response: If the problem persists, notify the system programmer.

System Programmer Response: The standard SPUFI documentation should be collected. Refer to "X'C5.....' Codes" for information about obtaining dumps and displaying message IDs.

Problem Determination: An illegal value was detected in the SQLTYPE field of the SQLDA. This may have been caused by this field being overlaid in error. To determine the source of the error, analyze the SQLDA in the storage dump.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 4, 21.

00C50002

Explanation: This is probably a DB2 subsystem error. DSNESM32 has detected an illegal value in the YTYPE portion of the SQLTYPE field of the SQLDA. This suggests that an illegal value was in the SQLTYPE field of the SQLDA.

This abend reason code is issued by the following CSECT: DSNESM32

User Response: If the problem persists, notify the system programmer.

System Programmer Response: The standard SPUFI documentation should be collected. Refer to "X'C5.....' Codes" for information about obtaining dumps and displaying message IDs.

Problem Determination: An illegal value was detected in the YTYPE of the SQLDA. This may have been caused by this field being overlaid in error. Analyze the SQLDA in the storage dump to determine the source of the error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 4, 21.

00C50003

Explanation: This could be either a user or a system error. SPUFI was unable to obtain the required storage via GETMAIN.

This abend reason code is issued by the following CSECTs: DSNESM10, DSNESM20

System Action: SPUFI task abends. User returns to ISPF main menu.

User Response: If the problem persists, notify the system programmer. You may have to specify a larger machine size at logon time.

System Programmer Response: If the problem persists, the standard SPUFI documentation should be collected. Refer to "X'C5.....' Codes" for information about obtaining dumps and displaying message IDs.

Problem Determination: Register 2 contains the amount of storage that was requested. Message DSNE392E, in the ISPF log data set, gives the name of the module that issued this abend.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 4, 21.

00C50005

Explanation: This could be either a user or a system error. The DYNALLOC SVC returned an unexpected return code when attempting to allocate a data set.

This abend reason code is issued by the following CSECT: DSNESM55

System Action: The contents of the field are written to the ISPF log.

User Response: If the problem persists, notify the system programmer.

System Programmer Response: The standard SPUFI documentation should be collected. Refer to "X'C5.....' Codes" for

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information about obtaining dumps and displaying message IDs.

Problem Determination: Message DSNE381E, in the ISPF log data set, gives the return code and reason code values returned from the dynamic allocation request. Refer to the appropriate MVS publication to determine the source of the error and analyze these values.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 4, 21.

00C50007

Explanation: This is probably an error in the SPUFI code. The field describing the record format of the output data set is not valid.

This abend reason code is issued by the following CSECT: DSNESM55

System Action: The contents of the field are written to the ISPF log.

User Response: If the problem persists, notify the system programmer.

System Programmer Response: The standard SPUFI documentation should be collected. Refer to “X'C5.....' Codes” on page 4-47 for information about obtaining dumps and displaying message IDs.

Problem Determination: Message DSNE383A, in the ISPF log data set, gives the record format of the output data set that was determined to be in error. The output data set record format must be one of the following: F, FB, FBA, V, VB, or VBA.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 4, 21.

00C50008

Explanation: This could be either a user or a system error. The DYNALLOC SVC returned an unexpected return code when attempting to deallocate a data set.

This abend reason code is issued by the following CSECT: DSNESM55

System Action: The contents of the field are written to the ISPF log

User Response: If the problem persists, notify the system programmer.

System Programmer Response: The standard SPUFI documentation should be collected. Refer to “X'C5.....' Codes” on page 4-47 for information about obtaining dumps and displaying message IDs.

Problem Determination: Message DSNE384E, in the ISPF log data set, gives the return code and reason code values returned from the dynamic allocation request. Analyze these values to determine the source of the error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 4, 21.

00C50009

Explanation: This is probably caused by an error in the SPUFI code. The SQLCODE translation service (module DSNTIAR) has returned an unexpected return code.

This abend reason code is issued by the following CSECT: DSNESM40

System Action: The contents of the field have been written to the ISPF log.

User Response: If the problem persists, notify the system programmer.

System Programmer Response: The standard SPUFI documentation should be collected. Refer to “X'C5.....' Codes” on page 4-47 for information about obtaining dumps and displaying message IDs.

Problem Determination: Message DSNE387A, in the ISPF log data set, gives the return code value returned from DSNTIAR. The meanings of these return codes are:

4 More data was available than could fit into the message area provided.

8 The LRECL was not within the limits:

```
72 ≥ LRECL ≤ 240
```

12 The message area was not large enough:

```
Message length ≥ 240
```

16 Error in message routine (IKJEFF02).

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 4, 21.

00C50100

Explanation: This is probably caused by an error in the DSN command processor code. Module DSNECP66 (in the DSN command processor) called module DSNTIAR to format an error message to explain an unexpected SQL return code received by DCLGEN. DSNTIAR failed.

This abend reason code is issued by the following CSECT: DSNECP66

User Response: If the problem persists, notify the system programmer.

System Programmer Response: The standard documentation should be collected, including a DSN trace stream. Refer to “X'C5.....' Codes” on page 4-47 for information about obtaining dumps and displaying message IDs.

Problem Determination: Message DSNE004E in the output gives the return code value returned from DSNTIAR. For an explanation of these return codes, see abend reason code '00C50009'.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 4, 20.

00C50101

Explanation: The user has entered the ABEND subcommand of the DSN command processor. This causes a X'04E' abend and a dump to be requested. In order to retain the dump, you must have previously allocated a SYSUDUMP or SYSADUMP data set. The ABEND subcommand can be useful for debugging.

This abend reason code is issued by the following CSECT: DSNECP19

System Action: A X'04E' abend results, and a dump is requested.

System Programmer Response: The standard documentation may be needed. Refer to "X'C5.....' Codes" on page 4-47 for information about obtaining dumps and displaying message IDs.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 4, 20.

00C50102

Explanation: An error probably occurred in DB2 while it attempted to process an IDENTIFY request from the DSN command processor. DSN received an unexpected return code (FRBRC1 or FRBRC2) from DB2.

This abend reason code is issued by the following CSECT: DSNECP12

System Action: Immediately after writing this message, DSN abends with an abend code of X'04E' and an abend reason code of '00C50102'.

User Response: If the problem persists, notify the system programmer.

System Programmer Response: See the Problem Determination section of this message.

Problem Determination: Rerun the job with DSN tracing turned on. You may need a SYSUDUMP from the TSO address space. You probably need a DB2 dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 4, 20.

00C50103

Explanation: An error probably occurred in DB2 while it attempted to process an ESTABLISH EXIT request from the DSN command processor. DSN received an unexpected return code (FRBRC1 or FRBRC2) from DB2.

This abend reason code is issued by the following CSECT: DSNECP12

System Action: Immediately after writing this message, DSN abends with an abend code of X'04E' and an abend reason code of '00C50103'.

User Response: If the problem persists, notify the system programmer.

System Programmer Response: See the Problem Determination section of this message.

Problem Determination: Rerun the job with DSN tracing turned on. You may need a SYSUDUMP from the TSO address space. You probably need a DB2 dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 4, 20.

00C50104

Explanation: An error probably occurred in DB2 while it attempted to process a CREATE THREAD request from the DSN command processor. DSN received an unexpected return code (FRBRC1 or FRBRC2) from DB2.

This abend reason code is issued by the following CSECT: DSNECP13

System Action: Immediately after writing this message, DSN abends with an abend code of X'04E' and an abend reason code of '00C50104'.

User Response: If the problem persists, notify the system programmer.

System Programmer Response: See the Problem Determination section of this message.

Problem Determination: Rerun the job with DSN tracing turned on. You may need a SYSUDUMP from the TSO address space. You probably need a DB2 dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 4, 20.

00C50108

Explanation: An error probably occurred in DB2 while it attempted to process a BIND, REBIND, or FREE request from the DSN command processor. DSN received an unexpected return code (FRBRC1 or FRBRC2) from DB2.

This abend reason code is issued by the following CSECT: DSNECP30

System Action: Immediately after writing this message, DSN abends with an abend code of X'04E' and an abend reason code of '00C50108'.

User Response: If the problem persists, notify the system programmer.

System Programmer Response: See the Problem Determination section of this message.

Problem Determination: Rerun the job with DSN tracing turned on. You may need a SYSUDUMP from the TSO address space. You probably need a DB2 dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 4, 20.

00C50109

Explanation: An error probably occurred in DB2 while it attempted to process a TERMINATE request from the DSN command processor. DSN received an unexpected return code (FRBRC1 or FRBRC2) from DB2.

This abend reason code is issued by the following CSECT: DSNECP18

System Action: Immediately after writing this message, DSN abends with an abend code of X'04E' and an abend reason code of '00C50109'.

User Response: If the problem persists, notify the system programmer.

System Programmer Response: See the Problem Determination section of this message.

Problem Determination: Rerun the job with DSN tracing turned on. You may need a SYSUDUMP from the TSO address space. You probably need a DB2 dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 4, 20.

00C50110

Explanation: This is a DSN command processor error. It occurs when the DSN STAX routine (DSNEBP01) is entered and the DSN control blocks cannot be located; the AEPLUSR field did not contain the CIB address.

This code is issued by the following CSECT: DSNECP01

Severity: 4

System Action: The DSN command processor abended.

User Response: If you allocated a SYSUDUMP or SYSABEND dump data set, collect the dump. Otherwise, allocate SYSUDUMP and DSNTRACE data sets, turn on DSN tracing, and try to recreate the error. Save these data sets.

00C50111

Explanation: Your application program made an instrumentation facility component application program interface (instrumentation facility interface) call to DB2 language interface module DSNELI, but your application program was not running under the DSN command processor. You must run all application programs using DSNELI under DSN. To do this, first issue the DSN command, then start your application using the RUN subcommand of the DSN command processor, and finally, when the application completes, stop DSN with an END subcommand.

This reason code is issued by the following CSECT: DSNELI

System Action: Control returns to the application. Your application can continue processing. Further attempts at instrumentation facility interface (IFI) calls will continue to produce this return and reason code.

User Response: Rerun your application under the DSN command processor.

Operator Response: Notify your system programmer.

System Programmer Response: Modify the job to invoke DSN. Initiate the application program using the RUN subcommand of the DSN command processor.

X'C6.....' Codes

00C60001

Explanation: DB2 received return code X'20' when issuing a WTO request to display a DB2 console message. MVS sets this return code when there are no message buffers for either Multiple Console Support (MCS) or JES3, or when there is a JES3 WTO staging area excess. The WTO request is terminated. The current DB2 console message and all subsequent DB2 informational console messages are ignored until the MVS problem is corrected.

At the time of the abend, general register zero contains the return code from WTO request.

This abend reason code is issued by the following CSECT: DSNFWTO

System Action: A record is written to SYS1.LOGREC. A retry is requested and execution continues. DB2 resumes issuing console messages when the condition is corrected.

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X'C8.....' Codes

Abends in the precompiler are not intercepted via ESTAE, so standard system abends might occur. The SYNAD exit is not used, so I/O errors cause S001 or S002 abends. S04E abends are generated for precompiler internal errors. Following is a list of reason codes.

00C8901x

Explanation: An internal precompiler/parser consistency check failed. An S04E abend is generated. The error type and reason code are found in register 15 of the dump.

In the reason code, x is one of the following:

1 Parser received a token code of 0 from a lexical scan. A lexical scan refers to a scan of words rather than syntax.

2 Error in storage suballocation control blocks. The error might occur when a DB2 SQL statement limitation is exceeded. The SQL statement might be referencing, creating, or declaring more columns than the DB2 defined maximum number allowed for an SQL statement. Another possibility is that too many host variables are being referenced in the SQL statement.

3 Error in storage suballocation request. This error might occur because of storage constraints when building the DBRM entry for the SQL statement or because the SQL statement exceeds the DB2 maximum statement length.

4 Error in pointer structures.

5 Host variable information in the precompiler/parser dictionary or in the DBRM is not consistent with host variable information for an SQL statement. The error might occur when the precompiler misinterprets an illegal host variable declaration.

6 Unexpected value for parser option.

7 Internal limit exceeded. A fully qualified name exceeds the maximum length of 255 characters.

8 Internal conversion error. An error occurred when converting a timestamp version-id.

9 Internal stack storage exhausted. version-id.

This reason code is issued by the following CSECTs:

DSNHANAL	DSNHCORE	DSNHDBRM	DSNHNBRM
DSNHPARS	DSNHPAUT	DSNHSMUD	DSNHSTMD
DSNHTEXL	DSNHXLTR		

System Programmer Response: Obtain the SVC dump and a copy of the application program source. If the abend reason code is 00C89015, obtain a copy of the DBRM being bound (IEBCOPY).

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X'C9.....' Codes

00C9000A

Explanation: On a READS request for IFCID 0306, a resource was unavailable while attempting to read the log.

User Response: Reissue the request. If the problem persists, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This reason code is issued by the following CSECT: DSNIDLGR

00C90063

Explanation: On a READS request for IFCID 306, log records are returned, but data is not decompressed as requested.

This reason code is issued by the following CSECT: DSNIDLGR

Problem Determination: See the reason code in field QW0306DG to determine why decompression was not performed. One reason code might be 00C90064, which means that the decompression dictionary changed since the log record was written.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting problems.

00C90064

Explanation: The decompression dictionary changed since the log record was written. The log record is returned with compressed data.

This reason code is issued by the following CSECT: DSNIDCML

System Action: The requested operation (decompression) is not performed.

User Response: Specify a valid WQALLRBA value and reissue the request.

Problem Determination: The specified RBA/LRSN value might be too old.

00C9007D

Explanation: The compression dictionary for the table space or partition cannot be stored in the table space or partition. Therefore, the LOAD or REORG utility cannot complete successfully.

This abend reason code is issued by the following CSECTs: DSNIZLDL, DSNIDLOD

System Action: The table space or partition is implicitly stopped by DB2. Messages DSNT501I and DSNI004I are displayed to inform the operator that the dictionary and the object for which the dictionary is defined are unavailable. An SQLCODE -904 is returned to the SQL end user.

Operator Response: Notify the system programmer.

System Programmer Response: Correct the problem and resubmit the LOAD or REORG job. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00C9007E

Explanation: The compression dictionary for the table space or partition was not successfully retrieved. Therefore, the data request failed.

This abend reason code is issued by the following CSECTs: DSNIRFNX, DSNIRLPG, DSNICUMR, DSNIMSMS, DSNINXPT, DSNIRIDC, DSNIRNXT, DSNIRSET, DSNISRID, DSNISFS, DSNISFX, DSNISRTI, DSNICUMW, DSNILREP, DSNIMS1W, DSNIRELF, DSNIRELS, DSNIREDR, DSNIENSR

System Action: The table space or partition is implicitly stopped by DB2. Messages DSNT501I and DSNI004I are displayed to inform the operator that the dictionary and the object for which the dictionary is defined are unavailable. An SQLCODE -904 is returned to the SQL end user.

Operator Response: Notify the system programmer.

System Programmer Response: Correct the problem and inform the user to resubmit the request. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00C9007F

Explanation: The compression dictionary for the table space or partition is invalid. Therefore, the table space or partition cannot be opened.

This abend reason code is issued by the following CSECT: DSNIZLDR

System Action: The table space or partition is implicitly stopped by DB2. Messages DSNT501I and DSNI004I are displayed to inform the operator that the dictionary and the object for which the dictionary is defined are unavailable. An SQLCODE -904 is returned to the SQL end user.

Operator Response: Notify the system programmer.

System Programmer Response: Recover and start the table space or partition and tell the user to resubmit the request.

00C90080

Explanation: An attempt was made to allocate a resource for update operations. However, the resource was already started for read-only access.

This reason code is issued by the following CSECTs:

DSNIDBCA DSNIDBCI DSNIDBCN DSNIDBCP DSNIDBET

System Action: The allocation process is not allowed.

User Response: Determine when the resource is started for read/write access, and rerun the job.

Operator Response: If this reason code appears in message DSNT501I, determine whether the named resource should be started for read-only access.

Problem Determination: The requested operation is not performed. An SQLCODE -904 is issued, and/or message DSNT501I is issued. For more information, refer to the SQL return code in “Section 2. SQL Return Codes” on page 2-1 or to the description of the DSNT501I message in “DSNT... Messages” on page 3-201.

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SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 5, 32.

00C90081

Explanation: An attempt was made to allocate a resource that is stopped for all access.

This reason code is issued by the following CSECTs:

DSNIDBCA DSNIDBCI DSNIDBCJ DSNIDBCN
DSNIDBCO DSNIDBCP DSNIDBCQ DSNISTDB
DSNISTPS

System Action: The allocation process is not allowed.

User Response: Determine when the resource is no longer stopped, and rerun the job.

Operator Response: If this reason code appears in message DSNT500I or DSNT501I, determine whether the resource should be stopped.

Problem Determination: The requested operation is not performed. An SQLCODE -904 or -923 is issued, and/or message DSNT500I or message DSNT501I is issued. For more information, refer to the SQL return code in Section 2. SQL Return Codes, or to the description of the DSNT500I or DSNT501I message in DSNT... Messages.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 5, 32.

00C90082

Explanation: An attempt was made to allocate a resource that is already allocated to a DB2 utility function.

This reason code is issued by the following CSECTs:

DSNIDBCJ DSNIDBCO DSNIDBCQ

System Action: The allocation process is not allowed.

User Response: Determine when the resource is available and rerun the job.

Problem Determination: The requested operation is not performed. An SQLCODE -904 or -923 is issued, and/or message DSNT501I is issued. The resource allocated to the DB2 utility function might be either in use by a utility or reserved for a utility. If the resource is reserved for a utility, but not currently in use, the -DISPLAY UTILITY command will indicate that no utilities are operating on that object. To access a resource that is reserved for a utility, use the -TERM UTILITY command. For more information, refer to the SQL return code in "Section 2. SQL Return Codes" on page 2-1, or to the description of the DSNT501I message in "DSNT... Messages" on page 3-201.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 5, 32, 72.

00C90083

Explanation: An attempt was made to allocate a resource for update operations. However, the resource is already allocated to a DB2 utility function that allows other users to have read-only access.

This reason code is issued by the following CSECTs:

DSNIDBCJ DSNIDBCO DSNIDBCQ

System Action: DB2 determines whether there is a utility function that would prohibit allocation of the resource. If it finds an indication of a such a utility, the allocation of the resource is not allowed.

User Response: Determine when the resource is no longer restricted by a utility and is started for read/write access, and rerun the job.

Problem Determination: The requested operation is not performed. An SQLCODE -904 or -923 is issued, and/or message DSNT501I is issued.

The resource allocated to the DB2 utility function might be either in use by a utility or reserved for a utility. If the resource is reserved for a utility, but not currently in use, the -DISPLAY UTILITY command will indicate that no utilities are operating on that object. The -DISPLAY DATABASE command shows which restrictive states DB2 assigned to the resource in question. Utilities set a restrictive state (for example, UTRO) on the resource that they are processing, and then remove this state when the utility successfully completes. Therefore, if the -DISPLAY DATABASE command is issued after the successful completion of the utility, the restrictive state set by the utility is not displayed. To access a resource that is reserved for a utility, use the -TERM UTILITY command. For more information, refer to the SQL return code in "Section 2. SQL Return Codes" on page 2-1, or to the description of the DSNT501I message in "DSNT... Messages" on page 3-201.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 5, 32, 72.

00C90084

Explanation: The temporary file with the page size shown in NAME is not available. An error was detected either during the opening of the page set or during the formatting of the header and the space map pages of the page set.

This reason code is issued by the following CSECTs: DSNIWKFL, DSNITFFS

System Action: DB2 startup/restart continues if this reason code appears in a DSNT500I message issued during the startup process.

If the reason code appears in a DSNT500I message issued during the -START DATABASE command, the request fails. In either case, the temporary file function does not allocate any temporary file on the page set.

User Response: Delete and redefine the temporary data set(s) in question, and then issue the -START DATABASE command to start the temporary file.

Problem Determination: The requested operation is not performed. An SQLCODE -904 is issued, and/or message DSNT500I is issued. For more information, refer to the SQL return code in "Section 2. SQL Return Codes" on page 2-1, or to the description of the DSNT500I message in "DSNT... Messages" on page 3-201.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 4, 5, 10, 32.

00C90085

Explanation: The limit of 253 extends for a temporary file has been reached.

One of the following could be the reason.

- Large number of concurrent transactions requiring use of temporary files.
- Small primary/secondary quantity defined for table space(s) in temporary file database.
- Inadequate space allocated to temporary file database.

This reason code is issued by the following CSECT: DSNIWCUB

System Action: The request to extend temporary file is not allowed.

User Response: To resolve the above situation, do one of the following:

- Reduce the number of concurrent transactions.
- Increase primary/secondary quantity defined for the table space(s) in the temporary file database.
- Increase space allocated to temporary file database.

Problem Determination: The requested operation is not performed. An SQLCODE -904 is issued, and/or message DSNT500I is issued. For more information, refer to the SQL return code in "Section 2. SQL Return Codes" on page 2-1, or to the description of the DSNT500I message in "DSNT... Messages" on page 3-201.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 5, 17, 32, 52.

00C90086

Explanation: An attempt was made to allocate a resource that is started for DB2 utility access only.

This reason code is issued by the following CSECTs:

DSNIDBCA DSNIDBCI DSNIDBCN DSNIDBCP

System Action: The allocation process is not allowed.

User Response: Determine when the resource is available for use, and rerun the job.

Operator Response: If this reason code appears in message DSNT501I, determine whether the resource should be started for utility access only.

Problem Determination: The requested operation is not performed. An SQLCODE -904 or -923 is issued, and/or message DSNT501I is issued. For more information, refer to the SQL code in "Section 2. SQL Return Codes" on page 2-1, or to the description of the DSNT500I message in "DSNT... Messages" on page 3-201.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 5, 32.

00C90087

Explanation: A page that is marked as 'broken' has been read. The database, table space or index space, and the page number are identified in NAME.

This reason code is issued by the following CSECT: DSNIADBR

System Action: The data manager function that detected this condition returns a 'resource not available' condition to its invoker. Access to the page is not be permitted until it is repaired.

User Response: If the TYPE is '00000300', examine the name to determine if the page is in an index space or a table space. Use the REPAIR utility to fix the broken page.

Problem Determination: The requested operation is not performed. An SQLCODE -904 or -923 is issued, and/or message DSNT500I is issued. For more information, refer to the SQL return code in "Section 2. SQL Return Codes" on page 2-1, or to the description of the DSNT500I message in "DSNT... Messages" on page 3-201.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Section 3

of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 5, 32.

00C90088

Explanation: The resource identified by NAME in message DSNT501I is involved in a deadlock condition.

This reason code is issued by the following CSECT: DSNILMCL

System Action: The requested operation is not performed.

User Response: Rerun the application.

System Programmer Response: If the deadlock condition becomes chronic, examine the mix of applications running to determine why the deadlock is occurring.

Problem Determination: The requested operation is not performed. An SQLCODE -911, -913, or -923 is issued, and/or message DSNT501I is issued. For more information, refer to the SQL return code in “Section 2. SQL Return Codes” on page 2-1, or to the description of the DSNT501I message in “DSNT... Messages” on page 3-201.

If statistics trace class 3 is active, IFCID 172 contains diagnostic information. For a discussion of the effects of locking, see Section 5 (Volume 2) of *Administration Guide* . If you suspect and error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 5, 18, 32, 36, 38.

00C90089

Explanation: The environmental descriptor manager (EDM) function of the data manager subcomponent did not have enough storage in its pool to support the retrieval of object with ID 'object id' (DBD ID, SKCT plan name or SKPT package name). The object can be either a database descriptor (DBD), a skeleton cursor table (SKCT) or a skeleton package table (SKPT).

This reason code is issued by the following CSECTs:

DSNGEDLC DSNGEDST DSNGEELC DSNGEFSP
DSNGESLC DSNGEPLC

System Action: The requested operation is not performed.

User Response: Invoke the application again. If, after several attempts, there is still not enough space, the following actions can be taken to reduce EDM storage requirements:

- Reduce the number of concurrent users using DB2.
- Try reducing the number of SQL statements in the plan or package and rebind.
- Try to simplify the database design—for example, reduce the number of partitions in the database.

To increase the EDM pool size definition, on the UPDATE install panels:

- If EDM storage shortage is a recurring problem, change the installation parameters that affect the size of the EDM pool—that is, increase the number of concurrent users and the number of currently active databases, then restart DB2.

Problem Determination: The requested operation is not performed. An SQLCODE -904 or -923 is issued, and/or message DSNT500I is issued. For more information, refer to the SQL return code in “Section 2. SQL Return Codes” on page 2-1, or to the description of the DSNT500I message in “DSNT... Messages” on page 3-201.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on the identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 5, 32.

00C9008A

Explanation: The database procedure installation exit identified by NAME could not be loaded for execution.

This reason code is issued by the following CSECTs: DSNIREDR, DSNIENSR

System Action: The requested operation is not performed.

User Response: Determine the reason the installation exit could not be loaded, correct the problem, and rerun the job.

Problem Determination: The requested operation is not performed. An SQLCODE -904 is issued, and/or message DSNT500I is issued. For more information, refer to the SQL return code in “Section 2. SQL Return Codes” on page 2-1, or to the description of the DSNT500I message in “DSNT... Messages” on page 3-201.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on the identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 5, 32.

00C9008B

Explanation: An attempt was made to create a database, but no DBIDs are available; that is, the system limit has been reached.

This reason code is issued by the following CSECT: DSNGDCID

System Action: The create is not allowed.

User Response: DROP all unused databases, and rerun the job.

Problem Determination: The requested operation is not performed. An SQLCODE -904 is issued, and/or message DSNT500I is issued. For more information, refer to the SQL return code in “Section 2. SQL Return Codes” on page 2-1, or to the description of the DSNT500I message in “DSNT... Messages” on page 3-201.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on the identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 5, 32.

00C9008C

Explanation: An attempt was made to allocate or bind to a partitioned table space for which no clustering index was defined.

This reason code is issued by the following CSECTs:

DSNISPSC DSNICUBC DSNIALLC

System Action: The bind or allocation process is not allowed.

User Response: Define the clustering index for the partitioned table space, and rerun the job.

Problem Determination: The requested operation is not performed. An SQLCODE -904 is issued, and/or message DSNT501I is issued. For more information, refer to the SQL return code in "Section 2. SQL Return Codes" on page 2-1, or to the description of the DSNT501I message in "DSNT... Messages" on page 3-201.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 5, 15, 17, 32, 33, 35.

00C9008D

Explanation: An attempt was made to bind to a table space that had an incomplete clustering definition.

This reason code is issued by the following CSECTs: DSNISPSC, DSNIPSFI

System Action: The bind process is not allowed.

User Response: Complete the clustering definition for the table space, and rerun the job.

Problem Determination: The requested operation is not performed. An SQLCODE -904 is issued, and/or message DSNT501I is issued. For more information, refer to the SQL return code in "Section 2. SQL Return Codes" on page 2-1, or to the description of the DSNT501I message in "DSNT... Messages" on page 3-201.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 5, 15, 17, 32, 33, 35.

00C9008E

Explanation: A lock request for the resource identified by NAME could not be granted, and the request waited for a period longer than the maximum specified by the installation.

This reason code is issued by the following CSECT: DSNILMCL

System Action: The data manager function that detected this condition returns 'resource not available' to its invoker.

Message DSNT378I might also be issued.

Problem Determination: The requested operation is not performed. An SQLCODE -904, -911, -913, or -923 is issued, and/or message DSNT501I is issued. For more information, refer to the SQL return code in "Section 2. SQL Return Codes" on page 2-1, or to the description of the DSNT501I message in "DSNT... Messages" on page 3-201. If a time-out occurs, see also the "System Programmer Response" in message DSNT376I for problem determination.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 5, 18, 32, 36, 38.

00C9008F

Explanation: The database descriptor's size (DBD) has reached the limit of 25% of the EDM Pool size.

This reason code is issued by the following CSECT: DSNGDCPD

System Action: The request to create/alter a database object is not allowed.

User Response: Create the database object in a different database or drop unused database objects from the database. If you drop an object that is an index or a table space, the space becomes available in the DBD as soon as the drop is committed. If you drop an object that is a table, the space in the DBD is made available only after all of the following:

- The DROP is committed.
- The DB2 REORG is run on the table space and there is no point in time recover after the REORG.
- MODIFY is run to delete all image copies of data that contains rows of the dropped table, that is, copies that were taken before the REORG. Note that MODIFY will reclaim space in the DBD only if there are SYSCOPY rows to delete.

Problem Determination: The requested operation is not performed. An SQLCODE -904 is issued, and/or message DSNT500I is issued. For more information, refer to the SQL return code in "Section 2. SQL Return Codes" on page 2-1, or to the description of the DSNT500I message in "DSNT... Messages" on page 3-201.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 5, 32.

00C90090

Explanation: An attempt to lock a required resource failed.

This reason code is issued by the following CSECTs: DSNILMCL, DSNGEFLC

System Action: The operation is not performed.

User Response: Wait for all jobs which hold a lock on the resource in an incompatible lock state to complete before reissuing the failing statement.

Problem Determination: The requested operation is not performed.

If the resource type is table space, table, or index, then issue the -DISPLAY DATABASE command with the LOCKS option to get a list of jobs which currently hold locks on the required resource.

If the resource type is a package, then wait for BIND activity on that package to complete before reissuing the failing request.

If the problem persists after jobs which hold incompatible locks complete, gather diagnostic information to pursue the problem.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 5, 32, 33.

00C90091

Explanation: The table space or index space could not be started, because there is an outstanding indoubt UR that must be resolved before the start is allowed.

This reason code is issued by the following CSECT: DSNILSTS

System Action: The START operation is not performed.

Problem Determination: Message DSNI002I is issued. See the description of that message for additional information.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 5, 32, 33.

00C90092

Explanation: DB2 received an out-of-storage indication from IRLM resulting from a lock, unlock, or lock change request.

This reason code is issued by the following CSECT: DSNILMCL

System Action: A record is written to SYS1.LOGREC only when an abend is issued. No dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: IRLM has exhausted the amount of virtual storage available to it to represent locks. Insufficient virtual storage remains to satisfy this request. Refer to Section 5 (Volume 2) of *Administration Guide* for the IRLM procedure to determine the amount of storage space available.

The current mix of transactions caused all available storage to be used. You can find the number of locks held by a particular transaction by either using the DB2 performance trace facility or by performing IRLM tracing. Refer to Section 5 (Volume 2) of *Administration Guide* for information about the DB2 performance trace facility.

Determine what transactions were running and the number of locks they held. You might want to schedule some of these transactions at a different time.

You can reduce the total number of page or row locks that applications concurrently hold by changing the locking protocol on one or more table spaces. Use one of the following:

- ALTER TABLESPACE...LOCKSIZE ANY
- ALTER TABLESPACE...LOCKSIZE TABLESPACE
- LOCK TABLE statements

If application logic permits, reduce the number of page or row locks concurrently held for SELECT statements by re-binding application plans with isolation level of cursor stability instead of repeatable read or read stability. Refer to Chapter 5 of *SQL Reference* for further information on SELECT.

Problem Determination: One or more of the following might be issued:

- An SQLCODE -904 or -923
- Message DSNT501I
- An abend

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 5, 18, 32, 35, 36.

00C90093

Explanation: An error occurred in IRLM.

This reason code is issued by the following CSECT: DSNILMCL

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: Examine SYS1.LOGREC for a preceding error related to IRLM.

Problem Determination: One or more of the following might be issued:

- An SQLCODE -904 or -923
- Message DSNT501I
- An abend

SYS1.LOGREC contains the same diagnostic information in the variable recording area (VRA) as shown for abend reason code '00C90101'. The first four bytes of CTSIWHY contain the return code from the IRLM function. The fifth byte of CTSIWHY contains the request code, as follows:

X'02' Lock

X'03' Unlock
X'04' Change

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 5, 18, 32, 35, 36.

00C90094

Explanation: A data set is in a state that is different from what DB2 expects. Possible causes are:

- A data set was deleted and redefined without DB2's knowledge.
- A previous DB2 failure involving the data set might have occurred.

This reason code is issued by the following CSECT: DSNIBMCL

System Action: The requested action is not performed. If the invoker of this module (DSNIBMCL) abends, a record is written to SYS1.LOGREC, and the invoker probably initiates a dump. If the invoker does not abend, no record is written to SYS1.LOGREC, and no dump is requested. If this occurs, an SQL return code is issued, and/or message DSNT500I is issued. If the invoker of DSNIBMCL is not a utility, the data set is placed in a stopped status.

User Response: If the code was received while processing a user table, DB2 determined that the data set is empty. A DROP TABLESPACE statement followed by a CREATE TABLESPACE statement and a CREATE TABLE statement defines the dropped table to DB2. Use the IDCAMS LISTCAT for the failing DB2 dataset. Check the HI-USED-RBA for this dataset; if HI-USED-RBA = 0, the dataset is empty.If it was received while processing a DB2 catalog or directory, then recover the object as specified in *Administration Guide* in the section "Recovering Catalog and Directory Objects".

Operator Response: Notify the system programmer.

System Programmer Response: If you do not have the current level of the data set, you must perform DB2 recovery to return the data set to its expected state. See the Problem Determination section of this message for procedures to determine the name of the data set to be corrected. Use the DISPLAY command to check the status of the data set. If the data set is stopped, use the START command before performing recovery.

Problem Determination: For more information, refer to the SQL return code in "Section 2. SQL Return Codes" on page 2-1, or to the description of the DSNT500I message in "DSNT... Messages" on page 3-201.

This error is detected at a time when the specific name of the data set involved cannot be determined by DB2. However, the SQL return code or message DSNT500I provides the name of the table space or index space in which the data set resides. When the table or index space consists of a single data set, this is specific. Otherwise, the system programmer must find the particular data set within the table or index space.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 5, 10, 32, 33, 35.

00C90095

Explanation: An attempt was made during DB2 restart to access a page in order to apply a log record but DB2 was unable to access the page. This abend reason code appears as the reason code in message DSNI001I.

This abend reason code is issued by the following CSECTs: DSNIBMOC, DSNIIMPD

System Action: The restart of the named table space, index space, or partition is deferred by the subsystem.

Operator Response: Notify the system programmer.

System Programmer Response: Correct the problem, and then use either the -START DATABASE command or the RECOVER utility to make the table space, index space, or partition available.

Problem Determination: Examine previous messages on the console to determine why DB2 could not access the page. One possible reason is that a back-level pack was mounted. That is, the page to which the log record applies was not yet formatted by VSAM. DB2 does not extend data sets during restart.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 5, 13, 32, 33.

00C90096

Explanation: The page or row lock on the page or subpage identified by NAME in message DSNT500I or DSNT501I caused the total number of page or row locks concurrently held to reach the installation maximum number of page or row locks (NUMLKUS) allowed for a single agent in the system.

This reason code is issued by the following CSECT: DSNILMCL

System Action: The operation that encountered this condition is not executed. If a utility job encountered this condition, the utility is stopped. Otherwise, any database updates for the statement that was executing are backed out. Any database reads for the statement that was executing are not executed. The position of the cursor is unpredictable.

User Response: Rerun the application after correcting the cause of this resource unavailable condition.

Programmer Response: Reduce the total number of page or row locks that the application concurrently holds by changing the locking protocol on one or more of the table spaces to table space level locking. To do this, use the ALTER ... LOCKSIZE TABLE SPACE or LOCK TABLE statements.

Review the application to see if a different choice of SQL statements can be used to perform the same operation with less concurrent access to multiple tables with page or row locking.

If application logic permits, reduce the number of page or row locks concurrently held for SELECT statements by rebinding the application plan with isolation level of cursor stability instead of repeatable read or read stability, or add more frequent commits.

System Programmer Response: If the application should be able to run with the current page or row locking protocol and SQL statements, increase the NUMLKUS value for the installation to allow a higher limit of page or row locks to be concurrently held by a single application. If a utility job encountered this resource unavailable condition, the NUMLKUS value must be increased to accommodate the utility, because utilities are programmed to use the minimum number of page or row locks possible. Refer to Section 5 (Volume 2) of *Administration Guide* for further information about choosing the value for NUMLKUS.

Operator Response: If a utility job encountered this resource unavailable condition, terminate the utility and restart it after the cause of the resource unavailable condition has been corrected.

Problem Determination: An SQLCODE -904 and message DSNT500I or DSNT501I are issued. For more information refer to the SQL return code in "Section 2. SQL Return Codes" on page 2-1, or message DSNT500I or DSNT501I in "DSNT... Messages" on page 3-201.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 5, 32.

00C90097

Explanation: An attempt was made to allocate to a table space for update operations. However, the table space was marked as 'image copy' required, and updates are not allowed. This condition occurs as a result of any of the following:

- Running a REORG LOG NO or LOAD LOG NO utility on the table space without running a copy that specifies FULL YES.
- Execution of a RECOVER utility which specifies the TORBA or TOCOPY options, without following it with the required COPY utility.
- Execution of a -TERM UTILITY command on a COPY utility that failed during the copy phase or was active in the copy phase. Until the COPY utility completes, SQL updates are not allowed because the the integrity of the data would be compromised.
- Execution of a MODIFY utility after all back up copies of the table space or data set were deleted from the SYSCOPY catalog table.

This reason code is issued by the following CSECTs:

DSNIDBCJ DSNIDBCO DSNIDBCQ

System Action: The allocation process is not allowed.

User Response: Run the COPY utility. However, if the table space is to be used for read-only access, or if recoverability of the data is not required, instead of taking a full image copy you can run the REPAIR utility and request that the image copy required condition be removed.

Problem Determination: The requested operation is not performed. An SQLCODE -904 and/or message DSNT501I is issued. For more information, refer to the SQL return code in "Section 2. SQL Return Codes" on page 2-1 or to the description of the DSNT501I message in "DSNT... Messages" on page 3-201.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 5, 32.

00C90098

Explanation: An attempt was made to increase read-only or write-access counts of the utility in process beyond the maximum (255) allowed.

This abend reason code is issued by the following CSECT: DSNIDBMF.

User Response: Use the -DISPLAY UTILITY command to determine how many utility jobs are currently active. If a number of utility jobs are active but not in the stopped state, notify the system programmer. If the utility jobs are running, resubmit your job after they complete.

System Programmer Response: Determine why active utilities are in the stopped state. Use the -TERM UTILITY command to terminate utilities and reduce the UIP (utility in process) counts. If no active utilities are indicated, then use the -DISPLAY DATABASE command to show which table spaces or partitions are in a UTRO or UTRW state.

Problem Determination: Message DSNT500I is issued. For more information, refer to the explanation of message DSNT500I.

00C90099

Explanation: An attempt was made to load data into a partition, but the partition is full. Based on the High Key value specified in the Index for each partition, utilities instructed Data Manager to load a record into the proper partition. This required Data Manager to build a new page with a page number one higher than the last page in the partition. However, this new page is in the next partition.

This abend reason code is issued by the following CSECT: DSNILPG

System Action: The requested action is not performed.

User Response: Redefine the High Key values in the Index and retry the load.

If you receive this code during a reorganization, query the catalog to check the PCTFREE and FREEPAGE values. You might be able to decrease the amount of free space to allow the REORG utility to complete successfully.

Operator Response: Notify the system programmer.

System Programmer Response: Use the -TERM UTILITY command to terminate the load utility and reduce the UIP (utility in process) counts.

Problem Determination: For more information, refer to the explanation of message DSNT500I in the Service Controller Messages section of this book.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 32, 37.

00C9009A

Explanation: An attempt was made to create a system database which, according to the DBID space map, has already been created. However, the catalog shows the database was not created. This discrepancy between the catalog and the space map for DBIDs may be due to an unsuccessful migration.

This abend reason code is issued by the following CSECT: DSNGDCID

System Action: Database is not created.

Operator Response: Notify the system programmer.

System Programmer Response: Drop the database, then create it (using DROP and CREATE commands). If this fails to resolve the error, follow the steps in problem determination.

Problem Determination: The requested operation is not performed. An SQLCODE -904 is issued, and/or message DSNT500I is issued. For more information, refer to the SQL return code in “Section 2. SQL Return Codes” on page 2-1, or to the description of the DSNT500I message in “DSNT... Messages” on page 3-201.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 5, 32, 38, 39.

00C9009B

Explanation: An attempt was made to load data into a linear table space, but the table space is full. A linear table space can contain a maximum of 64GB of data.

This abend reason code is issued by the following CSECT: DSNILPG

System Action: The requested action is not performed.

User Response: Use the -TERM UTILITY command to terminate the LOAD utility. Use ALTER TABLE SPACE to reduce the amount of free space within a page (PCTFREE) and the number of free pages within the table space (FREEPAGE). Then retry the load. If it is a resume load job, reorganize the table space before rerunning the load.

Problem Determination: For more information, refer to the explanation of message DSNT500I in “DSNT... Messages” on page 3-201.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 32, 37.

00C9009C

Explanation: An attempt was made to insert data into a partitioned table space or index space, but the partition is full. For table space partition, the data to be inserted is based on the high-key value specified in the cluster index. If it is an index space partition, the index entry to be inserted is also based on the high-key value associated with the index.

This abend reason code is issued by the following CSECTs: DSNISMPI, DSNISMXP

System Action: A 'resource not available' code is returned to the end user and the requested action is not performed. The SVC dump and the SYS1.LOGREC recording are not requested.

User Response: Notify the system programmer to redefine the partitions and rerun the job.

System Programmer Response: Refer to Section 2 (Volume 1) of *Administration Guide* to redefine a partition. The partition that must be redefined is identified in the DSNT501I message.

If you suspect an error in DB2 refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: For more information, refer to the explanation of message DSNT501I in “DSNT... Messages” on page 3-201.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 37.

00C9009D

Explanation: An attempt was made to insert data into a linear table space or index space, but the table space or index space is full. A linear table space or index space can contain a maximum of 64GB of data.

This abend reason code is issued by the following CSECTs:

DSNISGPI DSNISMPI DSNISMXP

System Action: A 'resource not available' code is returned to the end user and the requested action is not performed. The SVC dump and the SYS1.LOGREC recording are not requested.

User Response: Notify the system programmer to reclaim some free space in the associated table space or index space and rerun the job.

System Programmer Response: The table space or index space name is identified in the DSNT501I message. If it is a table space, run the DB2 REORG utility to attempt to reclaim additional free space. If it is an index space, drop and recreate the index with a fewer number of SUBPAGEs. If free space cannot be reclaimed, notify the database administrator to redistribute the data into different table spaces or index spaces.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: For more information, refer to the explanation of message DSNT501I in “DSNT... Messages” on page 3-201.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 37.

00C9009E

Explanation: The object depends on new facilities of the release and is therefore unavailable for processing. For data-sharing systems, the object will be available on a new release in a data-sharing group. For non-data-sharing systems, the object will be available after re-migration if release fall back has occurred.

This abend reason code is issued by the following CSECTs: DSNICUBC, DSNIPSFI

System Action: The operation is not allowed. The data manager function that detected this condition returns 'resource not available' to its invoker.

Operator Response: Notify the system programmer.

System Programmer Response: In order to perform the operation on the object:

- For non-data sharing systems a re-migration is required.
- For data sharing systems, insure that the operation is performed on a member at the correct level of DB2.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The requested operation is not performed. An SQLCODE -904 is issued. Message DSNT500I or message DSNT501I may also be issued. For more information, refer to the “Section 2. SQL Return Codes” on page 2-1 or to the description of the DSNT500I and DSNT501I messages in “DSNT... Messages” on page 3-201.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 5.

00C9009F

Explanation: A table has been referenced that has a primary key but no index exists to enforce its uniqueness. The reference is usually to a parent table when attempting to verify the referential constraint of an insert or update operation to a dependent table.

This abend reason code is issued by the following CSECTs:

DSNIALLC	DSNICUBC	DSNIKESR	DSNIRELI

System Action: The use of the table is not allowed.

User Response: Create a primary index on the referenced table.

Problem Determination: The requested operation is not performed. An SQLCODE -904 or -923 is issued. For more information, refer to “Section 2. SQL Return Codes” on page 2-1, or to the description of the DSNT501I message in “DSNT... Messages” on page 3-201.

00C900A0

Explanation: An attempt was made to allocate or acccess a table space or index that is in the recovery pending status.

This abend reason code is issued by the following CSECTs:

DSNIDBCJ	DSNIDBCO	DSNIDBCQ

System Action: The use of the object is not allowed.

User Response: Determine when the resource is available for use and rerun the job.

Operator Response: Determine whether the RECOVER utility should be run to complete recovering the object.

Problem Determination: The requested operation is not performed because the table space or index might be in an inconsistent state. An SQLCODE -904 and/or message DSNT501I and/or message DSNI005I is issued. For more information, refer to “Section 2. SQL Return Codes” on page 2-1, or to the description of the DSNT501I message in “DSNT... Messages” on page 3-201.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5.

00C900A1

Explanation: An attempt was made to allocate a table space or index that is in group recovery pending state.

System Action: The use of the object is not allowed.

User Response: Run the RECOVER utility, LOAD utility or START DATABASE command to recover the object.

Operator Response: Determine whether the RECOVER utility or START DATABASE command should be run to complete recovery of the object.

Problem Determination: The requested operation is not performed because the table space or index might be in an inconsistent state. An SQLCODE -904 and/or message DSNT501I is issued. For more information, refer to “Section 2. SQL Return Codes” on page 2-1, or to the description of the DSNT501I message in “DSNT... Messages” on page 3-201.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5.

00C900A3

Explanation: An attempt was made to allocate a table space or a related index space, while the table space was in the check pending status.

This abend reason code is issued by the following CSECTs:

DSNIDBCI	DSNIDBCJ	DSNIDBCN	DSNIDBCO
DSNIDBCP	DSNIDBCQ	DSNIDBET	DSNIRCCA

System Action: The operation is not allowed.

Operator Response: Notify the system programmer.

System Programmer Response: Determine whether the table space in check pending status should be resolved to allow the operation. For suggestions on how to resolve check pending status, see Section 2 (Volume 1) of *Administration Guide*.

Problem Determination: The requested operation is not performed. An SQLCODE -904 or -923 is issued. For more information, refer to “Section 2. SQL Return Codes” on page 2-1, or to the description of the DSNT501I message in “DSNT... Messages” on page 3-201.

00C900A4

Explanation: An attempt was made to allocate a segment for a table in a segmented table space, but there are no free segments. A segmented table space can contain a maximum of 64GB of data. A segment will be allocated under one of the following conditions:

- When a table is ready to be created in a segmented table space with the CREATE TABLE statement.

- When a record is inserted/loaded into a segmented table and free space is not available from existing segments.

This abend reason code is issued by the following CSECTs: DSNISEGF, DSNISGNS

System Action: A 'resource not available' code is returned to the end user and the requested action is not performed.

User Response: Notify the system programmer to reclaim some free space in the associated segmented table space and rerun the job.

System Programmer Response: An SQLCODE -904 is issued, and/or message DSNT501I is issued. The segmented table space name is identified in SQLCA and/or in the DSNT501I message. If the requested function is the CREATE TABLE statement, create the table in a different segmented table space. Otherwise, run the DB2 REORG utility to attempt to reclaim additional free space. If no free space can be reclaimed, then notify the database administrator to redistribute the data into different table spaces.

Problem Determination: For more information, refer to the explanation of message DSNT501I in “DSNT... Messages” on page 3-201.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 37.

00C900A5

Explanation: The temporary file(s) is full or the maximum number of extensions for a VSAM data set(s) has been exceeded for all temporary files or the volume(s) has no space available in which to extend.

This reason code is issued by the following CSECT: DSNIXWKF

System Action: The reason code appears in a DSNT501I message, and the requested operation is not performed.

User Response: If the reason code appears in a DSNT501I message, issue -DISPLAY THREAD to determine the total number of concurrent users. If there were a large number of users using temporary file(s), resubmit the job when concurrent users are low. IDCAMS LISTCAT may be used to determine the VSAM data set(s) space allocations.

- If there was no space available on a volume(s), then clear space from the volume(s) or add more volumes to the STOGROUP or redefine the VSAM data set to concatenate more volumes.
- If the maximum number of extensions has been exceeded for the VSAM data set(s), then ALTER or delete and redefine the temporary data set(s) with a larger size.
- If all the temporary files are full, then create or define more temporary files.

Issue the -START DATABASE command to start the temporary file.

Problem Determination: The requested operation is not performed. An SQLCODE -904 or message DSNT501I is issued, and/or message DSNT501I is issued. For more information, refer to SQLCODE -904 in SQL Return Codes, “Section 2. SQL Return Codes” on page 2-1, or to the description of the DSNT501I message in “Section 3. DB2 Messages” on page 3-1.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 32, 10, and definitions of temporary file(s) involved in the error.

00C900A6

Explanation: Access to the catalog was requested but denied because the catalog was not migrated to the current release level. The object in the catalog is available after the catalog is migrated.

This abend reason code is issued by the following CSECT: DSNICUBC

System Action: The operation is not allowed. The data manager function that detected this condition returns 'resource not available' to its invoker.

Operator Response: Notify the system programmer.

System Programmer Response: To perform the operation on the object, you must migrate the catalog to the current release. To do this, run DSNTIJTC. Refer to Section 2 of *Installation Guide* for information about this job.

Problem Determination: The requested operation is not performed. SQLCODE -904 and message DSNT501I are issued. For more information refer to the SQL Return Code section or to the description of the DSNT501I message in “DSNT... Messages” on page 3-201.

00C900A7

Explanation: At allocation of a bound plan or a bound package, a lock inconsistency is detected. A DB2 internal bind error is probably responsible for this condition. The plan or the package cannot be allocated.

This reason code is issued by the following CSECT: DSNIALLC

System Action: The plan or the package is not allocated. A DSNT501I message is issued and an SQLCODE -923 is returned to the application.

System Programmer Response: Re-bind the plan or the package.

Problem Determination: If the problem persists after the plan or the package is rebound, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 5, 32, 33.

00C900A8

Explanation: The table space, index, or partition could not be started because of a failure to acquire the lock. Activity on the table space, index, or partition must quiesce before the START DB ACCESS(FORCE) command can acquire the necessary lock.

The abend reason code is issued by the following CSECT: DSNISTFO

System Action: The START operation is not performed.

User Response: Wait for all activity on the table space, index, or partition to complete before reissuing the START command.

Problem Determination: The requested operation is not performed. Message DSNI002I is issued. For more information, refer to the description of this message in “DSNI... Messages” on page 3-99. If the problem persists after all activity on the table space, index, or partition completes, gather diagnostic information to pursue the problem.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Sig-

nificant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 5, 32, 33

00C900A9

Explanation: An attempt was made to allocate a resource that is deferred.

The abend reason code is issued by the following CSECT: DSNIDBCN

System Action: The allocation process is not allowed.

User Response: Determine the reason for which the resource was deferred and take the appropriate action to correct the problem. Such actions include issuing the START DATABASE command or running the RECOVER TABLESPACE, RECOVER INDEX or LOAD REPLACE utility.

Problem Determination: The requested operation is not performed. An SQLCODE -904 is issued, and/or message DSNT500I or DSNT501I is issued. For more information, refer to the SQL return code or to the description of the DSNT500I or DSNT501I message. SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 5, 32, 33

00C900AA

Explanation: The table space or index space could not be stopped because it is indoubt.

The abend reason code is issued by the following CSECTs: DSNILSTS DSNIPDBA

System Action: The STOP operation is not performed.

User Response: Resolve the indoubt unit of recovery (UR) using the RECOVER INDOUBT command.

Problem Determination: Message DSNI003I is issued. For more information, refer to the description of this message. If the problem persists after all indoubts with locks on the table space/index space are resolved, gather diagnostic information to pursue the problem.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 5, 32,

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00C900AC

Explanation: No write access is allowed for tracker site DB2 subsystems.

This reason code is issued by the following CSECT(s): DSNIDBCI, DSNIDBCJ, DSNIDBCN, DSNIDBCO, DSNIDBCP, DSNIDBCQ, DSNISREC.

System Action: The use of the resource is not allowed.

System Programmer Response: None.

Problem Determination: The requested operation is not performed because the DB2 is restarted as a tracker site system. A tracker site DB2 does not allow DDL, GRANT/REVOKE or any INSERT, DELETE, or UPDATE SQL statements. SQLCODE -904 is issued. For more information, refer to the :hdref refid=sqlrc. or to the description of the DSNT501I message. The START DATABASE command can not be issued to perform LPL/GRECP recovery on a tracker site DB2. If issued, a DSNI005I message will be issued with this reason code.

00C900B1

Explanation: A CREATE TABLESPACE or INDEX statement is executed on a ROSHARE READ database, but at least one of the OBIDs assigned by the owning system cannot be allocated from the read-only system's DBD.

This reason code is issued by the following CSECT: DSNGDCOB

System Action: An SQLCODE -904 is returned to the end user and the requested action is not performed.

User Response: Notify the system programmer.

System Programmer Response: Analyze this sytem's catalog table (SYSTABLESPACE or SYSINDEXES) and the catalog of the system on which the database is defined as ROSHARE OWNER to determine whether an inconsistency exists. If OBIDs are in conflict between two systems, drop and recreate the database on the sharing system.

00C900B6

Explanation: A system is attempting to set the recovery or check pending status against a shared page set or partition in a ROSHARE OWNER database. However, DB2 cannot update the header page because this page set or partition is stopped, or started in ACCESS(RO) mode.

This reason code is issued by the following CSECT: DSNIDBSE

System Action: The requested operation is not performed.

Operator Response: Notify the system programmer.

System Programmer Response: If the page set is not stopped on all ROSHARE READ systems, issue a -STOP DATABASE for the page set on each ROSHARE READ system for which the page set is not stopped.

If the page set is not stopped on the ROSHARE OWNER system (that is, it was started with ACCESS(RO)), issue a -STOP DATABASE command for the page set on the owner system. Issue a -START DATABASE ACCESS(RW) for the page set on the ROSHARE OWNER system and notify the user to re-submit the application.

Problem Determination: An SQLCODE -904 is issued and message DSNT500I or DSNT501I is issued. For more informa-

tion, refer to the SQL return code in “Section 2. SQL Return Codes” on page 2-1 or to the description of the DSNT500I/DSNT501I message in “DSNT... Messages” on page 3-201.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 5, 32

00C900B9

Explanation: A CREATE TABLE statement for a table to be placed in a segmented table space is executed on a ROSHARE READ database, but the table is not defined on the ROSHARE OWNER database.

This reason code is issued by the following CSECT: DSNGDBRT

System Action: An SQLCODE -904 is returned to the end user and the requested action is not performed.

User Response: Verify that the table exists on the owning system and resubmit the CREATE TABLE statement. If the table does exist on the owning system, then issue the -STOP DATABASE command on the sharing systems, and issue a -START DATABASE on the owning system, with ACCESS(RW). If the table does not exist on the owning system, then create the table on the owning system.

00C900BA

Explanation: A request for a drain lock for the resource identified by NAME in messages DSNT500I and DSNT501I could not be granted. The request waited for a period longer than the maximum specified by the installation.

This reason code is issued by the following CSECT: DSNILMCL

System Action: The requested action is not performed. The Data Manager function that detected this condition returns 'resource not available' to its caller.

User Response: Wait for all jobs that hold a drain lock on the resource in an incompatible state to complete before reissuing the failing statement. To display drain locks, issue a DISPLAY DB LOCKS command. In order to avoid a potential deadlock, the application should either commit or roll back to the previous COMMIT.

System Programmer Response: See SQLCODE -913 or -911 and/or message DSNT501I, which accompany this abend reason code.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 5, 32, 35.

00C900BC

Explanation: The statement depleted the record identifier (RID) storage available.

This abend reason code is issued by the following CSECT: DSNIREFS

System Action: The requested action is not performed.

Operator Response: Notify the system programmer.

System Programmer Response: Restructure the SQL statement so that fewer RIDs are needed. The best way to do this is to split the statement into two or more SQL statements equivalent to the original statement. Also, in some cases, increasing the virtual storage might eliminate the times when storage is depleted.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: SQL return code -904 and/or message DSNT500I is issued. For more information, refer to the explanation of message DSNT500I.

00C900BE

Explanation: DB2 is unable to acquire a lock on a resource because another DB2 subsystem in the DB2 data sharing group holds an incompatible retained lock on that resource. Retained locks are locks that persist across DB2 abnormal terminations.

System Action: The requested action is not performed. SQLCODE -904 is issued. A 'resource not available' code is returned to the user. This reason code and the resource name are returned in the cursor table (CT) and made available to the user in the SQLCA.

Problem Determination: SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15.

This reason code is issued by the following CSECT: DSNILMCL

00C900BF

Explanation: DB2 is unable to obtain a lock because IRLM detected an 'out of record list' storage condition. The record list is that part of the coupling facility lock structure that contains the 'modify locks' (those locks that would be retained in case of a failure).

This reason code is issued by the following CSECT: DSNILMCL

System Action: SQLCODE -904 is returned to the user with this reason code. This reason code and the resource name are returned in the cursor table (CT) and made available to the user in the SQLCA. If it is active, an IFCID 0021 trace record is written and might contain additional diagnostic information.

System Programmer Response: If this becomes a prevalent problem, you will need to redistribute the coupling facility lock structure storage resource to make more room for the record list. You can do this in one of two ways:

- issue a rebuild, or
- dynamically change the lock structure size

See Chapter 7 of *Data Sharing: Planning and Administration* for more details about these options.

00C900C0 >

Explanation: A request for an internal lock could not be granted. The request waited for a longer period than is allowed.

This reason code is issued by the following CSECT: DSNILMCL

System Action: The request action is not performed. A 'resource not available' reason code is returned to the caller.

User Response: If the user is a DB2 utility, rerun or restart the utility. If it is a DB2 command, reissue the command. DB2 applications should either commit or roll back to the previous commit, then retry from the commit point.

System Programmer Response: See SQLCODE -911 or -913 and/or message DSNT500I, which accompany this reason code. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00C900C1

Explanation: An attempt was made to allocate an index that has one or more logical partitions in a recovery pending state.

System Action: Use of the object is not allowed.

User Response: Determine when the resource is available for use and rerun the job.

Operator Response: Determine when the RECOVER utility should be run to complete recovering the object. Only the logical partitions marked as recovery pending need to be recovered.

Problem Determination: The requested operation is not performed because the index might be in an inconsistent state. An SQLCODE -904 or message DSNT501I is issued. For more information, refer to the SQL return code in Section 2. SQL Return Codes, or to the description of the DSNT501I.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 5, 32. 72.

00C900C6

Explanation: DB2 detected an uncommitted write on an index being altered to change the type during the same commit scope. This is not allowed. Commit or rollback all changes to an index before alter index convert type is used to change the index type.

System Action: The alter index convert type of the index is not allowed.

System Programmer Response: Commit or rollback changes to the index and retry the Alter Index convert type.

Problem Determination: The requested operation is not performed and SQLCODE -904 is issued. For more information, refer to the SQL return code in "Section 2. SQL Return Codes."

00C90101

Explanation: The data manager detected an internal error within DB2. This error may indicate inconsistent data or an error in internal DB2 control structures or code.

This abend reason code is issued by the following CSECT: DSNnnnnn

'nnnnn' is the CSECT name identifier given in VRARRK5 of the VRA in the SDWA (see the Problem Determination section of this message). 'DSNnnnnn' is the full CSECT name given in the dump title.

Possible causes of this error include:

- Improper migration or fall back procedures,
- DB2 directory and DB2 Catalog restored to different points in time,
- Table space restored improperly,
- An internal DB2 failure.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run for the period of time spanning the failure. Save this output for use in problem determination.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: If this abend occurred while processing data in one or more pages, message DSNI014I is issued to identify each page involved. In general, the data in these pages is fine. However, if problems are reported that repeatedly involve the same pages or if the same pages are reported by other abends, you may want to analyze the set of pages specified.

Run the CHECK utility to determine the extent of index inconsistency if:

- The page type indicated in message DSNI014I is index.
- The page type indicated in message DSNI014I is data.
- There is an index defined on a table in the indicated page set.

The LOC keyword in the dump title gives the Load-module.CSECT:qualifier of the location where the abend occurred. 'Qualifier' is a unique, 4-digit hexadecimal number that identifies the place within the source module (CSECT) where the abend was issued.

Refer also to Table 4 in “Appendix B. Problem Determination” on page X-5 for further information on DSN1COPY misuse.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this abend code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 31, 32, 33, 40, 41.

If the abend reason code was issued by a CSECT with name DSNGxxxx, where 'xxxx' is any value, make a copy of DSNDB01.DBD01, DSNDB01.SCT02, and DSNDB01.DSNSCT02 on tape with DSN1COPY. This might be a large copy.

00C90102

Explanation: An inconsistent page was detected. This has been caused by a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNIBROK

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

In addition, the following general purpose registers (GPRs) contain the indicated diagnostic information:

GPR	Content
2	Address of the page set block (PB)
3	Address of the log record, if any
8	Address of the buffer block (BB)
9	Address of the page buffer

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 6, 13, 32.

00C90103

Explanation: Bad data was returned from either the edit or the validation exit.

This abend reason code is issued by the following CSECTs: DSNIREDR, DSNIENSR

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: SYS1.LOGREC contains the same diagnostic information in the variable recording area (VRA) as in abend reason code '00C90101'. Refer to the table accompanying that abend reason code for details.

The '00C90103' abend reason code was issued because one of the checks described in the following list failed:

- Save first and last byte of the input record. On return from exit, see if either group has been modified. If so, abend.
- Check length of edited data. If greater than maximum allowed for this row, or less than one, abend.
- Store a special character in the first byte past the end of the output area (place for edit procedure to put edited or (original unedited) row), to make sure the exit doesn't overrun this area. On return, check if it is still the same special character. If not, abend.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

00C90105

Explanation: An inconsistent page was detected. This has been caused by a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNIBROK

System Action: A record is written to SYS1.LOGREC, an SVC dump is requested, and the page will be scheduled for automatic recovery. If automatic recovery is successful, message DSNB215I is issued. If automatic recovery fails, message DSNI012I is issued, and an abend '04E' with reason code 00C90102 will occur.

Note: If the resource required for automatic recovery is in use, automatic recovery will be delayed until the resource is available.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9. Exceptions to the table definitions of the VRA fields are:

- VRARRK5 is the name of the module that called the check page routine that detected the error in the page.
- VRARRK6 identifies the error in the page.

The following general purpose registers (GPRs) contain the indicated diagnostic information:

GPR	Content
2	Address of the page set block (PB)
3	Address of the log record, if any
8	Address of the buffer block (BB)
9	Address of the page buffer

Refer also to Table 4 in “Appendix B. Problem Determination” on page X-5 for further information on DSN1COPY misuse.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 6, 13, 32.

00C90106

Explanation: The entry is not found for a table space that is being set for deferred restart. An error in DB2 logic is probably responsible for this condition.

This abend reason code is issued by the following CSECT: DSNIIMPD

System Action: A record is written to SYS1.LOGREC, an SVC dump is requested, and the DB2 restart is terminated.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 32, 33.

00C90107

Explanation: At commit phase 1, a nonzero write intent count was detected. An error in DB2 logic is probably responsible for this condition.

This abend reason code is issued by the following CSECT: DSNICMT2

System Action: A record is written to SYS1.LOGREC, an SVC dump is requested. The thread is aborted.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 31, 32, 33.

00C90108

Explanation: At commit phase 2, a nonzero read intent count or write intent count was detected. An error in DB2 logic is probably responsible for this condition.

This abend reason code is issued by the following CSECT: DSNICMT2

System Action: A record is written to SYS1.LOGREC, and a SVC dump is requested. The thread is committed and the application is allowed to continue without notification of the error.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 31, 32, 33.

00C90109

Explanation: At deallocate, a nonzero read intent count or write intent count was detected. An error in DB2 logic is probably responsible for this condition.

This abend reason code is issued by the following CSECT: DSNIDALC

System Action: A record is written to SYS1.LOGREC, and a SVC dump is requested. The thread is deallocated normally.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 31, 32, 33.

00C90110

Explanation: The data manager detected an inconsistent data condition. This may be caused by an inconsistency in either the DB2 catalog or the DB2 directory. In this case, the OBD for the requested OBID cannot be located in the database descriptor (DBD). The DBD in storage may be inconsistent. Specifically, the OBDDMAP(OBID) array element should contain an offset into the DBD where the OBD should be located. However, in this case the OBD expected was not at the indicated offset.

To prevent further damage and possible loss of data, the inconsistency must be corrected before any further SQL access is attempted to this database.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which databases were being used when the error occurred. Prevent further SQL access to the databases. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The DBD in use at the time of the abend is inconsistent in storage and may be inconsistent on DASD. Since the nature and extent of the damage done to the DBD is not immediately known, an analysis of the entire DBD must be done.

The inconsistency may be due to:

- Incomplete recovery of DB2 catalog and/or DB2 directory.
- Invalid restore of DB2 catalog and/or DB2 directory to a prior point in time.
- A conditional restart which bypassed recovery of either the DSNDB01.DBD01 page set or the DSNDB06.SYSDBASE page set.
- A DB2 internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 69, 70, 71, 72.

00C90111

Explanation: The data manager detected an inconsistent data condition. In this case, the OBD for the requested OBID does not exist. This may be caused by an inconsistency in either the DB2 catalog or the DB2 directory. Specifically, the OBDDMAP(OBID) entry is zero rather than an offset to an OBD within the DBD.

To prevent further damage and possible loss of data, the inconsistency must be corrected before any further SQL access is attempted to this database.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which databases were being used when the error occurred. Prevent further SQL access to the databases. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Since the DB2 directory does not agree with the DB2 catalog, either of these may be inconsistent. Since the nature and extent of the inconsistency between the DB2 catalog the DBD is not immediately known, an analysis of the entire DBD must be done.

The inconsistency may be due to:

- Incomplete recovery of DB2 catalog and/or DB2 directory.
- Invalid restore of DB2 catalog and/or DB2 directory to a prior point in time.
- A conditional restart which bypassed recovery of DSNDB01.DBD01 or DSNDB06.SYSDBASE page sets.
- A DB2 internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 69, 70, 71, 72.

00C90112

Explanation: The data manager detected an inconsistent data condition. There may be more than one object with the same OBID in the DB2 Catalog. To prevent further damage and possible loss of data, the inconsistency must be corrected before any further SQL access is attempted to this database.

This abend reason code is issued by the following CSECT: DSNGDCOB

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which databases were being used when the error occurred. Prevent further SQL access to the databases. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Since the extent of this inconsistency is not immediately known, an analysis of the entire DBD must be done.

The inconsistency may be due to:

- Incomplete recovery of the DB2 Catalog and/or the DB2 Directory.
- Invalid restore of the DB2 Catalog and/or the DB2 Directory to a prior point in time.
- A conditional restart which bypassed recovery of DSNDB01.DBD01 or DSNDB06.SYSDBASE page sets.
- A DB2 internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 69, 70, 71, 72.

00C90124

Explanation: An attempt was made to apply prior-version/release DB2 log records other than checkpoint records.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run for the period of time spanning the failure. Save this output for use in problem determination.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting problems.

Problem Determination: This abend can occur in migration/remigration when some necessary migration/remigration steps are skipped. It indicates that some DB2 activity occurred or was pending after the last complete checkpoint on the prior system. See Section 2 of *Installation Guide* for a complete list of migration/remigration steps. If this was the cause of the problem, it can be corrected by falling back to the prior version/release long enough to bring DB2 up, then bring it down while conforming to all migration/remigration steps. Pay specific attention to resolving all indoubts and to performing a stop mode quiesce.

00C90202

Explanation: The data manager detected an inconsistent data condition. In this case, one of the pointers in a link does not point to a valid child or parent row (that is, the link is 'broken'). The pointer, the target row, or the page that contains the pointer or target row is in error.

This abend reason code is issued by the following CSECT: DSNnnnnn

'nnnnn' is the CSECT name identifier given in VRARRK5 of the VRA in the SDWA (see the Problem Determination section of this message). 'DSNnnnnn' is the full CSECT name given in the dump title.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run for the period of time spanning the failure. Save the output for use in problem determination.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Message DSNI013I is issued to identify the data pages. It identifies the database name and table space name. This message is issued for all pages in use at the time of the abend. Within this group of pages, at least one page is involved in the inconsistency. The other pages were present at the time of the abend.

The LOC keyword in the dump title gives the Load-module.CSECT:qualifier of the location where the abend occurred. 'Qualifier' is a unique, 4-digit hexadecimal number that identifies the place within the source module (CSECT) where the abend was issued.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this abend code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 31, 32, 33, 42.

00C90203

Explanation: The data manager detected an inconsistent data condition. In this case, one of the pointers in a hash chain does not point to a valid row or anchor (that is, the hash chain is 'broken'). The pointer, the target row/anchor, or the page that contains the pointer or target row/anchor is in error.

This abend reason code is issued by the following CSECT: DSNnnnnn

'nnnnn' is the CSECT name identifier given in the dump header and appearing in VRARRK5 of the VRA in the SDWA (see the Problem Determination section of this message). 'DSNnnnnn' is the full CSECT name given in the dump title.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run for the period of time spanning the failure. Save this output for use in problem determination.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Message DSNI013I is issued to identify the data pages. It identifies the database name and the table space name. This message is issued for all pages in use at the time of the abend. Within this group of pages, at least one page is involved in the inconsistency. The other pages were present at the time of the abend.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this abend code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

The LOC keyword in the dump title gives the Load-module.CSECT:qualifier of the location where the abend occurred. 'Qualifier' is a unique, 4-digit hexadecimal number that identifies the place within the source module (CSECT) where the abend was issued.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 31, 32, 33, 42.

00C90205

Explanation: The data manager detected an inconsistent data condition. In this case, a row obtained from an index entry does not point to a valid row in a data page. The error is probably caused by an extra index entry, but it could also result from a table update not being redone when it should have been.

This abend reason code is issued by the following CSECT: DSNnnnnn

'nnnnn' is the CSECT name identifier given in the dump header and appearing in VRARRK5 of the VRA in the SDWA (see the Problem Determination section of this message). 'DSNnnnnn' is the full CSECT name given in the dump title.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run for the period of time spanning the failure. Save this output for use in problem determination.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Message DSNI013I is issued to identify the index page. It identifies the database name, table space name, and index space name. This message is issued for all pages in use at the time of the abend. Within this group of pages, at least one page is involved in the inconsistency. The other pages were present at the time of the abend.

Run the CHECK utility to determine the extent of index inconsistency if:

- The page type indicated in message DSNI014I is index
- The page type indicated in message DSNI014I is data
- There is an index defined on a table in the indicated page set.

The LOC keyword in the dump title gives the Load-module.CSECT:qualifier of the location where the abend occurred. 'Qualifier' is a unique, 4-digit hexadecimal number that identifies the place within the source module (CSECT) where the abend was issued.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this abend code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 31, 32, 33, 41, 42.

00C90206

Explanation: The data manager detected an inconsistent data condition. In this case, a row that should be pointed to by an index does not have an index entry. The error is probably caused by a missing index entry, but it could also be caused by a table update that was not backed out when it should have been.

This abend reason code is issued by the following CSECT: DSNnnnnn

'nnnnn' is the CSECT name identifier given in the dump header and appearing in VRARRK5 of the VRA in the SDWA (see the Problem Determination section of this message). 'DSNnnnnn' is the full CSECT name given in the dump title.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run for the period of time spanning the failure. Save this output for use in problem determination.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Message DSNI013I is issued to identify the data pages. It identifies the database name, table space name, and index space name. This message is issued for all pages in use at the time of the abend. Within this group of pages, at least one page is involved in the inconsistency. The other pages were present at the time of the abend.

Run the CHECK utility to determine the extent of index inconsistency if:

- The page type indicated in message DSNI014I is index
- The page type indicated in message DSNI014I is data
- There is an index defined on a table in the indicated page set.

The LOC keyword in the dump title gives the Load-module.CSECT:qualifier of the location where the abend occurred. 'Qualifier' is a unique, 4-digit hexadecimal number that identifies the place within the source module (CSECT) where the abend was issued.

Refer also to “Appendix B. Problem Determination” on page X-5 Table 4 for further information on DSN1COPY misuse.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this abend code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 31, 32, 33, 41, 42.

00C90207

Explanation: The data manager detected an inconsistent data condition. In this case, a pointer record does not point to a valid overflow record. The pointer record, the overflow record, or the page that contains the pointer or overflow record is in error.

This abend reason code is issued by the following CSECT: DSNnnnnn

'nnnnn' is the CSECT name identifier given in the dump header and appearing in VRARRK5 of the VRA in the SDWA (see the Problem Determination section of this message). 'DSNnnnnn' is the full CSECT name given in the dump title.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run for the period of time spanning the failure. Save this output for use in problem determination.

System Programmer Response: If you suspect an error in DB2, for information on identifying and reporting the problem.

Problem Determination: Message DSNI013I is issued to identify the data pages. It also identifies the database name and the table space name. This message is issued for all pages in use at the time of the abend. Within this group of pages, at least one page is involved in the inconsistency. The other pages were present at the time of the abend.

The LOC keyword in the dump title gives the Load-module.CSECT: qualifier of the location where the abend occurred. 'Qualifier' is a unique, 4-digit hexadecimal number that identifies the place within the source module (CSECT) where the abend was issued.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this abend code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 31, 32, 33, 42.

00C90210

Explanation: The data manager detected an inconsistent data condition. In this case, the subpage directory of an index leaf page indicates that a given search key doesn’t belong to any of the subpages. Either this leaf page is the index tree or the nonleaf portion of the index tree lead to this leaf page as the one that should contain the given key.

This abend reason code is issued by the following CSECT: DSNnnnnn

'nnnnn' is the CSECT name identifier given in the dump header and appearing in VRARRK5 of the VRA in the SDWA (see the Problem Determination section of this message). 'DSNnnnnn' is the full CSECT name given in the dump title.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Message DSNI013I is issued to identify the index page. It also identifies the database name and index space name. This message is issued for all pages in use at the time of the abend. Within this group of pages, at least one page is involved in the inconsistency. The other pages were present at the time of the abend.

The LOC keyword in the dump title gives the Load module.CSECT:qualifier of the location where the abend occurred. 'Qualifier' is a unique, 4-digit hexadecimal number that identifies the place within the source module (CSECT) where the abend was issued.

Refer also to “Appendix B. Problem Determination” on page X-5 Table 4 for further information on DSN1COPY misuse.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this abend code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 31, 32, 33, 43.

00C90211

Explanation: The data manager detected an inconsistent data condition. In this case, a row is missing a column that is not nullable and does not allow default values.

This abend reason code is issued by the following CSECT: DSNnnnnn

'nnnnn' is the CSECT name identifier given in the dump header and appearing in VRARRK5 of the VRA in the SDWA (see the Problem Determination section of this message). 'DSNnnnnn' is the full CSECT name given in the dump title.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Message DSNI013I is issued to identify the data page. It also identifies the database name and table space name. This message is issued for all pages in use at the time of the abend. Within this group of pages, at least one page is involved in the inconsistency. The other pages were present at the time of the abend.

The LOC keyword in the dump title gives the Load module.CSECT:qualifier of the location where the abend occurred. 'Qualifier' is a unique, 4-digit hexadecimal number that identifies the place within the source module (CSECT) where the abend was issued.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this abend code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 31, 32, 33, 42, 62.

00C90212

Explanation: The data manager detected an inconsistent data condition. In this case, there is an empty index leaf page other than the root. (DB2 removes empty pages from the index tree.)

This abend reason code is issued by the following CSECT: DSNnnnnn

'nnnnn' is the CSECT name identifier given in the dump header and appearing in VRARRK5 of the VRA in the SDWA (see the Problem Determination section of this message). 'DSNnnnnn' is the full CSECT name given in the dump title.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Message DSNI013I is issued to identify the index leaf page. It also identifies the database name and index space name. This message is issued for all pages in use at the time of the abend. Within this group of pages, at least one page is involved in the inconsistency. The other pages were present at the time of the abend.

Run the CHECK utility to determine the extent of index inconsistency if:

- The page type indicated in message DSNI014I is index.
- The page type indicated in message DSNI014I is data.
- There is an index defined on a table in the indicated page set.

The LOC keyword in the dump title gives the Load module.CSECT:qualifier of the location where the abend occurred. 'Qualifier' is a unique, 4-digit hexadecimal number that identifies the place within the source module (CSECT) where the abend was issued.

Refer also to “Appendix B. Problem Determination” on page X-5 Table 4 for further information on DSN1COPY misuse.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this abend code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 31, 32, 33, 41, 43.

00C90213

Explanation: The data manager detected an inconsistent data condition. In this case, a row has an unexpected OBID stored in its prefix. A possible cause is that the table space was restored (via DSN1COPY or similar tool) improperly. For example, the wrong data set was copied for the given table space.

This abend reason code is issued by the following CSECT: DSNnnnnn

'nnnnn' is the CSECT name identifier given in the dump header and appearing in VRARRK5 of the VRA in the SDWA (see the Problem Determination section of this message). 'DSNnnnnn' is the full CSECT name given in the dump title.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Message DSNI013I is issued to identify the data page. It also identifies the database name and table space name. This message is issued for all pages in use at the time of the abend. Within this group of pages, at least one page is involved in the inconsistency. The other pages were present at the time of the abend.

The LOC keyword in the dump title gives the Load module.CSECT: qualifier of the location where the abend occurred. 'Qualifier' is a unique, 4-digit hexadecimal number that identifies the place within the source module (CSECT) where the abend was issued.

Refer also to Table 4 in “Appendix B. Problem Determination” on page X-5 for further information on DSN1COPY misuse.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this abend code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 31, 32, 33, 42, 62.

00C90214

Explanation: The data manager detected a condition of inconsistent data. The description of the index in the index OBD does not match the attributes of an index page. The problems consists of one of the following conditions:

- IPPNUNI does not equal OBDKNUNI,
- IPPTLTH does not equal OBDKLEN,
- IPPOLTH does not equal OBDLENO, or
- If the page is a leaf page, the segmentation flag or number of subpages conflict (IPPNLPG does not equal OBDINLPG or IPPSEGM conflicts with OBDINLPG).

The index space may have been improperly restored by using DSN1COPY or the wrong data set may have been copied for the given index.

This abend reason code is issued by the following CSECT: DSNnnnnn

'nnnnn' is the CSECT name identifier given in VRARRK5 of the VRA in the SDWA. 'DSNnnnnn' is the full CSECT name given in the dump title.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Message DSNI013I will be issued for each index page. It identifies the database, and the index name. This message is issued for all pages in use at the time of the abend. Within this group of pages, at least one page is involved in the inconsistency. The other pages were present at the time of the abend.

The LOC keyword in the dump title gives the Load-module.CSECT:qualifier of the location where the abend occurred. 'Qualifier' is a unique, 4-digit hexadecimal number that identifies the place within the source module (CSECT) where the abend was issued.

Refer also to Table 4 in "Appendix B. Problem Determination" on page X-5 for further information on DSN1COPY misuse.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this abend code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 31, 32, 33, 42, 44, 62.

00C90215

Explanation: The data manager detected a condition of inconsistent data. The index manager subcomponent has been passed a key with a key length not equal to the key length in pages of the index. The index space may have been improperly restored by using DSN1COPY or the wrong data set may have been copied for the given index.

This abend reason code is issued by the following CSECT: DSNnnnnn

'nnnnn' is the CSECT name identifier given in VRARRK5 of the VRA in the SDWA. 'DSNnnnnn' is the full CSECT name given in the dump title.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

A recover index will restore the index to a correct condition.

Problem Determination: Message DSNI013I will be issued for each index page. It identifies the database, the index name. This message is issued for all pages in use at the time of the abend. Within this group of pages, at least one page is involved in the inconsistency. The other pages were present at the time of the abend.

The LOC keyword in the dump title gives the Load-module.CSECT:qualifier of the location where the abend occurred. 'Qualifier' is a unique, 4-digit hexadecimal number that identifies the place within the source module (CSECT) where the abend was issued.

Refer also to Table 4 in "Appendix B. Problem Determination" on page X-5 for further information on DSN1COPY misuse.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this abend code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 31, 32, 33, 42, 44, 62, 63, 64.

00C90216

Explanation: The data manager has detected an inconsistent data condition. Either the length of a record in a table space is longer than the maximum-defined record length as defined in the DB2 directory or a variable-length column has a longer length than the length defined in the DB2 directory.

This abend reason code is issued by the following CSECTs:

DSNIOSET	DSNIRNXT	DSNIRSET	DSNISFWL
DSNISFX	DSNISRID		

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Message DSNI013I is issued to identify the data page that contains the record that is longer than allowed by its corresponding record definition. This could occur if the DB2 directory was recovered to a previous point, allowing new object creations (with a shorter record length) to be created having record identifiers identical to objects previously created in the table space. Also the table space may have been improperly restored by using DSN1COPY or the wrong data set may have been copied for the given table space.

Refer also to Table 4 in "Appendix B. Problem Determination" on page X-5 for further information on DSN1COPY misuse.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 32, 33, 42, 62. 65, 66.

00C90218

Explanation: The data manager detected an inconsistent data condition in a segmented table space. In this case, an unallocated segment was found on a segment chain.

This abend reason code is issued by the following CSECT: DSNnnnnn

The CSECT name identifier given in the dump header and appearing in VRARRK5 of the VRA in the SDWA is 'nnnnn' (see the Problem Determination section of this message). The full CSECT name given in the dump title is 'DSNnnnnn'.

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run for the period of time spanning the failure. Save this output for use in problem determination.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Message DSNI013I is issued to identify the space map page that contains the bad segment entry. The database name and table space name will also be identified.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Sig-

nificant fields for this abend code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

Refer also to Table 4 in “Appendix B. Problem Determination” on page X-5 for further information on DSN1COPY misuse.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 32, 37.

00C90219

Explanation: The data manager detected an inconsistent data condition in a segmented table space. In this case, an allocated segment was found on a wrong segment chain (that is, a segment chain contains a segment that belongs to a different table).

This abend reason code is issued by the following CSECT: DSNnnnnn

The CSECT name identifier given in the dump header and appearing in VRARRK5 of the VRA in the SDWA is 'nnnnn' (see the Problem Determination section of this message). The full CSECT name given in the dump title is 'DSNnnnnn'.

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run for the period of time spanning the failure. Save this output for use in problem determination.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Message DSNI013I is issued to identify the space map page that contains the bad segment entry. The database name and table space name will also be identified.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this abend code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

Refer also to Table 4 in “Appendix B. Problem Determination” on page X-5 for further information on DSN1COPY misuse.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 32, 37.

00C9021A

Explanation: The data manager detected an inconsistent data condition in a segmented table space. In this case, a data page contains a record which belongs to a table that has not been allocated for the page.

This abend reason code is issued by the following CSECT: DSNnnnnn

The CSECT name identifier given in the dump header and appearing in VRARRK5 of the VRA in the SDWA is 'nnnnn' (see the Problem Determination section of this message). The full CSECT name given in the dump title is 'DSNnnnnn'.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run for the period of time spanning the failure. Save this output for use in problem determination.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Message DSNI013I is issued to identify the data page that contains the bad data record. The database name and table space name will also be identified.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this abend code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

Refer also to Table 4 in “Appendix B. Problem Determination” on page X-5 for further information on DSN1COPY misuse.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 32, 37.

00C9021B

Explanation: The data manager detected an inconsistent data condition in a segmented table space. In this case, the space map page indicates a data page that is not empty exists. However, the data page is either not formatted by the data manager or it is beyond the highest VSAM formatted area.

This abend reason code is issued by the following CSECT: DSNnnnnn

The CSECT name identifier given in the dump header and appearing in VRARRK5 of the VRA in the SDWA is 'nnnnn' (see the Problem Determination section of this message). The full CSECT name given in the dump title is 'DSNnnnnn'.

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run for the period of time spanning the failure. Save this output for use in problem determination.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Message DSNI013I is issued to identify the inconsistent data page and its covering space map page. The database name and table space name will also be identified.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this abend code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 32, 37.

00C9021C

Explanation: While running a utility, the data manager detected an inconsistent data condition. A row was encountered that is not represented by a record OBD in the database descriptor (DBD). This abend may indicate an internal DB2 error, but most likely occurs due to a user error. Possible user errors may include:

- Data from a DB2 subsystem was copied to another DB2 subsystem incorrectly. This is the most common error.
- DSNDB01.DBD01 was regressed to a time prior to a table being created.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECTs: DSNIRFNX, DSNISNPG

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested. The dump is required in the event that the problem is determined to be a DB2 internal error.

User Response: Notify the system programmer.

System Programmer Response: Determine if improper procedures were used to restore the table space or DBD that would lead to the inconsistency.

Problem Determination: Message DSNI013I will be issued.

If a DB2 internal error is indicated, collect the following diagnostic items:

- DSN1COPY of the user table space.
- DSN1COPY of DSNDB01.DBD01.

Also collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 31, 32, 33, 37.

00C9021D

Explanation: During a LOAD/REORG utility or termination of a utility, the data manager detected an inconsistent data condition. A space map page was missing from the table space. This abend may indicate an internal DB2 error (caused by the utilities subcomponent passing a bad start position to the data manager), but most likely occurs due to a user error. Possible causes are that the table space data set has been deleted and redefined without DB2's knowledge, or that the table space was incorrectly restored from an improper DSN1COPY of the table space.

This abend reason code is issued by the following CSECT: DSNIDLOD

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. The dump is required in the event that the problem is determined to be a DB2 internal error.

User Response: Notify the system programmer.

System Programmer Response: Determine if the data set was improperly restored or deleted and redefined by the user. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Message DSNI013I will be issued. If the message information describes page 'xx0001'X of the table space, this indicates that the data set was deleted and redefined without DB2's knowledge.

If a DB2 internal error is indicated, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 10, 12, 31, 32, 33, 37, 43.

00C9021E

Explanation: The data manager detected an inconsistent data condition in a segmented table space. An invalid page was requested. The page number is outside the highest formatted RBA for the page set. Either the segment chain is broken, or the table space has been truncated. A truncated table space could be a possible user error.

This abend reason code is issued by the following CSECTs: DSNISGSC, DSNISNPG

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run for the period of time spanning the failure. Save this output for use in problem determination.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 3, 32, 37.

00C9021F

Explanation: The data manager detected an inconsistent data condition in a segmented table space. A duplicate first segment block for a table is found during the rebuilding of the first segment block in a segmented table space. The segment chain may be broken.

This abend reason code is issued by the following CSECT: DSNISEGR

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run for the period of time spanning the failure. Save this output for use in problem determination.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items:

- Console output from the system on which the job was run and a listing of SYSLOG data set for the period of time spanning the failure.
- Listing of SYS1.LOGREC data set, obtained by executing IFCEREP1.
- SVC dump (or system dump), taken to SYS1.DUMPxx data set, as a result of operator initiated dump command or SLIP trap exit.
- SYSPRINT output, including JCL, for the batch job and system messages that were issued

- Definitions of table spaces, tables, and indexes involved in the error
- Listing of the entire table space
- Listing of the DBD, obtained by executing UTILITY DIAGNOSE OBD.

00C90220

Explanation: The data manager detected an inconsistent data condition. In this case, free index page cannot be found in the index space. The problem could be caused by a problem detected by IRLM, such as out-of-storage, or some other problem.

This abend reason code is issued by the following CSECT: DSNISMXF.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run for the period of time spanning the failure. Save this output for use in problem determination.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Message DSNI013I is issued to identify the data pages. It identifies the database name, table space name, and index space name. This message is issued for all pages in use at the time of the abend. Within this group of pages, at least one page is involved in the inconsistency. The other pages were present at the time of the abend.

From the console output, determine if resource unavailable message DSNT500I/DSNT501I was given prior to the abend. If there is and the reason code given is 00C90092, 00C90093, or 00C90096, then refer to the description of the appropriate message in this book for more information. Otherwise, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 31, 32, 33. Also collect a DSN1COPY output of the tables and indexes before any recover is performed.

00C90221

Explanation: The data manager detected an inconsistent data condition. In this case, a nonsegmented space map page was read for a table space that had been defined as segmented. This problem could be caused by incorrect use of the DSN1COPY service aid or a DB2 internal problem reading the space map page.

This abend reason code is issued by the following CSECT: DSNISGAU

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run for the period of time spanning the failure. Save this output for use in problem determination.

System Programmer Response: If you suspect an error in DB2, Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this abend code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

Refer also to Table 4 in “Appendix B. Problem Determination” on page X-5 for further information on DSN1COPY misuse. Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 32, 37.

00C90222

Explanation: While starting DB2, the data manager detected a utility in process (UTUT, UTRO or UTRW) state on an object that originated from Version 2 Release 3. This abend might indicate an internal DB2 error, but most likely occurs because of a user error. A possible user error is a result of not terminating all utilities before migrating to this release.

This abend reason code is issued by the following CSECT: DSNIERST

System Action: The -START DB2 command fails. A record is written to SYS1.LOGREC and an SVC dump is requested. The dump is required if the problem is determined to be a DB2 internal error.

User Response: Notify the system programmer.

System Programmer Response: Determine if an improper procedure was used to migrate to this release. If the utilities were not terminated before migrating, fall back to Version 2 Release 3 and restart DB2. Use the -TERM UTILITY command to terminate utilities, use the -DISPLAY UTILITY command to make sure no utility job is currently active, stop DB2, and remigrate to this release.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 31, 33.

00C90301

Explanation: The data manager detected an internal error with DB2 during RID LIST processing. The requested RIDMAP pointer can not be found in the specified CUB control block.

This abend reason code is issued by the following CSECTs:

DSNICMT2	DSNIRIDR	DSNITCUS	DSNXRFCH
DSNXRRID	DSNXRSFN	DSNXRSGB	DSNXRT1J
DSNXSMIN	DSNXSMRL	DSNXSMUN	DSNXSRID

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run from the period of time spanning the failure. Save this output for use in problem determination.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 32, 37.

00C90303

Explanation: An attempt to make the database exception table (DBET) consistent failed after an agent failure.

System Action: The DB2 subsystem abends, a record is written to SYS1.LOGREC, and an SVC dump is requested.

Problem Determination: This reason code is issued by the following CSECT: DSNIDBPX

Restarting the member rebuilds the local DBET. Analyze SYS1.LOGREC and the dump to determine why the agent failed and why the attempt to make the DBET consistent failed.

00C90304

Explanation: START DATABASE recovery of GRECP cannot proceed because the recover base RBA value in the header page for the object is invalid. The following might have occurred:

- The data set was restored from an earlier release backup that does not have a starting RBA or LRSN in the header page.
- DSN1COPY RESET utility command.

System Action: The GRECP recovery for this object is terminated; all other objects being recovered by this START DATABASE command are not affected.

System Programmer Response: Use the RECOVER utility without the LOGONLY option.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNISREC

X'D1.....' Codes

For X'D1' codes, DB2 provides the following diagnostic information in the SYS1.LOGREC variable recording area (VRA) of the SDWA for many of the reason codes:

MODID	Name of module issuing the abend
LEVEL	Change level
COMPONENT	Subcomponent ID
REGISTERS	General purpose registers (GPRs) 0 through 15 at time of abend

00D10010

Explanation: The DB2 stand-alone log services OPEN processing macro (DSNJSLR) issues this reason code. The RANGE parameter on the OPEN request specifies the address of a 12-byte area containing the log relative byte address (RBA) range to be processed by subsequent GET requests. However, the RBA specified in the second six bytes of the RANGE parameter (which indicates the end of the log RBA) is less than or equal to the RBA specified in the first six bytes of the RANGE parameter (which indicates the start of the log RBA).

This reason code is issued by the following CSECT: DSNJRS01

System Action: In response to the DSNJSLR FUNC=OPEN call, DB2 places a return code of 8 in register 15 and a reason code of 00D10010 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user application program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *Administration Guide*.

System Programmer Response: Correct the RANGE RBA parameter input, and resubmit the request.

00D10011

Explanation: The DB2 stand-alone log services OPEN and GET processing macro (DSNJSLR) issued this reason code. During the initial processing of a FUNC=OPEN or FUNC=GET request, storage is obtained to contain the control blocks and other information required to process this request. An MVS GETMAIN failed when attempting to obtain the required storage.

This reason code is issued by the following CSECTs:

DSNJRS01 DSNJRS03 DSNJRS04

System Action: In response to the DSNJSLR FUNC=OPEN or FUNC=GET call, DB2 places a return code of 8 in register 15 and a reason code of 00D10011 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *Administration Guide*.

System Programmer Response: In all likelihood, the REGION parameter on the EXEC statement for the user program is too small. Increase the REGION size, and resubmit the user program.

00D10012

Explanation: The DB2 stand-alone log services OPEN processing macro (DSNJSLR) issued this reason code. The Job Control Language (JCL) for the user program that uses the DSNJSLR macro must specify either the use of the bootstrap data set (BSDS) or, in the absence of the BSDS, the active or archive data set(s) which is used in the processing. The FUNC=OPEN request failed because neither BSDS nor any log data set is allocated for the job.

This reason code is issued by the following CSECT: DSNJRS01

System Action: In response to the DSNJSLR FUNC=OPEN call, DB2 places a return code of 8 in register 15 and a reason code of 00D10012 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *Administration Guide*.

System Programmer Response: Correct the JCL and resubmit the user program.

00D10013

Explanation: The DB2 stand-alone log services OPEN processing macro (DSNJSLR) issued this reason code. A VSAM OPEN error occurred while opening the bootstrap data set (BSDS).

This reason code is issued by the following CSECT: DSNJRS04

System Action: In response to the DSNJSLR FUNC=OPEN call, DB2 places a return code of 12 in register 15 and a reason code of 00D10013 in register 0. No abend is issued by

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the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the OPEN request is also returned in the stand-alone log GET Feedback Area (SLRF). The VSAM OPEN error return code is placed in SLRFRG15. The ACB error code (ACBERFLG) is placed in SLRFERCD.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *Administration Guide*.

System Programmer Response: Refer to the *DFSMS/MVS: Macro Instructions for Data Sets* to determine the meaning of the VSAM OPEN error returned in SLRFRG15, and the ACB error code returned in SLRFERCD. Take appropriate action, and resubmit the FUNC=OPEN request.

00D10014

Explanation: The DB2 stand-alone log services OPEN processing macro (DSNJSLR) issued this reason code. The Job Control Language (JCL) associated with the user-written application determines how access to the DB2 log data is achieved. Access can either be through the bootstrap data set (BSDS), or through the explicit inclusion of ddnames in the JCL for the active or archive log data set(s) which are to be examined. If the BSDS method is used, the user must specify a RANGE parameter on the FUNC=OPEN call. This reason code indicates that the user used the BSDS method, but did not specify the range of RBAs to be examined.

This reason code is issued by the following CSECT: DSNJRS01

System Action: In response to the DSNJSLR FUNC=OPEN call, DB2 places a return code of 8 in register 15 and a reason code of 00D10014 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *Administration Guide*.

System Programmer Response: Two choices are available:

1. Continue to use the BSDS method of access. If this choice is made, then the FUNC=OPEN invocation must specify a range of RBAs to be examined by use of the RANGE parameter.
2. Replace the use of the BSDS method of access. This can be done be using explicit archive data set ddnames and/or active log data set ddnames in the JCL used to invoke the user-written application program.

00D10015

Explanation: The DB2 stand-alone log services OPEN processing macro (DSNJSLR) issued this reason code. The VSAM OPEN of the bootstrap data set was successful but the record format of the BSDS is incompatible with this release of the stand-alone log services.

This reason code is issued by the following CSECT: DSNJRS04

System Action: In response to DSNJSLR FUNC=OPEN call, DB2 places a return code of 12 in register 15 and a reason code of 00D10015 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must, therefore, anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to the nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *Administration Guide*.

System Programmer Response: Determine the BSDS release level by running the print log map (DSNJU004) utility and then run the appropriate BSDS MIGRATION/FALLBACK program to reformat the bootstrap data set.

- If the release level of the BSDS data set is at 2.2 and below, then run the BSDS conversion program (DSNJMIG0) to migrate forward to the 2.3 and above release level.
- If the release level of the BSDS data set is at 2.3 and above, then run the BSDS conversion program (DSNJFAL0) to fall back to the 2.2 and below release level.

When the BSDS data set has been converted to the new format, rerun the original application program.

00D10016

Explanation: The DB2 stand-alone log services OPEN processing macro (DSNJSLR) issued this reason code. In the job control language (JCL) associated with the user-written application, MxxARCHV and/or MxxACTn DD statements were specified for a DB2 member while MxxBSDS was also specified for the same member. However, the specification of MxxARCHV and MxxACTn DD statements is mutually exclusive with the specification of MxxBSDS DD statement for the same member.

This reason code is issued by the following CSECT: DSNJRS06

System Action: In response to DSNJSLR FUNC=OPEN call, DB2 places a return code of 12 in register 15 and a reason code of 00D10016 in register 0. No abend is issued by the stand-alone log services, and no information is written to SYS1.LOGREC data set.

User Response:

Correct the JCL and rerun the job. Specify either the DD statements for the log data sets (MxxARCHV and MxxACTN) or the DD statement for the BSDS (MxxBSDS) for a given member; do not specify both.

For additional details about the stand-alone log services, including a sample of an application program that reacts to the nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *Administration Guide*.

00D10017

Explanation: The DB2 stand-alone log services OPEN processing macro (DSNJSLR) issued this reason code. The job control language (JCL) associated with the user-written application indicated that the logs from more than one DB2 member were to be read in CI mode. However, CI mode is allowed only when reading the log of a single DB2 system.

This reason code is issued by the following CSECT: DSNJRS06

System Action: In response to DSNJSLR FUNC=OPEN call, DB2 places a return code of 12 in register 15 and a reason code of 00D10017 in register 0. No abend is issued by the stand-alone log services, and no information is written to SYS1.LOGREC data set.

User Response:

Either remove the CI mode from the OPEN request to read log records of more than one member or change the JCL to specify only one system's log to read its log in CI mode.

For additional details about the stand-alone log services, including a sample of an application program that reacts to the nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *Administration Guide*.

00D10018

Explanation: The DB2 stand-alone log services OPEN processing macro (DSNJSLR) issued this reason code. In the job control language (JCL) associated with the user-written application, more than one DB2 system's logs were identified. However, on the OPEN request an RBA range was specified. When reading logs from more than one DB2 system, you cannot specify an RBA range; you must specify an LRSN range.

This reason code is issued by the following CSECT: DSNJRS06

System Action: In response to DSNJSLR FUNC=OPEN call, DB2 places a return code of 12 in register 15 and a reason code of 00D10018 in register 0. No abend is issued by the stand-alone log services, and no information is written to SYS1.LOGREC data set.

User Response: Correct the range specification on the OPEN request, and rerun the job. If range is specified when reading log records from multiple members, LRSN=YES must also be specified. Also range must be specified if GROUP DD or a MxxBSDS (BSDS) DD is specified in the JCL.

For additional details about the stand-alone log services, including a sample of an application program which reacts to the nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *Administration Guide*.

00D10019

Explanation: The DB2 stand-alone log services OPEN processing macro (DSNJSLR) issued this reason code. A VSAM OPEN error occurred while opening the bootstrap data set (BSDS). The error was determined to be one which could be corrected by use of an AMS VERIFY, but the VERIFY also failed.

This reason code is issued by the following CSECT: DSNJRS04

System Action: In response to the DSNJSLR FUNC=OPEN call, DB2 places a return code of 12 in register 15 and a reason code of 00D10019 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the OPEN request is also returned in the stand-alone log GET Feedback Area (SLRF). The VSAM return code from the original VSAM OPEN error is placed in SLRFRG15. The ACB error code (ACBERFLG) from the ACB used in the original VSAM OPEN operation is placed in SLRFERCD.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *Administration Guide*.

System Programmer Response: Refer to the *DFSMS/MVS: Macro Instructions for Data Sets* to determine the meaning of the VSAM OPEN error returned in SLRFRG15, and the ACB error code returned in SLRFERCD. take appropriate action, and resubmit the FUNC=OPEN request.

00D10020

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. The end of data has been reached (end of the log, end of the user-specified log data set(s), or end of the log RBA range specified by the RANGE parameter).

This reason code is issued by the following CSECTs: DSNJRS02, DSNJRS03

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 4 in register 15 and a reason code of 00D10020 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *Administration Guide*.

System Programmer Response: This is not an error; rather, this reason code denotes a normal end of data condition. No action is necessary.

00D10021

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. A gap in the log RBA range has been encountered when switching log data sets, indicating missing log records.

This condition may or may not be intentional on the part of the user. Normally, a continuous set of log records are supplied as input by the ACTIVEn and ARCHIVE ddnames in the user's JCL. If a log data set was intentionally (or unintentionally) removed, this condition will arise.

This reason code is issued by the following CSECT: DSNJRS02

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 4 in register 15 and a reason code of 00D10021 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). A pointer to the next log record following the gap is placed in SLRFFRAD.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

System Programmer Response: As mentioned above, this may or may not be an intentional error. Check the user's JCL to ensure that a continuous string of log records has been supplied. If the BSDS method is being used, use the print log map (DSNJU004) utility to examine the RBA ranges as recorded in the BSDS, and note any RBA gaps which may have resulted from the deletion of an active log data set or an archive log data set.

If it appears that a log error may have occurred, execute the log print utility (DSN1LOGP) to attempt to obtain a detailed report of the log record(s) associated with the failure. If the DSN1LOGP utility fails, refer to Section 4 (Volume 1) of *Administration Guide* for information about recovery from log failures.

00D10022

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. A gap in the log RBA range has been encountered when switching log data sets, indicating missing log records, and the log RBA of the next record following the gap is greater than the end RBA of the RBA range specified by the RANGE parameter.

This condition may or may not be intentional on the part of the user. Normally, a continuous set of log records are supplied as input by the ACTIVEn and ARCHIVE ddnames in the user's JCL. If a log data set was intentionally (or unintentionally) removed, this condition will arise.

This reason code is issued by the following CSECTs: DSNJRS03, DSNJRS04

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 8 in register 15 and a reason code of 00D10022 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). A pointer to the next log record following the gap is placed in SLRFFRAD.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *Administration Guide*.

System Programmer Response: As mentioned above, this may or may not be an intentional error. Check the RBA range specified on the RANGE parameter to determine if the end RBA value was in error. Check the user's JCL to ensure that a continuous string of log records has been supplied. If the BSDS method is being used, use the print log map (DSNJU004) utility to examine the RBA ranges as recorded in the BSDS, and note any RBA gaps which may have resulted from the deletion of an active log data set or an archive log data set.

If it appears that a log error may have occurred, execute the log print utility (DSN1LOGP) to attempt to obtain a detailed report of the log record(s) associated with the failure. If the DSN1LOGP utility fails, refer to Section 4 (Volume 1) of *Administration Guide* for information about recovery from log failures.

00D10023

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. A gap in the log RBA range has been encountered, and a conditional restart record has been found beyond a conditional restart truncation point. This condition exists when a log RBA gap was intentionally forced by the user as part of log truncation during conditional restart.

This reason code is issued by the following CSECT: DSNJRS02

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 4 in register 15 and a reason code of 00D10023 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The length, address, and RBA of the conditional restart record are placed in fields SLRFRCLL, SLRFFRAD and SLRFRBA, respectively.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *Administration Guide*.

System Programmer Response: Use the print log map (DSNJU004) utility to examine the conditional restart control records and the RBA ranges of log data sets. Note any RBA gaps which may have resulted from the truncation of the log during a conditional restart.

If it appears that a log error may have occurred, execute the log print utility (DSN1LOGP) to attempt to obtain a detailed report of the log record(s) associated with the failure. If the DSN1LOGP utility fails, refer to Section 4 (Volume 1) of *Administration Guide* for information about recovery from log failures.

00D10024

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. A log RBA sequence error has occurred. The RBA of the previous log record is greater than the RBA of the current log record.

This reason code is issued by the following CSECT: DSNJRS03

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 8 in register 15 and a reason code of 00D10024 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). A pointer to the next log record following the gap is placed in SLRFFRAD.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *Administration Guide*.

System Programmer Response: The DD statements in the user's Job Control Language (JCL) must specify the log data sets in ascending log RBA range order. If both ARCHIVE and ACTIVEn DD statements are included, the first archive data set must contain the lowest log RBA value.

Use the print log map (DSNJU004) utility to obtain a listing of the RBA ranges associated with each archive log data set and active log data set. If necessary:

- Adjust the concatenation sequence of the archive data sets in the user's JCL to ensure that the log records are read in ascending RBA sequence.
- Adjust the order of the active log data sets such that the RBA range is arranged in ascending order, starting with the ACTIVE1 ddname, and progressing through the ACTIVEn ddname.

Following the above adjustments, resubmit the user's JCL.

00D10025

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. A VSAM error occurred while reading an active log data set.

This reason code is issued by the following CSECT: DSNJRS03

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 12 in register 15 and a reason code of 00D10025 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The VSAM GET error return code is placed in SLRFRG15. The RPL error code (RPLERRCD) is placed in SLRFERCD. The ddname of the data set on which the activity occurred is placed in SLRFDDNM.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *Administration Guide*.

System Programmer Response: Refer to the *DFSMS/MVS: Macro Instructions for Data Sets* to determine the meaning of the VSAM GET error returned in SLRFRG15, and the RPL error code returned in SLRFERCD. Take appropriate action to correct the error.

00D10026

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. The GET processing was unable to locate a log data set containing the requested RBA.

This reason code is issued by the following CSECT: DSNJRS04

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 8 in register 15 and a reason code of 00D10026 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The RBA for which the GET request failed is placed in SLRFRBA.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *Administration Guide*.

System Programmer Response: There could be several reasons for this error:

- The RBA range supplied in the RANGE parameter may have exceeded the upper or lower bound of RBAs available on all active log data sets and all archive log data sets. This will normally occur when the user has specified the bootstrap data set (BSDS) method in the JCL.
- The RBA range supplied in the RANGE parameter may have exceeded the upper or lower bound of RBAs available on the active log data sets and/or archive log data sets supplied in the user's JCL. This will occur when the user has supplied log data sets using the ACTIVEn and ARCHIVE ddnames.

To resolve the problem, use the print log map (DSNJU004) utility to obtain a listing of the archive and active log data sets, and their corresponding RBA ranges. Check the user's JCL and the user's RANGE parameter to ensure that they are in harmony with one another. Correct the JCL and RANGE parameters as necessary, and rerun the application.

00D10027

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. A VSAM error occurred while reading the bootstrap data set (BSDS).

This reason code is issued by the following CSECT: DSNJRS03

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 12 in register 15 and a reason code of 00D10027 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The VSAM GET error return code is placed in SLRFRG15. The RPL error code (RPLERRCD) is placed in SLRFERCD.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *Administration Guide*.

System Programmer Response: Refer to the *DFSMS/MVS: Macro Instructions for Data Sets* to determine the meaning of the VSAM GET error returned in SLRFRG15, and the RPL error code returned in SLRFERCD. Take appropriate action to correct the error.

00D10028

Explanation: The DB2 stand-alone log services OPEN processing macro (DSNJSLR) issued this reason code. Both LRSN range and CI mode read were specified on the OPEN request when reading the log of a DB2 system. However, when reading the log in CI mode, range can be specified only in RBA.

This reason code is issued by the following CSECT: DSNJRS06

System Action: In response to DSNJSLR FUNC=OPEN call, DB2 places a return code of 12 in register 15 and a reason code of 00D10028 in register 0. No abend is issued by the stand-alone log services, and no information is written to SYS1.LOGREC data set.

User Response: Correct the range specification on the OPEN request, and rerun the job.

For additional details about the stand-alone log services, including a sample of an application program which reacts to the nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *Administration Guide*.

00D10029

Explanation: The DB2 stand-alone log services OPEN processing macro (DSNJSLR) issued this reason code. The BSDS data set of a member named in the BSDS data set pointed to by the GROUP DD statement cannot be allocated.

This reason code is issued by the following CSECT: DSNJRS06

System Action: In response to DSNJSLR FUNC=OPEN call, DB2 places a return code of 12 in register 15 and a reason code of 00D10029 in register 0. No abend is issued by the stand-alone log services, and no information is written to SYS1.LOGREC data set.

User Response: Make sure the BSDS data set of every member named in the BSDS data set pointed to by the GROUP DD statement is available for allocation. If the missing BSDS data set belongs to a member that is no longer active and its BSDS data set does not exist any more, then do not use GROUP DD to allocate required BSDS and log data sets. To read log records of other active members, specify a MxxBSDS DD statements for each active member. The print log map (DSNJU004) utility can be used to find the name of every member's BSDS data set.

For additional details about the stand-alone log services, including a sample of an application program which reacts to the nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *Administration Guide*.

00D1002A

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. The GET processing has requested an RBA in an active log data set which was previously not opened. A VSAM OPEN error occurred while opening the active log data set.

This reason code is issued by the following CSECT: DSNJRS03

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 12 in register 15 and a reason code of 00D1002A in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The VSAM OPEN error return code is placed in SLRFRG15. The ACB error code (ACBERFLG) is placed in SLRFERCD. The ddname of the data set on which the activity occurred is placed in SLRFDDNM.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *Administration Guide*.

System Programmer Response: Refer to the *DFSMS/MVS: Macro Instructions for Data Sets* to determine the meaning of the VSAM OPEN error returned in SLRFRG15, and the ACB error code returned in SLRFERCD. Take appropriate action, and then resubmit the application job.

00D1002B

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. The GET processing has requested an RBA in an active log data set which was previously not opened. A VSAM OPEN error occurred while opening the active log data set. The error was determined to be one which could be corrected; however, a system error occurred while executing an MVS TESTCB macro to determine whether the active log data set which had just been opened was a VSAM ESDS data set or a VSAM LDS data set.

This reason code is issued by the following CSECT: DSNJRS03

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 12 in register 15 and a reason code of 00D1002B in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The VSAM return code from the original VSAM OPEN error is placed in SLRFRG15. The ACB error code (ACBERFLG) from the ACB used in the original VSAM OPEN operation is placed in SLRFERCD. The ddname of the data set on which the activity occurred is placed in SLRFDDNM.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *Administration Guide*.

System Programmer Response: Refer to the *DFSMS/MVS: Macro Instructions for Data Sets* to determine the meaning of the VSAM OPEN error returned in SLRFRG15, and the ACB error code returned in SLRFERCD. Take appropriate action, and resubmit the application job.

If the SLRFERCD field contains X'1001' (decimal 4097), then the error is the result of an inconsistency between the TESTCB parmlist generated in DSNJRS03 and the level of MVS under which the application program was executed. Contact IBM for assistance if SLRFERCD reflects this value.

00D1002C

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. The GET processing has requested an RBA in an active log data set which was previously not opened. A VSAM OPEN error occurred while opening the active log data set. The error was determined to be one which could be corrected by use of an access method services VERIFY, but the access method services VERIFY failed.

This reason code is issued by the following CSECT: DSNJRS03

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 12 in register 15 and a reason code of 00D1002C in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The VSAM return code from the original VSAM OPEN error is placed in SLRFRG15. The ACB error code (ACBERFLG) from the ACB used in the original VSAM OPEN operation is placed in SLRFERCD. The ddname of the data set on which the activity occurred is placed in SLRFDDNM.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *Administration Guide*.

System Programmer Response: Refer to the *DFSMS/MVS: Macro Instructions for Data Sets* to determine the meaning of the VSAM OPEN error returned in SLRFRG15, and the ACB error code returned in SLRFERCD. Take appropriate action, and resubmit the application job.

00D1002D

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. The GET processing has requested an RBA in an active log data set which was previously not opened. A VSAM OPEN error occurred while opening the active log data set. The open error was corrected by use of an access method services VERIFY, but a subsequent attempt to reposition the VSAM pointer back to the beginning of the active log data set (via access method services POINT) failed.

This reason code is issued by the following CSECT: DSNJRS03

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 12 in register 15 and a reason code of 00D1002D in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The VSAM return code from the original VSAM OPEN error is placed in SLRFRG15. The ACB error code (ACBERFLG) from the ACB used in the original VSAM OPEN operation is placed

in SLRFERCD. The ddname of the data set on which the activity occurred is placed in SLRFDDNM.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *Administration Guide*.

System Programmer Response: Refer to the *DFSMS/MVS: Macro Instructions for Data Sets* to determine the meaning of the VSAM OPEN error returned in SLRFRG15, and the ACB error code returned in SLRFERCD. Take appropriate action (in most cases, the problem can be solved by use of an AMS VERIFY against the active log data set named in the SLRFDDNM field of the SLRF). Once the problem is solved, resubmit the application job.

00D10030

Explanation: The DB2 stand-alone log services GET and CLOSE processing macro (DSNJSLR) issued this reason code. The stand-alone log services uses a request block to establish communication between itself and the invoking application program. The address to the request block is returned to the application program on a FUNC=OPEN call, and is required for all subsequent stand-alone FUNC=GET and FUNC=CLOSE calls in the RBR parameter. This reason code is returned to the invoking application when the RBR does not address a valid stand-alone request block. Subsequently, the application program's request cannot be processed.

This reason code is issued by the following CSECT: DSNJRS01

System Action: In response to the DSNJSLR FUNC=GET or FUNC=CLOSE call, DB2 places a return code of 8 in register 15 and a reason code of 00D10030 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *Administration Guide*.

System Programmer Response: On a FUNC=OPEN call, the RBR value is returned in register 1. The application program must preserve this value for all subsequent stand-alone FUNC=GET and FUNC=CLOSE calls. Due to an application program logic error in the program which invokes the stand-alone log services, the RBR value has been compromised. Repair the application program, and resubmit the application job.

00D10031

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. The GET processing has requested an RBA in a log data set which was previously not opened. The user's Job Control Language (JCL) has specified that the bootstrap data set (BSDS) be used as the guide to determining which log data sets are required. An attempt to dynamically allocate the appropriate log data set (via MVS SVC 99) failed.

This reason code is issued by the following CSECT: DSNJRS05

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 12 in register 15 and a reason code of 00D10031 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The SVC 99 error code (S99ERROR) and information code (S99INFO) are placed in the SLRFRC and SLRFINFO fields, respectively. The ddname of the data set on which the activity occurred is placed in SLRFDDNM.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *Administration Guide*.

System Programmer Response: Refer to the appropriate MVS publication to determine the meaning of the SVC 99 error code (S99ERROR) returned in SLRFRG15, and SVC 99 information code (S99INFO) returned in SLRFINFO. Take the appropriate action to correct the error, and resubmit the application job.

00D10040

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. The GET processing has requested an RBA in an archive log data set which was previously not opened. An attempt is made to open the second file on the archive log tape (the first file normally contains the bootstrap data set, while the second is normally the archive log data set). If this first attempt failed because the archive log data set was not the second file on an archive tape, then the RDJFCB macro is used to change the data set sequence number from the default value of 2 to a value of 1, before the OPEN is attempted again. This reason code is generated when an error was returned from the RDJFCB macro.

This reason code is issued by the following CSECT: DSNJRS03

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 12 in register 15 and a reason code of 00D10040 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The RDJFCB error code is placed in SLRFRG15. The ddname

of the data set on which the activity occurred is placed in SLRFDDNM.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *Administration Guide*.

System Programmer Response: Refer to the *DFSMS/MVS: Using Advanced Services for Data Sets* to determine the meaning of the RDJFCB error code returned in SLRFRG15. Take the appropriate action to correct the error, and resubmit the application job.

00D10044

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. The GET processing has requested an RBA in an archive log data set which was previously not opened. The attempt to open the archive log data set failed.

This reason code is issued by the following CSECT: DSNJRS03

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 12 in register 15 and a reason code of 00D10044 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The ddname of the data set on which the activity occurred is placed in SLRFDDNM.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

System Programmer Response: Determine the cause of the QSAM OPEN error, take the appropriate action to correct the error, and resubmit the application job.

00D10048

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. A QSAM GET error occurred while reading an archive log data set.

This reason code is issued by the following CSECT: DSNJRS03

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 12 in register 15 and a reason code of 00D10048 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The ddname of the data set on which the activity occurred is placed in SLRFDDNM.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *Administration Guide*.

System Programmer Response: Determine the cause of the QSAM GET error, take the appropriate action to correct the error, and resubmit the application job.

00D10050

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. The bootstrap data set (BSDS) was erroneously specified as one of the ARCHIVE data sets in the user's Job Control Language (JCL). Consequently, the GET request failed.

This reason code is issued by the following CSECT: DSNJRS03

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 8 in register 15 and a reason code of 00D10050 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The RBA of the requested log record control interval is placed in SLRFRBA.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *Administration Guide*.

System Programmer Response: Examine the user's JCL, and remove the occurrence of the BSDS data set as one of the concatenated ARCHIVE data sets. Resubmit the application job.

00D10061

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. The log record control interval (CI) requested by the application program was read successfully from an active log data set or an archive log data set. However, the physical record length returned from reading the CI is not the expected length. The GET function will complete, but will issue this reason code as a warning.

The length of a log CI in an active log data set is expected to be 4089 bytes. The length of a log CI in an archive log data set is expected to be 4096 bytes.

This reason code is issued by the following CSECT: DSNJRS03

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 4 in register 15 and a reason code of 00D10061 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set. The GET function will complete, but will issue this reason code as a warning.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The length and address of the CI are placed in fields SLRFRCLL and SLRFFRAD, respectively. The RBA associated with the CI is placed in SLRFRBA. The 'ddname' of the data set on which the activity occurred is placed in SLRFDDNM.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *Administration Guide*.

System Programmer Response: The RDF/CIDF control information in the CI has been compromised. If the SLRFRCLL field indicates a value greater than expected, then the data within the CI can still be used by the application program. If the SLRFRCLL field indicates a value less than expected, then the data within the CI in all likelihood can still be used, but with caution (additional error checking routines may be required by the user program).

00D10062

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. The requested record was found to be a middle spanned record segment, but a preceding first record segment does not exist. The GET function will complete, but will issue this reason code as a warning.

This reason code is issued by the following CSECT: DSNJRS02

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 4 in register 15 and a reason code of 00D10062 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set. The GET function will complete, but will issue this reason code as a warning.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The length and address of the requested record are placed in fields SLRFRCLL and SLRFFRAD, respectively. The RBA associated with the log record segment is placed in SLRFRBA. The ddname of the data set on which the activity occurred is placed in SLRFDDNM.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *Administration Guide*.

System Programmer Response: Several possibilities exist for the cause of this condition:

- The Recovery Log Manager component of DB2 did not originally construct the LRH properly.
- The log record header (LRH) for the log record segment was damaged after it was written by the DB2 subsystem.
- The application program continued to process after receipt of a 00D10021 reason code (gap in the log).

If the error was caused by the application program, modifications to the application program may be required.

If the error is a suspected DB2 problem, run the log print (DSN1LOGP) utility, specifying a range of RBAs which would encompass the problem RBA. Determine if the LRH of the log record segment is truly in error by looking at the record segments directly preceding and after the record segment in question.

00D10063

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. The requested record was found to be a last spanned record segment, but a preceding first record segment does not exist. The GET function will complete, but will issue this reason code as a warning.

This reason code is issued by the following CSECT: DSNJRS02

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 4 in register 15 and a reason code of 00D10063 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set. The GET function will complete, but will issue this reason code as a warning.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The length and address of the requested record are placed in fields SLRFRCLL and SLRFFRAD, respectively. The RBA associated with the log record segment is placed in SLRFRBA. The ddname of the data set on which the activity occurred is placed in SLRFDDNM.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *Administration Guide*.

System Programmer Response: Several possibilities exist for the cause of this condition:

- The Recovery Log Manager component of DB2 did not originally construct the log record header (LRH) properly.
- The LRH for the log record segment was damaged after it was written by the DB2 subsystem.
- The application program continued to process after receipt of a 00D10021 reason code (gap in the log).

If the error was caused by the application program, modifications to the application program may be required.

If the error is a suspected DB2 problem, run the log print (DSN1LOGP) utility, specifying a range of RBAs which would encompass the problem RBA. Determine if the LRH of the log record segment is truly in error by looking at the record segments directly preceding and after the record segment in question.

00D10101

Explanation: The ENDRBA value specified in the control statement was either greater or less than any known RBA, but cold start was not specified for the conditional restart.

This abend reason code is issued by the following CSECT: DSNJW306

System Action: DB2 startup is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Run the change log inventory (DSNJU003) utility with a CRESTART control statement that has an RBA value known to the system in the BSDS, or that has the ENDRBA and STARTRBA specifying the same RBA (cold start).

Refer to Section 4 (Volume 1) of *Administration Guide* for more information.

00D10102

Explanation: A request to disable data sharing failed.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect an SVC dump, and contact the system programmer.

System Programmer Response: Obtain the SVC dump for the return code. To disable data sharing, you must run the disable data sharing job (DSNTIJGF) and then restart DB2. For more information, see Chapter 3 of *Data Sharing: Planning and Administration*.

Problem Determination: General register 2 contains a return code. Explanation of the return code is as follows:

2 A request to disable data sharing is in the BSDS, but a conditional restart record is not present. You must use job DSNTIJGF for the correct conditional restart control record.

4 A request to disable data sharing is recorded in the BSDS, but the conditional restart record is not correct. You cannot request a normal conditional restart with a disable request. You must use job DSNTIJGF.

8 Update of the BSDS failed. Data sharing was not disabled. See DB2 code 00D10411 for problem determination. After the BSDS problem is fixed, run DSNTIJGF to disable data sharing, and then restart DB2.

10 A delete in the BSDS failed. Data sharing was not disabled. See DB2 code 00D10413 for problem determination. After the BSDS problem is fixed, run DSNTIJGF to disable data sharing, and then restart DB2.

00D10103

Explanation: DB2 failed to open the shared communications area (SCA) structure.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: Review the DB2 system console for possible DSN7xxxx messages that could relate to this problem.

00D10104

Explanation: DB2 failed to find the data sharing member record in the BSDS during DB2 startup.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: If this is the first startup of a new member joining the data sharing group, run the DSNTIJUZ job created to enable data sharing for this DB2 subsystem, and then restart this DB2 subsystem. Also, check whether the correct BSDS is specified in the DB2 master startup procedure. See message DSN7501A for additional problem determination.

00D10105

Explanation: DB2 found a mismatch in the shared communications area (SCA) while a new member was attempting to join a data sharing group.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: This indicates that a new member is attempting to join the data sharing group. If this a migration from DB2 3.1, then catalog migration must be completed before a new member can join this data sharing group. Wait until catalog migration completes, then restart this DB2 to join the group. Otherwise, group restart is required. Wait until group restart completes, then restart this DB2 to join the group. For more information, see Chapter 3 of *Data Sharing: Planning and Administration* .

00D10106

Explanation: DB2 failed to update an internal control record in the BSDS for data sharing.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: See DB2 code 00D10411 for problem determination.

00D10107

Explanation: DB2 failed to insert an internal control record in the BSDS for data sharing re-enable.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: See DB2 code 00D10412 for problem determination.

00D10108

Explanation: DB2 failed to write an internal control record for re-enable in the shared communications area (SCA) structure.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: See message DSN7501A for problem determination.

00D10109

Explanation: DB2 found a shared communications area (SCA) structure during the data sharing re-enable process. This structure should not be built at this time.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Display the existing SCA structures on this MVS system.

Problem Determination: If an SCA structure already exists for this DB2 data sharing group, use the MVS command SETXCF to delete this structure, then restart DB2 to complete the re-enable process.

00D1010A

Explanation: DB2 failed to write a record for re-enable in the shared communications area (SCA) structure.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: Review the DB2 system console for possible DSN7xxxx messages that could relate to this problem.

00D1010B

Explanation: DB2 failed to update an internal control record in the BSDS to enable data sharing.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: See DB2 Code 00D10411 for problem determination.

00D1010C

Explanation: DB2 failed to write an internal control record in the shared communications area (SCA) to enable data sharing.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: Review the DB2 system console for possible DSN7xxxx messages that could relate to this problem.

00D1010D

Explanation: DB2 could not find an internal control record for data sharing in the BSDS or the shared communications area (SCA).

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: Check to be sure that this DB2 system is supposed to be part of a data sharing group. If this DB2 is in a group, you can restart another DB2 subsystem that is in the same DB2 data sharing group first, and then restart. If

no other DB2 subsystems exist in this group, you must recover the BSDS before restarting.

00D1010E

Explanation: DB2 failed to write an internal control record for a data sharing restart in the shared communications area (SCA) structure.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: Review the DB2 system console for possible DSN7xxxx messages that could relate to this problem.

00D1010F

Explanation: DB2 failed an attempt to change the generic LU or location name in the shared communications area (SCA) structure for the data sharing group.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis. All members in the data sharing group must first be stopped, then this DB2 subsystem can be restarted to make this change.

Problem Determination:

00D10110

Explanation: DB2 failed to write an internal control record for a generic LU or location name change in the shared communications area (SCA) structure.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: DB2 failed in a write to the SCA structure for a data sharing restart change. Review the DB2 system console for possible DSN7xxxx messages that could relate to this problem.

00D10111

Explanation: DB2 failed to find an internal record in the shared communications area (SCA) that is needed to re-enable data sharing.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis. To re-enable data sharing, you must start the surviving DB2 member first before other members can be started. If this is meant to be a re-enable attempt, check whether the surviving member was started first. If this re-enable is already complete, check that this is the correct data sharing group.

Another possibility is that the SCA is damaged. Use the MVS command SETXCF to rebuild the SCA.

00D10112

Explanation: DB2 failed to update an internal control record in the BSDS for a generic LU or location name change.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: DB2 failed in an update to the BSDS for a data sharing generic LU or location name change. See DB2 Code 00D10411 for problem determination.

00D10113

Explanation: DB2 failed to update a data sharing member's information record in the BSDS to enable data sharing.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: See DB2 Code 00D10411 for problem determination.

00D10114

Explanation: DB2 failed to write a data sharing member information record in the shared communications area (SCA) for a restart of data sharing.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: Review the DB2 system console for possible DSN7xxxx messages that could relate to this problem.

00D10115

Explanation: DB2 failed to update the data sharing record in the BSDS to reset the enable flag.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: See DB2 code 00D10411 for problem determination.

00D10116

Explanation: DB2 failed to update an internal control record in the BSDS for non-data sharing migration or fallback with DB2.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: See DB2 Code 00D10411 for problem determination.

00D10117

Explanation: DB2 failed to truncate and switch to a new log for data sharing re-enable.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: Determine why DB2 failed to truncate and switch to a new log. DB2 might be using the last log. If so, determine why off-load has not occurred. See DB2 messages DSNJ319I and DSNJ320I for problem determination.

00D10210

Explanation: An unsuccessful completion of a SET WRITE CURSOR has occurred. An invalid write cursor ID was supplied.

This abend reason code is issued by the following CSECT: DSNJW002

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in “X'D1.....' Codes” on page 4-81.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 5, 16.

00D10219

Explanation: DB2 found that the current LRSN is less than the prior LRSN after calculating a delta for the current LRSN.

System Action: DB2 terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: This indicates that the system time is now less than the time recorded earlier in the DB2 log data set. Check that this DB2 subsystem is using the correct BSDS and log data sets. Also check that the correct system time is being used.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10220

Explanation: An unsuccessful completion of a LOG WRITE has occurred. An invalid write cursor ID was supplied.

This abend reason code is issued by the following CSECT: DSNJW001

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in “X'D1.....' Codes” on page 4-81.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 5, 16.

00D10221

Explanation: An unsuccessful completion of a LOG WRITE has occurred. An invalid number of areas was specified.

This abend reason code is issued by the following CSECT: DSNJW001

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in “X'D1.....' Codes” on page 4-81.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 5, 16.

00D10222

Explanation: An unsuccessful completion of a LOG WRITE has occurred. The record length specified was greater than 32767.

This abend reason code is issued by the following CSECT: DSNJW001

System Action: An execution unit writes a record SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in “X'D1.....' Codes” on page 4-81.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 5, 16.

00D10223

Explanation: There was an attempt to modify a log data set while doing a conditional restart with CSRONLY specified.

This abend reason code is issued by the following CSECTs: DSNJB001, DSNJW001

System Action: DB2 startup terminates.

Operator Response: Notify the system programmer.

System Programmer Response: If a complete DB2 startup is desired, remove CSRONLY from the control statement. Restart DB2.

00D10230

Explanation: A CHECK LOG was issued and the log RBA specified in the macro had not been written to DASD at the time.

This abend reason code is issued by the following CSECT: DSNJW004

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Problem Determination: RLM standard diagnostic information is provided in “X'D1.....' Codes” on page 4-81.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 5, 16.

00D10231

Explanation: An unsuccessful completion of a CHECK LOG has occurred. The specified RBA is beyond the end of the log.

This abend reason code is issued by the following CSECT: DSNJW004

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in “X'D1.....' Codes” on page 4-81.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 5, 16.

00D10232

Explanation: A request was made to force an LRSN in non-data sharing mode.

System Action: DB2 issues an SVC dump and returns an error to the requesting function.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: The requesting function can be determined from the SVC dump. It has requested a data sharing log manager function in non-data sharing.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10240

Explanation: An unsuccessful completion of a CLOSE LOG FOR WRITE has occurred. An invalid write cursor ID was supplied.

This abend reason code is issued by the following CSECT: DSNJW002

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in “X'D1.....' Codes” on page 4-81.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 5, 16.

00D10250

Explanation: An unrecoverable error occurred while updating either the BSDS or the MVS catalog to reflect changes in active log data sets.

This abend reason code is issued by the following CSECT: DSNJW307

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. DB2 then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump. Correct the error, and restart DB2.

Problem Determination: RLM standard diagnostic information is provided in "X'D1.....' Codes" on page 4-81. In addition, see abend reason code '00D10252' for a description of the information recorded in the variable recording area (VRA) of the SDWA. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Examine the console log for a DSNJxxxx message preceding this abend to determine whether the error was a BSDS error or an MVS catalog update error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 16.

00D10251

Explanation: An unrecoverable error occurred in the log buffer writer.

This abend reason code is issued by the following CSECT: DSNJW008

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. DB2 then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump.

This error is usually caused by a previous error that was recorded on SYS1.LOGREC and produced an SVC dump. The SYS1.LOGREC entries and SVC dump should be examined to determine the primary error that occurred.

Problem Determination: RLM standard diagnostic information is provided in "X'D1.....' Codes" on page 4-81. In addition, see abend reason code '00D10252' for a description of the information recorded in the variable recording area (VRA) of the SDWA. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 16.

00D10252

Explanation: This abend reason code is used to define the format of the information recorded in the variable recording area (VRA) of the SDWA.

This abend reason code is issued by the following CSECT: DSNJW008

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump.

Problem Determination: RLM standard diagnostic information is provided in "X'D1.....' Codes" on page 4-81. In addition, the following information is contained in the variable recording area (VRA) of the SDWA:

- Reason code '00D10252' stored with key=VRARC.
- The log buffer writer recovery tracking area is stored with key=VRARRP. These fields in the VRA are described by the system mapping macro IHAVRA.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 5.

00D10253

Explanation: An application program check occurred in an MVCP instruction that attempted to move a parameter list or other data from the caller's address space to the recovery log manager address space.

This abend reason code is issued by the following CSECTs:

DSNJR001 DSNJW001 DSNJW002

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump. Examine the area from which data was to be moved. It may be in the wrong key, or the address may be the cause of the problem. The failing instruction has a DA opcode and indicates the registers showing address and length to be moved.

Problem Determination: RLM standard diagnostic information is provided in "X'D1.....' Codes" on page 4-81.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 5, 16.

00D10254

Explanation: An application program check occurred in an MVCS instruction that attempted to move data from the recovery log manager address space to the caller's address space.

This abend reason code is issued by the following CSECT: DSNJR103

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump. Examine the area to which data was to be moved. It may be in the wrong key, or the address may be the cause of the problem. The failing instruction has a DB opcode and indicates the registers showing address and length to be moved.

Problem Determination: RLM standard diagnostic information is provided in "X'D1.....' Codes" on page 4-81.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 5, 16.

00D10255

Explanation: DSNJR008 attempted to resume the waiting execution unit, and a failure occurred leaving the state of the resume indoubt.

This abend reason code is issued by the following CSECTs: DSNJRE08, DSNJW206

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The DB2 subsystem then terminates to avoid leaving the execution unit in a state of indefinite suspension.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in "X'D1.....' Codes" on page 4-81. In addition, register 6 has the address of the execution block (EB).

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 5, 16.

00D10256

Explanation: Recursive abends were detected while trying to reinitialize an archive log read service task.

This abend reason code is issued by the following CSECTs: DSNJR008 DSNJR206 DSNJR208

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The DB2 subsystem then terminates to avoid leaving an execution unit in a state of indefinite suspension.

Operator Response: Collect the SYS1.LOGREC, SVC dump, and console output. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC, the SVC dump, and a listing of the BSDS by running the print log map (DSNJU004) utility. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in "X'D1.....' Codes" on page 4-81.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 16, 32.

00D10261

Explanation: While scanning the records and record segments in a log control interval (CI), it was discovered that the forward record chain was broken. This condition is the result of an incorrect record length in the log record header of some record in the log CI.

This reason code is issued by the following CSECTs:

DSNJOFF1 DSNJRS01 DSNJR005 DSNJW009 DSNJW107

System Action: This reason code can be issued by an active DB2 subsystem as the log buffers are scanned before they are written to the active log, or by the DB2 stand-alone log services GET processing macro (DSNJSLR) as a CI is retrieved from a user-specified active or archive log data set.

If the reason code is issued by an active DB2 subsystem, then an abend is issued. A diagnostic record is written to SYS1.LOGREC, and an SVC dump is requested.

- If the error was detected by DSNJOFF1, then the archiving of the active log data set is terminated and the faulty active log data set is marked 'stopped'.
- If the error was detected by DSNJR005, then message DSNJ012I is issued and the calling agent is terminated.
- If the error was detected by DSNJW009, then message DSNJ012I is issued and the DB2 subsystem is terminated.
- If the error was detected by DSNJW107, then the DB2 subsystem is terminated.

If this reason code is issued as the result of DB2 stand-alone log services GET processing, no abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set. Rather, in response to the DSNJSLR FUNC=GET call, DB2 places a return code of 4 in register 15 and a reason code of 00D10261 in register 0. Information about the results of the GET request is also returned in the stand-alone log GET feedback area (SLRF). The RBA of the record in error is placed in SLRFRBA. The address and length of the CI which contains the errant log record header are placed in SLRFFRAD and SLRFRCLL, respectively. The ddname of the data set on which the activity occurred is placed in SLRFDDNM.

For additional details about the stand-alone log services, refer to Appendix C (Volume 2) of *Administration Guide*.

Operator Response: If the reason code is issued by an active DB2 subsystem, collect the SYS1.LOGREC and SVC dump, and notify the system programmer.

System Programmer Response: If the reason code is issued by an active DB2 subsystem, obtain the SYS1.LOGREC and the SVC dump from the operator.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 5, 16.

Problem Determination: If the reason code is issued by an active DB2 subsystem:

- RLM standard diagnostic information is provided under "X'D1.....' Codes" on page 4-81.
- Refer to Section 4 (Volume 1) of *Administration Guide* for information about recovery from log failures.
- Refer to Appendix C (Volume 2) of *Administration Guide* for failure analysis procedures, with particular emphasis on the use of the DB2 stand-alone log services.
- Obtain a DSN1LOGP detail report containing the log record(s) associated with the failure.

If the reason code is issued upon return of an invocation of the DB2 stand-alone log services macro (DSNJSLR), then an additional user-written exit or diagnostic routine may have to be written.

00D10262

Explanation: While scanning a log control interval (CI), the offset to the last record or record segment in the CI was found to be incorrect.

This reason code is issued by the following CSECTs:

DSNJOFF1 DSNJRS01 DSNJR005 DSNJW009 DSNJW107

System Action: This reason code can be issued by an active DB2 subsystem as the log buffers are scanned before they are written to the active log, or by the DB2 stand-alone log services GET processing macro (DSNJSLR) as a CI is retrieved from a user-specified active or archive log data set.

If the reason code is issued by an active DB2 subsystem, then an abend is issued. A diagnostic record is written to SYS1.LOGREC, and an SVC dump is requested.

- If the error was detected by DSNJOFF1, then the archiving of the active log data set is terminated and the faulty active log data set is marked 'stopped'.
- If the error was detected by DSNJR005, then message DSNJ012I is issued and the calling agent is terminated.
- If the error was detected by DSNJW009, then message DSNJ012I is issued and the DB2 subsystem is terminated.
- If the error was detected by DSNJW107, then the DB2 subsystem is terminated.

If this reason code is issued as the result of DB2 stand-alone log services GET processing, no abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set. Rather, in response to the DSNJSLR FUNC=GET call, DB2 places a return code of 4 in register 15 and a reason code of 00D10262 in register 0. Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The RBA of the beginning of the CI is placed in SLRFRBA. The address and length of the CI are placed in SLRFFRAD and SLRFRCLL, respectively. The ddname of the data set on which the activity occurred is placed in SLRFDDNM.

For additional details about the stand-alone log services, refer to Appendix C (Volume 2) of *Administration Guide*.

Operator Response: If the reason code is issued by an active DB2 subsystem, collect the SYS1.LOGREC and SVC dump, and notify the system programmer.

System Programmer Response: If the reason code is issued by an active DB2 subsystem, obtain the SYS1.LOGREC and the SVC dump from the operator.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 5, 16.

Problem Determination: If the reason code is issued by an active DB2 subsystem:

- RLM standard diagnostic information is provided under "X'D1.....' Codes" on page 4-81.
- Refer to Section 4 (Volume 1) of *Administration Guide* for information about recovery from log failures.
- Refer to Appendix C (Volume 2) of *Administration Guide* for failure analysis procedures, with particular emphasis on the use of the DB2 stand-alone log Services.
- Obtain a DSN1LOGP detail report containing the log record(s) associated with the failure.

If the reason code is issued upon return of an invocation of the DB2 stand-alone log services macro (DSNJSLR), then an additional user-written exit or diagnostic routine may have to be written.

00D10263

Explanation: While scanning a log control interval (CI), the VSAM RDF/CIDF control information was found to be incorrect.

This reason code is issued by the following CSECTs:

DSNJOFF1 DSNJRS01 DSNJR005 DSNJW009 DSNJW107

System Action: This reason code can be issued by an active DB2 subsystem as the log buffers are scanned before they are written to the active log, or by the DB2 stand-alone log services GET processing macro (DSNJSLR) as a CI is retrieved from a user-specified active or archive log data set.

If the reason code is issued by an active DB2 subsystem, then an abend is issued. A diagnostic record is written to SYS1.LOGREC, and an SVC dump is requested.

- If the error was detected by DSNJOFF1, then the archiving of the active log data set is terminated and the faulty active log data set is marked 'stopped'.
- If the error was detected by DSNJR005, then message DSNJ012I is issued and the calling agent is terminated.
- If the error was detected by DSNJW009, then message DSNJ012I is issued and the DB2 subsystem is terminated.
- If the error was detected by DSNJW107, then the DB2 subsystem is terminated.

If this reason code is issued as the result of DB2 stand-alone log services GET processing, no abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set. Rather, in response to the DSNJSLR FUNC=GET call, DB2 places a return code of 4 in register 15 and a reason code of 00D10263 in register 0. Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The RBA of the beginning of the CI is placed in SLRFRBA. The address and length of the CI are placed in SLRFFRAD and SLRFRCLL, respectively. The ddname of the data set on which the activity occurred is placed in SLRFDDNM.

For additional details about the stand-alone log services, refer to Appendix C (Volume 2) of *Administration Guide*.

Operator Response: If the reason code is issued by an active DB2 subsystem, collect the SYS1.LOGREC and SVC dump, and notify the system programmer.

System Programmer Response: If the reason code is issued by an active DB2 subsystem, obtain the SYS1.LOGREC and the SVC dump from the operator.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 5, 16.

Problem Determination: If the reason code is issued by an active DB2 subsystem:

- RLM standard diagnostic information is provided under "X'D1.....' Codes" on page 4-81.
- Refer to Section 4 (Volume 1) of *Administration Guide* for information about recovery from log failures.
- Refer to Appendix C (Volume 2) of *Administration Guide* for failure analysis procedures, with particular emphasis on the use of the DB2 stand-alone log Services.
- Obtain a DSN1LOGP detail report containing the log record(s) associated with the failure.

If the reason code is issued upon return of an invocation of the DB2 stand-alone log services macro (DSNJSLR), then an additional user-written exit or diagnostic routine may have to be written.

00D10264

Explanation: While scanning a log control interval (CI), the beginning log RBA of the CI was not the expected RBA.

This reason code is issued by the following CSECTs:

DSNJOFF1 DSNJRS01 DSNJR005 DSNJW009 DSNJW107

System Action: This reason code can be issued by an active DB2 subsystem as the log buffers are scanned before they are written to the active log, or by the DB2 stand-alone log services GET processing macro (DSNJSLR) as a CI is retrieved from a user-specified active or archive log data set.

If the reason code is issued by an active DB2 subsystem, then an abend is issued. A diagnostic record is written to SYS1.LOGREC, and an SVC dump is requested.

- If the error was detected by DSNJOFF1, then the archiving of the active log data set is terminated and the faulty active log data set is marked 'stopped'.
- If the error was detected by DSNJR005, then message DSNJ012I is issued and the calling agent is terminated.
- If the error was detected by DSNJW009, then message DSNJ012I is issued and the DB2 subsystem is terminated.
- If the error was detected by DSNJW107, then the DB2 subsystem is terminated.

If this reason code is issued as the result of DB2 stand-alone log services GET processing, no abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set. Rather, in response to the DSNJSLR FUNC=GET call, DB2 places a return code of 4 in register 15 and a reason code of 00D10264 in register 0. Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The expected RBA of the beginning of the CI is placed in SLRFRBA. The address and length of the CI are placed in SLRFFRAD and SLRFRCLL, respectively. The ddname of the data set on which the activity occurred is placed in SLRFDDNM.

For additional details about the stand-alone log services, refer to Appendix C (Volume 2) of *Administration Guide*.

Operator Response: If the reason code is issued by an active DB2 subsystem, collect the SYS1.LOGREC and SVC dump, and notify the system programmer.

System Programmer Response: If the reason code is issued by an active DB2 subsystem, obtain the SYS1.LOGREC and the SVC dump from the operator.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 5, 16.

Problem Determination: If the reason code is issued by an active DB2 subsystem:

- RLM standard diagnostic information is provided under "X'D1.....' Codes" on page 4-81.
- Refer to Section 4 (Volume 1) of *Administration Guide* for information about recovery from log failures.
- Refer to Appendix C (Volume 2) of *Administration Guide* for failure analysis procedures, with particular emphasis on the use of the DB2 stand-alone log Services.
- Obtain a DSN1LOGP detail report containing the log record(s) associated with the failure.

If the reason code is issued upon return of an invocation of the DB2 stand-alone log services macro (DSNJSLR), then an additional user-written exit or diagnostic routine may have to be written.

00D10265

Explanation: While scanning the records and record segments in a log control interval (CI), it was discovered the backward record chain was broken. This condition is the result of an incorrect record length in the log record header of some record in the log CI.

This reason code is issued by the following CSECTs:

DSNJOFF1 DSNJRS01 DSNJR005 DSNJW009 DSNJW107

System Action: This reason code can be issued by an active DB2 subsystem as the log buffers are scanned before they are written to the active log, or by the DB2 stand-alone log services GET processing macro (DSNJSLR) as a CI is retrieved from a user-specified active or archive log data set.

If the reason code is issued by an active DB2 subsystem, then an abend is issued. A diagnostic record is written to SYS1.LOGREC, and an SVC dump is requested.

- If the error was detected by DSNJOFF1, then the archiving of the active log data set is terminated.
- If the error was detected by DSNJR005, then message DSNJ012I is issued and the calling agent is terminated.
- If the error was detected by DSNJW009, then message DSNJ012I is issued and the DB2 subsystem is terminated.
- If the error was detected by DSNJW107, then the DB2 subsystem is terminated.

If this reason code is issued as the result of DB2 stand-alone log services GET processing, no abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set. Rather, in response to the DSNJSLR FUNC=GET call, DB2 places a return code of 4 in register 15 and a reason code of 00D10265 in register 0. Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The RBA of the record in error is placed in SLRFRBA. The address and

length of the CI are placed in SLRFFRAD and SLRFRCLL, respectively. The ddname of the data set on which the activity occurred is placed in SLRFDDNM.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Operator Response: If the reason code is issued by an active DB2 subsystem, collect the SYS1.LOGREC and SVC dump, and notify the system programmer.

System Programmer Response: If the reason code is issued by an active DB2 subsystem, obtain the SYS1.LOGREC and the SVC dump from the operator.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 5, 16.

Problem Determination: If the reason code is issued by an active DB2 subsystem:

- RLM standard diagnostic information is provided under "X'D1.....' Codes" on page 4-81.
- Refer to Section 4 (Volume 1) of *Administration Guide* for information about recovery from log failures.
- If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.
- Obtain a DSN1LOGP detail report containing the log record(s) associated with the failure.

If the reason code is issued upon return of an invocation of the DB2 stand-alone log services macro (DSNJSLR), then an additional user-written exit or diagnostic routine may have to be written.

00D10266

Explanation: While scanning a log control interval (CI), a unit of recovery ID or LINK RBA in some record was found to be inconsistent with the beginning log RBA of the CI.

This reason code is issued by the following CSECTs:

DSNJOFF1 DSNJRS01 DSNJR005 DSNJW009 DSNJW107

System Action: This reason code can be issued by an active DB2 subsystem as the log buffers are scanned before they are written to the active log, or by the DB2 stand-alone log services GET processing macro (DSNJSLR) as a CI is retrieved from a user-specified active or archive log data set.

If the reason code is issued by an active DB2 subsystem, then an abend is issued. A diagnostic record is written to SYS1.LOGREC, and an SVC dump is requested.

- If the error was detected by DSNJOFF1, then the archiving of the active log data set is terminated and the faulty active log data set is marked 'stopped'.
- If the error was detected by DSNJR005, then message DSNJ012I is issued and the calling agent is terminated.
- If the error was detected by DSNJW009, then message DSNJ012I is issued and the DB2 subsystem is terminated.
- If the error was detected by DSNJW107, then the DB2 subsystem is terminated.

If this reason code is issued as the result of DB2 stand-alone log services GET processing, no abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set. Rather, in response to the DSNJSLR FUNC=GET call, DB2 places a return code of 4 in register 15 and a reason code of 00D10266 in register 0. Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The RBA of the log record with the invalid RBA is placed in SLRFRBA. The address and length of the CI are placed in SLRFFRAD and SLRFRCLL, respectively. The ddname of the data set on which the activity occurred is placed in SLRFDDNM.

For additional details about the stand-alone log services, refer to Appendix C (Volume 2) of *Administration Guide*.

Operator Response: If the reason code is issued by an active DB2 subsystem, collect the SYS1.LOGREC and SVC dump, and notify the system programmer.

System Programmer Response: If the reason code is issued by an active DB2 subsystem, obtain the SYS1.LOGREC and the SVC dump from the operator.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 5, 16.

Problem Determination: If the reason code is issued by an active DB2 subsystem:

- RLM standard diagnostic information is provided under "X'D1.....' Codes" on page 4-81.
- Refer to Section 4 (Volume 1) of *Administration Guide* for information about recovery from log failures.
- Refer to Appendix C (Volume 2) of *Administration Guide* for failure analysis procedures, with particular emphasis on the use of the DB2 stand-alone log Services.
- Obtain a DSN1LOGP detail report containing the log record(s) associated with the failure.

If the reason code is issued upon return of an invocation of the DB2 stand-alone log services macro (DSNJSLR), then an additional user-written exit or diagnostic routine may have to be written.

00D10267

Explanation: While scanning a log control interval (CI), a middle or last spanned record segment was not the first segment contained in the log CI.

This reason code is issued by the following CSECTs:

DSNJOFF1 DSNJRS01 DSNJ005 DSNJW009 DSNJW107

System Action: This reason code can be issued by an active DB2 subsystem as the log buffers are scanned before they are written to the active log, or by the DB2 stand-alone log services GET processing macro (DSNJSLR) as a CI is retrieved from a user-specified active or archive log data set.

If the reason code is issued by an active DB2 subsystem, then an abend is issued. A diagnostic record is written to SYS1.LOGREC, and an SVC dump is requested.

- If the error was detected by DSNJOFF1, then the archiving of the active log data set is terminated and the faulty active log data set is marked 'stopped'.
- If the error was detected by DSNJR005, then message DSNJ012I is issued and the calling agent is terminated.
- If the error was detected by DSNJW009, then message DSNJ012I is issued and the DB2 subsystem is terminated.

- If the error was detected by DSNJW107, then the DB2 subsystem is terminated.

If this reason code is issued as the result of DB2 stand-alone log services GET processing, no abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set. Rather, in response to the DSNJSLR FUNC=GET call, DB2 places a return code of 4 in register 15 and a reason code of 00D10267 in register 0. Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The RBA of the record segment in error is placed in SLRFRBA. The address and length of the CI are placed in SLRFFRAD and SLRFRCLL, respectively. The ddname of the data set on which the activity occurred is placed in SLRFDDNM.

For additional details about the stand-alone log services, refer to Appendix C (Volume 2) of *Administration Guide*.

Operator Response: If the reason code is issued by an active DB2 subsystem, collect the SYS1.LOGREC and SVC dump, and notify the system programmer.

System Programmer Response: If the reason code is issued by an active DB2 subsystem, obtain the SYS1.LOGREC and the SVC dump from the operator.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 5, 16.

Problem Determination: If the reason code is issued by an active DB2 subsystem:

- RLM standard diagnostic information is provided under “X'D1.....' Codes” on page 4-81.
- Refer to Section 4 (Volume 1) of *Administration Guide* for information about recovery from log failures.
- Refer to Appendix C (Volume 2) of *Administration Guide* for failure analysis procedures, with particular emphasis on the use of the DB2 stand-alone log Services.
- Obtain a DSN1LOGP detail report containing the log record(s) associated with the failure.

If the reason code is issued upon return of an invocation of the DB2 stand-alone log services macro (DSNJSLR), then an additional user-written exit or diagnostic routine may have to be written.

00D10268

Explanation: While scanning a log control interval (CI), a first or middle spanned record segment was not the last segment contained in the log CI.

This reason code is issued by the following CSECTs:

DSNJOFF1 DSNJRS01 DSNJR005 DSNJW009 DSNJW107

System Action: This reason code can be issued by an active DB2 subsystem as the log buffers are scanned before they are written to the active log, or by the DB2 stand-alone log services GET processing macro (DSNJSLR) as a CI is retrieved from a user-specified active or archive log data set.

If the reason code is issued by an active DB2 subsystem, then an abend is issued. A diagnostic record is written to SYS1.LOGREC, and an SVC dump is requested.

- If the error was detected by DSNJOFF1, then the archiving of the active log data set is terminated and the faulty active log data set is marked 'stopped'.
- If the error was detected by DSNJR005, then message DSNJ012I is issued and the calling agent is terminated.
- If the error was detected by DSNJW009, then message DSNJ012I is issued and the DB2 subsystem is terminated.
- If the error was detected by DSNJW107, then the DB2 subsystem is terminated.

If this reason code is issued as the result of DB2 stand-alone log services GET processing, no abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set. Rather, in response to the DSNJSLR FUNC=GET call, DB2 places a return code of 4 in register 15 and a reason code of 00D10268 in register 0. Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The RBA of the record segment in error is placed in SLRFRBA. The address and length of the CI are placed in SLRFFRAD and SLRFRCLL, respectively. The ddname of the data set on which the activity occurred is placed in SLRFDDNM.

For additional details about the stand-alone log services, refer to Appendix C (Volume 2) of *Administration Guide*.

Operator Response: If the reason code is issued by an active DB2 subsystem, collect the SYS1.LOGREC and SVC dump, and notify the system programmer.

System Programmer Response: If the reason code is issued by an active DB2 subsystem, obtain the SYS1.LOGREC and the SVC dump from the operator.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 5, 16.

Problem Determination: If the reason code is issued by an active DB2 subsystem:

- RLM standard diagnostic information is provided under “X'D1.....' Codes” on page 4-81.
- Refer to Section 4 (Volume 1) of *Administration Guide* for information about recovery from log failures.
- Refer to Appendix C (Volume 2) of *Administration Guide* for failure analysis procedures, with particular emphasis on the use of the DB2 stand-alone log Services.
- Obtain a DSN1LOGP detail report containing the log record(s) associated with the failure.

If the reason code is issued upon return of an invocation of the DB2 stand-alone log services macro (DSNJSLR), then an additional user-written exit or diagnostic routine may have to be written.

00D10269

Explanation: An unrecoverable error was found in one of the buffers, while moving the current log buffer to the static write buffer ('shadow buffer') in preparation for the physical write to the active log. Refer to Section 4 (Volume 1) of *Administration Guide* for information about recovery from log failures.

This abend reason code is issued by the following CSECT: DSNJW107

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The subsystem then terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to

Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided under "X'D1.....' Codes" on page 4-81.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 5, 16.

00D10301

Explanation: An unsuccessful completion of an OPEN LOG FOR READ has occurred. An open log read cursor already exists for this execution block (EB). Only one log read cursor per EB is permitted.

This abend reason code is issued by the following CSECT: DSNJR001

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump. Scan the read cursor pool for a cursor with the same EB, or examine through the DB2 trace for the problem. Trace IDs 040301 and 040302 identify OPEN entries while 040303 and 040304 are for CLOSE.

Problem Determination: RLM standard diagnostic information is provided in "X'D1.....' Codes" on page 4-81. All log read cursors reside in a recovery log manager storage pool whose header address is in the log manager block (LMB) at LMBRCPHB. The LMB is pointed to by register 5. Register 6 contains the address of the EB.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 5, 16.

00D10302

Explanation: An unsuccessful completion of an OPEN LOG FOR READ has occurred. A valid scope was not specified.

This abend reason code is issued by the following CSECT: DSNJR001

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in "X'D1.....' Codes" on page 4-81.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 5, 16.

00D10303

Explanation: An unsuccessful completion of an OPEN LOG FOR READ has occurred. An invalid log RBA range was specified. HIGHRBA is less than LOWRBA.

This abend reason code is issued by the following CSECT: DSNJR001

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in "X'D1.....' Codes" on page 4-81.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 5, 16.

00D10304

Explanation: An unknown function was requested in an open of a log read cursor.

System Action: DB2 issues a return code of 4 and reason code of 00D10304 to the requesting function.

System Programmer Response: Review the DB2 console for related errors.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10305

Explanation: A peer log read request was made without a peer log read cursor.

System Action: DB2 issues a return code of 4 and reason code of 00D10305 to the requesting function.

System Programmer Response: Review the DB2 console for related errors.

Problem Determination:

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10306

Explanation: A request to read merged log records failed.

System Action: DB2 issues a return code of 4 and reason code of 00D10306 to the requesting function.

System Programmer Response: Review the DB2 console for related errors.

Problem Determination: The requesting function has put this error code out. Check on this function.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10307

Explanation: A log read open in data sharing failed because the RBA values were not increasing or were overlapping.

System Action: DB2 issues a return code of 4 and reason code of 00D10307 to the requesting function.

System Programmer Response: Review the DB2 console for related errors.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10308

Explanation: A log read open in data sharing failed.

System Action: DB2 issues a return code of 4 and reason code of 00D10308 to the requesting function.

System Programmer Response: Review the DB2 console for related errors.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10309

Explanation: A peer BSDS open request failed.

System Action: DB2 issues a return code of 4 and reason code of 00D10309 to the requesting function.

System Programmer Response: Review the DB2 console for related errors.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D1030A

Explanation: A peer log read request was made in non-data sharing.

System Action: DB2 issues a return code of 4 and reason code of 00D1030A to the requesting function.

System Programmer Response: Review the DB2 console for related errors.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10310

Explanation: An unsuccessful completion of a SET READ CURSOR RANGE has occurred. The specified log read cursor was not opened by the execution block submitting this request. All input requests must be submitted under the execution block that opened the cursor.

This abend reason code is issued by the following CSECT: DSNJR001

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in "X'D1.....' Codes" on page 4-81. In addition, register 6 contains the address of the execution block (EB). All log read cursors reside in a recovery log manager storage pool whose header address is in the log manager block (LMB) at LMBRCPHB. The LMB is pointed to by register 5.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 5, 16.

00D10311

Explanation: An unsuccessful completion of a SET READ CURSOR RANGE has occurred. An invalid write cursor ID was specified.

This abend reason code is issued by the following CSECT: DSNJR001

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in "X'D1.....' Codes" on page 4-81. In addition, all log write cursors reside in a recovery log manager storage pool whose header address is in the log manager block (LMB) at LMBWCPHB. The LMB is pointed to by register 5. Read cursors are in a similar pool at LMBRCPHB.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 5, 16.

00D10312

Explanation: An unsuccessful completion of a SET READ CURSOR RANGE has occurred. An invalid log RBA range was specified. HIGHRBA is lower than LOWRBA.

This abend reason code is issued by the following CSECT: DSNJR001

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in "X'D1.....' Codes" on page 4-81.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 5, 16.

00D10322

Explanation: An unsuccessful completion of a LOG READ has occurred. MODE=DIRECT with a record matching the specified TYPE was not found.

This abend reason code is issued by the following CSECT: DSNJR003

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in "X'D1.....' Codes" on page 4-81.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 5, 16.

00D10323

Explanation: An unsuccessful completion of a LOG READ has occurred. MODE=DIRECT with record matching the specified SCOPE is not found.

This abend reason code is issued by the following CSECT: DSNJR003

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in "X'D1.....' Codes" on page 4-81.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 5, 16.

00D10324

Explanation: An unsuccessful completion of a LOG READ has occurred. MODE=DIRECT with record matching the specified CDATA is not found.

This abend reason code is issued by the following CSECT: DSNJR003

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in "X'D1.....' Codes" on page 4-81.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 5, 16.

00D10325

Explanation: An unsuccessful completion of a LOG READ has occurred. The sum of CDATA length value and CDATA offset value is greater than 256.

This abend reason code is issued by the following CSECT: DSNJR003

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in "X'D1.....' Codes" on page 4-81.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 5, 16.

00D10326

Explanation: An unsuccessful completion of a LOG READ has occurred. The macro invocation specified that no wait was to occur because of a busy archive log data set (ADSWAIT(NO)). The macro invocation also specified that, rather than returning with a condition code (COND(NO)), an abend should be issued by the recovery log manager (RLM) subcomponent. The RLM determined that the record requested was on an archive log data set that was in use.

This abend reason code is issued by the following CSECT: DSNJR008

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Problem Determination: RLM standard diagnostic information is provided in "X'D1.....' Codes" on page 4-81.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 5, 16.

00D10327

Explanation: An unsuccessful completion of a LOG READ has occurred because of an invalid LOGRBA value. MODE=DIRECT with requested RBA does not match the start of a log record.

This abend reason code is issued by the following CSECT: DSNJR003

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in “X'D1.....' Codes” on page 4-81.

00D10328

Explanation: A LOG READ completed unsuccessfully, because a MODE request sequence was invalid. A read request specifying a sequential MODE (any MODE except DIRECT) must be preceded by an open log for read, a set read cursor range, or a read with the same MODE parameter value. It is invalid to intermix read requests with different sequential mode values.

This abend reason code is issued by the following CSECT: DSNJR003

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in “X'D1.....' Codes” on page 4-81.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 5, 16.

00D10329

Explanation: A LOG READ completed unsuccessfully, because an I/O error occurred while reading the log data set.

Refer to Section 4 (Volume 1) of *Administration Guide* for information about recovery from log failures.

This abend reason code is issued by the following CSECT: DSNJR003

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Examine SYS1.LOGREC and SVC dump information. Also, examine any prior messages with a DSNJ prefix from the log buffer reader.

Problem Determination: RLM standard diagnostic information is provided in “X'D1.....' Codes” on page 4-81.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 5, 16.

00D1032A

Explanation: An unsuccessful completion of a LOG READ has occurred. BSDS does not map the specified RBA into a log data set. Either the BSDS is in error, or the log data set has been deleted.

Refer to Section 4 (Volume 1) of *Administration Guide* for information about recovery from BSDS or log failures.

This abend reason code is issued by the following CSECT: DSNJR003

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. Also, obtain a listing of the BSDS by running the print log map (DSNJU004) utility. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in “X'D1.....' Codes” on page 4-81.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 5, 16.

00D1032B

Explanation: A LOG READ completed unsuccessfully because an error occurred while trying to allocate a log data set.

Refer to Section 4 (Volume 1) of *Administration Guide* for information about recovery from log failures.

System Action: An execution unit writes a record to SYS1.LOGREC and might request an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump, if a dump was produced. Notify the system programmer.

System Programmer Response: Examine LOGREC and SVC dump information, if a dump was produced. Also, examine any prior messages with a DSNJ prefix from recovery log manager allocation processing.

Problem Determination: RLM standard diagnostic information is provided in “X'D1.....' Codes” on page 4-81.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 5, 16.

This abend reason code is issued by the following CSECT: DSNJR003

00D1032C

Explanation: A LOG READ completed unsuccessfully, because an error occurred while opening or closing a log data set.

Refer to Section 4 (Volume 1) of *Administration Guide* for information about recovery from log failures.

This abend reason code is issued by the following CSECT: DSNJR003

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Examine LOGREC and SVC dump information. Also, examine prior messages from recovery log manager open/close processing. These messages have a prefix of DSNJ.

Problem Determination: RLM standard diagnostic information is provided in “X'D1.....' Codes” on page 4-81.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 5, 16.

00D1032D

Explanation: An unsuccessful completion of a LOG READ has occurred. The specified log read cursor was not opened by the execution block submitting this request. All input requests must be submitted under the execution block that opened the cursor.

This abend reason code is issued by the following CSECT: DSNJR003

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to the Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in “X'D1.....' Codes” on page 4-81. In addition, all log read cursors reside in a recovery log manager storage pool whose header address is in the log manager block (LMB) at LMBRCPHB. The LMB is pointed to by register 5.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 5, 16.

00D1032E

Explanation: A LOG READ completed unsuccessfully due to an internal error.

This abend reason code is issued by the following CSECT: DSNJR103

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Examine LOGREC and SVC dump information. LOG READ was passed a bad parameter list. The field which was detected to be in error (RDPLOPT1) is the third byte of the second word traced in the log manager 311 trace entry. The RET field of this trace entry along with the MEPL may be used to determine which module issued the Log Read request. Both pieces of information are useful in isolating the failure.

Problem Determination: RLM standard diagnostic information is provided in “X'D1.....' Codes” on page 4-81.

Collect the following diagnostic item listed in “Appendix B. Problem Determination” on page X-5: 5.

00D1032F

Explanation: A LOG READ completed unsuccessfully because the high range RBA provided was not the RBA of a valid log record. This is an internal error.

This abend reason code is issued by the following CSECT: DSNJR103

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in “X'D1.....' Codes” on page 4-81. In addition, register 6 contains the address of the execution block (EB). All log read cursors reside in a recovery log manager storage pool whose header address is in the log manager block (LMB) at LMBRCPHB. The LMB is pointed to by register 5 and described by DSNDLMB.

00D10330

Explanation: An unsuccessful completion of a Close Log for read has occurred. The specified log read cursor was not opened by the execution block submitting this request. All input requests must be submitted under the execution block that opened the cursor.

This abend reason code is issued by the following CSECT: DSNJR001

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in “X'D1.....' Codes” on page 4-81. In addition, register 6 contains the address of the execution block (EB). All log read cursors reside in a recovery log manager storage pool whose header address is in the log manager block (LMB) at LMBRCPHB. The LMB is pointed to by register 5 and described by DSNDLMB.

00D10331

Explanation: A LOG READ completed unsuccessfully because a LINK RBA did not point to the beginning of a LOG record. This is an internal error.

This abend reason code is issued by the following CSECT: DSNJR103

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in “X'D1.....' Codes” on page 4-81. In addition, register 6 contains the address of the execution block (EB). All log read cursors reside in a recovery log manager storage pool whose header address is in the log manager block (LMB) at LMBRCPHB. The LMB is pointed to by register 5 and described by DSNDLMB.

00D10332

Explanation: A log read completed unsuccessfully because a link RBA pointed to a log record with a different URID. This is an internal error.

This abend reason code is issued by the following CSECT: DSNJR103

System Action: A record is written to SYS1.LOGREC and an SVC DUMP is requested. The requesting execution unit is abnormally terminated.

User Response: None required.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: While reading the log backwards using the LRHLINK RBAs, a log record was found that contained a different URID. A link read is normally done when processing a rollback or an abort. This abend is issued to prevent a rollback of the wrong transaction. If this occurs during abort processing, the subsystem is brought down. If the abend reoccurs on the subsequent restart of DB2, a conditional restart is necessary to bypass the invalid log record. Refer to Section 4 (Volume 1) of *Administration Guide* for information on recovering from a log failure during restart and resolving inconsistencies resulting from conditional restart.

Problem Determination: RLM standard diagnostic information is provided in “Recovery Log Manager Reason Codes (X'D1')”. In addition, register 6 contains the address of the execution block (EB). All log read cursors reside in a recovery log manager storage pool whose header address is in the log manager block (LMB) at LMBRCPHB. The LMB is pointed to by register 5 and described in the DSNDLMB macro.

00D10333

Explanation: A log read failed because an internal error was detected by the Data Manager while examining the log record during recover and deferred restart.

This abend reason code is issued by the following CSECT: DSNJR103

System Action: The execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

User Response: Notify the system programmer.

Operator Response: Collect the SYS1.LOGREC and the SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in “X'D1.....' Codes” on page 4-81 (X'D1'). In addition, the following diagnostic information is provided in registers:

Register 0: the Data Mgr ERQUAL that identifies the place within CSECT DSNILGRX where the error was detected
Register 2, 3: the RBA of the log record that was being read at the time of the error
Register 7: the address of DSCF selection bLock
Register 8: the address of *ssnm*DBM1's selection block.

00D10334

Explanation: An unsuccessful completion of a LOG READ occurred because of an invalid LOGRBA value. MODE=SEQUENTIAL DIRECT with the requested RBA does not match the start of a log record.

This abend reason code is issued by the following CSECT: DSNJR003

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in "Recovery Log Manager Reason Codes (X'D1')".

00D10335

Explanation: An unsuccessful completion of a LOG READ occurred because the log was not being read in ascending order for MODE=SEQUENTIAL DIRECT.

This abend reason code is issued by the following CSECT: DSNJR003

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in "Recovery Log Manager Reason Codes (X'D1')".

00D10340

Explanation: An unsuccessful completion of a LOG READ has occurred. This reflects a logic failure internal to the recovery log manager (RLM) subcomponent and is probably caused by a passed parameter list being lost or a previous abend processing a LOG READ request.

This abend reason code is issued by the following CSECT: DSNJR008

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect all relevant diagnostic materials, including SYS1.LOGREC, SVC dump, and console output. Notify the system programmer.

System Programmer Response: Examine LOGREC and SVC dump information for prior abends during LOG READ processing. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 5, 16.

00D10341

Explanation: A LOG READ completed unsuccessfully because an error was detected during a Forward READ of the log record. This is an internal error.

This abend reason code is issued by the following CSECT: DSNJR103

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in "X'D1.....' Codes" on page 4-81. In addition, register 6 contains the address of the execution block (EB). All log read cursors reside in a recovery log manager storage pool whose header address is in the log manager block (LMB) at LMBRCPHB. The LMB is pointed to by register 5 and described by DSNDLMB.

00D10342

Explanation: A LOG READ completed unsuccessfully because an error was detected during a backward READ of a log record. This is an internal error.

This abend reason code is issued by the following CSECT: DSNJR103

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in "X'D1.....' Codes" on page 4-81. In addition, register 6 contains the address of the execution block (EB). All log read cursors reside in a recovery log manager storage pool whose header address is in the log manager block (LMB) at LMBRCPHB. The LMB is pointed to by register 5 and described by DSNDLMB.

00D10343

Explanation: A LOG READ completed unsuccessfully because an error was detected during a READ of a log record due to an invalid CI offset. This is an internal error.

This abend reason code is issued by the following CSECT: DSNJR103

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in "X'D1.....' Codes" on page 4-81. In addition, register 6 contains the address of the execution block (EB). All log read cursors reside in a recovery log manager storage pool whose header address is in the log manager block (LMB) at LMBRCPHB. The LMB is pointed to by register 5 and described by DSNDLMB.

00D10345

Explanation: A LOG READ completed unsuccessfully because an error was received from a CATALOG LOCATE request for an archive log data set. The requested archive log data set might have been uncataloged or deleted.

System Action: An execution unit might write a record to SYS1.LOGREC and request an SVC dump.

Operator Response: Collect the SYS1.LOGREC and SVC dump, if requested. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump, if requested. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in "X'D1.....' Codes" on page 4-81.

This abend reason code is issued by the following CSECT: DSNJR106

00D10347

Explanation: An attempt to notify a peer to force write the log buffer failed.

System Action: DB2 issues a return code of 4 and reason code of 00D10347 to the requesting function.

System Programmer Response: Review the DB2 console for related errors.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10348

Explanation: The maximum retry count was exceeded while attempting to read a log RBA.

System Action: The execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

System Programmer Response: Review the DB2 console for related errors.

Problem Determination: This problem might occur if the user has added an archive log to the BSDS with an incorrect RBA range using Change Log Inventory (DSNJU003) or if an active log dataset has been regressed such that the log dataset does not contain the RBA range that is listed in the BSDS.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10349

Explanation: A deadlock occurred attempting to allocate an archive log tape.

System Action: DB2 issues a return code of 8 and reason code of 00D10349 to the requesting function.

System Programmer Response: Review the DB2 console for the terminated function.

Problem Determination: The requesting function was terminated. There was another function allocating the same archive log tapes. Rerun the terminated function after the present function no longer has the archive log tapes allocated.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10350

Explanation: A lock or unlock failed in an attempt to allocate an archive log tape.

System Action: An execution unit writes a record to SYS1.LOGREC, requests an SVC dump, and then terminates.

Operator Response: Collect all relevant diagnostic materials, including SYS1.LOGREC, an SVC dump, and console output. Notify the system programmer.

System Programmer Response: This is an internal DB2 error, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10401

Explanation: A BSDS read was requested and the record was not found.

System Action: DB2 returns a return code of 4 and reason code of 00D10401 to the requesting function.

System Programmer Response: Review the DB2 console for related errors.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10402

Explanation: A BSDS read was requested and the input area was too small.

System Action: DB2 returns a return code of 8 and reason code of 00D10402 to the requesting function.

System Programmer Response: Review the DB2 console for related errors.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10403

Explanation: A BSDS update was requested and the record was not found.

System Action: DB2 returns a return code of 4 and reason code of 00D10403 to the requesting function.

System Programmer Response: Review the DB2 console for related errors.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10404

Explanation: A BSDS insert was requested and the record already exits.

System Action: DB2 returns a return code of 4 and reason code of 00D10404 to the requesting function.

System Programmer Response: Review the DB2 console for related errors.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10405

Explanation: A BSDS delete was requested and the record does not exist.

System Action: DB2 returns a return code of 4 and reason code of 00D10405 to the requesting function.

System Programmer Response: Review the DB2 console for related errors.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10406

Explanation: The bootstrap data set access service received a request with an invalid function code.

This abend reason code is issued by the following CSECT: DSNJB001

System Action: If this was an unconditional request, an execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect all relevant diagnostic materials, including SYS1.LOGREC, SVC dump, and console output. Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 5, 16.

00D10410

Explanation: An unsuccessful completion of a READ BSDS RECORD has occurred. An error has been returned from VSAM.

This abend reason code is issued by the following CSECT: DSNJB002

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Use the SYS1.LOGREC and SVC dump to determine the cause of the problem.

Problem Determination: RLM standard diagnostic information is provided in “X'D1.....' Codes” on page 4-81. In addition, the VSAM RPL fields RPLERRCD and RPLERREG are stored in the BSDS request parameter list. The address of the BSDS request parameter list is stored in the BSDS request element (BSDSRQEL) field (located at offset X'8' in the bootstrap data set block).

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 16.

00D10411

Explanation: An unsuccessful completion of a WRITE UPDATE BSDS RECORD has occurred. An error has been returned from VSAM.

This abend reason code is issued by the following CSECT: DSNJB002

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump. Determine the cause of the problem from the diagnostic information in the Problem Determination section of this message.

Problem Determination: RLM standard diagnostic information is provided in “X'D1.....' Codes” on page 4-81. In addition, the VSAM RPL fields RPLERRCD and RPLERREG are stored in the BSDS request parameter list. The address of the BSDS request parameter list is stored in the BSDS request element (BSDSRQEL) field (located at offset 8 in the bootstrap data set block).

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 16.

00D10412

Explanation: An unsuccessful completion of a WRITE INSERT BSDS RECORD has occurred. An error has been returned from VSAM.

This abend reason code is issued by the following CSECT: DSNJB002

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump. Determine the cause of the problem from the diagnostic information in the Problem Determination section of this message.

Problem Determination: RLM standard diagnostic information is provided in “X'D1.....' Codes” on page 4-81. In addition, the VSAM RPL fields RPLERRCD and RPLERREG are stored in the BSDS request parameter list. The address of the BSDS request parameter list is stored in the BSDS request element (BSDSRQEL) field (located at offset 8 in the bootstrap data set block).

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 16.

00D10413

Explanation: An unsuccessful completion of a DELETE BSDS RECORD has occurred. An error has been returned from VSAM.

This abend reason code is issued by the following CSECT: DSNJB002

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump. Determine the cause of the problem from the diagnostic information in the Problem Determination section of this message.

Problem Determination: RLM standard diagnostic information is provided in “X'D1.....' Codes” on page 4-81. In addition, the VSAM RPL fields RPLERRCD and RPLERREG are stored in the BSDS request parameter list. The address of the BSDS request parameter list is stored in the BSDS request element (BSDSRQEL) field (located at offset 8 in the bootstrap data set block).

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 16.

00D10414

Explanation: DB2 cannot dynamically allocate a copy of the requested bootstrap data set (BSDS).

System Action: The system places the BSDS in disabled mode.

User Response: Notify the system programmer.

System Programmer Response: Restore the BSDS data set (or data sets) and restart the DB2 subsystem associated with the BSDS.

Problem Determination: This reason code is issued by the following CSECT: DSNJB002

00D10415

Explanation: The bootstrap data set (BSDS) is not a valid BSDS for the data sharing group.

System Action: The system places the BSDS in disabled mode.

User Response: Notify the system programmer.

System Programmer Response: Restore the BSDS data set (or data sets) and restart the DB2 subsystem associated with the BSDS.

Problem Determination: This abend reason code is issued by the following CSECT: DSNJB002

00D10416

Explanation: A peer BSDS process was requested in non-data sharing.

System Action: DB2 issues a return code of 8 and reason code of 00D10416 to the requesting function.

System Programmer Response: Review the DB2 console for related errors.

Problem Determination: Peer BSDS requests cannot occur in non-data sharing.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10417

Explanation: A peer BSDS process was requested for a host BSDS.

System Action: DB2 issues a return code of 8 and reason code of 00D10417 to the requesting function.

System Programmer Response: Review the DB2 console for related errors.

Problem Determination: Peer BSDS requests cannot be processed for the host BSDS.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10500

Explanation: The recovery log manager's dynamic allocation function has been passed a bad function code (LRB4FUNC in control block LRB4).

This abend reason code is issued by the following CSECT: DSNJDS01

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump. Determine the cause of the problem from the diagnostic information in the Problem Determination section of this message.

Problem Determination: RLM standard diagnostic information is provided in "X'D1.....' Codes" on page 4-81. In addition, trace entry 501 provides the return address to the module that passed the LRB4 with the undefined function code. It also provides the address of the LRB4. This address is also in register 7 at the time of the abend.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 5.

00D10501

Explanation: The recovery log manager's common access method services has been passed a bad function code (DSPLFUNC in control block DSPL).

This abend reason code is issued by the following CSECT: DSNJDS05

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump. Determine the cause of the problem from the diagnostic information in the Problem Determination section of this message.

Problem Determination: RLM standard diagnostic information is provided in "X'D1.....' Codes" on page 4-81. The address of the DSPL is provided in register 3, and the invalid function in register 4.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 5.

00D10700

Explanation: An error completion code was returned by SETLOCK OBTAIN.

This abend reason code is issued by the following CSECT: DSNJM002

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump. Determine the cause of the problem from the diagnostic information in the Problem Determination section of this message.

Problem Determination: RLM standard diagnostic information is provided in "X'D1.....' Codes" on page 4-81. In addition, register 0 contains the return code from SETLOCK OBTAIN.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 5.

00D10701

Explanation: An error completion code was returned by SETLOCK RELEASE.

This abend reason code is issued by the following CSECT: DSNJM002

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump. Determine the cause of the problem from the diagnostic information in the Problem Determination section of this message.

Problem Determination: RLM standard diagnostic information is provided in “X'D1.....' Codes” on page 4-81. In addition, register 0 contains the return code from SETLOCK RELEASE.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 5.

00D10800

Explanation: The log manager command processor (DSNJC001) was entered with an invalid Tokenized Command Segment (TCS).

This reason code is issued by the following CSECT: DSNJC001

System Action: A diagnostic record is written to SYS1.LOGREC, and an SVC dump is requested. The requesting execution unit is abended.

Operator Response: Collect the SYS1.LOGREC and SVC dump, and notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump from the operator. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided under “X'D1.....' Codes” on page 4-81.

General register 1 contains the address of the TCS as passed to log manager. The character string `'TCS'` should appear at the address provided in R1, plus 4. The address of the GCPC Pool Header Block (PHB) is provided in general register 2. The value `X'0036'` should appear at the address provided in R2. If these two items are not present, then the DSNJC001 CSECT was invoked in error by an execution unit.

00D10901

Explanation: DB2 failed to locate a data sharing member in the SCA.

System Action: If this was an unconditional request, an execution unit writes a record to SYS1.LOGREC, requests an SVC dump, and terminates.

Operator Response: Collect all relevant diagnostic materials, including SYS1.LOGREC, an SVC dump, and console output.

Problem Determination: Review the DB2 system console for possible DSN7xxxx messages that could relate to this problem.

See the DB2 system console for message DSNJ700I that is issued with this DB2 condition code.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10902

Explanation: A dynamic allocation of a peer's BSDS failed.

System Action: If this was an unconditional request, an execution unit writes a record to SYS1.LOGREC, requests an SVC dump, and terminates.

Operator Response: Collect all relevant diagnostic materials, including SYS1.LOGREC, an SVC dump, and console output of peer and host.

Problem Determination: Review the DB2 system console for possible errors relating the peer's BSDS on both the host and peer DB2 system.

See the DB2 system console for messages DSNJ103I and DSNJ700I that are issued with this DB2 condition code.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10903

Explanation: An open of a peer BSDS failed.

System Action: If this was an unconditional request, an execution unit writes a record to SYS1.LOGREC, requests an SVC dump, and terminates.

Operator Response: Collect all relevant diagnostic materials, including SYS1.LOGREC, an SVC dump, and console output. Notify the system programmer.

Problem Determination: Review the DB2 system console for messages DSNJ100I and DSNJ700I that are issued with this DB2 condition code.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10904

Explanation: There was a VSAM MRKBFR error for a peer BSDS.

System Action: If this was an unconditional request, an execution unit writes a record to SYS1.LOGREC, requests an SVC dump, and terminates.

Operator Response: Collect all relevant diagnostic materials, including SYS1.LOGREC, an SVC dump, and console output.

Problem Determination: The VSAM MRKBFR error is placed in LRB1XRC.

See the DB2 system console for message DSNJ700I that is issued with this DB2 condition code.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10905

Explanation: There is a mismatch between the two BSDS timestamps of a peer.

System Action: If this was an unconditional request, an execution unit writes a record to SYS1.LOGREC, requests an SVC dump, and terminates.

Problem Determination: There is a mismatch between the two BSDS system timestamps of a peer, the BSDS change log

inventory (DSNJU003) timestamps of a peer, or both. The peer log environment might have changed. This must be resolved at the peer DB2 subsystem by determining which BSDS is in error and recovering that BSDS.

See the DB2 system console for message DSNJ700I that is issued with this DB2 condition code.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10906

Explanation: The change log inventory (DSNJU003) timestamp does not match the system timestamp in the peer BSDS.

System Action: If this was an unconditional request, an execution unit writes a record to SYS1.LOGREC, requests an SVC dump, and terminates.

Problem Determination: A change log inventory (DSNJU003) job was executed against the peer BSDS after the last peer DB2 subsystem restart. The peer log environment might have changed. Restart the peer DB2 subsystem to reset this condition.

See the DB2 system console for message DSNJ700I that is issued with this DB2 condition code.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10907

Explanation: DB2 could not locate a peer's active log data set in the peer's BSDS.

System Action: If this was an unconditional request, an execution unit writes a record to SYS1.LOGREC, requests an SVC dump, and terminates.

Operator Response: Collect all relevant diagnostic materials including SYS1.LOGREC, an SVC dump, and console output.

Problem Determination: Run a print log map (DSNJU004) job against the peer's BSDS to compare BSDS active log entries with the existing peer's log data sets. There is probably a mismatch between them.

See the DB2 system console for message DSNJ700I that is issued with this DB2 condition code.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10908

Explanation: An open of a peer's active log failed.

System Action: If this was an unconditional request, an execution unit writes a record to SYS1.LOGREC, requests an SVC dump, and terminates.

Operator Response: Collect all relevant diagnostic materials, including SYS1.LOGREC, an SVC dump, and console output of peer and host.

Problem Determination: Review the DB2 system console for possible errors relating the peer's active log on both the host and peer DB2 system.

The VSAM CONNECT return code is in LRB1XRC if an SVC dump was taken.

See the DB2 system console for message DSNJ700I that is issued with this DB2 condition code.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10909

Explanation: There was no active BSDS found for the peer DB2 subsystem.

System Action: If this was an unconditional request, an execution unit writes a record to SYS1.LOGREC, requests an SVC dump, and terminates.

Operator Response: Collect all relevant diagnostic materials, including SYS1.LOGREC, SVC dump, and console output of peer and host.

Problem Determination: Review the DB2 system console for possible errors relating the peer's BSDSs on both the host and peer DB2 system.

See the DB2 system console for message DSNJ700I that is issued with this DB2 condition code.

The peer BSDSs have been placed in inactive mode. There might have been an error against this peer's BSDSs and a recovery is needed.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10910

Explanation: A BLDVRP/DLVRP macro failed for the BSDS buffer.

System Action: An execution unit writes a record to SYS1.LOGREC, requests an SVC dump, and then terminates.

Operator Response: Collect all relevant diagnostic materials, including SYS1.LOGREC, SVC dump, and console output.

Problem Determination: Review the DB2 system console for possible errors relating to the BSDS.

A BLDVRP/DLVRP macro for a VSAM shared resource pool failed for the BSDS. General register 2 will contain a value of 1 for a BLDVRP macro or a value of 2 for a DLVRP macro. The macro return code is contained in general register 3. See the appropriate VSAM publication for advanced VSAM applications.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10916

Explanation: DB2 received an error while attempting to read shared communications area (SCA) information from the coupling facility.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested. The subsystem will be terminated with the same reason code.

System Programmer Response: Correct the problem with the coupling facility, and restart DB2.

Problem Determination: Review the DB2 system console for possible DSN7xxxx and DSNJxxxx messages that might relate to this problem. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00D10917

Explanation: DB2 received an error while attempting to write shared communications area (SCA) information to the coupling facility.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested. The subsystem will be terminated with the same reason code.

System Programmer Response: Correct the problem with the coupling facility, and restart DB2.

Problem Determination: Review the DB2 system console for possible DSN7xxxx and DSNJxxxx messages that might relate to this problem. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

X'D3.....' Codes

00D30000

Explanation: The operator canceled the allied agent at the requesting location and a dump was requested, or the agent abended with a reason code that indicated a possible communication problem. In either case, the database access agent at this location abended to take a dump to assist in problem determination.

This abend reason code is issued by the following CSECT: DSNLABRT

System Action: The agent terminates.

Operator Response: Notify the system programmer.

System Programmer Response: The information collected as a result of this abend is related to information collected at the requesting location. Obtain a copy of the SYS1.LOGREC listing and the SVC dump. Contact the system programmer at the requesting location (the location name can be determined from the dump header) to coordinate further action.

Problem Determination: This abend was initiated in order to save diagnostic information that might be useful in problem determination.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00D30001

Explanation: The DPS RALE was not initialized. The DSNLSPRR was invoked with the DPSB defined as the functional recovery routine (FRR) anchor. The DPSB is created after the DPS RALE is initialized.

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D30002

Explanation: The distributed data facility (DDF) standard ESTAE and FRR recovery routines detected a bad recovery element. This is a DB2 internal error.

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D30003

Explanation: While establishing an ESTAE functional recovery, DB2 detected a failure.

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D30004

Explanation: A database access agent received an invalid message. This is a DB2 internal error.

This abend reason code is issued by the following CSECTs:

DSNLABRT	DSNLPREP	DSNLRUSE	DSNLTMRR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

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00D30005

Explanation: DB2 detected a failure while retrying DB2 recovery.

This abend reason code is issued by the following CSECT: DSNLFRCV

System Action: DB2 abends after it writes a SYS1.LOGREC record and requests a SVC dump.

Operator Response: Notify the system programmer.

System Programmer Response: This is a DB2 internal error. Obtain a copy of the SYS1.LOGREC listing and the SVC dump. Determine the failing environment (DB2, IMS, CICS, or TSO). Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A distributed data facility (DDF) module retried recovery after an abend, but invalidly returned control to the DDF functional recovery routine (DSNLFRCV) that issued the abend.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00D30008

Explanation: The distributed transaction manager (DTM) could not allocate a RALE for the distributed data facility (DDF). This is a DB2 internal error.

This abend reason code is issued by the following CSECTs: DSNLARAL DSNLTACC DSNLTMRA

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D30009

Explanation: During allocation of a database access agent, simultaneous use of an APLE was attempted. An APLE can be used once during allocation of a database access agent. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLTMRA

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D3000A

Explanation: DB2 invoked the DSNLTDSC macro or a function of the distributed transaction manager (DTM). The required function could not be performed because the DPSB control block does not exist. This is a DB2 internal error.

This abend reason code is issued by the following CSECTs:

DSNLBABR	DSNLCMT1	DSNLDALB	DSNLTGBK
DSNLTMIG	DSNLTRNA		

System Action: DB2 writes a SYS1.LOGREC record and requests a SVC dump. The execution unit abnormally terminates.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a copy of the SYS1.LOGREC listing and the SVC dump. Determine the failing environment (DB2, IMS, CICS, or TSO). Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: DB2 detects this error when the module that abnormally terminated is invoked and determines that the existence of the DDF agent local anchor block (DPSB) is not indicated by the DDF RALE or is not indicated by the ACE.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5

00D3000B

Explanation: A function of the distributed transaction manager (DTM) was invoked and attempted to establish a functional recovery environment. The functional recovery element (FRE) that was created was not the first one on the chain of FREs anchored in the DPSB. This is a DB2 internal error.

This abend reason code is issued by the following CSECTs: DSNLAGNT, DSNLCMT1.

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D3000C

Explanation: The location name received in a response message from a responding site disagrees with the location name to which the request message was sent. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLCMT1

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D3000D

Explanation: A request using application-directed access starting at site `'A'` referenced an object at site `'B'` that is stored at site `'A'`.

This abend reason code is issued by the following CSECT: DSNLTMIG

System Action: The application statement was not processed.

User Response: Recode the application to remove the alias reference at the remote server that resolves to an object stored at the local DB2. Objects stored at the local site must be referenced using a local name.

Problem Determination: If necessary, consult with the data base administrators at the local site and the remote server location. Inspect the remote SYSIBM.SYSTABLES catalog table to determine the object at this location being referenced in a circular manner.

00D3000E

Explanation: The DSNLFTMB macro was invoked to determine whether an update request was sent to a specified location, but the transaction has not yet been migrated to that location. This is a DB2 internal error.

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D3000F

Explanation: A DB2 resource manager attempted to add a duplicate entry to the list of resource managers. This list contains the names of resource managers that can participate in the allocation of a database access agent at a remote site. This is a DB2 error.

This abend reason code is issued by the following CSECT: DSNLADRA

System Action: DB2 writes a SYS1.LOGREC record and requests a SVC dump. The execution unit abends.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a copy of the SYS1.LOGREC listing and the SVC dump. Determine the failing environment (DB2, IMS, CICS, or TSO). If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The module that incorrectly invoked this function also invoked DSNLADRA.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00D30010

Explanation: A DB2 resource manager attempted to delete a resource manager that is not given in the list of resource managers that participate in the allocation of a database access agent at a remote site. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLADRA

System Action: DB2 writes a SYS1.LOGREC record and requests a SVC dump. The execution unit abends.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a copy of the SYS1.LOGREC listing and the SVC dump. Determine the failing environment (DB2, IMS, CICS, or TSO). Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This module which incorrectly invoked this function also invoked DSNLADRA.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00D30011

Explanation: Only a certain number of resource managers can participate in the allocation of a database access agent at a remote site. The maximum has been attained and cannot be extended. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLADRA

System Action: DB2 writes a SYS1.LOGREC record and requests a SVC dump. The execution unit abends.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a copy of the SYS1.LOGREC listing and the SVC dump. Determine the failing environment (DB2, IMS, CICS, or TSO). Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00D30012

Explanation: More than one resource manager attempted to reserve the same RALE for use in the allocation of a database access agent at a remote site. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLTMIG

System Action: DB2 writes a SYS1.LOGREC record and requests a SVC dump. The execution unit abends.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a copy of the SYS1.LOGREC listing and the SVC dump. Determine the failing environment (DB2, IMS, CICS, or TSO). Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The RALE was previously reserved by another resource manager and is not available.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00D30013

Explanation: The facility section (DSN6FAC) in the DB2 initialization parameter module does not exist.

This abend reason code is issued by the following CSECT: DSNLSSRW

System Action: DB2 writes a SYS1.LOGREC record and requests a SVC dump. The distributed data facility is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably an installation error. Obtain a listing of the DSNZPARM module used.

Problem Determination: Ensure that DSN6FAC was installed correctly.

00D30014

Explanation: The distributed transaction manager (DTM) detected an internal error. This is a DB2 internal error.

This abend reason code is issued by the following CSECTs:

DSNLATRN	DSNLBABR	DSNLCMT1	DSNLEDDA
DSNLEDPE	DSNLEDTS	DSNLITRC	DSNLPREP
DSNLSSAB	DSNLSSBP	DSNLSSRC	DSNLTAC1
DSNLTCM1	DSNLTEXC	DSNLTGBK	DSNLTXAC
DSNLMTOK	DSNLTMRA		

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D30015

Explanation: The facility section (DSN6FAC) in the DB2 initialization parameter module is invalid.

This abend reason code is issued by the following CSECT: DSNLSSRW

System Action: DB2 writes a SYS1.LOGREC record and requests a SVC dump. The distributed data facility (DDF) is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably an installation error. Obtain a listing of the DSNZPARM module used.

Problem Determination: Ensure that DSN6FAC was installed correctly.

00D30016

Explanation: An allied agent received an invalid response. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLCMT1

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D30018

Explanation: An agent exists at the site at which the abend occurred, but an agent that should exist at another site does not exist at that site. This is probably a DB2 internal error.

System Action: DB2 writes a SYS1.LOGREC record and requests a SVC dump. The execution unit abends.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a copy of the SYS1.LOGREC listing and the SVC dump. Determine the failing environment (DB2, IMS, CICS, or TSO). Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The distributed data facility (DDF) error monitor, which terminates the agent that is waiting for some action to be taken by the nonexistent agent, detects this error. The module that was waiting for the action of the nonexistent agent is the module that issued the abend.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00D30019

Explanation: The distributed data facility (DDF) error monitor detected an error at another site which caused the agent at this site to be canceled. This is probably a DB2 internal error.

System Action: DB2 writes a SYS1.LOGREC record and requests a SVC dump. The execution unit abends.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a copy of the SYS1.LOGREC listing and the SVC dump. Determine the failing environment (DB2, IMS, CICS, or TSO). Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The DDF error monitor, which terminates the agent because of an error detected at another site to which the agent is connected and for which the agent is waiting, detected this error. The module that was suspended to wait for the action to be taken at the other site is the module that issued the abend.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00D3001A

Explanation: A CANCEL THREAD or CANCEL DDF THREAD command naming a distributed thread caused the thread to be terminated. A dump is provided for diagnostic purposes as a result of the CANCEL command DUMP keyword.

System Action: DB2 writes a SYS1.LOGREC record and requests an SVC dump. The execution unit abends. If the canceled distributed thread is an allied thread, DB2 requests the cancelation of each associated database access thread at each of the server sites (refer to the explanation for 00D30000).

Operator Response: Notify the system programmer.

System Programmer Response: The command might have been used to terminate a thread that was in a state where no processing was occurring and the thread could not continue.

If you suspect an internal DB2 error, obtain a copy of the SYS1.LOGREC listing and the SVC dump. Determine the failing environment (DB2, IMS, CICS, or TSO). Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5 1, 2, 5.

The module that was suspended while waiting for some action to be taken is the module that issued the abend.

00D3001B

Explanation: The database access request from a remote site failed because the SYSIBM.USERNAMES table did not contain an inbound row, the TYPE column specified as an `'I'` describing what DB2 authorization ID to be used for the remote primary authorization ID. When the USERNAMES column in SYSIBM.LUNAMES specifies `'I'` or `'B'`, requiring inbound name translation, the SYSIBM.USERNAMES table must contain entries describing which DB2 authorization IDs are to be used for each remote authorization ID from the LU.

This abend reason code is issued by the following CSECTs: DSNLTACC, DSNLTMRA.

System Action: The DSNL030I message is issued at the server. The database access agent is not allocated.

Operator Response: Notify the communications database administrator

System Programmer Response: Make sure the USERNAMES column in SYSIBM.LUNAMES has been specified correctly for the indicated LUNAME. If you intend to use remote authorization IDs that differ from DB2 authorization IDs, verify that the SYSIBM.USERNAMES table has rows that correctly specify the DB2 authorization IDs to be used for each possible remote authorization ID.

Problem Determination: Analyze the SYSIBM.USERNAMES table for an incorrect or missing entry.

00D3001C

Explanation: The database access request from a remote site failed because the SYSIBM.USERNAMES table did not contain an inbound row, the TYPE column specified as an `'I'` describing what DB2 authorization ID to be used for the remote new user primary authorization ID. When the USERNAMES column in SYSIBM.LUNAMES specifies `'I'` or `'B'` requiring inbound name translation, the SYSIBM.USERNAMES table must contain entries describing which DB2 authorization IDs are to be used for each remote authorization ID from the LU.

This abend reason code is issued by the following CSECTs: DSNLRUSE, DSNLTEXC.

System Action: The DSNL030I message is issued at the server. The database access agent is not allocated.

Operator Response: Notify the communications database administrator.

System Programmer Response: Make sure the USERNAMES column in SYSIBM.LUNAMES has been specified correctly for the indicated LUNAME. If you intend to use remote authorization IDs that differ from the DB2 authorization IDs, verify that the SYSIBM.USERNAMES table has rows that correctly specify the DB2 authorization IDs to be used for each possible remote authorization ID.

Problem Determination: Analyze the SYSIBM.USERNAMES table for an incorrect or missing entry.

00D3001D

Explanation: The database access request from a remote site failed because the SYSIBM.USERNAMES table did not contain an inbound row, the TYPE column specified as an `'I'` describing what DB2 authorization ID to be used for the remote plan owner authorization ID. When the USERNAMES column in SYSIBM.LUNAMES specifies `'I'` or `'B'`, requiring inbound name translation, the SYSIBM.USERNAMES table must contain entries describing which DB2 authorization IDs are to be used for each remote authorization ID from the LU.

This reason code is issued by the following CSECT: DSNLTMRA

System Action: The DSNL030I message is issued at the server. The database access agent is not allocated.

Operator Response: Notify the communications database administrator.

System Programmer Response: Make sure the USERNAMES column in SYSIBM.LUNAMES has been specified correctly for the indicated LUNAME. If you intend to use remote authorization IDs that differ from the DB2 authorization

IDs, verify that the SYSIBM.USERNAMES table has rows that correctly specify the DB2 authorization IDs to be used for each possible remote authorization ID.

Problem Determination: Analyze the SYSIBM.USERNAMES table for an incorrect or missing entry.

00D3001E

Explanation: The SYSTEM PARAMETER section (DSN6SYSP) in the DB2 installation parameter module does not exist.

This abend reason code is issued by the following CSECT: DSNLTMIN

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. DDF is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably an installation error. Obtain a listing of the DSNZPARM module used.

Problem Determination: Ensure that DSN6SYSP was installed correctly.

00D3001F

Explanation: ACCRDBRM received from the remote server indicates incompatible server.

This abend reason code is issued by the following CSECT: DSNLTAC1

System Action: The TYPDEFNAM or TYPDEFOVR values returned from the remote server in the DDM ACCRDBRM reply require data type and/or code page translations that cannot be supported by the local DB2. The local DB2 has disconnected the conversation with the remote server. DB2 requests neither a SVC dump nor a SYS1.LOGREC record.

User Response: Notify the system programmer. Invoke the application after the problem has been corrected.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem. Notify the system programmer at the remote location that the remote server may not be usable.

Problem Determination: Determine the server being accessed by examining the SQLCODE -30041 message text. Refer also to the DDM documentation of the ACCRDB command and the ACCRDBRM reply message.

00D30020

Explanation: The processing of the CONNECT statement at a remote server has failed. This is because acceptable CONNECT information was not conveyed in the distributed relational database architecture (DRDA) EXCSAT command sent by the local DB2 to the remote server.

This reason code is issued by the following CSECT: DSNLTEXC

System Action: The remote server database access agent (DBAA) sends a DRDA reply message (for example, MGRLVLRM) to the local DB2 which indicates the specific nature of the problem. The above reason code is sent in the server diagnosis area of the reply message. The DBAA awaits further DRDA commands from the local DB2.

User Response: The SQLCA returned in response to the CONNECT statement indicates what DRDA reply message was sent by the remote server. The user should contact the local DB2 system administrator with this information.

Operator Response: Operator will not detect this problem.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This represents a DRDA configuration mismatch between the local DB2 and the remote server. The precise mismatch is determined from the reply message sent from the remote server to the local DB2. The reply message may be determined by examining the SQLCODE and the SQLCA tokens returned for the CONNECT statement.

The remote server and local DB2 system administrators should consult together to determine if this is a system configuration error, or if an internal error exists at either the local DB2 or remote server.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5.

Collect the following local DB2 diagnostic items:

- Application source code and runtime listing.
- Relevant error and system logs spanning the time of the failure.

00D30021

Explanation: The processing of the CONNECT statement at a DB2 remote server has failed. This is because acceptable CONNECT information was not conveyed in the distributed relational database architecture (DRDA) ACCRDB command sent by the local DB2 to the remote server.

This reason code is issued by the following CSECT: DSNLTACC

System Action: The remote server database access agent (DBAA) sends a DRDA reply message (for example, VALNSPRM) to the local DB2 which indicates the specific nature of the problem. The above reason code is sent in the server diagnosis area of the reply message. The DBAA awaits further DRDA commands from the local DB2.

User Response: The SQLCA returned in response to the CONNECT statement indicates what DRDA reply message was sent by the remote server. The user should contact the local DB2 system administrator with this information.

Operator Response: Operator will not detect this problem.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This represents a DRDA configuration mismatch between the local DB2 and the remote server. The precise mismatch is determined from the reply message sent from the DB2 remote server to the local DB2. The reply message may be determined by examining the SQLCODE and the SQLCA tokens returned for the CONNECT statement. It could indicate any one of the following problems (but is not limited to these):

- The EXCSAT command was not successfully processed prior to receipt of the ACCRDB command.
- The TYPDEFNAM parameter (specifies local DB2 data types) in the ACCRDB command is not supported.

- The TYPDEFOVR parameter (specifies local DB2 CCSIDs) in the ACCRDB command is not supported.
- The local DB2 product is not recognized/supported by the remote server.

The system administrators for the two locations should consult together to determine if this is a system configuration error (for example, translation rows do not exist in the SYSSTRINGS catalog table to support translation between the local DB2 and remote server CCSIDs), or if an internal error exists at either location.

Collect the following diagnostic items at the remote server:

- Console output from the system on which the job was run and a listing of SYSLOG data set for the period of time spanning the failure.
- Listing of SYS1.LOGREC data set obtained by executing IFCEREP1.
- The system CCSIDs.

Collect the following diagnostic items at the local DB2:

- Application source code and runtime listing.
- Relevant error and system logs spanning the time of the failure.
- The system CCSIDs.

00D30022

Explanation: The processing of the CONNECT statement at the remote server has failed and the local DB2 Data Base Access Agent (DBAA) has been abended. This is because authorization checking has failed at the remote server.

This abend reason code is issued by the following CSECTs: DSNLTACC DSNLTEXC

System Action: The conversation with the local DB2 is terminated by the remote server with an LU6.2 SNA sense code. The DBAA is abended. A DSNL030I message is written to the MVS console at the remote server, and an alert is generated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Either the user does not have the proper authority to execute at the remote server, or there is a security configuration mismatch between the local DB2 and the remote server. Examine the DSNL030I message or the alert for a more specific reason code describing the failure. Consult with the two system administrators if necessary to fix the problem. No dump is generated for this abend.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5.

00D3002D

Explanation: The remote server was not successfully connected. The SYSIBM.USERNAMES table did not contain an outbound row, the TYPE column specified as an 'O' describing the remote authorization identifier to be used for the plan owner DB2 authorization ID. When the USERNAMES column in SYSIBM.LUNAMES specifies 'O' or 'B' requiring outbound name translation, the SYSIBM.USERNAMES table must contain entries describing the remote authorization IDs to be used for each DB2 authorization ID communicating with the LU.

This abend reason code is issued by the following CSECTs: DSNLTXAC DSNLTMIG

System Action: A resource unavailable is returned to the application. The request is not sent to the remote site.

Operator Response: Notify the communications database administrator.

System Programmer Response: Make sure the USERNAMES column in SYSIBM.LUNAMES has been specified correctly for the indicated LUNAME. If you intend to use remote authorization IDs that differ from DB2 authorization IDs, verify that the SYSIBM.USERNAMES table has rows that correctly specify the remote authorization ID to be used for each possible DB2 authorization ID.

Problem Determination: Analyze the SYSIBM.USERNAMES table for an incorrect or missing entry.

00D3002E

Explanation: No resync list entry exists during resynchronization when one is expected to exist. This is an internal error.

This abend reason code is issued by the following CSECTs:

DSNLTRLA DSNLTRLO DSNLTRPA DSNLTRPN DSNLTRRH

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the sites to which the abending agent was connected by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D3002F

Explanation: An unrecognized function request was detected during resynchronization. This is an internal error.

This abend reason code is issued by the following CSECTs:

DSNLTRD DSNLTRE DSNLTRLS DSNLTRTR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the sites to which the abending agent was connected by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D30030

Explanation: This site is not considered a coordinator or participant during resynchronization. This is an internal error.

This abend reason code is issued by the following CSECTs:

DSNLTRE DSNLTRLO DSNLTRPV DSNLTRVS

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the sites to which the abending agent was connected by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D30031

Explanation: An unknown 2-phase COMMIT protocol is being used during resynchronization. This is an internal error.

This abend reason code is issued by the following CSECTs: DSNLTRLO DSNLTRVS

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the sites to which the abending agent was connected by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D30032

Explanation: This site is not considered either an initiator or recipient of resynchronization. This is an internal error.

This abend reason code is issued by the following CSECTs:

DSNLTRCN DSNLTRLA DSNLTRLN DSNLTRPA DSNLTRPN

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the sites to which the abending agent was connected by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D30033

Explanation: This site is invalidly an initiator of resynchronization. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLTRPN

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the sites to which the abending agent was connected by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D30034

Explanation: An INDOUBT resync list entry does not have the correct associated structures during resynchronization. This is an internal error.

This abend reason code is issued by the following CSECTs: DSNLTRPA DSNLTRPN

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the sites to which the abending agent was connected by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D30035

Explanation: A resolved unit of work still has internal structures associated with it during resynchronization. This is an internal error.

This abend reason code is issued by the following CSECTs: DSNLTRPA DSNLTRPN

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the sites to which the abending agent was connected by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D30036

Explanation: Either the coordinator or participant has an invalid status during resynchronzation. This is an internal error.

This abend reason code is issued by the following CSECTs:

DSNLTRCA	DSNLTRCN	DSNLTRLA	DSNLTRLN
DSNLTRLO	DSNLTRPA	DSNLTRPN	DSNLTRRA

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the sites to which the abending agent was connected by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D30037

Explanation: The resync list latch is erroneously still being held during resynchronization. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLTRTR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the sites to which the abending agent was connected by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D30038

Explanation: The storage calculation for the amount of storage needed for -DISPLAY THREAD is invalid. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLTDTI

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the sites to which the abending agent was connected by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D30039

Explanation: A resync conversation is invalid. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLTRVR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the sites to which the abending agent was connected by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D3003A

Explanation: An error occurred during resynchronization. This is an internal error.

This abend reason code is issued by the following CSECTs:

DSNLTRCA	DSNLTRCN	DSNLTRE	DSNLTRLA
DSNLTRLN	DSNLTRPA	DSNLTRPN	DSNLTRPV
DSNLTRRA			

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the sites to which the abending agent was connected by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D3003B

Explanation: A distributed thread was canceled because the timeout value in the DB2 startup parameters module (usually DSNZPARM) was exceeded. This value is specified by the IDLE THREAD TIMEOUT value in the DSNTIPR installation panel or the IDTHTOIN value in the DSN6FAC macro, which is used to build the DB2 start up parameters module.

System Action: The execution unit abends.

Operator Response: Notify the system programmer.

System Programmer Response: The server thread was holding DB2 resources and the requester application did not make a request to the DB2 server thread for an extended period of time. The server thread is terminated in order to releases resources that might affect other threads.

This usually occurs for one of these reasons:

- The ACTIVE thread option was specified in the DDF THREADS field of the DSNTIPR installation panel, and a requester application or its user did not make a request to the DB2 server for an extended period. This can happen, for example, during a lengthy end user absence. As a result, the server thread becomes susceptible to being canceled because of the timeout value.

  Determine why the requester application has not made a request to the DB2 server in the specified time. If the design or use of the application requires additional time, increase the IDLE THREAD TIMEOUT value or set it to zero to deactivate the function.
- The INACTIVE thread option was specified in the DDF THREADS field of the DSNTIPR installation panel, and a requester application or its user:
  - Failed to commit before an extended dormant period (such as end user absence), or
  - Committed before an extended dormant period (such as end user absence), but database resources are still held because of other existing conditions.

  As a result, the server thread cannot be moved to the inactive state and becomes susceptible to being canceled because of the timeout value.

  Determine why the server thread was not moved to the inactive state. For information about active and inactive threads, see the description of the DDF THREADS option of the DSNTIPR installation panel in "Planning and Installing DB2" in Section 2 of *Installation Guide*. If the design or use of the application requires additional time, increase the IDLE THREAD TIMEOUT value or set it to zero to deactivate the function.

Problem Determination: This abend reason code is issued by the following CSECT: DSNLBABR

00D300F1

Explanation: The DSNLTOKS macro was invoked to extract error information from the DTMF block using the CHECK_SQLCODE keyword and the DTMF block was either uninitialized or contained an SQL return code that was not negative. This is a DB2 internal error.

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested. The execution unit is abnormally terminated.

Operator Response: Notify the system programmer.

System Programmer Response: This is a DB2 internal error. Obtain a copy of SYS1.LOGREC and the SVC dump. Determine the failing environment (DB2, IMS, CICS, or TSO). Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This name of the module that invoked the function given as the abending module name. This is not the module in error. An earlier failing module neglected to report error information in the DTMF block.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00D300F2

Explanation: EXCSATRD reply received from a remote server indicates an incompatible server.

This abend reason code is issued by the following CSECT: DSNLTEX1

System Action: The manager levels returned from the local DB2 in the DDM EXCSATRD reply were too low for the local DB2 to support. The local DB2 has disconnected the conversation with the remote server. DB2 requests neither an SVC dump nor a SYS1.LOGREC record written.

User Response: Notify the system programmer. Invoke the application after the problem has been corrected.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem. Notify the system programmer at the remote location that the remote server is not usable.

Problem Determination: Determine the server being accessed by inspecting the SQLCODE -30041 message text. Refer to the DDM documentation of the EXCSAT command.

00D300F3

Explanation: The remote server was not successfully connected. The SYSIBM.USERNAMES table did not contain an outbound row, the TYPE column specified as an 'O' describing the remote authorization identifier to be used for the new user primary DB2 authorization ID. When the USERNAMES column in SYSIBM.LUNAMES specifies 'O' or 'B' requiring outbound name translation, the SYSIBM.USERNAMES table must contain entries describing the remote authorization IDs to be used for each DB2 authorization ID communicating with the LU.

This abend reason code is issued by the following CSECTs: DSNLTMIG DSNLTXAC

System Action: A resource unavailable is returned to the application. The request is not sent to the remote site.

Operator Response: Notify the communications database administrator.

System Programmer Response: Make sure the USERNAMES column in SYSIBM.LUNAMES has been specified correctly for the indicated LUNAME. If you intend to use remote authorization IDs that differ from DB2 authorization IDs, verify that the SYSIBM.USERNAMES table has rows that correctly specify the remote authorization ID to be used for each possible DB2 authorization ID.

Problem Determination: Analyze the SYSIBM.USERNAMES table for an incorrect or missing entry.

00D300F4

Explanation: A DRDA protocol error occurred. Either a reply chain is broken but there is no DDM reply with a high enough severity to break the chain, or a message chain is unbroken in spite of a high severity code, or a conversation expected to be available has been terminated. The problem, though detected by DB2, is believed to have originated at the remote server. The server might not be a DB2 subsystem.

This abend reason code is issued by the following CSECTs:

DSNLBABR DSNLCMT1 DSNLTAC1 DSNLTEX1 DSNLTXAC

System Action: This reason code is returned to the application. A request message has likely been sent to the remote site but the outcome is uncertain. A DSNL031I message may have been written to the console. Refer to the description of this message for more information. If this reason code is returned for an SQL 'COMMIT' statement, determine if manual recovery of the unit of work is necessary.

Operator Response: Notify the operator or systems programmer for the remote server.

System Programmer Response: Determine the product type of the server. The DISPLAY THREAD command may be used. Refer to the server products' diagnostic recommendations. If the server DBMS is DB2, contact your IBM representative to report the problem and open an APAR.

Problem Determination: The problem originated with the remote server. Follow the diagnostic recommendations published for the server DBMS product, which might not be DB2.

00D300F5

Explanation: DDM command chaining is in use.

This reason code is issued by the following CSECT: DSNLTXAC

System Action: The DTM module returns to its invoker with a return code = 4.

00D300F6

Explanation: A valid but unexpected DDM reply was received from a remote server during a connect, commit, or abort operation. For a connect, the expected DDM reply is EXCSATRD (for EXCSAT command) or ACCRDBRM (for ACCRDB command). For a commit or abort, the expected DDM reply is ENDUOWRM. (The DDM command for a commit is RDBCMM. For a rollback, it is RDBRLLBCK).

This reason code is issued by the following CSECTs:

DSNLBABR DSNLCMT1 DSNLTAC1 DSNLTEX1

System Action: The local DB2 tried to access a remote server and the server replied with an unexpected DDM answer. The remote server may have suffered permanent damage. The local DB2 may or may not subsequently disconnect the conversation to the server. This is an internal-only DDF reason code. The local DB2 requests neither a SVC dump nor a SYS1.LOGREC record.

User Response: Contact the system programmer

System Programmer Response: If the SQLCA is available, examine all fields in the SQLCA. Using this information, try to determine what DDM reply was received. Contact the system programmer at the server site with this information. This is probably a programming error at the server database system, although it may be a DB2 error. The server database system may have recorded diagnostic information for the problem. If this is a DB2 error, write an APAR.

Problem Determination: Examine the SQL return code in the SQLCA. It should give further indication of the real cause.

00D300F7

Explanation: A DDM reply message was too big to fit in the DTM reply buffer.

This abend reason code is issued by the following CSECTs:

DSNLBABR DSNLCMT1 DSNLTAC1 DSNLTEX1 DSNLTXAC

System Action: The requesting allied agent is terminated. A SYS1.LOGREC record is written and an SVC dump is requested at the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This error should never occur. Write an APAR.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 5.

00D300F8

Explanation: An attempt was made to access data at a remote location which has been started in restricted access mode or the local DB2 has been started in restricted access mode. No remote access is allowed.

This abend reason code is issued by the following CSECT: DSNLAGNT, DSNLVALM

System Action: Remote access is not allowed.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the remote location where the remote data access was attempted. Retry the request when the remote location and/or the local DB2 has been restarted in full access mode.

00D300F9

Explanation: The DB2 server was unable to allocate a database access agent since the maximum number allowed was zero (ZPARM MAXDBAT value was zero).

This abend reason code is issued by the following CSECT: DSNLAGNT

System Action: The DB2 server terminates the conversation with a 084B6031 SNA sense code for application-directed access and a 00D300F9 DB2 code for system-directed access. A DSNL030I message containing this reason code is written to the MVS operator console at the DB2 server site.

System Programmer Response: At the server, currently no data base access agents are allowed because the MAXDBAT value in the ZPARM is zero. If access to this site from a remote site is desirable, change the MAXDBAT parameter in ZPARM to the maximum number of database access agents desired. Restart DB2 at the server. Notify the user to rerun the application.

00D300FA

Explanation: You attempted a COMMIT statement for a plan that specified ISOLATION (RR) and update operations were performed either at the local site or at a remote site. The COMMIT operation could not be performed because the COMMIT request could not be transmitted to a remote site where Repeatable Read operations had been performed.

This abend reason code is issued by the following CSECT: DSNLCMT1

System Action: All update operations were backed out.

System Programmer Response: Determine why the COMMIT failed and retry the application.

00D300FB

Explanation: A resource was not available during database access agent allocation at a remote site.

This abend reason code is issued by the following CSECTs: DSNLTACC DSNLTMRA

System Action: The allocation of the database access agent was unsuccessful. A 'resource not available' code is returned to the user. DB2 requests neither a SVC dump nor a SYS1.LOGREC record.

User Response: Notify the system programmer. Invoke the application after the problem has been corrected.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of the *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Determine the name of the resource being allocated and correct the problem.

00D300FC

Explanation: You attempted to allocate a resource at a remote site using an invalid name.

This abend reason code is issued by the following CSECTs: DSNLTACC DSNLTMRA

System Action: The allocation of the database access agent was unsuccessful. A 'resource not available' code is returned to the user. DB2 requests neither a SVC dump nor a SYS1.LOGREC record. This reason code is returned only for system-directed access (DSNLTMRA).

User Response: Notify the system programmer. Invoke the application after the problem has been corrected.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of the *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Determine the resource being allocated and correct the problem.

00D300FD

Explanation: An attempt was made to disconnect a connection with a specified location, but the transaction has not yet been connected to that location. This is a DB2 internal error.

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested. The execution unit is abnormally terminated.

Problem Determination: Obtain a copy of SYS1.LOGREC and the SVC dump. Determine the failing environment (DB2, IMS, CICS, or TSO). Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The name of the module that invoked the function incorrectly is given as the abending module name.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00D300FE

Explanation: You executed a COMMIT statement and update operations were performed at a remote site. The success of the COMMIT operation could not be determined because a failure occurred at the remote site or in the communication link with the remote site after the request to commit the operation had been transmitted.

This abend reason code is issued by the following CSECT: DSNLCMT1

System Action: The remote updates have been committed or backed out, depending on when the error occurred.

User Response: After communication has been reestablished with the remote site, use SQL to query the updated data to determine whether the updates were committed. If the updates were not committed, rerun the application and perform the updates again.

00D300FF

Explanation: You attempted a COMMIT statement and update operations were performed at a remote site. The attempt failed.

This abend reason code is issued by the following CSECT: DSNLCMT1

System Action: The updates at the remote site have been backed out.

User Response: Rerun the application.

Problem Determination: Determine why the COMMIT failed and retry the application.

00D30100

Explanation: A COMMIT statement was chained to a set of commands sent to an remote server. The remote server stopped processing the chained commands before it reached the COMMIT. COMMIT was NOT performed.

This reason code is issued by the following CSECT: DSNLCMT1

System Action: Any updates performed within the current unit of Work have been backed out.

User Response: Notify the system programmer of the failure.

After the problem causing the chain to be broken at the remote server is fixed, rerun the application and perform the updates again.

Operator Response: Operator will not detect this problem.

System Programmer Response: See “Problem Determination” section below.

Problem Determination: Collect the following diagnostic items from the local DB2 system.

- Listing of application program and output from application program.
- Console output and a listing of SYSLOG data set for the period of time spanning the failure.
- Listing of SYS1.LOGREC data set, obtained by executing IFCEREP1.

Consult with the remote server system programmer to determine the cause of the error.

The remote server system programmer may need to collect the following remote server diagnostic items:

- Relevant error and system logs spanning the time of the failure.
- Any relevant remote server dumps.

00D30101

Explanation: A COMMIT was attempted but failed due to a prior error. Communications to a remote site have been lost. The COMMIT operation cannot be performed because the COMMIT request could not be transmitted to a remote site. If the program has performed updates, the updates have been backed out to the prior COMMIT point.

This reason code is issued by the following CSECT: DSNLCMT1

System Action: All update operations were backed out.

Operator Response: Notify the system programmer.

System Programmer Response: Restart DDF at the affected sites and rerun the application.

00D30103

Explanation: This reason code may be returned for a failed distributed commit using DRDA protocols. It indicates that commit has failed because an ABNUOWRM reply message was received from the server for a prior SQL statement, but an abort had not been driven at the DB2 requester prior to this commit and after the receipt of the ABNUOWRM.

An ABNUOWRM reply message is sent by the server when it has rolled back its unit-of-work in response to an unusual situation at the server (for example, deadlock or operator intervention). When an ABNUOWRM reply message is received by the requester, an abort must be driven at the requester to synchronize the distributed systems. Until an abort is driven, all subsequent SQL statements will receive an SQLCODE -906. After an abort is driven, further SQL statements will be accepted.

This reason code is issued by the following CSECT: DSNLCMT1

System Action: The commit at the DB2 requester fails.

User Response: Scan backwards in your application for the first non -906 SQLCODE prior to the commit. This SQLCODE was returned with the ABNUOWRM from the server system. Use the server product reference manuals to determine and correct whatever problem this SQLCODE represents on the server and rerun your application. This may involve contacting your system programmer if the situation at the Server cannot be corrected or improved by changes to the application program.

Operator Response: The operator will not detect this problem.

System Programmer Response: Determine the cause of the problem represented by the SQLCODE returned with the ABNUOWRM and if necessary, work with the system programmer at the server to resolve it. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items:

- User's application output, including SQLCAs returned for each SQL statement.

00D30104

Explanation: The unit-of-work disposition (commit or rollback) received from a DRDA server is inconsistent with the command sent (commit or rollback), and the SQL code returned from the server. For example, if a commit is sent to the server, and the reply message indicates the unit of work (UOW) was committed, but the SQL code returned is negative, then this reason code will be contained in the alert sent to NetView.

This reason code is issued by the following CSECTs: DSNLCMT1 DSNLBABR.

System Action: An alert is generated and sent to NetView. Two trace records, IFCID 0191 and IFCID 0193, may be written to the Statistics Class 4 trace, and two DSNL031I messages may be written to the console. The trace records and messages will not be written if this error was previously

detected within the last 5 minutes. The Statistics Class 4 trace must be active for the trace records to be written.

An SQLCODE +30100, -30020, or -30030 is returned to the application. An SQLCODE -30020 indicates a rollback was sent to the DRDA server, but a commit unit-of-work disposition was received. An SQLCODE +30100 or -30030 conveys the unit-of-work disposition reported by the server, and replaces the original SQL return code sent by the server, which was not consistent with the UOW disposition. The original SQL return code and SQLSTATE returned by the server are saved as tokens in the SQLCA.

Operator Response: Notify the system programmer.

System Programmer Response: This is a DRDA distributed protocol problem. Once the nature of the inconsistency is known, the server system programmer may have to be contacted to help resolve the problem. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items:

- Listing of the user's application program output, including printouts of the SQLCAs received for all SQL statements.
- Console output from the system on which the job was run, and a listing of SYSLOG data set for the period of time spanning the failure.
- Listing of the Statistics Class 4 trace records for the LUWID associated with the failing request.

If no DSNL031I messages were written at the same time as the alert, then scan the log backwards for previous DSNL031I messages. A DB2 filter function prohibits multiple occurrences of the same problem detected within a 5 minute period from flooding the console and trace data set with diagnostic information. You will have to find an earlier occurrence of the same problem to start diagnosing it.

Once you have found the two DSNL031I messages, locate the IFCID 0191 and 0193 trace records written for the problem by using the IFCID sequence numbers from the DSNL031I messages.

The IFCID 0193 trace record will document the nature of the inconsistency (command sent, UOW disposition received, SQL return code received).

The IFCID 0191 trace record will document the exact data stream returned from the Server. Use this information to determine if the reply message from the server was correctly converted into the UOW disposition and the SQL return code reported in the IFCID 0193 record. If the data stream was correctly converted, then the problem lies at the server and you should contact the system programmer at the server and have him or her analyze the data stream produced by the server.

00D30105

Explanation: A distributed commit has failed because the allied agent was cancelled as a result of a STOP DDF MODE(FORCE) command during a previous execution of DDF which has terminated. When an allied agent does not issue database requests for more than 2 minutes after a STOP DDF MODE(FORCE) command is issued, DDF will come down without terminating the allied agent. The agent is cancelled when it makes its next request to DB2.

This reason code is issued by the following CSECT: DSNLCMT1

System Action: The commit operation is failed and the agent is cancelled. The last unit of work was rolled back at all server systems when the STOP DDF MODE(FORCE) command was processed.

User Response: Contact the operator to re-start DDF. After DDF is re-started, continue your application's work starting with the last unit of work that was rolled back.

Operator Response: Re-start DDF.

System Programmer Response: None required.

00D30106

Explanation: The result of a DRDA distributed commit could not be determined because the reply message from the server either was invalid or could not be deciphered.

This reason code is issued by the following CSECT: DSNLCMT1

System Action: An alert is generated and sent to NetView. An IFCID 0191 trace record may be written to the statistics class 4 trace, and a DSNL031I message may be written to the console. The trace record and message will not be written if this error was previously detected within the last 5 minutes. The statistics class 4 trace must be active for the trace records to be written.

The requester disconnects from the server system. The state of the unit of work at the server is unknown. It may have been committed, or it may have been rolled back. An SQLCA indicating the nature of the DRDA reply message distortion is given to the application.

User Response: Notify the system programmer. After the problem has been resolved, re-connect to the server site to determine whether the last unit of work was committed or rolled back. Continue your application after correcting the server database (if necessary).

Operator Response: Notify the system programmer whenever a DSNL031I message is written to the MVS console.

System Programmer Response: This is a DRDA distributed protocol problem. Once the nature of the problem is known, the server system programmer may have to be contacted to help resolve the problem.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items:

- Listing of the user's application program output, including printouts of the SQLCAs received for all SQL statements.
- Console output from the system on which the job was run, and a listing of SYSLOG data set for the period of time spanning the failure.
- Listing of the statistics class 4 trace records.

If no DSNL031I message was written at the same time as the alert, then scan the log backwards for a previous DSNL031I message. A DB2 filter function prohibits multiple occurrences of the same problem detected within a 5 minute period from flooding the console and trace data set with diagnostic information. You will have to find an earlier occurrence of the same problem to start diagnosing it.

Once you have found the DSNL031I message, locate the IFCID 0191 trace record written for the problem by using the IFCID sequence number from the DSNL031I message.

The IFCID 0191 trace record will document the exact data stream returned from the server. Use this information to determine if the reply message from the Server was correct, and if so, the error resides with the DB2 AR.

If the data stream is incorrect, then the problem lies at the server and you should contact the system programmer at the server and have he or she analyze the data stream produced by the server.

00D30109

Explanation: Phase 1 of a distributed commit failed. One or more remote servers did one of the following:

- Voted NO
- Voted heuristic mixed
- Experienced a communications error
- Made an error in their use of commit protocol

This reason code is issued by the following CSECT: DSNLCMT1

System Action: The commit fails. The unit of work is backed out.

For communication errors, message DSNL406I is written to the system console, alert A006 is generated, and trace record IFCID 0209 is produced to record the server affected (LUWID of the unit of work, and other information).

For protocol errors, message DSNL413I is written to the system console, alert A005 is generated, and trace record IFCID 0208 is produced to describe the nature of each server's protocol violation.

User Response: Contact the DB2 systems programmer. If the commit failed for other than a commit protocol violation by a remote server, resubmit your application. Otherwise, wait for resolution of the protocol error.

System Programmer Response: For protocol errors, contact the system programmer for the remote site. The invalid sync point message is recorded in the IFCID 0208 trace record. The system logic error that causes the invalid sync point message must be corrected at the remote site.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1.

00D3010A

Explanation: This might occur when a version of IMS that does not support the COMMIT VERIFY exit is running an IMS MODE=MULTI application with one or more non-DB2 servers. This is probably a user error, since this scenario is not supported by DB2 and IMS unless the IMS version is 4 or later.

IMS requested a new user SIGNON without an immediately preceding commit or abort, and your application was connected to one or more remote non-DB2 servers. In order to preserve the consistency of database updates made at several different servers, when at least one server is a non-DB2 server, a commit or abort must precede any new user SIGNON.

This reason code is issued by the following CSECT: DSNLXNEW

System Action: The execution unit writes a record to SYS1.LOGREC. No dump is requested. The IMS application terminates as a result of the abend.

Operator Response: Collect the SYS1.LOGREC. Notify the system programmer.

System Programmer Response: Determine if the IMS version and release being used invokes the DB2 COMMIT VERIFY exit, which is available in DB2 Version 3 and later. Obtain the SYS1.LOGREC.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1.

00D3010B

Explanation: Cached information was used to determine whether updates are allowed at the server. From the time of the execution of the CONNECT statement to the time that the first SQL statement was sent to the server, the conversation SYNC_LEVEL supported by the partner changed from a cached value of SYNC to the current of value NONE.

SYNC_LEVEL NONE servers are not allowed to update in the current unit of work. Since an update might have been performed by the partner during execution of the first statement at the server, the application must roll back (abort).

This reason code is returned as a token in the SQLCODE -904.

This reason code is issued by the following CSECT: DSNLTAC1

System Action: The connection to the server is deallocated. The server's portion of the current unit of work is rolled back at the server. The application is placed in a must-abort state. All subsequent operations except rollback or abort fail with an SQLCODE -918. The remainder of the current unit of work is backed out when rollback or abort is performed or when the application terminates.

User Response: If your application does not do any work at a server for a long time after issuing a CONNECT, consider rewriting it to perform the CONNECT immediately before performing any work at the server. This minimizes the possibility of the server system going down and coming back up at a different SYNC_LEVEL.

Rerun your application starting with the unit of work containing the SQL statement that received an SQLCODE -904.

00D3010C

Explanation: Cached information was used to determine whether updates are allowed at the server. From the time of the execution of the CONNECT statement to the time that the first SQL statement was sent to the server, the partner was started with a program that does not support two-phase commit.

Such servers are not allowed to update in the current unit of work. Since an update might have been performed by the partner during execution of the first statement at the server, the application must roll back.

This reason code is returned as a token in the SQLCODE -904.

This reason code is issued by the following CSECT: DSNLTAC1

System Action: The connection to the server is deallocated. The server's portion of the current unit of work is rolled back at the server. The application is placed in a must-abort state. All subsequent operations except rollback or abort fail with an SQLCODE -918. The remainder of the current unit of work is backed out when rollback or abort is performed or when the application terminates.

User Response: If your application does not do any work at a server for a long time after issuing a CONNECT, consider rewriting it to perform the CONNECT immediately before performing any work at the server. This minimizes the possibility of the server system going down and coming back up at a different level.

Rerun your application starting with the unit of work containing the SQL statement that received the SQLCODE -904.

00D3010D

Explanation: DB2 requested updates at multiple servers, but at least one server does not support distributed two-phase commit.

This reason code is issued by the following CSECT: DSNLCMT1

System Action: The commit fails for this unit of work (UOW). If the application is using TSO or BATCH attach, then DB2 rolls back the UOW. If the application is using CICS or IMS attach, then CICS or IMS rolls back the UOW after receiving the NO commit vote from DB2.

User Response: Change the application so that updates to multiple servers (including the local server) are not performed within a single UOW unless all the update servers in the UOW support distributed two-phase commit.

Problem Determination: In the UOW that was not committed, the first SQL statement that performed an update that was not allowed received an SQLCODE -919. All subsequent SQL statements also received an SQLCODE -919 until a ROLLBACK or a static ROLLBACK SQL statement was executed (if either occurred).

00D3010E >

Explanation: The DRDA server system does not support the authentication mechanism specified in the communications database. For example, the communications database specified that RACF passtickets were supposed to be used, but the server does not support it.

System Action: The attempt to access the remote server fails. An SQLCODE -30073 is returned to the application.

User Response: Notify the system programmer.

System Programmer Response: Modify the row in SYSIBM.LUNAMES or SYSIBM.IPNAMES to specify a security mechanism in the SECURITY_OUT column that the remote server supports.

00D3010F

Explanation: DB2 was unable to authenticate the DRDA end user, due to an error detected by RACF or DCE.

System Action: The end user's attempt to connect is rejected. An SQLCODE -30082 is returned to the application.

User Response: Notify the system programmer.

System Programmer Response: Correct the error detected by DCE or RACF. Both products write messages to the MVS console describing the error.

00D31010

Explanation: An internal logic error occurred while a DCRM functional service was being invoked.

This abend reason code is issued by the following CSECT: DSNLCnnn

DSNLCnnn identifies that a DCRM Conversation manager CSECT detected a logic error. Refer to the dump title for the specific CSECT name.

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D31011

Explanation: An internal logic error occurred while invoking a VTAM functional service.

This abend reason code is issued by the following CSECT: DSNLVnnn

DSNLVnnn identifies that a DCRM VTAM manager CSECT detected a logic error. Refer to the dump title for the specific CSECT name.

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

User Response: Notify the system programmer.

Operator Response: Collect the SYS1.LOGREC listing and the SVC dump.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D31012

Explanation: A VTAM functional service request failed because the state of the conversation was invalid for the request.

This abend reason code is issued by the following CSECTs: DSNLVDDC DSNLVFSM

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

User Response: Notify the system programmer.

Operator Response: Collect the SYS1.LOGREC listing and the SVC dump.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain any related diagnostic information from each connected site and the SVC dump and SYS1.LOGREC at the site of the DB2 failure.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D31013

Explanation: A DB2 message was received with an invalid message block header (MBH). The MBH is a header that precedes all messages exchanged between two DB2 subsystems.

This abend reason code is issued by the following CSECTs:

DSNLVASY	DSNLVRCA	DSNLVRQP

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

User Response: Notify the system programmer.

Operator Response: Collect the SYS1.LOGREC listing and the SVC dump.

System Programmer Response: Determine which connected sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain any related diagnostic information from each connected site and the SVC dump and SYS1.LOGREC at the site of the DB2 failure. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D31014

Explanation: One or more invalid parameters were supplied while invoking a VTAM functional service.

This abend reason code is issued by the following CSECTs:

DSNLVASY	DSNLVDDC	DSNLVFSM	DSNLVINF
DSNLVRCA	DSNLVREQ	DSNLVRQP	DSNLVSCA
DSNLVSDA	DSNLVSEA		

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

User Response: Notify the system programmer.

Operator Response: Collect the SYS1.LOGREC listing and the SVC dump.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain any related diagnostic information from each connected site and the SVC dump and SYS1.LOGREC at the site of the DB2 failure.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D31018

Explanation: A syntax error was detected in a DDM reply received from a remote distributed database remote server.

This abend reason code is issued by the following CSECTs: DSNLCSRR DSNLCMSR

System Action: The attempt to access the remote database resource fails, and the failure is reported to the application.

A DSNL031I message might have been written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 83.

00D31019

Explanation: A DDM protocol error was detected in a DDM reply received from a remote distributed database remote server.

This abend reason code is issued by the following CSECTs: DSNLCMSR DSNLCSRR

System Action: The attempt to access the distributed resource fails, and the failure is reported to the local DB2.

A DSNL031I message might have been written to the console. Refer to the description of this message in this book for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 83.

00D3101A

Explanation: A syntax error was detected in a DDM request received from a remote distributed database local DB2.

This abend reason code is issued by the following CSECT: DSNLCRTD

System Action: The attempt to access the DB2 server fails, and the failure is reported to the local DB2.

A DSNL032I message might have been written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 83.

00D3101B

Explanation: A DDM protocol error was detected in a DDM request received from a remote distributed database local DB2.

This abend reason code is issued by the following CSECT: DSNLCRTD

System Action: The attempt to access the DB2 server fails, and the failure is reported to the local DB2.

A DSNL032I message may have been written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 83.

00D3101C

Explanation: DB2 has detected an error while processing a connection request from DDCS. A DB2RA connection request was received from DDCS.

This reason code is issued by the following CSECTs: DSNLCRTD and DSNLIRTR.

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the DDCS system administrator.

System Programmer Response: This is probably not a DB2 problem. This error is most likely caused by an incorrect entry in the DCS directory on DDCS. Refer to IBM Distributed Database Connection Services Installation and Configuration Guide for information on configuring your DDCS system.

00D31022

Explanation: The requested VTAM function for allocating a conversation was not performed because the data manager returned an unavailable resource when attempting to read the SYSIBM.LOCATIONS table in the communication database (CDB). The LOCATION cannot be resolved to the remote DB2 subsystem LUNAME.

This abend reason code is issued by the following CSECT: DSNLVCLM

System Action: Notification of the failure is returned to the application. The conversation is not allocated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: For more information, refer to the explanation of message DSNL700I. Collect the following diagnostic items:

- Definitions of the communication database (CDB) table space, tables, and indexes involved in the error.
- Items 1 and 5 listed in "Appendix B. Problem Determination" on page X-5.

00D31023

Explanation: A request for a protected SNA conversation was rejected by a DB2 server because the SNA exchange log names (XLN) process has not yet completed with the requesting system.

This abend reason code is issued by the following CSECT: DSNLVPFV

System Action: Message DSNL030I is displayed on the system console with reason code 00D31023. The SNA conversation is rejected with SNA sense code 08640001, indicating the SNA protocol for protected conversations was violated.

User Response: Notify the DB2 system programmer.

System Programmer Response: The requesting system should have sent a valid SNA XLN request before starting a protected conversation. Contact the system programmer for the requesting system to determine why the SNA XLN process was not completed successfully.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1.

00D31024

Explanation: The requested VTAM function for allocating a conversation was not performed because the location name is not defined in the SYSIBM.LOCATIONS table in the communication database (CDB).

This abend reason code is issued by the following CSECTs:

DSNLVAAC DSNLVCLM DSNLVPF5

System Action: Notification of the failure is returned to the application. The conversation is not allocated to the specified location.

Operator Response: Notify the system programmer.

System Programmer Response: Add the location to the SYSIBM.LOCATIONS table.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 73, 74.

00D31025

Explanation: The requested VTAM function for allocating a conversation was not performed because a mode name could not be found in the SYSIBM.MODESELECT table in the communication database (CDB) for the requesting thread.

This abend reason code is issued by the following CSECT: DSNLVCLM

System Action: Notification of the failure is returned to the application. The conversation is not allocated.

Operator Response: Notify the system programmer.

System Programmer Response: Add the mode name to be selected in the SYSIBM.MODESELECT table for the authorization ID, PLANNAME, and LUNAME of the service request that failed.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 75, 76.

00D31026

Explanation: The requested VTAM function was not performed because VTAM returned a nonzero return code while attempting to communicate on a conversation.

This abend reason code is issued by the following CSECT: DSNLVRPL

System Action: Notification of the failure is returned to the application. The conversation is abnormally deallocated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: For more information, refer to the explanation of message DSNL500I or message DSNL502I, depending on the type of conversation that failed.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5,

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00D31027

Explanation: The requested VTAM function cannot be performed because VTAM is abending or because the operator has issued a HALT NET command to terminate VTAM.

This abend reason code is issued by the following CSECTs:

DSNLVAAC	DSNLVASY	DSNLVCNS	DSNLVDDC
DSNLVRCA	DSNLVREQ	DSNLVSCA	DSNLVSDA
DSNLVSEA	DSNLVPCS	DSNLVPF5	DSNLVRQP

System Action: Notification of DDF termination is reported to the application. No remote communications are allowed. The distributed data facility is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Determine why VTAM was terminated.

00D31029

Explanation: The requested VTAM function to allocate a conversation failed. VTAM returned a nonzero return code while attempting to negotiate limits with a remote location for a mode.

This abend reason code is issued by the following CSECT: DSNLVCNS

System Action: Notification of the failure is returned to the application. All communications to the remote location on the mode fail until the CNOS is successfully negotiated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: For more information, refer to the explanation of message DSNL501I.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5.

00D3102A

Explanation: A conversation was not allocated because a VTAM LU name contained in the LUNAME column of the SYSIBM.LULIST table was also present in the LUNAME column of the SYSIBM.LUNAMES table. A given VTAM LU name can appear in only one of these two tables.

System Action: The conversation is not allocated.

Operator Response: Notify the system programmer.

System Programmer Response: Make sure each remote VTAM LU is defined in the SYSIBM.LULIST table or the SYSIBM.LUNAMES table, but not both tables.

Problem Determination: Collect the following diagnostic items:

- Print the contents of the SYSIBM.LUNAMES table.
- Print the contents of the SYSIBM.LULIST table.

This abend reason code is issued by the following CSECT: DSNLVCLM

00D3102B

Explanation: A conversation was not allocated because the partner LU attempted to allocate a conversation using a blank mode name. Although DB2 tolerates CNOS requests with a blank mode name, DB2 does not accept conversations with a blank mode name.

System Action: Message DSNL030I is displayed on the system console with reason code 00D3102B. The conversation is not allocated.

Operator Response: Notify the system programmer.

System Programmer Response: Correct the definitions at the partner LU to prevent conversations from being allocated with a blank mode name.

00D31031

Explanation: The local distributed data facility (DDF) is terminating.

This reason code is issued by the following CSECTs:

DSNLCCCN	DSNLVAAC	DSNLVCNS	DSNLVDDC
DSNLVINF	DSNLVRCA	DSNLVREQ	DSNLVSCA
DSNLVSDA	DSNLVSEA		

System Action: Notification of the failure is returned to the application. DB2 does not allow any new distributed threads while DDF is in termination or is terminated.

User Response: Contact your system programmer to determine why DDF was terminated.

Operator Response: Contact the system to determine the cause of DDF termination.

System Programmer Response: To determine why DDF was terminated and then start DDF.

00D31032

Explanation: The requested VTAM function failed because the distributed data facility (DDF) at the remote location is terminating.

This abend reason code is issued by the following CSECTs:

DSNLCRTR	DSNLCTRM	DSNLVRPL

System Action: DB2 writes a SYS1.LOGREC record. No communication on the conversation is allowed.

Operator Response: Notify the system programmer.

System Programmer Response: To determine the cause of the DDF termination, contact the communication administrator at the location.

00D31033

Explanation: The VTAM function request to allocate a conversation failed because the thread timed-out while waiting for a session.

This abend reason code is issued by the following CSECT: DSNLVALM

System Action: Notification of the failure is returned to the application.

Operator Response: Notify the system programmer.

System Programmer Response: The defined session limit for the mode used by the thread might be too small. The CONVLIMIT specified for the mode might have to be negotiated with the communication administrator at the remote subsystem.

Problem Determination: Refer to message DSNL510I for the limit negotiated by VTAM for the location and mode used by the thread. Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 77.

00D31034

Explanation: The MAX REMOTE CONNECTED limit was reached and the conversation was abnormally deallocated. The thread was not allowed to connect to DB2.

This abend reason code is issued by the following CSECT: DSNLVPFV

System Action: The requester is not connected to DB2.

Operator Response: Notify the system programmer.

System Programmer Response: The maximum number of database access threads that can concurrently exist is defined by the installation option MAX REMOTE CONNECTED. When the MAX REMOTE CONNECTED limit is equal to the number of active database access threads plus the number of inactive database access threads, additional threads are not allowed to connect to DB2. Use the DDF global statistics to determine if the limit should be increased.

Problem Determination: Collect the following diagnostic items:

- DDF global statistics to determine the number of requests that failed because of the MAX REMOTE CONNECTED limit.

00D31035

Explanation: The requested VTAM function failed. The database access agent was aborted at the remote location. Notification of the failure is returned to the application. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLCTRC

System Action: DB2 writes a SYS1.LOGREC record and requests an SVC dump at the failed DB2 site.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D31036

Explanation: The LINKNAME column of the SYSIBM.LOCATIONS table was invalid. Since LINKNAME is a foreign key of the SYSIBM.LUNAMES table, the LINKNAME column must specify one of the values provided in the LUNAME column of the SYSIBM.LUNAMES table. This error should not occur.

This abend reason code is issued by the following CSECT: DSNLVCLM

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

User Response: Notify the system programmer.

Operator Response: Collect the SYS1.LOGREC, and the SVC dump.

System Programmer Response: Obtain copies of the SYS1.LOGREC and SYSLOG data sets from the DB2 site with the inconsistently defined communications database (CDB).

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D31037

Explanation: The remote server was not successfully connected. The SYSIBM.USERNAMES table did not contain an outbound row, the TYPE column specified as an 'O' describing the remote authorization identifier to be used for the primary DB2 authorization ID. When the USERNAMES column in SYSIBM.LUNAMES specifies 'O' or 'B' requiring outbound name translation, the SYSIBM.USERNAMES table must contain entries describing the remote authorization IDs to be used for each DB2 authorization ID communicating with the LU.

This reason code is issued by the following CSECTs:

DSNLCCCN DSNLCSRR DSNLTMIG

System Action: A resource unavailable is returned to the application. The request is not sent to the remote site.

Operator Response: Notify the communications database administrator.

System Programmer Response: Make sure the USERNAMES column in SYSIBM.LUNAMES has been specified correctly for the indicated LUNAME. If you intend to use remote authorization IDs that differ from the DB2 authorization IDs, verify that the SYSIBM.USERNAMES table has rows that correctly specify the remote authorization ID to be used for each possible DB2 authorization ID.

Problem Determination: Analyze the SYSIBM.USERNAMES table for an incorrect or missing entry.

00D31038

Explanation: A conversation was not allocated for one of these reasons:

- The requesting LU is part of a DB2 sysplex. When one or more LU names within a DB2 sysplex appear in the SYSIBM.LULIST table at the remote site, all LU names within the sysplex must be identified in the SYSIBM.LULIST table at the remote site.
  - You might have intended to list all the sysplex's LU names in the SYSIBM.LULIST table, but you did not include one or more LU names.
  - You listed a subset of the LU names in SYSIBM.LULIST but none of the LU names you listed are currently available. Please note that it can take up to 3 minutes for LU availability information to be updated following START DDF at the remote site.
- The location name sent to a remote site does not match the location name recorded in the BSDS at that remote site.

A DSNL030I message might have been written to the console.

System Action: A record is written to SYS1.LOGREC and the conversation is not allocated.

Operator Response: Notify the system programmer.

System Programmer Response: The CDB tables and DB2 BSDS parameters must correctly associate the LOCATION names with their corresponding LUNAME names.

The cause of this error is usually one of the following:

- The BSDS at the remote site does not have the correct LOCATION or LUNAME value, which causes the remote DBMS to respond to the wrong LOCATION name when receiving distributed database requests.
- The SYSIBM.LOCATIONS table at the local DB2 system has an incorrect value in the LINKNAME or LOCATION column for the failing LOCATION, which causes the request to be sent to the wrong remote DBMS.
- The SYSIBM.LULIST table at the local DB2 system has an incorrect value in the LUNAME column for the failing LOCATION, which causes the request to be sent to the wrong remote DBMS.
- Not all LU names in the requesting DB2 sysplex are defined in the SYSIBM.LULIST table at the remote site.

Problem Determination:

- Determine the LUNAME and LOCATION name of the DB2 system that attempted to start a VTAM conversation.
- Print the contents of the SYSIBM.LOCATIONS table at that site.
- Print the contents of the SYSIBM.LULIST table at both the local site and the remote site.
- Determine the LUNAME and LOCATION name of the remote DBMS involved in the failure from the BSDS at the remote site.
- Issue the -DISPLAY LOCATION command to determine which LUNAMEs and LOCATIONs were active at the time of failure.

This abend reason code is issued by the following CSECTs:

DSNLCSIM DSNLVCLM DSNLVPF5

00D31039

Explanation: The requested VTAM function to allocate a conversation was not performed because the SYSIBM.USERNAMES table at the requesting site did not contain a row describing the remote authorization ID to be used for this DB2 authorization ID. When the USERNAMES column in SYSIBM.LUNAMES specifies 'O' or 'B', outbound name translation is in effect. The SYSIBM.USERNAMES table must contain entries describing the remote authorization ID to be used for each DB2 authorization ID communicating with that LUNAME.

This abend reason code is issued by the following CSECT: DSNLVCLM

System Action: A record is written to SYS1.LOGREC, and the conversation is not allocated.

Operator Response: Notify the system programmer.

System Programmer Response: Make sure the USERNAMES column in SYSIBM.LUNAMES has been specified correctly for the indicated LUNAME. If you intend to use remote authorization IDs that differ from the DB2 authorization ID, verify that the SYSIBM.USERNAMES table has rows that correctly specify the remote authorization ID to be used for each possible DB2 authorization ID. These rows must specify 'O'in the TYPE column of the SYSIBM.USERNAMES table.

Problem Determination: Determine the LUNAME and authorization ID for the failing VTAM conversation. Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 58, 59.

00D3103A

Explanation: Database access agent allocation failed because the RACROUTE REQUEST=EXTRACT macro failed to locate a user profile for the DB2 primary authorization ID obtained from the SYSIBM.USERNAMES table. When the ENCRYPTPSWDS column in SYSIBM.LUNAMES specifies 'Y', the requesting DB2 system must be able to extract the encrypted password (via RACROUTE REQUEST=EXTRACT) and send this encrypted password to the responding DB2 system for validation.

This reason code is issued by the following CSECT: DSNLVINF

System Action: The reason code is returned to the application.

Operator Response: Notify the communications database administrator.

System Programmer Response: Make sure the new authorization ID column in SYSIBM.USERNAMES has been specified correctly for the indicated LUNAME. If you intend to use encrypted passwords, the new authorization ID must be defined to your MVS security subsystem.

Problem Determination:

- Analyze the SYSIBM.USERNAMES table for an incorrect or missing entry.
- Verify that the names given in the NEWAUTHID column are defined to your MVS security subsystem properly.

00D3103B

Explanation: An attempt to allocate an LU6.2 conversation failed because the conversation limits for the desired partner LU and VTAM MODE have been reached.

This abend reason code is issued by the following CSECT: DSNLVALM

System Action: This reason code is generated internally when an attempt is made to allocate an LU6.2 conversation and conversation limits have been reached for the desired partner LU and VTAM MODE. In this situation, the requesting DB2 system will attempt to reuse one of the existing LU6.2 conversations that have already been allocated to the agent in question.

The allocate process will be retried using the existing conversation.

System Programmer Response: If you increase the LU6.2 conversation limits for the indicated partner LU and VTAM MODE, it will not be necessary for DB2 to reclaim conversations in order to allocate additional LU6.2 conversations. The reclaiming process will reduce system throughput, since the reclaimed conversation will have to service multiple SQL statements.

00D3103C

Explanation: An attempt to allocate an LU6.2 conversation failed because the specified partner LU cannot support the LU6.2 SECURITY=SAME capability (that is, the LU6.2 Already-Verified security function).

This abend reason code is issued by the following CSECT: DSNLVAAC

System Action: The attempt to allocate an LU6.2 conversation fails, and the error is reported to the DB2 application that requested access to the distributed resource.

User Response: Notify your DB2 system programmer.

System Programmer Response: DB2 will attempt to use SECURITY=SAME when connecting to remote database systems whose USERSECURITY column in the SYSIBM.LUNAMES table contains a value other than 'C'. In order to support the LU6.2 SECURITY=SAME function, the target DBMS must declare support for the SECURITY=SAME function.

If the target DBMS is DB2, support for the SECURITY=SAME function is declared by specifying the following:

1. The DB2 VTAM APPL definition must specify SECACPT=ALREADYV at the remote DB2 subsystem.
2. The value in the USERSECURITY column of the SYSIBM.LUNAMES table at the remote DB2 subsystem must specify a value other than 'C' in the row associated with the requesting DB2 subsystem.

Problem Determination: Collect the following diagnostic items:

- The VTAM APPL definition for the remote DB2 system.
- The contents of the SYSIBM.LUNAMES table.

00D3103D

Explanation: An attempt to allocate a VTAM LU6.2 conversation with a remote site failed because the request did not contain the proper security information.

This abend reason code is issued by the following CSECT: DSNLVRPL

System Action: The attempt to access the remote database resource failed and the failure is reported to the application.

User Response: Notify the communications database administrator.

System Programmer Response: This error is usually caused by transmitting an invalid authorization ID or password in a request to the remote site. However, this is not always the case, so it is important to review the diagnostic information at the remote site to determine the cause of the failure.

- If the remote site is a DB2 subsystem, refer to the DSNL030I message at the remote site for the cause of the security failure. Additionally, an ALERT will be recorded in NetView (if the NetView product is available) to describe the security failure.

  If the remote site is not a DB2 subsystem, obtain any diagnostic information about the security failure at the remote site.

If you suspect the authorization ID or password is not correct, the DB2 CDB on the local DB2 system should be examined to validate the following items:

- If the remote site requires both an authorization ID and a password on LU6.ALLOCATE requests (i.e., the remote site does not accept already-verified ALLOCATE requests), the USERNAMES column of the SYSIBM.LUNAMES table at the local DB2 system must specify either 'O' or 'B'.
- If the USERNAMES column of the SYSIBM.LUNAMES table at the local DB2 system specifies 'O' or 'B', the SYSIBM.USERNAMES table will be used to determine the authorization ID and password sent on the LU6.ALLOCATE request.

If you intend to translate the authorization IDs, ensure that the NEWAUTHID column of the SYSIBM.USERNAMES table contains the correct authorization ID to be used at the remote site.

- If the remote site is a DB2 system, the ENCRYPTPSWDS value in the SYSIBM.LUNAMES table must exactly match the ENCRYPTPSWDS column of the SYSIBM.LUNAMES table at the remote site.
- If the remote site is not a DB2 system, the ENCRYPTPSWDS value in the SYSIBM.LUNAMES table must be set to 'N'.
- If you are transmitting passwords to the remote site, the password transmitted by the local DB2 system must exactly match the value expected by the remote site.
  1. For encrypted passwords, the password sent to the remote DB2 subsystem is obtained by extracting the RACF password of the user identified by the NEWAUTHID column in the SYSIBM.USERNAMES table. This user's RACF password must exactly match the password at the remote site.
  2. If password encryption is not used, the password will be taken from the PASSWORD column of the SYSIBM.USERNAMES table. This value must exactly match the password at the remote site.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 58, 59, 1.

00D3103E

Explanation: The requested VTAM function to allocate a conversation was not performed because the VTAM MODE specified a conversation limit of zero. The conversation limits must be set to a value greater than zero before a conversation can be allocated.

This abend reason code is issued by the following CSECT: DSNLVALM

System Action: The conversation is not allocated.

Operator Response: Notify the system programmer.

System Programmer Response: If you have placed entries in the SYSIBM.LUMODES table, make sure CONVLIMIT column has a nonzero value. If you are allowing the session limits to be chosen by VTAM, make sure the DSESLIM values on the VTAM APPL and mode entries are nonzero.

Problem Determination: Collect the following diagnostic items:

- Determine the LUNAME and MODE name of the DB2 system that attempted to start a VTAM conversation.
- Print the contents of the SYSIBM.LUMODES table.
- Determine the session limits defined on the VTAM APPL statement and the VTAM MODE entry.

00D3103F

Explanation: An attempt to allocate a VTAM LU6.2 conversation with a remote site failed because the server at the remote LU does not support the SNA two-phase commit process.

This abend reason code is issued by the following CSECT: DSNLVRPL

System Action: DB2 starts a new conversation to the remote site that does not use two-phase commit. DB2 does not attempt to use two-phase commit with this remote site until DDF is restarted.

System Programmer Response: This reason code is produced when the LU at the remote site supports two-phase commit, but the TPN at the remote LU does not support two-phase commit. This is a normal situation, so no system programmer action is required.

00D31040

Explanation: The requested VTAM function failed before the database access agent has failed. This is an internal error.

This abend reason code is issued by the following CSECTs:

DSNLCTRC DSNLCRTR DSNLCRTD

System Action: DB2 writes a SYS1.LOGREC record and requests an SVC dump at the failed DB2 site.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 failure. Obtain any related diagnostic information from each connected site and the SVC dump and SYS1.LOGREC at the site of the DB2 failure.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D31041

Explanation: The requested VTAM function to allocate a conversation was not performed because the SYSIBM.USERNAMES table at the responding site did not contain a row whose authorization ID column matches the DB2 authorization ID received from the requesting DB2 system. When the USERNAMES column in SYSIBM.LUNAMES specifies 'I' or 'B', inbound name translation is in effect. The SYSIBM.USERNAMES table must contain entries describing the local DB2 authorization ID to be used for each DB2 authorization ID sent by the requesting DB2 system.

This abend reason code is issued by the following CSECT: DSNLVCLM

System Action: A record is written to SYS1.LOGREC and the conversation is not allocated.

Operator Response: Notify the system programmer.

System Programmer Response: Make sure the USERNAMES column in SYSIBM.LUNAMES has been specified correctly for the indicated LUNAME. If you intend to use local authorization IDs that differ from the remote DB2 authorization ID, verify that the SYSIBM.USERNAMES table has rows that correctly specify the local authorization ID to be used for

each possible remote authorization ID. These rows must specify 'I' in the TYPE column of the SYSIBM.USERNAMES table.

Problem Determination: Determine the LUNAME and authorization ID for the failing VTAM conversation. Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 58.

00D31042

Explanation: The requested VTAM function failed. The connection to the remote location was interrupted. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLCSIM

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the failed DB2 site.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D31043

Explanation: The requested VTAM function failed. The connection from the remote location was interrupted. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLCSIM

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the failed DB2 site.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D31044

Explanation: A remote subsystem has attempted to allocate a VTAM LU6.2 conversation, but the request was rejected because the request did not contain the proper security information. The FMH5 received from the remote subsystem did not contain any security subfields. This represents SECURITY=NONE in the LU6.2 architecture, which is not supported by DB2.

This abend reason code is issued by the following CSECT: DSNLVPF5

System Action: The attempt to access the remote database resource fails and the failure is reported to the application.

A DSNL030I message may have been written to the console.

User Response: Notify the communications database administrator.

Operator Response: Notify the system programmer.

System Programmer Response: Verify that the remote subsystem is configured to send valid security subfields.

If the remote subsystem is DB2, make sure the VTAM APPL definition does not specify SECACPT=NONE, which is the default for the VTAM APPL definition. SECACPT=NONE will cause VTAM to remove the security subfields from the FMH5.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 58, 59.

00D31045

Explanation: A remote subsystem has attempted to allocate a VTAM LU6.2 conversation, but the request was rejected because the request did not contain the proper security information. The FMH5 received from the remote subsystem did not contain the security subfield that supplies the USERID, or the USERID was not 1 to 8 bytes in length.

This abend reason code is issued by the following CSECT: DSNLVPF5

System Action: The attempt to access the remote database resource fails and the failure is reported to the application.

A DSNL032I message may have been written to the console. Refer to the description of this message for further information.

User Response: Notify the communications database administrator.

Operator Response: Notify the system programmer.

System Programmer Response: Verify that the remote subsystem is configured to send valid security subfields.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 58, 83, 59.

00D31046

Explanation: A remote subsystem has attempted to allocate a VTAM LU6.2 conversation, but the request was rejected because the request did not contain the proper security information. The FMH5 received from the remote subsystem indicated SECURITY=SAME (also known as Already-Verified) and the subsystem in question was not authorized to send requests with SECURITY=SAME.

This abend reason code is issued by the following CSECT: DSNLVPF5

System Action: The attempt to access the remote database resource fails and the failure is reported to the application.

A DSNL030I message may have been written to the console.

User Response: Notify the communications database administrator.

Operator Response: Notify the system programmer.

System Programmer Response: The request was rejected because the USERSECURITY column of the SYSIBM.LUNAMES table contained a 'C' in the row associated with the remote subsystem. The value 'C' indicates that the remote subsystem must send both a USERID and a PASSWORD, which corresponds to SECURITY=PGM in the LU6.2 architecture.

This problem can be corrected in one of two ways:

1. If you would like DB2 to accept requests that are marked with SECURITY=SAME, change the USERSECURITY value in the SYSIBM.LUNAMES table to 'A' for the remote subsystem in question. Also, the DB2 VTAM APPL definition should specify SECACPT=ALREADYV.
2. If you would like DB2 to continue to reject requests of this kind, the remote subsystem must be configured to send requests that contain both a USERID and PASSWORD (SECURITY=PGM in LU6.2 terms).

   If the remote subsystem is DB2, the USERNAMES column in the SYSIBM.LUNAMES table must specify either 'O' or 'B' in the row associated with the local DB2 subsystem.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 58, 59.

00D31047

Explanation: A remote subsystem has attempted to allocate a VTAM LU6.2 conversation, but the request was rejected because the request did not contain the proper security information. The FMH5 received from the remote subsystem did not contain the security subfield that supplies the PASSWORD, or the PASSWORD was not 1 to 8 bytes in length.

This abend reason code is issued by the following CSECT: DSNLVPF5

System Action: The attempt to access the remote database resource fails and the failure is reported to the application.

A DSNL032I message may have been written to the console. Refer to the description of this message for further information.

User Response: Notify the communications database administrator.

Operator Response: Notify the system programmer.

System Programmer Response: Verify that the remote subsystem is configured to send valid security subfields.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 58, 59, 83.

00D31048

Explanation: The requested VTAM function for allocating a conversation at the DB2 server was not performed because the requester's LUNAME is not defined in the SYSIBM.LUNAMES table of the communication database (CDB) at the server.

This abend reason code is issued by the following CSECT: DSNLVPF5

System Action: Notification of the failure is returned to the application. The conversation is not allocated to the specified location.

Operator Response: Notify the system programmer.

System Programmer Response: Add the requester's LUNAME to the SYSIBM.LUNAMES table at the server. The requester's LUNAME is the label name, as opposed to the ACBNAME keyword, on the DB2 VTAM APPL statement for the requester site. A server's SYSIBM.LUNAMES table should contain an entry for the requester's LUNAME.

A DSNL030I message may have been written to the console at the server.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 58.

00D31049

Explanation: A request using application-directed access starting at site 'A' referenced an object at site 'B' that is stored at site 'A'

This abend reason code is issued by the following CSECT: DSNLCCCN

System Action: The application statement was not processed.

User Response: Recode the application to remove the alias reference at the remote server that resolves to an object stored at the local DB2. Objects stored at the local site must be referenced using a local name.

Problem Determination: If necessary, consult with the database administrators at the local site and the remote server location. Inspect the remote SYSIBM.SYSTABLES catalog table to determine the object at this location being referenced in a circular manner.

00D3104A

Explanation: A remote server issued an SNA BACKOUT, which was not sent as a reply to an SNA PREPARE or REQUEST_COMMIT. This indicates the server backed out the current unit of work without waiting for the SQL application to either commit or roll back.

This abend reason code is issued by the following CSECT: DSNLVRPL

System Action: The attempt to access the remote database resource fails and the failure is reported to the application. DB2 terminates the SNA conversation to the remote server and forces the application to roll back.

User Response: Notify the DB2 systems programmer.

System Programmer Response: DB2 never issues an unsolicited SNA BACKOUT. Non-DB2 servers can send an SNA BACKOUT indication when resources required to complete the

unit of work are not available. For example, a deadlock might cause the non-DB2 server to send an SNA BACKOUT. Contact the system programmer for the remote system to determine why the unit of work had to be aborted.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1.

00D3104B

Explanation: An SNA conversation was rejected by a DB2 server because the SNA FMH5 specified SNA persistent verification. DB2 does not support the SNA persistent verification option.

This abend reason code is issued by the following CSECT: DSNLVPF5

System Action: Message DSNL030I is displayed on the system console with reason code 00D3104B. The SNA conversation is rejected with SNA sense code X'080F6051', indicating the SNA security parameters in the FMH5 were not acceptable.

User Response: Notify the DB2 system programmer.

System Programmer Response: The SECACPT keyword on the VTAM APPL statement tells VTAM whether DB2 supports persistent verification. Because DB2 does not support persistent verification, the SECACPT=PERSISTV and SECACPT=AVPV options cannot be used on DB2's VTAM APPL statement.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1.

00D3104C

Explanation: The SNA Exchange Log Names (XLN) process failed because of a log name mismatch between DB2 and a remote LU in the network.

This abend reason code is issued by the following CSECT: DSNLCXLI

System Action: The attempt to allocate an SNA two-phase commit conversation fails with reason code 00D3104C. Message DSNL410 is displayed on the system console to describe the error.

User Response: Contact the DB2 systems programmer.

System Programmer Response: The log name recorded in the DB2 log does not match the log name currently in use at the remote LU. There are indoubt units of work that need to be resolved at this DB2 system. The log name required to resolve the indoubt units of work is displayed in the DSNL410 message.

If a non-DB2 partner was started with the wrong log, it might be possible to restart the non-DB2 partner with the desired log name. This should cause the indoubt units of work to be resolved automatically.

If the partner cannot be restarted with the desired log name, the -RECOVER INDOUBT command can be used to resolve the indoubt units of work. Once the indoubt units of work are resolved, DB2 will accept an SNA XLN with a new partner log name.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1.

00D3104D

Explanation: The local DB2 system does not support connectivity to the DB2 release currently running at the remote DB2 site.

This abend reason code is issued by the following CSECT: DSNLCSIM

System Action: The attempt to allocate an SNA conversation is rejected with reason code 00D3104D.

User Response: Contact the DB2 systems programmer.

System Programmer Response: DB2 distributed database connections can only be established between compatible DB2 releases. For example, DB2 Version 3 can connect to DB2 2.3, but not to DB2 2.2.

In order to establish connectivity, the down-level DB2 system must be migrated to a supported release of DB2.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1.

00D3104E

Explanation: An SNA Exchange Log Names (XLN) protocol violation was detected when attempting to establish a connection to a remote site.

This abend reason code is issued by the following CSECT: DSNLCXLI

System Action: The attempt to allocate an SNA conversation is rejected with reason code 00D3104E. Message DSNL421E is written to the system console and IFCID 0213 is produced to describe the protocol violation.

User Response: Contact the DB2 systems programmer.

System Programmer Response: Contact the system programmer for the remote site. The invalid XLN message is recorded in the IFCID 0213 trace record. The system logic error that causes the invalid XLN message must be corrected at the remote site.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1.

00D3104F

Explanation: A connection to a remote location was lost during a previous communication operation.

This abend reason code is issued by the following CSECTs:

DSNLCBCS DSNLCSRM DSNLCSRR DSNLCMSR

System Action: If the communication failure occurred during a commit or abort operation, the SQL application might not be aware that a failure occurred. Messages associated with the failure were written to the system console at the time of failure. Additionally, alerts were reported to NetView at the time of failure.

User Response: Reestablish the connection to the remote site and reissue the SQL statement.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1.

00D31050

Explanation: DB2 expected to receive security information for the remote client but a valid DRDA SECCHK command was not received for a connection request from a DRDA application requester (AR). The DRDA SECCHK command is only valid with a DRDA security manager level greater than or equal to 5.

This can be the case if one of the following occurs:

- The DRDA AR requested a DRDA security manager less than level 5 for an SNA connection where the APPL command for DB2 was specified with the SECACPT=NONE option.
- The DRDA SECCHK command did not contain the required security information.
- The DRDA AR requested a DRDA security manager less than level 5 for a TCP/IP connection.

This abend reason code is issued by the following CSECTs: DSNLTEXC, DSNLTSEC.

System Action: The attempt to access the local database resource fails, the failure is reported to the SQL application, and the conversation is terminated.

System Programmer Response: For SNA connections, if SECACPT=NONE and the DRDA AR does not support DRDA security manager level 5, contact the DB2 security administrator to change the SECACPT option to ALREADYV or CONV to allow for security information in the VTAM FMH-5 in the form of userid or userid/password fields. If SECACPT=NONE is not changed, then DB2 cannot accept connection requests from this remote client.

For SNA connections, If SECACPT=ALREADYV or CONV, then even though userid or userid/password fields in the FMH-5 are received and validated, DB2 must evaluate a DRDA SECCHK command if it is sent. If the DRDA AR requests this level of security but does not provide the correct information in the form of a SECCHK command, this is a DRDA protocol error committed by the DRDA AR implementation at the remote client.

For TCP/IP connections, this is a DRDA protocol error committed by the DRDA AR implementation at the remote client.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem. Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00D31051 >

Explanation: DB2 was passed a DCE security token during connection request processing, but could not derive an authenticated local userid from the security token.

This abend reason code is issued by the following CSECT: DSNLTSEC.

System Action: The attempt to access the local database resource fails, the failure is reported to the SQL application, and the conversation is terminated with a sense code of '08640000'x.

Message DSNL052E is issued and contains additional information about the failure.

System Programmer Response: Determine the reason for the failure by referring to DSNL052E.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00D31055

Explanation: The remote location defined in the SYSIBM.LOCATIONS table could not be accessed because the TCP/IP interface to DDF is not available.

This abend reason code is issued by the following CSECT: DSNLxxxx

System Action: The request to connect to a remote site fails. The SQL application receives a -904 SQLCODE.

User Response: Notify the system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: One of two actions should be taken:

- If the remote site is not supposed to be using TCP/IP, add a row to SYSIBM.LUNAMES defining the LUNAME used by the remote location.
- If the remote site is correctly defined in the CDB, examine the messages written to the console during -START DDF processing. Those messages describe any errors that would prevent DDF from using TCP/IP.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1.

00D31056

Explanation: The PORT column of the SYSIBM.LOCATIONS table could not be converted to a TCP/IP port number by the getservbyname TCP/IP socket call.

This abend reason code is issued by the following CSECT: DSNLxxxx

System Action: The request to connect to a remote site fails. The SQL application receives a -904 SQLCODE, and message DSNL514, DSNL517, or DSNL518 is written to the console describing the error.

User Response: Notify the system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: Use the information in the DSNL514, DSNL517, or DSNL518 message to resolve the erorr.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1.

00D31057

Explanation: DB2 was able to find the row in SYSIBM.LOCATIONS for the LOCATION specified in the SQL request. However, the LINKNAME column value specified in LOCATIONS did not match any row in SYSIBM.LUNAMES or SYSIBM.IPNAMES.

This abend reason code is issued by the following CSECT: DSNLxxxx

System Action: The request to connect to a remote site fails. The SQL application receives a -904 SQLCODE.

User Response: Notify the system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: Insert a row in SYSIBM.LUNAMES or SYSIBM.IPNAMES that matches the LINKNAME specified in SYSIBM.LOCATIONS.

00D31058

Explanation: The IPADDR column of the SYSIBM.IPNAMES table could not be converted to an IP address by the gethostbyname TCP/IP socket call.

This abend reason code is issued by the following CSECT: DSNLxxxx

System Action: The request to connect to a remote site fails. The SQL application receives a -904 SQLCODE, and message DSNL513, DSNL517, or DSNL518 is written to the console describing the error.

User Response: Notify the system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: Use the information in the DSNL513, DSNL517, or DSNL518 message to resolve the erorr.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1.

00D31100

Explanation: The data communications function service was invoked with a parameter list that contained one or more invalid parameters. This is an internal error.

This abend reason code is issued by the following CSECTs:

DSNLCBCS	DSNLCBUF	DSNLCCCN	DSNLCCDR
DSNLCCNR	DSNLCSIM	DSNLCMSR	DSNLCSRM
DSNLCTCN	DSNLCTDR	DSNLCTRC	

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain any related diagnostic information from each connected site and the SVC dump and STS1.LOGREC at the site of a DB2 abend.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D31101

Explanation: A data communications functional service was invoked with the cursor table marked invalid. This is an internal error.

This abend reason code is issued by the following CSECTs:

DSNLCCCN	DSNLCCDR	DSNLCSRM

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain any related diagnostic information from each connected site and the SVC dump and SYS1.LOGREC at the site of the DB2 failure.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D31102

Explanation: A data communications functional service encountered an inconsistency in the requesting thread control block structure. This is an internal error.

This abend reason code is issued by the following CSECTs:

DSNLCCCN	DSNLCSRM	DSNLCTCN

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D31103

Explanation: A data communications functional service received an invalid logical-unit-of-work ID (LUWID) or no LUWID. This is an internal error.

This abend reason code is issued by the following CSECTs: DSNLCCCN, DSNLCCDR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain any related diagnostic information from each connected site and the SVC dump and SYS1.LOGREC as the site of the DB2 failure.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D31104

Explanation: A data communications functional service cannot find a distributed processing block for the primary thread. This is an internal error.

This abend reason code is issued by the following CSECTs:

DSNLCSRM DSNLCTCN DSNLCBCS DSNLCCNR
DSNLCPCR DSNLCTDR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain any related diagnostic information from each connected site and the SVC dump and SYS1.LOGREC at the site of the DB2 failure.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D31105

Explanation: A data communications functional service detected an invalid or incorrect buffer size on a send message operation. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLCSRM

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D31106

Explanation: A data communications functional service detected an invalid message sequence. One or more rows of data might have been lost. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLCSRM

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D31107

Explanation: A data communications functional service was invoked incorrectly (protocol violation) to wait for a message. This is an internal error.

This abend reason code is issued by the following CSECTs: DSNLCSRM, DSNLCCNR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain any related diagnostic information from each connected site and the SVC dump and SYS1.LOGREC at the site of the DB2 failure.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D31108

Explanation: A data communications functional service was invoked incorrectly (protocol violation) to receive a message. This is an internal error.

This abend reason code is issued by the following CSECTs: DSNLCSRM, DSNLCCNR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain any related diagnostic information from each connected site and the SVC dump and SYS1.LOGREC at the site of the DB2 failure.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D31109

Explanation: A data communications functional service was invoked incorrectly (protocol violation) to send a message. This is an internal error.

This abend reason code is issued by the following CSECTs: DSNLCSRM, DSNLCCNR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain any related diagnostic information from each connected site and the SVC dump and SYS1.LOGREC at the site of the DB2 failure.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D3110A

Explanation: A data communications functional service detected an invalid message sequence. One or more rows of data might have been lost. This is an internal error.

This abend reason code is issued by the following CSECTs: DSNLCSRM, DSNLCBCS

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D3110B

Explanation: While a message was being sent or received by the data communications resource manager, an internal error was detected in DB2. Register 4 contains a reason code that provides additional information about this error. This is an internal error.

This abend reason code is issued by the following CSECTs:

DSNLCSRM DSNLCSBC DSNLCSIM DSNLCSRR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain any related diagnostic information from each connected site and the SVC dump and SYS1.LOGREC at the site of the DB2 failure.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D31110

Explanation: Instrumentation facility component (IFC) has passed a nonzero return code to the data communications resource manager. This is an internal error.

This abend reason code is issued by the following CSECTs: DSNLCRTR, DSNLCRTD

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain any related diagnostic information from each connected site and the SVC dump and SYS1.LOGREC at the site of the DB2 failure.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D31111

Explanation: The instrumentation facility component (IFC) passed a nonzero return code to the data communications resource manager. This is an internal error.

This abend reason code is issued by the following CSECTs: DSNLCRTR, DSNLCRTD

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain any related diagnostic information from each connected site and the SVC dump and SYS1.LOGREC at the site of the DB2 failure.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D31112

Explanation: The data communications resource manager cannot find the LUWID for the remote thread in the database thread control blocks. This is an internal error.

This abend reason code is issued by the following CSECTs: DSNLCRTR, DSNLCRTD

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain any related diagnostic information from each connected site and the SVC dump and SYS1.LOGREC at the site of the DB2 failure.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D31113

Explanation: The data communications resource manager received an invalid set of control block pointers. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLCRTR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D31114

Explanation: A data communications resource manager(DCCM) block for a deallocated conversation which belongs to a database access thread cannot be found. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLCRTR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D31115

Explanation: The data communications resource manager attempt to enqueue a request for a database access thread failed. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLCRTR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D31116

Explanation: The data communications resource manager received an invalid DC message number. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLCRTR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D31117

Explanation: The data communications resource manager received a request with an invalid response type. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLCRTR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D31118

Explanation: A message-processing routine returned to the data communications resource manager without the requested response. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLCRTR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D31119

Explanation: The data communications resource manager processed a request with an unassigned or disconnected message class. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLCRTR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D3111A

Explanation: The data communications resource manager received an unexpected communications error when processing a request. This can occur for any of the following reasons:

- A VTAM session failure caused the premature termination of a DB2 conversation.
- A VTAM VARY NET, INACTIVE or HALT NET command was issued which interrupted a DB2 conversation.
- A DB2 internal logic error occurred.

This abend reason code is issued by the following CSECTs:

DSNLCRTR DSNLCSIM DSNLCSND

System Action: A record is written to SYS1.LOGREC and an SVC dump may be requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: If the abend appears to have been caused by a DB2 logic error, determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site as well as any related dumps from each connected site.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D3111B

Explanation: The data communications resource manager cannot find the remote location for the requesting thread in the control blocks. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLCSIM

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D3111C

Explanation: An internal logic error occurred while invoking a TCP/IP functional service.

This abend reason code is issued by the following CSECT: DSNLInnn

DSNLInnn identifies that a DCRM TCP/IP manager CSECT detected a logic error. Refer to the dump title for the specific CSECT name.

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

User Response: Notify the system programmer.

Operator Response: Collect the SYS1.LOGREC listing and the SVC dump.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D34401

Explanation: The relational data system (RDS) passed an invalid function code to the distributed RDS (DRDS). This is an internal error.

This abend reason code is issued by the following CSECT: DSNLXRDS

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D34404

Explanation: The relational data system (RDS) passed the distributed RDS (DRDS) an invalid distributed interface block (DIB). This is an internal RDS error.

This abend reason code is issued by the following CSECT: DSNLXRDS

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D34405

Explanation: The data communications resource manager (DCRM) passed an invalid LMPP message number to the distributed relational data system (DRDS). This is either an internal DCRM error or an internal DRDS error.

This abend reason code is issued by the following CSECT: DSNLXRTR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D34406

Explanation: The distributed relational data system (DRDS) detected a message of invalid length from the data communications resource manager (DCRM). The message is longer than the buffer size. This is either an internal DRDS error or an internal DCRM error.

This abend reason code is issued by the following CSECTs: DSNLXQPR, DSNLXSQD

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D34407

Explanation: The distributed relational data system (DRDS) received an invalid return code from the data communications resource manager (DCRM) on a SEND request. This is a DCRM internal error.

This abend reason code is issued by the following CSECTs:

DSNLXQEX DSNLXQFH DSNLXQOP DSNLXQPR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D34408

Explanation: The distributed relational data system (DRDS) received an invalid LMPP from the data communications resource manager (DCRM). This is either a DCRM internal error or a DRDS internal error.

This abend reason code is issued by the following CSECTs:

DSNLXOPF DSNLXPCL DSNLXPEX DSNLXPPR
DSNLXPXI DSNLXRTR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D34409

Explanation: The distributed relational data system (DRDS) detected an internal inconsistency. An invalid state transition occurred. This is a DRDS internal error.

This abend reason code is issued by the following CSECTs:

DSNLXOPF DSNLXQFH DSNLXRTR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D3440B

Explanation: The distributed relational data system (DRDS) detected an inconsistency. This is an internal error.

This abend reason code is issued by the following CSECTs:

DSNLXCMT	DSNLXCNV	DSNLXCQS	DSNLXDSA
DSNLXGET	DSNLXIVB	DSNLXOPF	DSNLXOQS
DSNLXPEX	DSNLXPPR	DSNLXPRS	DSNLXPXI
DSNLXQAL	DSNLXQCL	DSNLXQEX	DSNLXQFH
DSNLXQOP	DSNLXQPR	DSNLXQR	DSNLXQRO
DSNLXQUR	DSNLXQXI	DSNLXRAP	DSNLXRAX
DSNLXRBF	DSNLXRCL	DSNLXRCM	DSNLXRCS
DSNLXRCX	DSNLXRCX	DSNLXRDS	DSNLXRDT
DSNLXRFT	DSNLXROP	DSNLXRSL	DSNLXRSQ
DSNLXRSS	DSNLXRTR	DSNLXRUW	DSNLXXSS

System Action: DB2 writes a SYS1.LOGREC record and requests an SVC dump at the failed DB2 site.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D3440C

Explanation: The distributed relational data system (DRDS) requesting site control block must exist at this time but does not. This is an internal DRDS error.

This abend reason code is issued by the following CSECT: DXNLXRDS

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D3440D

Explanation: The distributed statistics and accounting control block does not exist. This is an internal distributed data facility (DDF) error.

This abend reason code is issued by the following CSECT: DSNLXDSA

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D3440E

Explanation: A distributed request was received, but the distributed data facility (DDF) is inactive.

This reason code is issued by the following CSECTs: DSNLXRDS, DSNLXRUW

System Action: The request is not processed.

User Response: Notify the system operator.

Operator Response: Ensure that the DDF has been started.

00D3440F

Explanation: The distributed relational data system (DRDS) detected a message of invalid length from the data communications resource manager (DCRM). The message is smaller than the buffer size, but the return code from the DCRM indicates that the message is greater than one buffer. This is either an internal DRDS error or an internal DCRM error.

This abend reason code is issued by the following CSECTs: DSNLXQPR, DSNLXSQD

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D34410

Explanation: The distributed relational data system (DRDS) received an invalid return code from the data communications resource manager (DCRM) on a RECEIVE request. This is an internal DCRM error.

This abend reason code is issued by the following CSECTs: DSNLXQPR, DSNLXQFH

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D34411

Explanation: The distributed relational data system (DRDS) detected an internal inconsistency. An invalid state is specified. This is an internal DRDS error.

This abend reason code is issued by the following CSECTs:

DSNLXOPF DSNLXQFH DSNLXRTR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D34412

Explanation: The distributed relational data system (DRDS) detected an internal inconsistency. An internal buffer offset variable contains an invalid value. This is an internal DRDS error.

This abend reason code is issued by the following CSECT: DSNLXQGT

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D34413

Explanation: The data header on the message received from the responding site contains invalid information. This is an internal error.

This abend reason code is issued by the following CSECTs: DSNLXQGT, DSNLXQFH

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D34414

Explanation: The relational data system (RDS) did not specify an area for the null indicator of the data. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLXQGT

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D34415

Explanation: The input host variable SQLDA format specified in the RDI is not valid. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLXIVB

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D34416

Explanation: An incomplete response was received on a conversation when a complete response was expected.

This abend reason code is issued by the following CSECT: DSNLXQFH

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D34417

Explanation: DRDS detected an illegal attempt to enter Continuous Block Fetch mode.

This abend reason code is issued by the following CSECT: DSNLXQFH

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D34418

Explanation: The remote server was not successfully connected. The SYSIBM.USERNAMES table did not contain an outbound row, the TYPE column specified as an 'O' describing the remote authorization identifier to be used for the plan owner DB2 authorization ID. When the USERNAMES column in SYSIBM.LUNAMES specifies 'O' or 'B' requiring outbound name translation, the SYSIBM.USERNAMES table must contain entries describing the remote authorization IDs to be used for each DB2 authorization ID communicating with the LU.

This reason code is issued by the following CSECT: DSNLXQAL

System Action: A resource unavailable is returned to the application. The request is not sent to the remote site.

Operator Response: Notify the communications database administrator.

System Programmer Response: Make sure the USERNAMES column in SYSIBM.LUNAMES has been specified correctly for the indicated LUNAME. If you intend to use remote authorization IDs that differ from DB2 authorization IDs, verify that the SYSIBM.USERNAMES table has rows that correctly specify the remote authorization ID to be used for each possible DB2 authorization ID.

Problem Determination: Analyze the SYSIBM.USERNAMES table for an incorrect or missing entry.

00D34419

Explanation: RDS has passed an invalid DESCRIBE request to DRDS. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLXRDS

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D3441B

Explanation: DRDS detected an invalid use of a conversation.

This abend reason code is issued by the following CSECT: DSNLXCNV

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D3441C

Explanation: Allocation of the distributed processing services block (DPSB) failed.

This abend reason code is issued by the following CSECTs:

DSNLXCNV	DSNLXQCL	DSNLXQEX	DSNLXQFH
DSNLXQOP	DSNLXQPR	DSNLXSQD	DSNLXQXI

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site,

the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D3441D

Explanation: The distributed relational data system (DRDS) subcomponent has determined that control structures necessary for processing do not exist. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLXRUW

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 ABEND.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the ABENDing agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 ABEND. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D3441E

Explanation: The distributed relational data system (DRDS) subcomponent has determined that the function to be executed is not a valid function. This is a DB2 internal error.

This abend reason code is issued by the following CSECTs:

DSNLXRCM DSNLXRCN DSNLXRCX DSNLXRQX DSNLXRUW

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 ABEND.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the ABENDing agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 ABEND. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected left 20he SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D3441F

Explanation: The distributed relational data system (DRDS) subcomponent is in an invalid state and cannot process the function requested. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLXRUW

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 ABEND.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the ABENDing agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 ABEND. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D34420

Explanation: The application executed a dynamic COMMIT or ROLLBACK operation while executing in an environment in which DB2 is not coordinating the COMMIT/ROLLBACK process (for example, IMS or CICS). This is an application error.

This abend reason code is issued by the following CSECT: DSNLXRUW

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D34422

Explanation: The distributed relational data system (DRDS) subcomponent has received an unexpected return code from the Distributed Transaction Manager (DTM) subcomponent during CONNECT processing. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLXRCN

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 ABEND.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the ABENDing agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 ABEND. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D34423

Explanation: The distributed relational data system (DRDS) subcomponent has received an unexpected return code from the Distributed Data Interchange Service (DDIS) subcomponent on an invocation to generate a request. This is a DB2 internal error.

This abend reason code is issued by the following CSECTs:

DSNLXPRS	DSNLXRAX	DSNLXRBF	DSNLXRCL
DSNLXRCM	DSNLXRDT	DSNLXRFT	DSNLXROP
DSNLXRSL	DSNLXRSQ		

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 ABEND.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the ABENDing agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 ABEND. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D34424

Explanation: The distributed relational data system (DRDS) subcomponent has received an unexpected return code from the Distributed Data Interchange Service (DDIS) subcomponent on an invocation to parse a reply. This is a DB2 internal error.

This abend reason code is issued by the following CSECTs:

DSNLXRAX	DSNLXRBF	DSNLXRCL	DSNLXRCM
DSNLXRDT	DSNLXRFT	DSNLXROP	DSNLXRQX
DSNLXRSL	DSNLXRSQ		

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 ABEND.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the ABENDing agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 ABEND. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D34425

Explanation: The distributed relational data system (DRDS) subcomponent has received an unexpected return code from the Data Communications Resource Manager (DC) subcomponent. This is a DB2 internal error.

This abend reason code is issued by the following CSECTs:

DSNLXRAX	DSNLXRBF	DSNLXRCL	DSNLXRCM
DSNLXRCX	DSNLXRCX	DSNLXRFT	DSNLXROP
DSNLXRQX	DSNLXRQX	DSNLXRSQ	

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 ABEND.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the ABENDing agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 ABEND. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D34426

Explanation: The distributed relational data system (DRDS) subcomponent has detected an invalid date format in DSNHDECP. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLXRCM

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 ABEND.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the ABENDing agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 ABEND. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 56, 57.

00D34427

Explanation: The distributed relational data system (DRDS) subcomponent has detected an invalid time format in DSNHDECP. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLXRCM

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 ABEND.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the ABENDing agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 ABEND. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D34429

Explanation: The distributed relational data system (DRDS) subcomponent has detected that the call type in the RDI is invalid. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLXRSQ

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 ABEND.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the ABENDing agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 ABEND. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D3442A

Explanation: The distributed relational data system (DRDS) subcomponent has received a return code from the Data Communications Resource Manager (DCRM) indicating that an exit was chained; however, no exit should have been chained. This is a DB2 internal error.

This abend reason code is issued by the following CSECTs:

DSNLXRBF DSNLXRCL DSNLXRFT

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 ABEND.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the ABENDing agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 ABEND. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D3442B

Explanation: The distributed relational data system (DRDS) subcomponent has received a nonzero SQL return code from an invocation of the parser. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLXRCM

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 ABEND.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the ABENDing agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 ABEND. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D3442E

Explanation: The distributed relational data system (DRDS) subcomponent has detected an inconsistency processing a request using advanced SQL protocols (ASP) of distributed relational database architecture at the local DB2.

The local DB2 has received an ENDUOWRM that indicates that the remote server processed a dynamic COMMIT request successfully; however, the SQLCARD that accompanies the ENDUOWRM contains a negative SQL return code.

This reason code is issued by the following CSECT: DSNLXRAX

System Action: An alert is generated. If this error has not been previously detected, then message DSNL031I is written to the MVS console and trace record containing the reply from the remote server are written in statistics class 4. If the error was already detected, information from the previous occurrence can be used to diagnose the problem.

During execution the application will receive an SQLCODE +30100 for this operation.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Examine the trace record associated with the failing request's LUWID to determine the reply message and data that was received by the local DB2.

Consult with the remote server system programmer to diagnose the problem.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D3442F

Explanation: The distributed relational data system (DRDS) subcomponent has detected an inconsistency processing a request using advanced SQL protocols (ASP) of distributed relational database architecture at the local DB2.

The inconsistency may manifest itself as follows:

- In the processing of an embedded SELECT SQL statement, a prior execution of this embedded SELECT SQL statement resulted in a SQLDTARD that is NOT the same as the SQLDTARD received on the current execution of this SQL statement.
- In the processing of an OPEN cursor SQL statement, a prior description of the resultant data, obtained either as a result of a PREPARE or a prior execution of this SQL statement is NOT the same as the description of the resultant data that was received on the current execution of this SQL statement.

The data length, the data type and CCSID of each column of resultant data is checked for consistency.

This reason code is issued by the following CSECTs: DSNLXROP, DSNLXRSL

System Action: An alert is generated. If this error has not been previously detected, then message DSNL031I is written to the MVS console and trace record containing the reply from the remote server written in statistics class 4. If the error was already detected, information from the previous occurrence can be used to diagnose the problem.

During execution the application will receive an SQLCODE -30020 for this operation. Subsequent requests within this unit of work will receive an SQLCODE -900 or -906.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Examine the trace record associated with the failing request's LUWID to determine the reply message and data that was received by the local DB2. Consult with the remote server system programmer to diagnose the problem.

At the local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 83.

At the remote server, collect the following items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D34431

Explanation: The distributed relational data system (DRDS) subcomponent encountered an error while processing a FREE package request. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLXRUW

System Action: The request was not processed successfully.

System Programmer Response: None required.

00D34432

Explanation: The Distributed Relational Data System (DRDS) subcomponent encountered a positive SQL return code during remote program BIND processing. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLXRUW

System Action: The request was successfully processed.

System Programmer Response: None required.

00D34433

Explanation: The distributed relational data system (DRDS) subcomponent encountered a negative SQL return code. during remote program BIND processing. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLXRUW

System Action: The request was not successfully processed.

System Programmer Response: None required.

00D34434

Explanation: The distributed relational data system (DRDS) subcomponent was forced to deallocate the conversation. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLXRUW

System Action: The request was not processed successfully.

System Programmer Response: None required.

00D34436

Explanation: The distributed relational data system (DRDS) subcomponent detected that a remote program BIND request specified the local site. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLXRCN

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the BB2 ABEND.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the ABENDing agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 ABEND. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D34438

Explanation: The distributed relational data system (DRDS) subcomponent received an invalid SQLD value from the Relational Data System (RDS) component as a result of a DESCRIBE request. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLXXSS

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 ABEND.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the ABENDing agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 ABEND. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D3443A

Explanation: The database access request from a remote site failed because the SYSIBM.USERNAMES table did not contain an inbound row, the TYPE column specified as an `'I'` describing the DB2 authorization ID to be used for the remote plan owner authorization ID. When the USERNAMES column in SYSIBM.LUNAMES specifies `'I'` or `'B'`, requiring inbound name translation, the SYSIBM.USERNAMES table must contain entries describing which DB2 authorization IDs are to be used for each remote authorization ID from the LU.

This abend reason code is issued by the following CSECT: DSNLXALC

System Action: The DSNL030I message is issued at the server. The database access agent is not allocated.

Operator Response: Notify the system programmer.

System Programmer Response: Make sure the USERNAMES column in SYSIBM.LUNAMES has been specified correctly for the indicated LUNAME. If you intend to use remote authorization IDs that differ from the DB2 authorization IDs, verify that the SYSIBM.USERNAMES table has rows that correctly specify the DB2 authorization IDs to be used for every possible remote authorization ID.

Problem Determination: Analyze the SYSIBM.USERNAMES table for an incorrect or missing entry.

00D3443B

Explanation: The distributed relational data system (DRDS) subcomponent has detected an inconsistency processing a chained request using advanced SQL protocols (ASP) of distributed relational database architecture at the local DB2.

Examples of inconsistencies follow:

- The local DB2 believes that the chain is intact but the remote server believes that the chain has been severed.
- The local DB2 believes that the chain has been severed but the remote server believes that the chain is intact.
- The local DB2 has received a negative SQL return code while processing a response to BEGIN BIND yet the remote server has not severed the chain.

This reason code is issued by the following CSECTs: DSNLXRCX, DSNLXRQX

System Action: An alert is generated. If this error has not been previously detected, then message DSNL031I is written to the MVS console and trace record containing the reply from the remote server are written in statistics class 4. If the error was already detected, information from the previous occurrence can be used to diagnose the problem.

During BIND, the application will receive a DSNT500I message. During execution the application will receive an SQLCODE -904 for this operation. Subsequent requests within this unit of work will receive an SQLCODE -900 or -906.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Examine the trace record associated with the failing request's LUWID to determine the reply message and data that was received by the local DB2. Consult with the remote server system programmer to diagnose the problem.

At the local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 83.

At the remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D3443C

Explanation: The distributed relational data system (DRDS) received an invalid return code from the relational data system (RDS) on a string translation request. This is a DRDS internal error.

This reason code is issued by the following CSECT: DSNLXQTD

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 56, 57.

00D3443D

Explanation: The database access request from a remote site failed because the SYSIBM.USERNAMES table did not contain an inbound row, the TYPE column specified as an 'I' describing the DB2 authorization ID to be used for the remote primary authorization ID. When the USERNAMES column in SYSIBM.LUNAMES specifies 'I' or 'B' requiring inbound name translation, the SYSIBM.USERNAMES table must contain entries describing which DB2 authorization IDs are to be used for each remote authorization ID from the LU.

This reason code is issued by the following CSECT: DSNLXALC

System Action: The DSNL030I message is issued at the server. The database access agent is not allocated.

Operator Response: Notify the communications database administrator.

System Programmer Response: Make sure the USERNAMES column in SYSIBM.LUNAMES has been specified correctly for the indicated LUNAME. If you intend to use remote authorization IDs that differ from DB2 authorization IDs, verify that the SYSIBM.USERNAMES table has rows that correctly specify the DB2 authorization IDs to be used for every possible remote authorization ID.

Problem Determination: Analyze the SYSIBM.USERNAMES table for an incorrect or missing entry.

00D3443E

Explanation: The database access request from a remote site failed because the SYSIBM.USERNAMES table did not contain an inbound row, the TYPE column specified as an 'I' describing the DB2 authorization ID to be used for the remote package owner authorization ID. When the USERNAMES column in SYSIBM.LUNAMES specifies 'I' or 'B' requiring inbound name translation, the SYSIBM.USERNAMES table must contain entries describing which DB2 authorization IDs are to be used for each remote authorization ID from the LU.

This reason code is issued by the following CSECT: DSNLXRCS

System Action: The database access agent is not allocated.

Operator Response: Notify the communications database administrator.

System Programmer Response: Make sure the USERNAMES column in SYSIBM.LUNAMES has been specified correctly for the indicated LUNAME. If you intend to use remote authorization IDs that differ from DB2 authorization IDs, verify that the SYSIBM.USERNAMES table has rows that correctly specify the DB2 authorization IDs to be used for every possible remote authorization ID.

Problem Determination: Analyze the SYSIBM.USERNAMES table for an incorrect or missing entry.

00D3443F

Explanation: The remote server was not successfully connected. The SYSIBM.USERNAMES table did not contain an outbound row, the TYPE column specified as an 'O' describing the remote authorization identifier to be used for the package owner DB2 authorization ID. When the USERNAMES column in SYSIBM.LUNAMES specifies 'O' or 'B' requiring outbound name translation, the SYSIBM.USERNAMES table must contain entries describing the remote authorization IDs to be used for each DB2 authorization ID communicating with the LU.

This reason code is issued by the following CSECT: DSNLXRCM

System Action: A resource unavailable is returned to the application. The request is not sent to the remote site.

Operator Response: Notify the communications database administrator.

System Programmer Response: Make sure the USERNAMES column in SYSIBM.LUNAMES has been specified correctly for the indicated LUNAME. If you intend to use remote authorization IDs that differ from DB2 authorization IDs, verify that the SYSIBM.USERNAMES table has rows that correctly specify the remote authorization ID to be used for each possible DB2 authorization ID.

Problem Determination: Analyze the SYSIBM.USERNAMES table for an incorrect or missing entry.

00D34440

Explanation: A timeout or deadlock was detected during remote bind processing. This can occur during BIND, REBIND, or FREE.

This reason code is issued by the following CSECT: DSNLXRUW

System Action: The BIND is not successful.

User Response: Reissue the BIND subcommand.

System Programmer Response: None is required.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1 on page X-5

00D35000

Explanation: DB2 has detected a DRDA exception condition. This is a generic reason code that describes a situation not covered by any other reason codes.

This reason code is issued by the following CSECT: DSNLZxxx

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

Collect the following diagnostic items at the local DB2.

- Statistics class 4 trace record identified by the IFCID sequence number specified in message DSNL031I.

Collect the following diagnostic items at the remote server.

- Relevant error and system logs spanning the time of the failure.
- Any relevant remote server trace information or dumps.

00D35030

Explanation: DB2, acting as a DRDA server, detected an error while processing an SQL request from a remote DRDA client. DB2 was building a DDM query descriptor (QRYDSC or FDODSC) to return to the DRDA client, but could not do so because the descriptor required more late environment descriptors (LEDs) than DB2 can support.

System Action: The DBAA is abended. The conversation with the remote site is terminated. At the server console, the DSNL027I message is issued, accompanied by one or more DSNL028I messages identifying all remote sites where the distributed agent also exists and where diagnostic information might also be collected.

User Response: The SQL request issued by the client cannot be processed by DB2. As a circumvention, the SQL request can be simplified to reduce the number of LEDs required to describe the data using DRDA. LEDs may be required, for example, if columns being fetched are in a different code page (CCSID) than the default CCSID for the DB2 for MVS system.

Operator Response: Notify the application programmer or user creating the SQL statement.

If the remote DRDA client is a DB2 for MVS system, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83. For other remote DRDA clients, refer to the client product documentation for diagnostic recommendations.

At DB2 DRDA server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

This abend reason code is issued by the following CSECT: DSNLZSRD.

00D35101

Explanation: DB2 has detected an error in the DDM reply message or DDM reply data object received from the remote server in response to a DDM command. The DDM level 6b object, other than a Reply DSS or an Object DSS, is invalid.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35102

Explanation: DB2 has detected an error in the DDM reply data object received from the remote server in response to a DDM command. The object, carried in a level 6b OBJDSS, is not defined as valid for DDM level 3.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30072 and SQLSTATE 58016.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35103

Explanation: DB2 has detected an error in the DDM reply message or DDM reply data object received from the remote server in response to a DDM command. Multiple instances of a DDM reply data object, defined within DDM level 3 as nonrepeatable, have been returned.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35104

Explanation: DB2 has detected an error in the DDM reply message or DDM reply data object received from the remote server in response to a DDM command. The reply data object is not defined by DRDA.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30071 and SQLSTATE 58015.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

Collect the following diagnostic items at this local DB2.

- Statistics Class 4 trace record identified by the IFCID sequence number specified in message DSNL031I.

Collect the following diagnostic items at the remote server.

- Relevant error and system logs spanning the time of the failure.
- Any relevant remote server trace information or dumps.

00D35105

Explanation: DB2 has detected an error in the DDM reply message or DDM reply data object received from the remote server in response to a DDM command. While defined by DDM Level 3 as a valid reply object for this command, DB2 does not support the object.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35106

Explanation: DB2 has detected an error in the DDM reply message or DDM reply data object received from the remote server in response to a DDM command. The object must be contained within a single OBJDSS, but was received in an OBJDSS which contained other objects. The object must be contained within a single DSS but was received in a DSS which contained other DDM objects.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35107

Explanation: DB2 has detected an error in the DDM reply message or DDM reply data object received from the remote server in response to a DDM command. One or more DDM reply data objects, defined by DDM Level-3 as required for the DDM command, were not received.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35108

Explanation: DB2 has detected an error in the DDM SQLDTARD reply data object received in response to a DDM EXCSQLSTT command. The SQL operation is a SELECT and the size of the FDODSC scalar, contained within the SQLDTARD, exceeds 32KB. The DDM extended length field required to support this is invalid. The SQL operation is a SELECT and the size of the FDODSC object, contained within the SQLDTARD collection, exceeds 32KB. The DDM extended length field required to support this is invalid.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35109

Explanation: DB2 has detected an error in the DDM SQLDTARD reply data object received in response to a DDM EXCSQLSTT command. The DDM SQLDTARD object is a collection consisting of the FDODSC and FDODTA scalars. The FDODSC scalar, describing a single row returned on SELECT, is not contained with the SQLDTARD reply data object. The DDM SQLDTARD object is a collection which contains the FDODSC and FDODTA DDM objects. The FDODSC element, describing the single row, is not contained within the SQLDTARD reply data object.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D3510A

Explanation: DB2 has detected an error in the DDM SQLDTARD reply data object received in response to a DDM EXCSQLSTT command. The DDM SQLDTARD object is a collection consisting of the FDODSC and FDODTA scalars. The FDODTA scalar, containing the single row described by the FDODSC, is not contained within the SQLDTARD reply data object. The DDM SQLDTARD object is a collection which contains the FDODSC and FDODTA DDM objects. The FDODTA element, containing the single row, is not contained within the SQLDTARD reply data object.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D3510B

Explanation: DB2 has detected an error in the DDM SQLDTARD reply data object received in response to a DDM EXCSQLSTT command. The SQL operation is a SELECT and the size of the resultant row, contained with the FDODTA scalar, exceeds 32KB. The FDODTA DDM extended length field required to support this is invalid. The SQL operation is a SELECT and the size of the resultant row exceeds 32KB. The DDM extended length field required to support this is invalid.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D3510C

Explanation: DB2 has detected an error in the DDM reply message or DDM reply data object received from the remote server in response to a DDM command. The SQL operation is a SELECT and the size of the SQLDTARD, a DDM collection consisting of the FDODSC and FDODTA scalars, SQLDTARD is greater than the sum of the lengths of the constituent FDODSC and FDODTA scalars. The object is invalid.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D3510D

Explanation: DB2 has detected an error in the DDM reply message or DDM reply data object received from the remote server in response to a DDM command. The DDM object is a TYPDEFNAM signaling a change in machine representation. The length of the DDM object is incorrect.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D3510E

Explanation: DB2 has detected an error in the DDM reply message or DDM reply data object received from the remote server in response to a DDM command. The DDM object is a TYPDEFNAM signaling a change in machine representation. The value of the DDM object specifies a machine environment which is not supported by DRDA.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D3510F

Explanation: DB2 has detected an error in the DDM reply message or DDM reply data object received from the remote server in response to a DDM command. The DDM object is a TYPDEFOVR collection signaling a remote server change in CCSIDs. The length of one of the constituent scalars, CCSIDSBC, CCSIDMBC or CCSIDDBC is incorrect.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35110

Explanation: DB2 has detected an error in the DDM TYPEDEFOVR reply data object received from the remote server in response to a DDM command, signaling a change in the remote server CCSIDs. The TYPEDEFOVR contains multiple occurrences of the CCSIDSBC scalar (SBCS CCSID). This is an error. The DDM object is a TYPDEFOVR collection signaling a remote server change in CCSIDs. The CCSIDSBC (SBCS CCSID) code point is invalid.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35111

Explanation: DB2 has detected an error in the DDM TYPEDEFOVR reply data object received from the remote server response to a DDM command, signaling a change in the remote server CCSIDs. The TYPEDEFOVR contains multiple occurrences of the CCSIDSBC scalar (MIXED CCSID). This is an error. The DDM object is a TYPDEFOVR collection signaling a remote server change in CCSIDs. The CCSIDMBC (MIXED CCSID) code point is invalid.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35112

Explanation: DB2 has detected an error in the DDM TYPEDEFOVR reply data object received from the remote server in response to a DDM command, signaling a change in the remote server CCSIDs. The TYPEDEFOVR contains multiple occurrences of the CCSIDSBC scalar (GRAPHIC CCSID). This is an error. The DDM object is a TYPDEFOVR collection signaling a remote server change in CCSIDs. The CCSIDDBC (GRAPHIC CCSID) code point is invalid.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35113

Explanation: DB2 has detected an error in the DDM reply message or DDM reply data object received from the remote server in response to a DDM command. The DDM object is a TYPDEFOVR collection signaling a remote server change in CCSIDs. The DDM object length is invalid.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35114

Explanation: DB2 has detected an error in the DDM reply message or DDM reply data object received from the remote server in response to a DDM command. The length of the DDM reply message is inconsistent with the length of its DSS carrier.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

Collect the following diagnostic items at this local DB2.

- Statistics class 4 trace record identified by the IFCID sequence number specified in message DSNL031I.

Collect the following diagnostic items at the remote server.

- Relevant error and system logs spanning the time of the failure.
- Any relevant remote server trace information or dumps.

00D35115

Explanation: DB2 has detected an error in the DDM reply message or DDM reply data object received from the remote server in response to a DDM command. The sum of the lengths of the constituent DDM objects within an OBJDSS is inconsistent with the length of the DSS carrier.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

Collect the following diagnostic items at this local DB2.

- Statistics class 4 trace record identified by the IFCID sequence number specified in message DSNL031I.

Collect the following diagnostic items at the remote server.

- Relevant error and system logs spanning the time of the failure.
- Any relevant remote server trace information or dumps.

00D35116

Explanation: DB2 has detected an error in the DDM reply message or DDM reply data object received from the remote server in response to a DDM command. The DDM reply message is not valid for the current command.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

Collect the following diagnostic items at this local DB2.

- Statistics class 4 trace record identified by the IFCID sequence number specified in message DSNL031I.

Collect the following diagnostic items at the remote server.

- Relevant error and system logs spanning the time of the failure.
- Any relevant remote server trace information or dumps.

00D35117

Explanation: DB2 has detected an error in the SQLDTARD reply data object received in response to an EXCSQLSTT DDM command. The FDODTA element of the SQLDTARD collection contains a null SQLDTAGRP containing no data and a null SQLCAGRP, indicating that the SQL SELECT operation was successful. This is an inconsistency.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

Collect the following diagnostic items at this local DB2.

- Statistics class 4 trace record identified by the IFCID sequence number specified in message DSNL031I.

Collect the following diagnostic items at the remote server.

- Relevant error and system logs spanning the time of the failure.
- Any relevant remote server trace information or dumps.

00D35118

Explanation: DB2 detected an error in the DDM reply data object received from the application server (AS) in response to a DDM command. The DDM minimum level attribute of the reply data object (that is, the level of DDM required to support the object) exceeds the DDM level of the AS specified during CONNECT processing.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application receives SQLCODE -30020 and SQLSTATE 58009.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the statistics class 4 trace record identified by the IFCID sequence number included in the DSNL031I message.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5:

00D35119

Explanation: DB2 detected an error in the DDM reply message received from the application server (AS) in response to a DDM command. The DDM minimum level attribute of the reply message (that is, the level of DDM required to support the reply message) exceeds the DDM level of the AS specified during CONNECT processing.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application received SQLCODE -30020 and SQLSTATE 58009.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the statistics class 4 trace record identified by the IFCID sequence number included in the DSNL031I message.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D3511A

Explanation: DB2 has detected an error in the DRDA summary component received from the remote server in response to a DDM EXCSQLSTT command that generated query result sets. The DRDA summary component should consist of the DDM RSLSETRM reply message, a DDM SQLCARD or SQLDTARD reply data object, and a DDM SQLRSLRD reply data object. Neither the SQLCARD nor the SQLDTARD is contained in the summary component.

This reason code is issued by the following CSECT: DSNLZRPA.

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30020 and SQLSTATE 58009.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the statistics class 4 trace record identified by the IFCID sequence number given in message DSNL031I.

At the DB2 requester, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 83.

If the DRDA server is DB2 for OS/390, then DB2 diagnostic information is available. In this case, at the DB2 server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1.

00D3511B

Explanation: DB2 has detected an error in the DRDA summary component received from the remote server in response to a DDM EXCSQLSTT command that generated query result sets. The DRDA summary component should consist of the DDM RSLSETRM reply message, a DDM SQLCARD or SQLDTARD reply data object, and a DDM SQLRSLRD reply data object. The SQLRSLRD object is not contained in the summary component.

This reason code is issued by the following CSECT: DSNLZRPA.

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30020 and SQLSTATE 58009.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the statistics class 4 trace record identified by the IFCID sequence number given in message DSNL031I.

At the DB2 requester, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 83.

If the DRDA server is DB2 for OS/390, then DB2 diagnostic information is available. In this case, at the DB2 server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1

00D3511C

Explanation: DB2 has detected an error in the DRDA summary component received from the remote server in response to a DDM EXCSQLSTT command that generated query result sets. The DRDA summary component should consist of the DDM RSLSETRM reply message, a DDM SQLCARD or SQLDTARD reply data object, and a DDM SQLRSLRD reply data object. The SQLRSLRD reply data object was not preceeded by the RSLSETRM reply message.

This reason code is issued by the following CSECT: DSNLZRPA.

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30020 and SQLSTATE 58009.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the statistics class 4 trace record identified by the IFCID sequence number given in message DSNL031I.

At the DB2 requester, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 83.

If the DRDA server is DB2 for OS/390, then DB2 diagnostic information is available. In this case, at the DB2 server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1.

00D3511D

Explanation: DB2 has detected an error in the DRDA summary component or the DRDA result set component received from the remote server in response to a DDM EXCSQLSTT command that generated query result sets. The DRDA summary component should consist of the DDM RSLSETRM reply message, a DDM SQLCARD or SQLDTARD reply data object, and a DDM SQLRSLRD reply data object. The DRDA result set component should consist of at least the DDM OPNQRYRM reply message and the DDM QRYDSC reply data object. The OPNQRYRM message is not present following the SQLRSLRD object.

This reason code is issued by the following CSECT: DSNLZRPA.

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30020 and SQLSTATE 58009.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the statistics class 4 trace record identified by the IFCID sequence number given in message DSNL031I.

At the DB2 requester, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 83.

If the DRDA server is DB2 for OS/390, then DB2 diagnostic information is available. In this case, at the DB2 server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1.

00D351FF

Explanation: DB2 received a DDM reply message from the remote server in response to a DDM command. The reply message, while valid for the DDM command, indicates that the DDM command and hence the SQL statement was not successfully processed. The application is notified of the failure through the architected SQLCODE (-300xx) and associated SQLSTATE.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number included in the DSNL031I message should be analyzed.

Collect the following diagnostic items at this local DB2.

- Statistics class 4 trace record identified by the IFCID sequence number specified in message DSNL031I.

Collect the following diagnostic items at the remote server.

- Relevant error and system logs spanning the time of the failure.
- Any relevant remote server trace information or dumps.

00D35201

Explanation: DB2 has detected an error in the DDM reply message or DDM reply data object received from the remote server in response to a DDM command. The DDM object is the FDODSC element of an SQLDTARD. The size of the FDODSC is greater than 32KB and the DDM level 6b extended length field is invalid.

This reason code is issued by the following CSECT: DSNLZRDS

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35202

Explanation: DB2 has detected an error in the QRYDSC or SQLDTARD reply data object received in response to an OPNQRY or EXCSQLSTT DDM command. The DDM object is either a QRYDSC or the FDODSC scalar of the SQLDTARD collection. The FDOCA goemetry is incorrect. The SQLCADTA row (RLO) MDD is either invalid or has not been included within the SQLDTARD descriptor. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZRDS

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35203

Explanation: DB2 has detected an error in the QRYDSC or SQLDTARD reply data object received in response to an OPNQRY or EXCSQLSTT DDM command. The DDM object is either a QRYDSC or the FDODSC scalar of the SQLDTARD collection. The FDOCA geometry is incorrect. The SQLCADTA row triplet (RLO) is either invalid or has not been included with the SQLDTARD descriptor.

This reason code is issued by the following CSECT: DSNLZRDS

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35204

Explanation: DB2 has detected an error in the QRYDSC or SQLDTARD reply data object received in response to an OPNQRY or EXCSQLSTT DDM command. The DDM object is either a QRYDSC or the FDODSC scalar of the SQLDTARD collection. The FDOCA geometry is incorrect. Either the first component of the SQLCADTA row is other than an SQLCAGRP (early) group or the number of elements taken from the SQLCAGRP or SQLCAGRP replication factor (or both) are incorrect. The descriptor is invalid. The DDM object is either a QRYDSC or the FDODSC element of the SQLDTARD collection. The FDOCA geometry is incorrect. The first elements of the row are other than the elements of the early SQLCAGRP. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZRDS

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35205

Explanation: DB2 has detected an error in the QRYDSC or SQLDTARD reply data object received in response to an OPNQRY or EXCSQLSTT DDM command. The DDM object is either a QRYDSC or the FDODSC scalar of the SQLDTARD collection. The FDOCA geometry is incorrect. The first component of the SQLCADTA row correctly enumerates the elements of the SQLCAGRP; however, the second component, identifying the SQLDTAGRP (late) group is incorrect. Either the SQLTAGRP local identifier (LID) is different than the LID of the SQLDTAGRP previously specified or the number of elements taken from the SQLDTAGRP replication factor (or both) are incorrect. The descriptor is invalid. The DDM object is either a QRYDSC or the FDODSC element of the SQLDTARD collection. The FDOCA geometry is incorrect. The first elements of the row correctly enumerate the elements of the early SQLCAGRP, however, the local identifier (LID) following the SQLCAGRP LID is different than the LID of the SQLDTAGRP group previously specified. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZRDS

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35206

Explanation: DB2 has detected an error in the QRYDSC or SQLDTARD reply data object received in response to an OPNQRY or EXCSQLSTT DDM command. The DDM object is either a QRYDSC or the FDODSC scalar of the SQLDTARD collection. The FDOCA geometry is incorrect. One or more late environmental descriptors is included within the previously specified SQLDTAGRP late group descriptor. However, SQLDTARD row (RLO) Meta Data Definition (MDD) is either incorrect or has not been included within the SQLDTARD descriptor. The descriptor is invalid. The DDM object is either a QRYDSC or the FDODSC scalar of the SQLDTARD collection. The FDOCA geometry is incorrect. One or more late environmental descriptors have been included within the previously processed SQLDTAGRP group. However, the Meta Data Definition (MDD) of the SQLDTARD row (RLO) has not been included within the descriptor. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZRDS

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35207

Explanation: DB2 has detected an error in the QRYDSC or SQLDTARD reply data object received in response to an OPNQRY or EXCSQLSTT DDM command. The DDM object is either a QRYDSC or the FDODSC scalar of the SQLDTARD collection. The FDOCA geometry is incorrect. Either the SQLDTARD is specified as other than a row triplet (RLO) or the SQLDTARD RLO triplet length is invalid. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZRDS

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35208

Explanation: DB2 has detected an error in the QRYDSC or SQLDTARD reply data object received in response to an OPNQRY or EXCSQLSTT DDM command. The DDM object is either a QRYDSC or the FDODSC scalar of the SQLDTARD collection. The FDOCA geometry is incorrect. Either the SQLCADTA LID referenced within the SQLDTARD RLO did not match the LID defined within the SQLCADTA RLO or the number of elements or replication factor (or both) within the SQLDTARD RLO was non zero. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZRDS

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

If this DB2 is the AR for the thread, the DDM object received is an SQLDTA or QRYDSC. The application will receive SQLCODE -30000 and SQLSTATE 58008. If this DB2 is an remote server for the thread, the DDM object received is SQLDTA. DSCINVRM will be returned to the AR.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

Collect the following diagnostic items at the local DB2.

- Statistics class 4 trace record identified by the IFCID sequence number specified in message DSNL031I.

Collect the following diagnostic items at the remote server.

- Relevant error and system logs spanning the time of the failure.
- Any relevant remote server trace information or dumps.

00D35209

Explanation: DB2 has detected an error in the QRYDSC or SQLDTARD reply data object received in response to an OPNQRY or EXCSQLSTT DDM command. The DDM object is either a QRYDSC or the FDODSC scalar of the SQLDTARD collection. The FDOCA geometry is incorrect. Either the length is specified in the LL preceding the QRYDSC or FDODSC is greater than the length of the OBJDSS carrier or the length of one of the constituent geometries (triplet lengths) is inconsistent with the length of the QRYDSC or FDODSC. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZRDS

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D3520A

Explanation: DB2 has detected an error in the SQLDTARD reply data object received in response to an EXCSQLSTT DDM command. The DDM object is the FDODSC scalar of the SQLDTARD collection and is contained within multiple DDM Level 6b OBJDSS carriers. The descriptor is invalid. The DDM object is the FDODSC scalar of the SQLDTARD collection. The SQLDTARD is contained in multiple level 6b object DSSs. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZRDS

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D3520B

Explanation: DB2 has detected an error in the DDM reply message or DDM reply data object received from the remote server in response to a DDM command. The DDM object is a QRYDSC returned from an OPNQRY command which spans multiple DDM level 6b DSSs. One or more of the containing level 6b DSSs is (are) other than an object (OBJ) DSS. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZRDS

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D3520C

Explanation: DB2 has detected an error in the DDM reply message or DDM reply data object received from the remote server in response to a DDM command. The DDM object is a QRYDSC returned from an OPNQRY command which spans multiple DDM level 6b object DSSs. One or more of the DDM code points within the containing object DSSs is (are) other than QRYDSC (X'241A'). The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZRDS

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D3520D

Explanation: DB2 has detected an error in the QRYDSC reply data object received in response to an OPNQRY DDM command. The QRYDSC contained in one or more query blocks is incomplete, i.e., the entire QRYDSC has not been returned in response to the OPNQRY command.

This reason code is issued by the following CSECT: DSNLZRDS

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D3520E

Explanation: DB2 has detected an error in the DDM QRYDSC or the DDM SQLCINRD reply data object received from the remote server in response to a DDM EXCSQLSTT command that generated query result sets. The number of columns described by the QRYDSC object is inconsistent with the number of columns described by the DDM SQLCINRD object.

This reason code is issued by the following CSECT: DSNLZRDS.

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30020 and SQLSTATE 58009.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the statistics class 4 trace record identified by the IFCID sequence number given in message DSNL031I.

At the DB2 requester, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 83.

If the DRDA server is DB2 for OS/390, then DB2 diagnostic information is available. In this case, at the DB2 server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1.

00D35301

Explanation: DB2 has detected an error in the DDM reply message received from the remote server in response to a DDM command. The reply message code point is not supported by DDM Level 3.

This reason code is issued by the following CSECT: DSNLZRPY

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35302

Explanation: DB2 has detected an error in the DDM reply message received from the remote server in response to a DDM command. The reply message contains one or more constituent instance variables whose code point is not supported by DDM Level 3.

This reason code is issued by the following CSECT: DSNLZRPY

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35303

Explanation: DB2 has detected an error in the DDM reply message received from the remote server in response to a DDM command. The length of the reply message is greater than the sum of the lengths of the constituent instance variables.

This reason code is issued by the following CSECT: DSNLZRPY

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35304

Explanation: DB2 has detected an error in the DDM reply message received from the remote server in response to a DDM command. One or more instance variables, specified by DDM Level 3 as required for this reply message, is (are) not contained within the reply message.

This reason code is issued by the following CSECT: DSNLZRPY

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35305

Explanation: DB2 has detected an error in the DDM reply message received from the remote server in response to a DDM command. The length of the reply message exceeds the sum of the lengths of all the constituent instance variables.

This reason code is issued by the following CSECT: DSNLZRPY

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35306

Explanation: DB2 has detected an error in the DDM reply message received from the remote server in response to a DDM command. The length of the RDBNAM instance variable is 18 bytes as specified by DDM Level 3, however, bytes 17 and 18 are non blank. DB2 supports only a 16 byte RDBNAM.

This reason code is issued by the following CSECT: DSNLZRPY

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35307

Explanation: DB2 has detected an error in the DDM reply message received from the remote server in response to a DDM command. The value of the DDM enumerated value instance variable, DTALCKST is other than TRUE (X'F1') or FALSE (X'F0').

This reason code is issued by the following CSECT: DSNLZRPY

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35308

Explanation: DB2 has detected an error in the MGRLVLRM reply message received from the remote server in response to the EXCSAT DDM command. The MGRLVL specified is not supported by DB2. DB2 supports the following DDM Level 3 managers: CMNAPPC, SUPERVISOR, SECMGR, AGENT, DIRECTORY, SQLAM, and RDB.

This reason code is issued by the following CSECT: DSNLZRPY

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35309

Explanation: DB2 has detected an error in the ACCRDBRM reply message received from the remote server as in response to the ACCRDB command. The length of the PRDID instance variable is invalid.

This reason code is issued by the following CSECT: DSNLZRPY

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D3530A

Explanation: DB2 has detected an error in the ACCRDBRM reply message received from the remote server in response to ACCRDB DDM command. DB2 is currently disabled to connect to the server specified by the value of the PRDID instance variable.

This reason code is issued by the following CSECT: DSNLZRPY

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D3530B

Explanation: DB2 has detected an error in the DDM reply message received from the remote server in response to a DDM OPNQRY command. The value of the enumerated instance variable, QRYPRCTYP, is other than SNGROWPRC or LMTBLKPRC.

This reason code is issued by the following CSECT: DSNLZRPY

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58017.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D3530C

Explanation: DB2 has detected an error in the DDM reply message received from the remote server in response to a DDM command. The value of the severity code (SVRCOD) instance variable, as specified by DRDA, is not valid for this reply message.

This reason code is issued by the following CSECT: DSNLZRPY

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D3530D

Explanation: DB2 has detected an error in the ACCRDBRM reply message received from the remote server in response to ACCRDB DDM command. The DDM TYPDEFOVR instance variable, a collection, contains a scalar instance variable other than CCSIDSBC, CCSIDMBC or CCSIDDBC.

This reason code is issued by the following CSECT: DSNLZRPY

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D3530E

Explanation: DB2 has detected an error in the ACCRDBRM reply message received from the remote server in response to the ACCRDB DDM command. The length of the TYPDEFOVR instance variable, a collection, is different than the sum of the lengths of the constituent scalar instance variables.

This reason code is issued by the following CSECT: DSNLZRPY

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D3530F

Explanation: DB2 has detected an error in the DDM reply message received from the remote server in response to a DDM command. The length of a DDM fixed length collection or scalar is different than that specified by DDM Level 3.

This reason code is issued by the following CSECT: DSNLZRPY

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35310

Explanation: DB2 has detected an error in the DDM reply message received from the remote server in response to a DDM command. The length of a DDM variable length collection or scalar is different than that specified by DDM Level 3.

This reason code is issued by the following CSECT: DSNLZRPY

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35311

Explanation: DB2 detected an error in the DDM reply message received from the application server (AS) in response to a DDM EXCSQLIMM or EXCSQLSTT command. The AS DDM level specified during CONNECT is 4 and an ENDUOWRM was returned signaling that a dynamic COMMIT or ROLLBACK was performed. The correct response from an AS supporting DDM Level 4 is the CMMRQSRM reply message.

This reason code is issued by the following CSECT: DSNLZRPY

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application receives SQLCODE -30020 and SQLSTATE 58009.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the statistics class 4 trace record identified by the IFCID sequence number included in the DSNL031I message.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35401

Explanation: DB2 detected an error in the DDM SQLCARD reply data object received from the remote server in response to a DDM command. The object contains nonzero lengths for both the SQLERRMSG_m and SQLERRMSG_s elements as described by the SQLCAXGRP early group descriptor. This is invalid as specified by DRDA.

This reason code is issued by the following CSECT: DSNLZRCA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the statistics class 4 trace record identified by the IFCID sequence number identified in the DSNL031I message.

00D35501

Explanation: DB2 has detected an error in the DDM SQLDARD reply data object received from the remote server in response to a DDM PRPSQLSTT command. The value of the single element of the SQLNUMGRP, SQLNUM, defining the total number of SQLDAROW occurrences within the SQLDARD array, is either negative or is inconsistent with the size of the SQLDARD array.

This reason code is issued by the following CSECT: DSNLZRDA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35502

Explanation: DB2 has detected an error in the DDM SQLDARD reply data object received from the remote server in response to a DDM PRPSQLSTT command. Within one or more SQLDAROW occurrences, either (a) the lengths of SQLNAME_m and SQLNAME_s are both non-0, or (b) the lengths of SQLLABEL_m and SQLLABEL_s are both non-0, or (c) the lengths of SQLCOMMENTS_m and SQLCOMMENTS_s are both non-0. The data is invalid with regard to the Early SQLDAGRP group descriptor as defined by DRDA.

This reason code is issued by the following CSECT: DSNLZRDA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35601

Explanation: DB2 has detected an error in command data received from a local DB2, or reply data received from the remote server in response to a DDM command. The command or reply data is described by either an FDOCA early or late descriptor. Any Late descriptors have been previously validated. The data currently being retrieved from the data stream is described by a simple data Array (SDA) defining variable length data whose length is given by a 2 byte length field. The value of the length field is either negative or greater than the maximum length specified by the SDA. The data is inconsistent with the descriptor.

This reason code is issued by the following CSECT: DSNLZFDT

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

If the error occurs within reply data, then the application will receive SQLCODE -30000 and SQLSTATE 58008. If the error occurs within command data, a DDM DTAMCHRM reply message will be returned to the AR.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35602

Explanation: DB2 has detected an error in a SQLSTT, SQLSTTVRB, SQLOBJNAM or SQLDTA data object received from a local DB2. The length of the data to be retrieved from the data stream is defined by an SDA which is part of an early or late descriptor. The length exceeds the length of remainder of the OBJDSS carrier of the command data object. The data is inconsistent with the descriptor.

This reason code is issued by the following CSECT: DSNLZFDT

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM DTAMCHRM reply message will be returned to the AR.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35603

Explanation: DB2 has detected an error in SQLCARD, SQLDARD, or SQLDTARD reply data object received from an remote server in response to a DDM command. The reply data is described by either the SQLCAGRP or SQLDAGRP early descriptors or the SQLDTAGRP (contained within a SQLDTARD) late descriptor. The length of the data to be retrieved is specified by the default length of a constituent SDA within the SQLCAGRP or SQLDAGRP early groups or the SDA length specification within the SQLDTAGRP late group. All OBJDSSs received in response to the DDM command have been processed but the SQLCARD, SQLDARD, or SQLDTARD is incomplete. These must be returned in their entirety. The data is inconsistent with the descriptor.

This reason code is issued by the following CSECT: DSNLZFDT

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35604

Explanation: DB2 has detected an error in SQLCARD, SQLDARD, or SQLDTARD reply data object received from an remote server in response to a DDM command. The reply data is described by either the SQLCAGRP or SQLDAGRP early descriptors or the SQLDTAGRP (contained within a SQLDTARD) late descriptor. The length of the data to be retrieved is specified by the default length of a constituent SDA within the SQLCAGRP or SQLDAGRP early groups or the SDA length specification within the SQLDTAGRP late group. The carrier OBJDSS has been exhausted but the complete object has not been assembled. The object must be contained in exactly one OBJDSS carrier. This is not the case and the data is inconsistent with the descriptor.

This reason code is issued by the following CSECT: DSNLZFDT

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35605

Explanation: DB2 has detected an error in a QRYDTA reply data object received from the remote server in response to a DDM OPNQRY or CNTQRY command. The reply data, described by an SQLDTARD late descriptor carried in a DDM QRYDSC reply data object, has been previously validated. The reply data spans multiple query blocks, each of which are contained in a level 6b DSS. One or more of the containing level 6b DSSs is other than a DDM level 6b object DSS. This is invalid.

This reason code is issued by the following CSECT: DSNLZFDT

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35606

Explanation: DB2 has detected an error in a QRYDTA reply data object received from the remote server in response to a DDM OPNQRY or CNTQRY command. The reply data, described by an SQLDTARD late descriptor carried in a DDM QRYDSC reply data object, has been previously validated. The reply data spans multiple query blocks, each of which are contained in a level 6b Object DSS (OBJDSS). The code points of one or more of the DDM reply data objects is other than QRYDTA (X'241B'). This is invalid.

This reason code is issued by the following CSECT: DSNLZFDT

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35607

Explanation: DB2 has detected an error in a QRYDTA reply data object received from a remote server in response to a DDM OPNQRY or CNTQRY. The cursor is being processed with single row protocols (SNGROWPRC). The QRYDTA may span multiple query blocks but must be returned in its entirety. This is not the case.

This reason code is issued by the following CSECT: DSNLZFDT

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

Collect the following diagnostic items at this local DB2.

- Statistics class 4 trace record identified by the IFCID sequence number specified in message DSNL031I.

Collect the following diagnostic items at the remote server.

- Relevant error and system logs spanning the time of the failure.
- Any relevant remote server trace information or dumps.

00D35608

Explanation: DB2 has detected an error in a QRYDTA reply data object received from the remote server in response to a DDM OPNQRY or CNTQRY command. The reply data, described by an SQLDTARD late descriptor carried in a DDM QRYDSC reply data object, has been previously validated. The current data to be retrieved from the QRYDTA is described by an SDA defining Null-Terminated data (DRDA types X'2C', X'2D', X'2E', X'2F', X'42' or X'43'). The null terminator cannot be located within the reply data. The data is inconsistent with the descriptor defined by the QRYDSC.

This reason code is issued by the following CSECT: DSNLZFDT

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35609

Explanation: DB2 detected an error in conversion of numeric data. Possible scenarios are: floating point conversion overflow, or digits of numeric character out of range.

This reason code is issued by the following CSECT: DSNLZFDT

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application receives SQLCODE -30073 and SQLSTATE 58017.

User Response: Check your numeric data. If you are connecting to DB2 via a non-S/370 type machine, overflow can occur when the floating point value is out of the System/370 floating point range. Refer to Appendix A of *SQL Reference* for details of floating point range.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the statistics class 4 trace record identified by the IFCID sequence number given in message DSNL031I.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35701

Explanation: DB2 has detected an error while processing the SQLDTAGRP late group descriptor, contained within either the DRDA SQLDTARD or SQLDTA late descriptors. The DDM object is either a QRYDSC, SQLDTARD or SQLDTA. The FDOCA geometry is incorrect. The late descriptor includes late environmental descriptors and the SQLDTAGRP meta data definition (MDD) is either invalid or has not been included within the descriptor. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZGDT

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

If the error occurs within the QRYDSC or SQLDTARD DDM objects, the application will receive SQLCODE -30000 and SQLSTATE 58008. If the error occurs within the DDM

SQLDTA object, a DSCINVRM reply message will be returned to the AR.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35702

Explanation: DB2 has detected an error while processing the SQLDTAGRP late group descriptor, contained within either the DRDA SQLDTARD or SQLDTA late descriptors. The DDM object is either a QRYDSC, SQLDTARD or SQLDTA. The FDOCA geometry is incorrect. The SQLDTAGRP triplet is not defined as an FDOCA nullable group. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZGDT

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

If the error occurs within the QRYDSC or SQLDTARD DDM objects, the application will receive SQLCODE -30000 and SQLSTATE 58008. If the error occurs within the DDM SQLDTA object, a DSCINVRM reply message will be returned to the AR.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35703

Explanation: DB2 has detected an error while processing the SQLDTAGRP late group descriptor, contained within either the DRDA SQLDTARD or SQLDTA late descriptors. The DDM object is either a QRYDSC, SQLDTARD or SQLDTA. The FDOCA geometry is incorrect. The local identifier (LID) of one of the SQLDTAGRP constituent triplets has not been previously defined by a late environmental descriptor and the LID is outside of the bounds of the default environmental descriptor LIDs (LID > X'49'). Note that the default LIDs are identical to the DRDA types. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZGDT

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

If the error occurs within the QRYDSC or SQLDTARD DDM objects, the application will receive SQLCODE -30000 and SQLSTATE 58008. If the error occurs within the DDM SQLDTA object, a DSCINVRM reply message will be returned to the AR.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35704

Explanation: DB2 has detected an error while processing the SQLDTAGRP late group descriptor, contained within either the DRDA SQLDTARD or SQLDTA late descriptors. The DDM object is either a QRYDSC, SQLDTARD or SQLDTA. The FDOCA geometry is incorrect. The local identifier (LID) of one of the constituent SQLDTAGRP SDAs has either not been previously defined by a late environmental descriptor, or is not a valid default LID. Note that the default LIDs are identical to the DRDA types. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZGDT

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

If the error occurs within the QRYDSC or SQLDTARD DDM objects, the application will receive SQLCODE -30000 and SQLSTATE 58008. If the error occurs within the DDM SQLDTA object, a DSCINVRM reply message will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35705

Explanation: DB2 has detected an error while processing the SQLDTAGRP late group descriptor contained within either the DRDA SQLDTARD or SQLDTA late descriptors. The DDM object is either a QRYDSC, SQLDTARD reply data object, or the SQLDTA command data object. The FDOCA geometry is incorrect. ALl the OBJDSS carriers have been processed and the SQLDTAGRP has not been assembled. The SQLDTAGRP is incomplete and the descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZGDT

System Action: If the error occurs within the QRYDSC or SQLDTARD reply data object, the application will receive SQLCODE -30000 and SQLSTATE 58008. If the error occurs within the DDM SQLDTA object, a DSCINVRM reply message will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

Collect the following diagnostic items at this local DB2.

- Statistics class 4 trace record identified by the IFCID sequence number specified in message DSNL031I.

Collect the following diagnostic items at the remote server.

- Relevant error and system logs spanning the time of the failure.
- Any relevant remote server trace information or dumps.

00D35706

Explanation: DB2 has detected an error while processing the SQLDTAGRP late group descriptor, contained within the DRDA SQLDTARD or SQLDTA late descriptors. The DDM object is either an SQLDTARD or SQLDTA and must be contained within a single OBJDSS. The descriptor, as defined by the length of the SQLDTARD or SQLDTA DDM objects, is incomplete and is therefore invalid.

This reason code is issued by the following CSECT: DSNLZGDT

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

If the error occurs within the SQLDTARD DDM object, the application will receive SQLCODE -30000 and SQLSTATE 58008. If the error occurs within the DDM SQLDTA object, a DSCINVRM reply message will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35707

Explanation: DB2 has detected an error while processing the SQLDTAGRP late group descriptor, contained within the DRDA SQLDTARD late descriptor. The DDM object is a QRYDSC spanning multiple query blocks and DDM Level 6b DSSs. One or more of the containing level 6b DSSs is other than an object (OBJ) DSS. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZGDT

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

the application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35708

Explanation: DB2 has detected an error while processing the SQLDTAGRP late group descriptor, contained within the DRDA SQLDTARD late descriptor. The DDM object is a QRYDSC spanning multiple query blocks and DDM level object 6b DSSs. The code point of one or more of the containing DDM objects is other than QRYDSC (X'241B'). The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZGDT

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

the application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35709

Explanation: DB2 has detected an error while processing the SQLDTAGRP late group descriptor contained within a QRYDSC DDM object. The FDOCA geometry is incorrect. The SQLDTAGRP length specification exceeds the size of the QRYDSC level 6b DSS carrier. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZGDT

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

Collect the following diagnostic items at this local DB2.

- Statistics class 4 trace record identified by the IFCID sequence number specified in message DSNL031I.

Collect the following diagnostic items at the remote server.

- Relevant error and system logs spanning the time of the failure.
- Any relevant remote server trace information or dumps.

00D35801

Explanation: DB2 has detected an error while processing late environmental descriptors which precede the SQLDTAGRP late group descriptor, contained within either the SQLDTARD or SQLDTA late descriptors. The DDM object is a QRYDSC, SQLDTARD or SQLDTA. The FDOCA geometry is incorrect. The late environmental descriptor meta data definition does not specify a valid DRDA type. The SDA and the entire descriptor are invalid.

This reason code is issued by the following CSECT: DSNLZLEP

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

If the error occurs within the QRYDSC or SQLDTARD DDM objects, the application will receive SQLCODE -30000 and SQLSTATE 58008. If the error occurs within the DDM SQLDTA object, a DSCINVRM reply message will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35802

Explanation: DB2 has detected an error while processing late environmental descriptors which precede the SQLDTAGRP late group descriptor contained within either the SQLDTARD or SQLDTA late descriptors. The DDM object is either a QRYDSC, SQLDTARD reply data object, or an SQLDTA command data object. The FDOCA geometry is incorrect. The late environmental descriptor meta data definition (MDD) either specifies a local identifier (LID) of 0 or defines a nonrelational database application class (other than X'05') or the meta data reference type is other than X'01'. The MDD and the entire descriptor are invalid.

This reason code is issued by the following CSECT: DSNLZLEP

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

If the error occurs within the QRYDSC or SQLDTARD DDM objects, the application will receive SQLCODE -30000 and SQLSTATE 58008. If the error occurs within the DDM SQLDTA object, a DSCINVRM reply message will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35803

Explanation: DB2 has detected an error while processing late environmental descriptors which precede the SQLDTAGRP late group descriptor, contained within either the SQLDTARD or SQLDTA late descriptors. The DDM object is either a QRYDSC, SQLDTARD or SQLDTA. The FDOCA geometry is incorrect. The late environmental descriptor meta data definition (MDD) is valid, however, the descriptor following the MDD is either not an SDA or is an SDA with a length other than 12 (X'0C'). The SDA and the entire descriptor are invalid.

This reason code is issued by the following CSECT: DSNLZLEP

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

If the error occurs within the QRYDSC or SQLDTARD DDM objects, the application will receive SQLCODE -30000 and SQLSTATE 58008. If the error occurs within the DDM SQLDTA object, a DSCINVRM reply message will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35804

Explanation: DB2 has detected an error while processing late environmental descriptors which precede the SQLDTAGRP late group descriptor, contained within either the SQLDTARD or SQLDTA late descriptors. The DDM object is either a QRYDSC, SQLDTARD or SQLDTA. The FDOCA geometry is incorrect. The late environmental descriptor meta data definition (MDD) is valid, however, the SDA immediately following the MDD is overriding a DRDA type not supported by DRDA. The SDA and the entire descriptor are invalid.

This reason code is issued by the following CSECT: DSNLZLEP

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

If the error occurs within the QRYDSC or SQLDTARD DDM objects, the application will receive SQLCODE -30000 and SQLSTATE 58008. If the error occurs within the DDM SQLDTA object, a DSCINVRM reply message will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35805

Explanation: DB2 has detected an error while processing late environmental descriptors which precede the SQLDTAGRP late group descriptor contained within either the SQLDTARD or SQLDTA late descriptors. The DDM object is a QRYDSC, SQLDTARD, or an SQLDTA data object. The FDOCA geometry is incorrect. The size of the late environmental descriptors exceeds the size of the DDM level 6b DSS carrier. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZLEP

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If the error occurs within a QRYDSC or SQLDTARD replay data object (SQLDTARD late descriptor), the application will receive SQLCODE -30000 and SQLSTATE 58008. If the error occurs within an SQLDTA command data object (SQLDTA late descriptor), a DSCINVRM reply message will be returned to the local DB2.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

Collect the following diagnostic items at this local DB2.

- Statistics class 4 trace record identified by the IFCID sequence number specified in message DSNL031I.

Collect the following diagnostic items at the remote server.

- Relevant error and system logs spanning the time of the failure.
- Any relevant remote server trace information or dumps.

00D35806

Explanation: DB2 has detected an error while processing late environmental descriptors which precede the SQLDTAGRP late group descriptor, contained within either the SQLDTARD or SQLDTA late descriptors. The DDM object is either an SQLDTARD or SQLDTA, each of which may not span DDM level 6b object (OBJ) DSSs. The containing level 6b OBJDSS contains only late environmental descriptors and neither groups or rows are defined. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZLEP

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

If the error occurs within the QRYDSC or SQLDTARD DDM objects, the application will receive SQLCODE -30000 and SQLSTATE 58008. If the error occurs within the DDM SQLDTA object, a DSCINVRM reply message will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35807

Explanation: DB2 has detected an error while processing late environmental descriptors which precede the SQLDTAGRP late group descriptor, contained within the SQLDTARD late descriptor. The DDM object is a QRYDSC which spans multiple query blocks. One or more of the containing level 6b DSSs is (are) other than an object (OBJ) DSS. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZLEP

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

If the error occurs within the QRYDSC or SQLDTARD DDM objects, the application will receive SQLCODE -30000 and SQLSTATE 58008. If the error occurs within the DDM SQLDTA object, a DSCINVRM reply message will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35808

Explanation: DB2 has detected an error while processing late environmental descriptors which precede the SQLDTAGRP late group descriptor, contained within the SQLDTARD late descriptor. The DDM object is a QRYDSC which spans multiple query blocks. One or more of the code points of the DDM objects carrying the descriptor is (are) other than QRYDSC (X'241B'). The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZLEP

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

If the error occurs within the QRYDSC or SQLDTARD DDM objects, the application will receive SQLCODE -30000 and SQLSTATE 58008. If the error occurs within the DDM SQLDTA object, a DSCINVRM reply message will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35809

Explanation: DB2 has detected an error while processing late environmental descriptors which precede the SQLDTAGRP late group descriptor contained within the SQLDTARD late descriptor. This late descriptor is within a QRYDSC which spans one or more query blocks. The QRYDSC contains only late environmental descriptors and is, therefore, incomplete.

This reason code is issued by the following CSECT: DSNLZLEP

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

Collect the following diagnostic items at this local DB2.

- Statistics class 4 trace record identified by the IFCID sequence number specified in message DSNL031I.

Collect the following diagnostic items at the remote server.

- Relevant error and system logs spanning the time of the failure.
- Any relevant remote server trace information or dumps.

00D35901

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data received from a local DB2. A reply DSS (RPYDSS) has been received from the local DB2. This is invalid.

This reason code is issued by the following CSECT: DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRCCNVRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35902

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data received from a local DB2. The first level 6b DSS received is an object DSS. The DDM command carried in a level 6b request DSS (RQSDSS) must be the first level 6b DSS received.

This reason code is issued by the following CSECT: DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRCCNVRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35903

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data received from a local DB2. The first level 6b DSS received is neither a request (RQS) DSS, Object (OBJ) DSS nor Reply (RPY) DSS and is invalid.

This reason code is issued by the following CSECT: DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35904

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data received from a local DB2. The DDM command, specified by the code point contained within the level 6b RQSDSS, is invalid or not supported by DDM Level 3.

This reason code is issued by the following CSECT: DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (CMDNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35905

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data received from a local DB2. The first DDM command received on this conversation, while a valid DDM Level 3 command, is other than EXCSAT. The first command must be EXCSAT.

This reason code is issued by the following CSECT: DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRCCNVRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35906

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data received from a local DB2. The EXCSAT command has been successfully processed but the current DDM command, while supported by DDM Level 3 and DB2, has been sent prior to ACCRDB. The only valid command prior to ACCRDB is another EXCSAT command.

This reason code is issued by the following CSECT: DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (RDBNACRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35907

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data received from an local DB2. the ACCRDB command has been successfully processed and the current command is another ACCRDB instance. This is invalid.

This reason code is issued by the following CSECT: DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (RDBACCRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35908

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data received from an local DB2. The state of the DB2 remote server is in 'BIND processing' and the current DDM command is other than BNDSQLSTT, ENDBND, RDBCMM or RDBRLLBCK.

This reason code is issued by the following CSECT: DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PKGBPARM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35909

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data received from an local DB2. The DDM command has been successfully processed, however, one or more of the level 6b DSSs are other than object (OBJ) DSSs. The only valid level 6b DSS chain is a single RQS DSS, followed by one or more OBJ DSSs.

This reason code is issued by the following CSECT: DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRCCNVRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D3590A

Explanation: DB2 has detected an error while parsing DDM command data received from a local DB2. The DDM command data object, as defined by the DDM code point, is either invalid or not valid for this command, as specified by DDM level 3.

This reason code is issued by the following CSECT: DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (OBJNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this DB2 local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D3590B

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data received from a local DB2. One or more DDM command data objects, defined as required by DDM Level 3, were not received with the DDM command.

This reason code is issued by the following CSECT: DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D3590C

Explanation: DB2 has detected an error while parsing DDM command data received from a local DB2. The DDM object is a TYPDEFNAM, signaling a change in machine representation from the local DB2, however, the length, as specified by DDM level 3, is incorrect.

This reason code is issued by the following CSECT: DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D3590D

Explanation: DB2 has detected an error while parsing a DDM command data object received from a local DB2. The DDM object is a TYPDEFNAM, signaling a change in machine representation from the local DB2, however, the value of this DDM scalar is other than QTDSQL370, QTDSQLX86 or QTDSQL400. These are the only valid machine representations supported by DRDA.

This reason code is issued by the following CSECT: DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D3590E

Explanation: DB2 has detected an error while parsing a DDM command data object received from a local DB2. The DDM object is a TYPDEFOVR, signaling a change in CCSIDs from the local DB2. This is a DDM collection consisting of three DDM scalars: CCSIDSBC, CCSIDMBC, and CCSIDDBC. The length of one of the constituent scalars is incorrect.

This reason code is issued by the following CSECT: DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D3590F

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data received from a local DB2. The DDM object is a TYPDEFOVR, signaling a change in CCSIDs from the local DB2. This is a DDM collection consisting of three DDM scalars: CCSIDSBC, CCSIDMBC, and CCSIDDBC. The TYPDEFOVR contains multiple instances of the CCSIDSBC scalar. This is invalid.

This reason code is issued by the following CSECT: DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35910

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data received from a local DB2. The DDM object is a TYPDEFOVR, signaling a change in CCSIDs from the local DB2. This is a DDM collection consisting of three DDM scalars: CCSIDSBC, CCSIDMBC, and CCSIDDBC. The TYPDEFOVR contains multiple instances of the CCSIDMBC scalar. This is invalid.

This reason code is issued by the following CSECT: DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35911

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data received from a local DB2. The DDM object is a TYPDEFOVR, signaling a change in CCSIDs from the local DB2. This is a DDM collection consisting of three DDM scalars: CCSIDSBC, CCSIDMBC, and CCSIDDBC. The TYPDEFOVR contains multiple instances of the CCSIDDBC scalar. This is invalid.

This reason code is issued by the following CSECT: DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35912

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data received from a local DB2. The DDM object is a TYPDEFOVR, signaling a change in CCSIDs from the local DB2. This is a DDM collection consisting of three DDM scalars: CCSIDSBC, CCSIDMBC, and CCSIDDBC. The TYPDEFOVR length exceeds the sums of the lengths of the constituent scalars. This is invalid.

This reason code is issued by the following CSECT: DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35913

Explanation: DB2 has detected an error while parsing a DDM command data object received from a local DB2. The DDM object is TYPDEFOVR, signaling a CCSID change from the local DB2. This is a collection consisting of CCSIDSBC, CCSIDMBC, and CCSIDDBC. The TYPDEFOVR contains an object other than CCSIDSBC, CCSIDDBC, or CCSIDDBC. This is invalid.

This reason code is issued by the following CSECT: DSNLZSPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

Collect the following diagnostic items at this local DB2.

- Statistics class 4 trace record identified by the IFCID sequence number specified in message DSNL031I.

Collect the following diagnostic items at the remote server.

- Relevant error and system logs spanning the time of the failure.
- Any relevant AS trace information or dumps.

00D35914

Explanation: DB2 detected an error while parsing a DDM command received from the application requester (AR). The minimum level attribute of the DDM command received from the AR, (that is, the level of DDM required to support the command) exceeds the DDM level specified by the AR during CONNECT processing.

This reason code is issued by the following CSECT: DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRCCNVRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the statistics class 4 trace record identified by the IFCID sequence number included in the DSNL032I message.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35915

Explanation: DB2 detected an error while parsing a DDM command data object received from the application requester (AR). The minimum level attribute of the DDM command data object received from the AR (that is, the level of DDM required to support the object) exceeds the DDM level specified by the AR during CONNECT processing.

This reason code is issued by the following CSECT: DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRCCNVRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the statistics class 4 trace record identified by the IFCID sequence number included in the DSNL032I message.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35918

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. The DDM command, specified by the code point contained within the level 6b RQSDSS, is invalid or not supported by DDM Level 3.

This reason code is issued by the following CSECT: DSNLZSPA.

System Action: A DDM reply message (CMDNSPRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35919

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. The negotiated security manager level is greater than or equal to 5, and the required ACCSEC and SECCHK commands were not received before the ACCRDB command.

This reason code is issued by the following CSECT: DSNLZSPA.

System Action: The conversation is terminated, and message DSNL030I is issued. Refer to the description of this message for further information.

A DDM reply message (MGRDEPRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D3591A

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. The negotiated security manager level is less than 5, and an ACCSEC command was received.

This reason code is issued by the following CSECT: DSNLZSPA.

System Action: A DDM reply message (CMDNSPRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D3591B

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An ACCSEC command was received when an ACCSEC command had already been executed successfully.

This reason code is issued by the following CSECT: DSNLZSPA.

System Action: The conversation is terminated, and message DSNL030I is issued. Refer to the description of this message for further information.

A DDM reply message (PRCCNVRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D3591C

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. The negotiated security manager level is less than 5, and a SECCHK command was received.

This reason code is issued by the following CSECT: DSNLZSPA.

System Action: A DDM reply message (CMDNSPRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D3591D

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. A SECCHK command was received out of order, which means either an ACCSEC command has not executed successfully, or a SECCHK command has already been processed.

This reason code is issued by the following CSECT: DSNLZSPA.

System Action: The conversation is terminated, and message DSNL030I is issued. Refer to the description of this message for further information.

A DDM reply message (PRCCNVRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D3591E

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An ACCSEC or SECCHK command was sent after an ACCRDB was successfully processed.

This reason code is issued by the following CSECT: DSNLZSPA.

System Action: The conversation is terminated, and message DSNL030I is issued. Refer to the description of this message for further information.

A DDM reply message (PRCCNVRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35A01

Explanation: DB2 has detected an error while parsing a DDM command data object received from a local DB2. The DDM object is either an SQLSTT, SQLOBJNAM or SQLSTTVRB. These objects are described by early group descriptors, each of which contains both SBCS and mixed SDAs describing character data. In all cases, the instantiation of the SBCS and mixed elements are mutually exclusive, i.e. if the SBCS element is sent, then the mixed must not be sent and conversely. The instantiation of both the SBCS and mixed data SDAs has been sent. This is invalid.

This reason code is issued by the following CSECT: DSNLZSMT

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (DTAMCHRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35A02

Explanation: DB2 has detected an error while parsing a DDM command data object received from a local DB2. The DDM object is either an SQLSTT, SQLOBJNAM, or SQLSTTVRB. These objects are described by early group descriptors, each of which contains both SBCS and mixed SDAs describing character data. In all cases, the instantiation of the SBCS and mixed elements are mutually exclusive, i.e. if the SBCS element is sent, then the mixed must not be sent and conversely. Further, either the SBCS or mixed (not both) must be instantiated. The data retrieved from the object instantiates neither the SBCS nor the mixed SDA. This is invalid.

This reason code is issued by the following CSECT: DSNLZSMT

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35A03

Explanation: DB2 detected an error while parsing a DDM command data object received from a DRDA requester. The DDM object is either an SQLSTT, SQLOBJNAM, or SQLSTTVRB. The length of the object exceeds 32K, however, the DDM extended length field is invalid.

This reason code is issued by the following CSECT: DSNLZSMT

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for more information.

A DDM reply message (SYNTAXRM) is returned to the DRDA requester.

Operator Response: Notify the system programmer.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Analyze the statistics class 4 trace record identified by the IFCID sequence number given in message DSNL032I.

If the DRDA requester is a DB2, then DB2 diagnostic information is available. In this case, at the DB2 requester, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At the DB2 server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35B01

Explanation: DB2 has detected an error while parsing an SQLDTA command data object received from a local DB2. The length of the SQLDTA exceeds 32KB, however, the DDM extended length field is invalid.

This reason code is issued by the following CSECT: DSNLZSDT

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35B02

Explanation: DB2 has detected an error while parsing an SQLDTA command data object received from a local DB2. The SQLDTA is a DDM collection consisting of the FDODSC and FDODTA scalars. The first scalar within the SQLDTA is other than the FDODSC scalar. This is invalid.

This reason code is issued by the following CSECT: DSNLZSDT

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35B03

Explanation: DB2 has detected an error while parsing an SQLDTA command data object received from a local DB2. The SQLDTA is a DDM collection consisting of the FDODSC and FDODTA scalars. The length of the FDODSC scalar exceeds 32KB, however, the format of the DDM extended length is invalid.

This reason code is issued by the following CSECT: DSNLZSDT

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35B04

Explanation: DB2 has detected an error while parsing an SQLDTA command data object received from a local DB2. The SQLDTA FDOCA descriptor, contained in the FDODSC scalar, includes late environmental descriptors, however, the SQLDTA meta data definition (MDD) is either invalid or has not been included within the SQLDTA descriptor. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZSDT

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (DSCINVRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35B05

Explanation: DB2 has detected an error while parsing an SQLDTA command data object received from a local DB2. The SQLDTA FDOCA descriptor geometry is incorrect. Either the SQLDTA triplet length is incorrect or the SQLDTA triplet type is other than an row layout (RLO). The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZSDT

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (DSCINVRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35B06

Explanation: DB2 has detected an error while parsing an SQLDTA command data object received from a local DB2. The SQLDTA FDOCA descriptor geometry is incorrect. The SQLDTA RLO triplet either specifies a local identifier (LID) which is different than that defined in the previously processed SQLDTAGRP late group descriptor, or specifies a nonzero number of elements or a repetition factor other than 1. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZSDT

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (DSCINVRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35B07

Explanation: DB2 has detected an error while parsing an SQLDTA command data object received from a local DB2. The SQLDTA FDOCA descriptor, contained within the FDODSC scalar, has been validated, however, the FDODTA scalar, containing the host variable data, is not included within the SQLDTA DDM object. This is invalid.

This reason code is issued by the following CSECT: DSNLZSDT

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35B08

Explanation: DB2 has detected an error while parsing an SQLDTA command data object received from a local DB2. The SQLDTA FDOCA descriptor, contained within the FDODSC scalar, has been validated. The length of the FDODTA scalar, containing the host variable data, exceeds 32KB, however, the format of the DDM extended length field is invalid.

This reason code is issued by the following CSECT: DSNLZSDT

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35C01

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. An invalid instance has been received as a parameter on a BGNBND command.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRMNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35C02

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. An invalid instance has been received as a parameter on a BNDSQLSTT command.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRMNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35C03

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. An invalid instance has been received as a parameter on a DRPPKG command.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRMNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35C04

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. An invalid instance has been received as a parameter on an ENDBND command.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRMNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35C05

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. An invalid instance has been received as a parameter on a REBIND command.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRMNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35C06

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. One or more instance variables, defined by DDM Level 3 as required parameters for this DDM command, were not received.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35C07

Explanation: DB2 has detected an error while parsing a DDM command or DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command data received from a local DB2. The DDM command contains an instance variable which is not defined within DDM level 3.0 The instance variable (parameter) is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRMNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

Collect the following diagnostic items at this DB2 remote server.

- Statistics Class 4 trace record identified by the IFCID sequence number specified in message DSNL031I.

Collect the following diagnostic items at the remote server.

- Relevant error and system logs spanning the time of the failure.
- Any relevant AS trace information or dumps.

00D35C08

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. Multiple occurrences of a DDM instance variable, defined by DDM Level 3 as nonrepeatable, have been processed as parameters on this DDM command.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35C09

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The value of the DDM enumerated scalar, BNDCHKEXS, is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35C0A

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The value of the DDM enumerated scalar, BNDCRTCTL, is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35C0B

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The value of the DDM enumerated scalar, BNDEXPOPT, is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35C0C

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The value of the DDM enumerated scalar, BNDSTTASM, is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35C0D

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The value of the DDM enumerated scalar, DECPRC, is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35C0E

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. Bytes 9 through 18 of the DDM scalar, DFTRDBCOL are other than blank. While DDM defines the length of DFTRDBCOL to be 18 bytes, DB2 supports only 8-byte collection identifiers.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35C0F

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The value of the DDM enumerated scalar, PKGATHOPT, is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35C10

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The length of the DDM scalar PKGDFTCC is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35C11

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The DDM PKGDFTCC collection consists of three DDM scalars: CCSIDSBC, CCSIDMBC, and CCSIDDBC. The PKGDFTCC collection contains multiple instances of the CCSIDSBC scalar. This is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35C12

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The DDM PKGDFTCC collection consists of three DDM scalars: CCSIDSBC, CCSIDMBC, and CCSIDDBC. The PKGDFTCC collection contains multiple instances of the CCSIDDBC scalar. This is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35C13

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The DDM PKGDFTCC collection consists of three DDM scalars: CCSIDSBC, CCSIDMBC, and CCSIDDBC. The PKGDFTCC collection contains multiple instances of the CCSIDMBC scalar. This is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35C14

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The DDM PKGDFTCC collection consists of three DDM scalars: CCSIDSBC, CCSIDMBC, and CCSIDDBC. The PKGDFTCC collection contains an invalid DDM object.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35C15

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The value of the DDM enumerated scalar, PKGDFTCST, is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35C16

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The value of the DDM enumerated scalar, PKGISOLVL, is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35C17

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The DDM object PKGNAM is a mapped scalar containing RDBNAM, RDBCOLID and PKGID. Bytes 17 and 18 of the DDM scalar, RDBNAM, are other than blank. While DDM defines the length of RDBNAM to be 18 bytes, DB2 supports only a 16 byte RDBNAM.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35C18

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The DDM object PKGNAM is a mapped scalar containing RDBNAM, RDBCOLID and PKGID. Bytes 9 through 18 of the DDM scalar, PKGID, are other than blank. While DDM defines the length of PKGID to be 18 bytes, DB2 supports only 8 byte package identifiers.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35C19

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The DDM object PKGNAMCT is a mapped scalar containing RDBNAM, RDBCOLID, PKGID and PKGCNSTKN. Bytes 17 and 18 of the DDM scalar, RDBNAM, are other than blank. While DDM defines the length of RDBNAM to be 18 bytes, DB2 supports only a 16 byte RDBNAM.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35C1A

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The DDM object PKGNAMCT is a mapped scalar containing RDBNAM, RDBCOLID, PKGID and PKGCNSTKN. Bytes 9 through 18 of the DDM scalar, PKGID, are other than blank. While DDM defines the length of PKGID to be 18 bytes, DB2 supports only 8 byte package identifiers.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35C1B

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The value of the DDM enumerated scalar, PKGRPLOPT, is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35C1C

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The value of the DDM enumerated scalar, QRYBLKCTL, is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35C1D

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. Bytes 17 and 18 of the DDM scalar, RDBNAM, are other than blank. While DDM defines the length of RDBNAM to be 18 bytes, DB2 supports only a 16 byte RDBNAM.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35C1E

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The value of the RDBNAM scalar is other than the local DB2 RDBNAM.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (RDBNACRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35C1F

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The value of the DDM enumerated scalar, RDBRLSOPT, is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35C20

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The value of the DDM enumerated scalar, STTDATFMT, is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35C21

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The value of the DDM enumerated scalar, STTDECDEL, is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35C22

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The value of the DDM enumerated scalar, STTSTRDEL, is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35C23

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from the local DB2. The value of the DDM enumerated scalar, STTTIMFMT, is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35C24

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The DDM TIMESTAMP scalar has been received as a command parameter from a database other than DB2. The TIMESTAMP scalar is private to DB2.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRMNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35C25

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The length of a DDM object is less than 4, the minimum length of any DDM object. This is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35C26

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The length of the DDM command is less than the sum of the lengths of the constituent instance variables appearing as parameters.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35C27

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The length of a DDM object exceeds the length defined by DDM Level 3. This is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35C28

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The length of a DDM object is less than the length defined by DDM Level 3. This is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35C29

Explanation: DB2 has detected an error while parsing a DDM command or DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. A package related identifier or collection identifier is in violation of the SAA syntax. This is either the collection identifier (DFTRDBCOL) received on a BGNBND or REBIND command or the package identifier or collection identifier within the PKGNAM, PDGNAMCT, or PKGNAMCSN mapped scalars received on a BGNBND, BNDSQLSTT, ENDBND, or DRPPKG command.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

Collect the following diagnostic items at this local DB2.

- Statistics class 4 trace record identified by the IFCID sequence number specified in message DSNL031I.

Collect the following diagnostic items at the remote server.

- Relevant error and system logs spanning the time of the failure.
- Any relevant AS trace information or dumps.

00D35C2A

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from the local DB2. The value of MAXSCTNBR received on the ENDBND command is invalid. The value must be within the range 1 to 32767 inclusive.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

Collect the following diagnostic items at this local DB2.

- Statistics class 4 trace record identified by the IFCID sequence number specified in message DSNL031I.

Collect the following diagnostic items at the remote server.

- Relevant error and system logs spanning the time of the failure.
- Any relevant AS trace information or dumps.

00D35C2B

Explanation: DB2 detected an error in a DDM BGNBND or REBIND command received from a DRDA requester. The value of the enumerated scalar, PKGATHRUL, is invalid.

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for more information.

A DDM reply message (VALNSPRM) is returned to the DRDA requester.

Operator Response: Notify the system programmer.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Analyze the statistics class 4 trace record identified by the IFCID sequence number given in message DSNL032I.

If the DRDA requester is a DB2, then DB2 diagnostic information is available. In that case, at the DB2 requester, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At the DB2 server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

This reason code is issued by the following CSECT: DSNLZSBD

00D35D01

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. An instance variable, defined as valid by DDM Level 3, but not supported by DB2, has been detected on one of the following DDM commands: CLSQRY, DSCRDBTBL, DSCSQLSTT, or EXCSQLIMM.

This reason code is issued by the following CSECT: DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRMNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35D02

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. An instance variable, defined as valid by DDM Level 3, but not supported by DB2, has been detected on a DDM CNTQRY command.

This reason code is issued by the following CSECT: DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRMNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35D03

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. The value of the DDM OUTEXP enumerated value instance variable, contained within a DDM EXCSQLSTT command, is other than FALSE (X'F0') or TRUE (X'F1').

This reason code is issued by the following CSECT: DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35D04

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. An instance variable, defined as valid by DDM Level 3, but not supported by DB2, has been detected on a DDM EXCSQLSTT command.

This reason code is issued by the following CSECT: DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRMNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35D05

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. The value of DDM QRYBLKCTL instance variable, received as a parameter on OPNQRY, is other than FRCSNGROW. The local DB2 may not specify LMTBLKPRC or SNGROWPRC as values of QRYBLKCTL as an OPNQRY parameter.

This reason code is issued by the following CSECT: DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35D07

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. The value of the DDM RTNSQLDA enumerated value instance variable, contained within a DDM EXCSQLSTT command, is other than FALSE (X'F0') or TRUE (X'F1').

This reason code is issued by the following CSECT: DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35D08

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. An instance variable, defined as valid by DDM Level 3, but not supported by DB2, has been detected on a DDM PRPSQLSTT command.

This reason code is issued by the following CSECT: DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRMNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35D09

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. An instance variable, defined as valid by DDM Level 3, but not supported by DB2, has been detected on a DDM RDBCMM or RDBRLLBCK command.

This reason code is issued by the following CSECT: DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRMNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35D0A

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. The length of the DDM command is not equal to the sum of the lengths of the constituent instance variables.

This reason code is issued by the following CSECT: DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35D0B

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. One or more instance variables, defined by DDM Level 3 as required for this command, were not received as command parameters.

This reason code is issued by the following CSECT: DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35D0C

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. An instance variable, defined by DDM Level 3 as not valid for this command, has been received as a command parameter.

This reason code is issued by the following CSECT: DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRMNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35D0D

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. Multiple occurrences of one or more instance variables, defined by DDM level 3 as nonrepeatable, have been received as parameters of this DDM command.

This reason code is issued by the following CSECT: DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35D0E

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. Bytes 17 and 18 of the DDM scalar, RDBNAM, are other than blank. While DDM Level 3 defines the length of this scalar to be 18 bytes, DB2 supports only a 16 byte RDBNAM.

This reason code is issued by the following CSECT: DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35D0F

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. The value of the RDBNAM instance variable is different than that received on the ACCRDB command.

This reason code is issued by the following CSECT: DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (RDBNACRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35D10

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. The mapped scalar, PKGNAMCSN, is invalid. Bytes 17 and 18 of the DDM scalar RDBNAM, contained within PKGNAMCSN, are other than blank. While DDM Level 3 defines the length of this scalar to be 18 bytes, DB2 supports only a 16 byte RDBNAM.

This reason code is issued by the following CSECT: DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35D11

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. The mapped scalar, PKGNAMCSN, is invalid. Either bytes 9 through 18 of the package name are other than blank or the section number is nonpositive. While the DDM scalar, PKGID, is defined by DDM level 3 to be 18 bytes in length, DB2 supports only 8 byte package names.

This reason code is issued by the following CSECT: DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35D12

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. The value of the DDM scalar, QRYBLKSZ, contained as a parameter on a DDM OPNQRY, CNTQRY, or EXCSQLSTT command, is invalid. The value of QRYBLKSZ must be between 512 and 32767, inclusive.

This reason code is issued by the following CSECT: DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35D13

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. a TIMESTAMP instance variable has been included as a command parameter received from a database other than DB2. This DDM scalar is private to DB2.

This reason code is issued by the following CSECT: DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRMNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35D14

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. The length of one or more instance variables received as command parameters is less than 4. This is the minimum length to support a DDM length and code point (llcp).

This reason code is issued by the following CSECT: DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35D15

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. The length of the DDM command is less than the sum of the lengths of all constituent instance variables.

This reason code is issued by the following CSECT: DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35D16

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. The length of an instance variable received as a command parameter exceeds the length of the instance variable, as specified by DDM Level 3.

This reason code is issued by the following CSECT: DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35D17

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. The length of an instance variable received as a command parameter is less than the length of the instance variable, as specified by DDM Level 3.

This reason code is issued by the following CSECT: DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this DB2 remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35D18

Explanation: DB2 has detected an error while parsing a DDM command received from a DRDA requester. The value of the DDM scalar, MAXRSLCNT, contained as a parameter on a DDM EXCSQLSTT command, is invalid. The value of MAXRSLCNT must be greater than or equal to -1.

This reason code is issued by the following CSECT: DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the DRDA requester.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the statistics class 4 trace record identified by the IFCID sequence number given in message DSNL032I.

If the DRDA requester is DB2 for OS/390, then DB2 diagnostic information is available. In this case, at the DB2 requester, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1.

At the DB2 server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 83.

00D35E00

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid RDBNAM length was sent on an ACCSEC command.

This reason code is issued by the following CSECT: DSNLZSAS

System Action: If the length of the RDBNAM is greater than 18, then a DDM reply message (SYNTAXRM) is returned to the DRDA client. If the data in characters 17-18 of the RDBNAME is non-blank, then a DDM reply message (VALNSPRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E01

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An ACCSEC or SECCHK command was sent without one or more of its required DDM instance variables.

This reason code is issued by the following CSECT: DSNLZSAS.

System Action: A DDM reply message (SYNTAXRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E02

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An ACCSEC or SECCHK command was sent with the RQSDSS length fields set improperly.

This reason code is issued by the following CSECT: DSNLZSAS.

System Action: A DDM reply message (SYNTAXRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E03

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid instance variable was sent on an ACCSEC command.

This reason code is issued by the following CSECT: DSNLZSAS.

System Action: A DDM reply message (SYNTAXRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E04

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. A duplicate instance variable was sent on an ACCSEC command.

This reason code is issued by the following CSECT: DSNLZSAS.

System Action: A DDM reply message (SYNTAXRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E05

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid SECMGRNM length was sent on an ACCSEC command. The SECMGRNM must be null.

This reason code is issued by the following CSECT: DSNLZSAS.

System Action: A DDM reply message (SYNTAXRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E06

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid SECMEC length was sent on an ACCSEC command. Only one SECMEC can be specified.

This reason code is issued by the following CSECT: DSNLZSAS.

System Action: A DDM reply message (SYNTAXRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E07

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid instance variable was sent on a SECCHK command.

This reason code is issued by the following CSECT: DSNLZSAS.

System Action: A DDM reply message (SYNTAXRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E08

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. A duplicate instance variable was sent on a SECCHK command.

This reason code is issued by the following CSECT: DSNLZSAS.

System Action: A DDM reply message (SYNTAXRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E09

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid SECMGRNM length was sent on a SECCHK command. The SECMGRNM must be null.

This reason code is issued by the following CSECT: DSNLZSAS.

System Action: A DDM reply message (SYNTAXRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E0A

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid SECMEC length was sent on a SECCHK command. Only one SECMEC can be specified.

This reason code is issued by the following CSECT: DSNLZSAS.

System Action: A DDM reply message (SYNTAXRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E0B

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid RDBNAM length was sent on a SECCHK command.

This reason code is issued by the following CSECT: DSNLZSAS

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E0C

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid USRID length was sent on a SECCHK command. DB2 userids cannot exceed 8 bytes.

This reason code is issued by the following CSECT: DSNLZSAS.

System Action: A DDM reply message (SYNTAXRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E0D

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid PASSWRD length was sent on a SECCHK command. DB2 passwords cannot exceed 8 bytes.

This reason code is issued by the following CSECT: DSNLZSAS.

System Action: A DDM reply message (SYNTAXRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E0E

Explanation: DB2 has detected an error in the DDM command data object or DDM reply data object received from the remote server as part of a DDM command or reply. The sum of the lengths of the constituent DDM objects within an OBJDSS is inconsistent with the length of the DSS carrier.

This reason code is issued by the following CSECT: DSNLZODM

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E0F

Explanation: DB2 has detected an error in the DDM command data object or DDM reply data object received from the remote server as part of a DDM command or reply. The size of the object is greater than 32KB and the DDM level 6b extended length field is invalid.

This reason code is issued by the following CSECT: DSNLZODM

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E10

Explanation: DB2, acting as a DRDA client, has detected a floating point conversion error when converting a 4-byte or 8-byte floating point number in IEEE format to System/370 format.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

User Response: Check the floating point value. Overflow can occur when the floating value is out of the System/370 floating point range. Refer to Appendix A of *Diagnosis Guide and Reference* for details of floating point range.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

00D35E11

Explanation: DB2, acting as a DRDA client, has detected a floating point conversion error when converting a nullable 4-byte or 8-byte floating point number in IEEE format to System/370 format.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

User Response: Check the floating point value. Overflow can occur when the floating value is out of the System/370 floating point range. Refer to Appendix A of *SQL Reference* for details of floating point range.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

00D35E12

Explanation: DB2, acting as a DRDA client, has detected a floating point conversion error when converting a 4-byte floating point number in VAX format to System/370 format.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

User Response: Check the floating point value. Overflow can occur when the floating value is out of the System/370 floating point range. Refer to Appendix A of *SQL Reference* for details of floating point range.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

00D35E13

Explanation: DB2, acting as a DRDA client, has detected a floating point conversion error when converting a nullable 4-byte floating point number in VAX format to System/370 format.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

User Response: Check the floating point value. Overflow can occur when the floating value is out of the System/370 floating point range. Refer to Appendix A of *SQL Reference* for details of floating point range.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

00D35E14

Explanation: DB2, acting as a DRDA client, has detected a floating point conversion error when converting a 8-byte floating point number in VAX format to System/370 format.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

User Response: Check the floating point value. Overflow can occur when the floating value is out of the System/370 floating point range. Refer to Appendix A of *SQL Reference* for details of floating point range.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

00D35E15

Explanation: DB2, acting as a DRDA client, has detected a floating point conversion error when converting a nullable 8-byte floating point number in VAX format to System/370 format.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

User Response: Check the floating point value. Overflow can occur when the floating value is out of the System/370 floating point range. Refer to Appendix A of *SQL Reference* for details of floating point range.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

00D35E16

Explanation: DB2, acting as a DRDA client, has detected a floating point conversion error when converting a 4-byte floating point number in 80x86 format to System/370 format.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

User Response: Check the floating point value. Overflow can occur when the floating value is out of the System/370 floating point range. Refer to Appendix A of *SQL Reference* for details of floating point range.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

00D35E17

Explanation: DB2, acting as a DRDA client, has detected a floating point conversion error when converting a nullable 4-byte floating point number in 80x86 format to System/370 format.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

User Response: Check the floating point value. Overflow can occur when the floating value is out of the System/370 floating point range. Refer to Appendix A of *SQL Reference* for details of floating point range.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

00D35E18

Explanation: DB2, acting as a DRDA client, has detected a floating point conversion error when converting a 8-byte floating point number in 80x86 format to System/370 format.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

User Response: Check the floating point value. Overflow can occur when the floating value is out of the System/370 floating point range. Refer to Appendix A of *SQL Reference* for details of floating point range.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

00D35E19

Explanation: DB2, acting as a DRDA client, has detected a floating point conversion error when converting a nullable 8-byte floating point number in 80x86 format to System/370 format.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

User Response: Check the floating point value. Overflow can occur when the floating value is out of the System/370 floating point range. Refer to Appendix A of *SQL Reference* for details of floating point range.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

00D35E1A

Explanation: DB2, acting as a DRDA client, has detected an error in a NUL-terminated string of length less than 257 bytes. The NUL-terminator cannot be located within the data field as defined by the DDM descriptor received.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

00D35E1B

Explanation: DB2, acting as a DRDA client, has detected an error in a nullable NUL-terminated string of length less than 257 bytes. The NUL-terminator cannot be located within the data field as defined by the DDM descriptor received.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

00D35E1C

Explanation: DB2, acting as a DRDA client, has detected an error in a NUL-terminated string of length greater than 256 bytes. The NUL-terminator cannot be located within the data field as defined by the DDM descriptor received.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

00D35E1D

Explanation: DB2, acting as a DRDA client, has detected an error in a nullable NUL-terminated string of length greater than 256 bytes. The NUL-terminator cannot be located within the data field as defined by the DDM descriptor received.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

00D35E1E

Explanation: DB2, acting as a DRDA client, has detected an error in a numeric character data field (nullable or non-nullable). DB2 has detected a numeric conversion error, preventing the data from being converted to packed decimal format.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

User Response: Check the numeric data.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

00D35E1F

Explanation: DB2, acting as a DRDA client, has detected an error in a variable length DBCS character data field whose length is given by a 2-byte length field and whose maximum length is less than 257 bytes. The value of the length field is either negative or greater than the maximum length specified by the DDM descriptor for the field.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

00D35E20

Explanation: DB2, acting as a DRDA client, has detected an error in a nullable variable length DBCS character data field whose length is given by a 2-byte length field and whose maximum length is less than 257 bytes. The value of the length field is either negative or greater than the maximum length specified by the DDM descriptor for the field.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

00D35E21

Explanation: DB2, acting as a DRDA client, has detected an error in a variable length DBCS character data field whose length is given by a 2-byte length field and whose maximum length is greater than 256 bytes. The value of the length field is either negative or greater than the maximum length specified by the DDM descriptor for the field.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

00D35E22

Explanation: DB2, acting as a DRDA client, has detected an error in a nullable variable length DBCS character data field whose length is given by a 2-byte length field and whose maximum length is greater than 256 bytes. The value of the length field is either negative or greater than the maximum length specified by the DDM descriptor for the field.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

00D35E23

Explanation: DB2, acting as a DRDA client, has detected an error in a variable length DBCS character data field whose length is given by a 1-byte length field. The value of the length field is greater than the maximum length specified by the DDM descriptor for the field.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

00D35E24

Explanation: DB2, acting as a DRDA client, has detected an error in a nullable variable length DBCS character data field whose length is given by a 1-byte length field. The value of the length field is greater than the maximum length specified by the DDM descriptor for the field.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

00D35E25

Explanation: DB2, acting as a DRDA client, has detected an error in a variable length SBCS character data field whose length is given by a 2-byte length field and whose maximum length is less than 257 bytes. The value of the length field is either negative or greater than the maximum length specified by the DDM descriptor for the field.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

00D35E26

Explanation: DB2, acting as a DRDA client, has detected an error in a nullable variable length SBCS character data field whose length is given by a 2-byte length field and whose maximum length is less than 257 bytes. The value of the length field is either negative or greater than the maximum length specified by the DDM descriptor for the field.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

00D35E27

Explanation: DB2, acting as a DRDA client, has detected an error in a variable length SBCS character data field whose length is given by a 2-byte length field and whose maximum length is greater than 256 bytes. The value of the length field is either negative or greater than the maximum length specified by the DDM descriptor for the field.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

00D35E28

Explanation: DB2, acting as a DRDA client, has detected an error in a nullable variable length SBCS character data field whose length is given by a 2-byte length field and whose maximum length is greater than 256 bytes. The value of the length field is either negative or greater than the maximum length specified by the DDM descriptor for the field.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

00D35E29

Explanation: DB2, acting as a DRDA client, has detected an error in a zoned decimal data field (nullable or non-nullable). DB2 has detected a numeric conversion error, preventing the data from being converted to packed decimal format.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

User Response: Check the numeric data.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client,, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83.

00D35E2A

Explanation: DB2, acting as a DRDA server, has detected an error while parsing a DDM BNDOPT command data object received from a remote DRDA client. The BNDOPT collection contains multiple instances of the BNDOPTNM scalar. This is invalid.

This reason code is issued by the following CSECT: DSNLZOBO

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the remote DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

If the remote DRDA client is a DB2 for MVS system, at the DB2 DRDA client, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83. For other remote DRDA clients, refer to the client product documentation for diagnostic recommendations.

At the DB2 DRDA server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35E2B

Explanation: DB2, acting as a DRDA server, has detected an error while parsing a DDM BNDOPT command data object received from a remote DRDA client. The BNDOPT collection contains multiple instances of the BNDOPTVL scalar. This is invalid.

This reason code is issued by the following CSECT: DSNLZOBO

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the remote DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

If the remote DRDA client is a DB2 for MVS system, at the DB2 DRDA client, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83. For other remote DRDA clients, refer to the client product documentation for diagnostic recommendations.

At the DB2 DRDA server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35E2C

Explanation: DB2, acting as a DRDA server, has detected an error while parsing a DDM BNDOPT command data object received from a remote DRDA client. The BNDOPT collection contains an invalid instance.

This reason code is issued by the following CSECT: DSNLZOBO

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRMNSPRM) will be returned to the remote DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed

If the remote DRDA client is a DB2 for MVS system, at the DB2 DRDA client, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83. For other remote DRDA clients, refer to the client product documentation for diagnostic recommendations.

At the DB2 DRDA server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35E2D

Explanation: DB2, acting as a DRDA server, has detected an error while parsing a DDM BNDOPT command data object received from a remote DRDA client. A BNDOPTNM instance variable is required for this DDM collection but was not received.

This reason code is issued by the following CSECT: DSNLZOBO

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the remote DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

If the remote DRDA client is a DB2 for MVS system, at the DB2 DRDA client, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83. For other remote DRDA clients, refer to the client product documentation for diagnostic recommendations.

At the DB2 DRDA server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35E2E

Explanation: DB2, acting as a DRDA server, has detected an error while parsing a DDM BNDOPT command data object received from a remote DRDA client. A BNDOPTVL instance variable is required for this DDM collection but was not received.

This reason code is issued by the following CSECT: DSNLZOBO

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the remote DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

If the remote DRDA client is a DB2 for MVS system, at the DB2 DRDA client, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83. For other remote DRDA clients, refer to the client product documentation for diagnostic recommendations.

At the DB2 DRDA server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35E2F

Explanation: DB2, acting as a DRDA server, has detected an error while parsing a DDM BNDOPT command data object received from a remote DRDA client. The length of the DDM object is less than 4, the minimum length of any DDM object. This is invalid.

This reason code is issued by the following CSECT: DSNLZOBO

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the remote DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

If the remote DRDA client is a DB2 for MVS system, at the DB2 DRDA client, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83. For other remote DRDA clients, refer to the client product documentation for diagnostic recommendations.

At the DB2 DRDA server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35E30

Explanation: DB2, acting as a DRDA server, has detected an error while parsing a DDM BNDOPT command data object received from a remote DRDA client. The length of the DDM command is less than the sum of the lengths of the constituent instance variables appearing as parameters.

This reason code is issued by the following CSECT: DSNLZOBO

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the remote DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed

If the remote DRDA client is a DB2 for MVS system, at the DB2 DRDA client, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 83. For other remote DRDA clients, refer to the client product documentation for diagnostic recommendations.

At the DB2 DRDA server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35E31

Explanation: DB2, acting as a DRDA server, has detected an error while parsing a DDM BNDOPT command data object received from a remote DRDA client. The length of a DDM instance variable is less than the minimum length defined by DDM Level 3. This is invalid.

This reason code is issued by the following CSECT: DSNLZOBO

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the remote DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

If the remote DRDA client is a DB2 for MVS system, at the DB2 DRDA client, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83. For other remote DRDA clients, refer to the client product documentation for diagnostic recommendations.

At the DB2 DRDA server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E32

Explanation: DB2, acting as a DRDA server, has detected an error while parsing a DDM BNDOPT command data object received from a remote DRDA client. The length of a DDM instance variable is greater than the maximum length defined by DDM Level 3. This is invalid.

This reason code is issued by the following CSECT: DSNLZOBO

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the remote DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

If the remote DRDA client is a DB2 for MVS system, at the DB2 DRDA client, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83. For other remote DRDA clients, refer to the client product documentation for diagnostic recommendations.

At the DB2 DRDA server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E33

Explanation: DB2 has detected an error in the DDM SQLRSLRD reply data object received from the remote server in response to a DDM EXCSQLSTT command that generated query result sets. The value of the single element of the SQLNUMGRP, SQLNUM, defining the total number of SQLRSROW occurrences within the SQLRSLRD array, is inconsistent with the number of result sets indicated in the RSLSETRM.

This reason code is issued by the following CSECT: DSNLZRRS.

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30020 and SQLSTATE 58009.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the statistics class 4 trace record identified by the IFCID sequence number given in message DSNL031I.

At the DB2 requester, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 83.

If the DRDA server is DB2 for OS/390, then DB2 diagnostic information is available. In this case, at the DB2 server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1.

00D35E34

Explanation: DB2 has detected an error in the DDM SQLRSLRD reply data object received from the remote server in response to a DDM EXCSQLSTT command that generated query result sets. Within one or more SQLRSROW occurrences, the lengths of SQLRSNAME_m and SQLRSNAME_s are both non-0, but only one of these lengths should be non-0. The data is invalid with regard to the Early SQLRSGRP group descriptor as defined by DRDA.

This reason code is issued by the following CSECT: DSNLZRRS.

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30020 and SQLSTATE 58009.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the statistics class 4 trace record identified by the IFCID sequence number given in message DSNL031I.

At the DB2 requester, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 83.

If the DRDA server is DB2 for OS/390, then DB2 diagnostic information is available. In this case, at the DB2 server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1.

00D35E35

Explanation: DB2 has detected an error in the DDM SQLCINRD reply data object received from the remote server in response to a DDM EXCSQLSTT command that generated query result sets. The value of the single element of the SQLNUMGRP, SQLNUM, defining the total number of SQLCIROW occurrences within the SQLCINRD array, is either negative or is inconsistent with the size of the SQLCINRD array.

This reason code is issued by the following CSECT: DSNLZRCI.

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30020 and SQLSTATE 58009.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the statistics class 4 trace record identified by the IFCID sequence number given in message DSNL031I.

At the DB2 requester, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 83.

If the DRDA server is DB2 for OS/390, then DB2 diagnostic information is available. In this case, at the DB2 server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1.

00D35E36

Explanation: DB2 has detected an error in the DDM SQLCINRD reply data object received from the remote server in response to a DDM EXCSQLSTT command that generated query result sets. Within one or more SQLCIROW occurrences, the lengths of SQLCNAME_m and SQLCNAME_s are both non-0, but only one of these lengths should be non-0. The data is invalid with regard to the Early SQLCIGRP group descriptor as defined by DRDA.

This reason code is issued by the following CSECT: DSNLZRCI.

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30020 and SQLSTATE 58009.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the statistics class 4 trace record identified by the IFCID sequence number given in message DSNL031I.

At the DB2 requester, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 83.

If the DRDA server is DB2 for OS/390, then DB2 diagnostic information is available. In this case, at the DB2 server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1.

00D35E37

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid IPADDR length was sent on a SYNCLOG object.

This reason code is issued by the following CSECT: DSNLZPSL

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35E38

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid SNAADDR length was sent on a SYNCLOG object.

This reason code is issued by the following CSECT: DSNLZPSL

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in “Appendix B. Problem Determination” on page X-5: 83.

At this remote server, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00D35E39

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid RDBNAM length was sent on a SYNCLOG object.

This reason code is issued by the following CSECT: DSNLZPSL

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E3A

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid LOGNAME length was sent on a SYNCLOG object.

This reason code is issued by the following CSECT: DSNLZPSL

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E3B

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid LOGTSTMP length was sent on a SYNCLOG object.

This reason code is issued by the following CSECT: DSNLZPSL

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E3C

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid instance variable was sent on a SYNCLOG object.

This reason code is issued by the following CSECT: DSNLZPSL

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E3D

Explanation: DB2 has detected an error in the DDM command data object or DDM reply data object received from the remote server as part of a DDM command or reply. The DDM level 6b length field is invalid.

This reason code is issued by the following CSECT: DSNLZPSL

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E3E

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid instance variable was sent on a SYNCCTL command.

This reason code is issued by the following CSECT: DSNLZSAS

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E3F

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. A duplicate instance variable was sent on a SYNCCTL command.

This reason code is issued by the following CSECT: DSNLZSAS

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E40

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid SYNCTYPE length was sent on a SYNCCTL command.

This reason code is issued by the following CSECT: DSNLZSAS

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E41

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid RLSCONV length was sent on a SYNCCTL command.

This reason code is issued by the following CSECT: DSNLZSAS

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E42

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid UOWID length was sent on a SYNCCTL command.

This reason code is issued by the following CSECT: DSNLZSAS

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E43

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid instance variable was sent on a SYNCRSY command.

This reason code is issued by the following CSECT: DSNLZSAS

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E44

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. A duplicate instance variable was sent on a SYNCRSY command.

This reason code is issued by the following CSECT: DSNLZSAS

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E45

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid RSYNCTYP length was sent on a SYNCRSY command.

This reason code is issued by the following CSECT: DSNLZSAS

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E46

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid UOWID length was sent on a SYNCRSY command.

This reason code is issued by the following CSECT: DSNLZSAS

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E47

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid UOWSTATE length was sent on a SYNCRSY command.

This reason code is issued by the following CSECT: DSNLZSAS

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E48

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid FORGET length was sent on a SYNCCTL command.

This reason code is issued by the following CSECT: DSNLZSAS

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E49

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid TCPHOST length was sent on a SYNCLOG object.

This reason code is issued by the following CSECT: DSNLZPSL

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E4A

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid CNNTKN length was sent on a SYNCLOG object.

This reason code is issued by the following CSECT: DSNLZPSL.

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E4B

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. A required instance variable was not sent on a SYNCLOG object.

This reason code is issued by the following CSECT: DSNLZPSL.

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00D35E5A

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid NEWPSWD length was sent on a SECCHK command. New passwords cannot exceed 255 bytes.

This reason code is issued by the following CSECT: DSNLZSAS.

System Action: A DDM reply message (SYNTAXRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 83.

At this remote server, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

X'D4.....' Codes

00D40001

Explanation: The IMS attachment facility detected an invalid save area chain pointer. This condition occurs only if the save area is overlaid or if the save area pointer is invalid.

This abend reason code is issued by the following CSECTs:

DSNMCMD0	DSNMDR00	DSNMDR10	DSNMID00
DSNMINIT	DSNMDRI0	DSNMSN00	

System Action: The task is abended.

System Programmer Response: If the abend occurred in an IMS dependent region, restart the region. If the abend occurred in the IMS control region, restart the connection. Determine the failing environment. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the dump. Register 13 plus four bytes is the address of the invalid save area chain pointer.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 4, 26, 27, 45.

00D40008

Explanation: The IMS attachment facility command module’s ESTAE routine places this reason code in the variable recording area of SYS1.LOGREC. The reason code indicates that the entry is not a standard DB2 entry. The reason code is followed by the current IMS attachment facility trace entry, the first four characters of the command, the output destination, and the authorization ID.

This message records information in the variable recording area (VRA).

This abend reason code is issued by the following CSECT: DSNMCMD0

System Action: Every attempt is made to return to RTM with the retry option. If the retry is successful, a message is sent to the originating destination to show that the command failed.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the SYS1.LOGREC data. The log record contains the current IMS attachment facility trace entry, the first four characters of the command, the output destination, and the authorization ID for the failing command.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 3, 4, 26, 27, 45.

00D40061

Explanation: The IMS attachment facility could not establish a connection with DB2 because an IMS /STOP SUBSYS command was issued.

This abend reason code is issued by the following CSECT: DSNMSNO0

System Action: The application's SQLCA is updated with an SQLCODE -924 and reason code 00D40061. Control is returned to the application.

User Response: Wait for the IMS /START SUBSYS command to be issued before reentering the transaction.

Operator Response: Issue the IMS /START SUBSYS command to establish a connection with DB2 and reenter the transaction.

System Programmer Response: Determine why the IMS /STOP SUBSYS command was issued.

Problem Determination: Analyze the application's SQLCA.

00D40062

Explanation: The IMS attachment facility could not establish a connection with DB2 because IMS is shutting down.

This abend reason code is issued by the following CSECT: DSNMSNO0

System Action: The application's SQLCA is updated with an SQLCODE -924 and reason code 00D40062. Control is returned to the application.

User Response: Reenter the transaction after IMS has been restarted.

Operator Response: Restart IMS.

System Programmer Response: Determine why IMS was stopped.

Problem Determination: Analyze the application's SQLCA.

00D40063

Explanation: DB2's IMS attachment facility received an unexpected return code from the IMS external subsystem attach facility while attempting to start the subsystem connection to DB2.

This abend reason code is issued by the following CSECT: DSNMSNO0

System Action: The application's SQLCA is updated with an SQLCODE -924, reason code 00D40063, and the return code received from the IMS external subsystem facility. One of the following return codes may appear.

- 12 - DB2 connection unsuccessful. The external subsystem encountered an error processing the request.
- 24 - DB2 connection unsuccessful. The external subsystem responded with a 'never connect' return code from the initialization exit.
- 28 - DB2 connection unsuccessful. IMS resources were unavailable to process the request.
- 32 - DB2 connection unsuccessful. An invalid EPL was encountered.
- 36 - DB2 connection unsuccessful. Request rejected due to the external subsystem invoking the subsystem termination service exit.

Control is returned to the application.

Operator Response: Notify the system programmer.

System Programmer Response: This is an internal error. To be certain the proper diagnostic information is available, stop the region with a dump.

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Problem Determination: The WAL control block in the dump contains an IMS attach trace table. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 4, 5, 26, 27, 45.

00D40069

Explanation: DB2's IMS attachment facility received an unexpected return code from the IMS external subsystem attach facility while attempting to establish a connection to DB2.

This abend reason code is issued by the following CSECTs:

DSNMDR10 DSNMERR0 DSNMSNO0

System Action: The application's SQLCA is updated with an SQLCODE -924, reason code 00D40069, and the return code received from the IMS External Subsystem Attach Facility. Control is returned to the application.

Operator Response: Notify the system programmer.

System Programmer Response: This is an internal error. To be certain the proper diagnostic information is available, stop the region with a dump.

Problem Determination: The WAL control block in the dump contains an IMS attach trace table. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 4, 5, 26, 27, 45.

00D44011

Explanation: The DB2-DL/I batch support or IMS BMP job step cannot continue because the application program could not be loaded.

This abend reason code is issued by the following CSECT: DSNMTV01

System Action: The DB2-DL/I batch support or IMS BMP job step cannot continue and processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Be sure the DDITV02 SYSIN data (for DB2-DL/I batch support) or IMSBATCH procedure (for an IMS BMP job step) names a subsystem member (SSM) parameter that points to a resource translation table (RTT). The RTT maps the IMS application name to the DB2 plan name.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 4, 32, 54.

00D44021

Explanation: The DB2-DL/I batch support cannot continue because the length of a parameter value specified in the DDITV02 SYSIN data set is incorrect.

This abend reason code is issued by the following CSECT: DSNMTV02

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Correct the DDITV02 SYSIN data set parameter value in error and rerun the job. Make sure the correct data set name is specified by the DDITV02 DD statement and the DCB RECFM is F or FB for the data set.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for more information about failure analysis procedures. for information on identifying and reporting the problem.

Problem Determination: The parameter value length limits are the following:

- DB2 subsystem name: 0 < SSN < 5.
- LIT value < 5.
- DB2 initialization module name = 8.
- DB2 optional resource translation module name < 9.
- Region error option value < 2.
- The command recognition value < 2.
- The connection name < 9.
- The DB2 plan name < 9.
- The application program load module name < 9.

Register 8 indicates the delimiter following the field in error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 4, 32, 54.

00D44022

Explanation: The DB2-DL/I batch support cannot continue because the DDITV02 SYSIN data set cannot be opened or an end of file was reached before a record was read.

This abend reason code is issued by the following CSECT: DSNMTV02

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Correct the DDITV02 DD statement or data set in error and rerun the job.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for more information about for information on identifying and reporting the problem.

Problem Determination: See if a DDITV02 data set exists and contains a properly formatted record.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 4, 32, 54.

00D44023

Explanation: The DB2-DL/I batch support cannot continue because one or more of the DDITV02 SYSIN data set values are incorrectly specified. The end of the input record was detected before all the values were found.

This abend reason code is issued by the following CSECT: DSNMTV02

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Correct the DDITV02 DD value or data set in error and rerun the job. Make sure the correct data set name is specified by the DDITV02 DD statement and the DCB RECFM is F or FB for the data set.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for more information about for information on identifying and reporting the problem.

Problem Determination: Check the DDITV02 DD SYSIN values for proper format.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 4, 32, 54.

00D44024

Explanation: The DB2-DL/I batch support cannot continue because the DDITV02 SYSIN data set value for the DB2 initialization module refers to an incorrect module.

This abend reason code is issued by the following CSECT: DSNMTV02

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Correct the DDITV02 SYSIN DD value or data set in error by specifying DSNMIN10 as the initialization module and rerun the job.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Check the DDITV02 DD SYSIN value for the required parameter DSNMIN10.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 4, 32, 54.

00D44025

Explanation: The DB2-DL/I batch support cannot continue because the DDITV02 SYSIN data set value for the DB2 region error option is incorrect. Only R, Q, A, or null (specified as ,,) are valid.

This abend reason code is issued by the following CSECT: DSNMTV02

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Correct the DDITV02 SYSIN DD value for the region error option of R, Q, A, or null and rerun the job.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Check the DDITV02 DD SYSIN value for the proper value of the error option of R, Q, A, or null.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 4, 32, 54.

00D44031

Explanation: The DB2-DL/I batch support cannot continue because a connection could not be established to the DB2 subsystem named in the DDITV02 SYSIN data set. This error usually occurs for one of these reasons:

- The DB2 subsystem name specified either in the DDITV02 SYSIN data set (default) or in the member defined by the IMSID-SSM combination is incorrect.
- The DB2 system is not operational.

This abend reason code is issued by the following CSECT: DSNMTV03

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

User Response: Notify the system programmer.

Operator Response: It might be necessary to start the DB2 subsystem specified.

System Programmer Response: Either correct the DDITV02 DD SYSIN or the member pointed to by the IMSID-SSM combination for the DB2 subsystem name if it is incorrect, and rerun the job. Otherwise, have the operator start the DB2 subsystem if it is stopped.

Problem Determination: Either check the DDITV02 DD SYSIN or the member pointed to by the IMSID-SSM combination for the proper DB2 subsystem name. Make sure the correct data set name is specified by the DDITV02 DD statement and the DCB RECFM is F or FB for the data set.

The WAL control block in the dump contains information about the connection and the IMS attach trace table. Field WALSSID indicates the name of the DB2 subsystem being called.

The last entry in the trace table has an ID of ID00 and the CALL STATUS contains the 2-byte return code and 4-byte reason code of the failure. The 4-byte reason code might provide additional diagnostic information to help determine the cause of the failure.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

If the correct DB2 subsystem name was specified and was available, refer to the specific reason code explanation for details about the error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 4, 32, 54, 55.

00D44032

Explanation: The DB2-DL/I batch support cannot continue because the DB2 create thread or signon failed.

This abend reason code is issued by the following CSECT: DSNMTV03

System Action: The DB2-DL/I batch support cannot continue and processing terminates abnormally.

Operator Response: Notify the system programmer.

User Response: Verify that all required DB2 objects are available and that the specified plan name is correct. If the problem persists, notify the system programmer.

Problem Determination: Examine the WAL control block in the dump, or any X'5501FF00' IMS attachment log records in the IMS log data set (if available) for specific DB2 return and reason codes, along with the WALERN field which indicates the reason for the failure.

The WAL control block in the dump contains information about the connection and the IMS attach trace table. The last entry in the trace table will have an ID of CTHD or SIGN and the CALL STATUS contains the two-byte return code and four-byte reason code of the failure.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 4, 32, 54, 55.

00D44033

Explanation: The DB2-DL/I batch support cannot continue because the application was selected as a dead lock victim.

This abend reason code is issued by the following CSECT: DSNMTV03

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

User Response: Notify the system programmer.

Operator Response: It may be necessary to schedule the application program when lock out conditions are less likely to occur.

System Programmer Response: Analyze the reason for the dead lock condition from information sent to the MVS console by DB2 as message number DSNT375I or DSNT376I.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 4, 32, 54, 55.

00D44034

Explanation: The DB2-DL/I batch support cannot continue because an unrecoverable error was encountered during resolve indoubt processing between IMS and DB2. The status of the current indoubt DB2 thread remains unchanged.

This abend reason code is issued by the following CSECT: DSNMTV03

System Action: The DB2-DL/I batch support processing is terminated, and a DB2 04E SVC dump is requested.

Operator Response: Enter the DISPLAY THREAD TYPE (INDOUBT) command to determine the current status of indoubt thread processing between IMS and DB2 at the time of the failure. Notify the system programmer.

System Programmer Response: This may be an internal protocol error between the IMS external subsystem attach facility and the DB2 IMS attachment facility, or an execution environment error external to both IMS and DB2. Examine both the IMS and MVS console logs for any error messages or abnormal return codes associated with the DL/I batch job.

Problem Determination: Locate and examine any DB2 IMS attachment snap records (code X'5501FE') that are present in the IMS log data set, and examine WAL trace table entries included in the dump.

If a DB2 reason code is provided in either the WAL trace entry, or the WALSFER2 field of the X'5501FE' log record, follow the instructions associated with this reason code for additional information concerning the failure.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 25, 27. 32. 45. 49. 50.

00D44035

Explanation: The DB2-DL/I batch support cannot continue because the PSB name used as the DB2 authorization ID begins with the character string SYSADM which is not allowed.

This abend reason code is issued by the following CSECT: DSNMTV03

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: This is a site problem. A PSB name beginning with SYSADM is being used as the authorization ID.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The PSB= parameter of the job step execute statement indicates the PSB name used. Register 3 plus X'34' is the authorization ID specified.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 4, 32, 54, 55.

00D44036

Explanation: The DB2-DL/I batch support cannot continue because the authorization ID has been changed by the application program.

This abend reason code is issued by the following CSECT: DSNMTV03

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: This is a site problem. The application program has modified the authorization ID.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The authorization ID saved by DB2 does not match the value in ASXBUSER. Control block modification has occurred. Register 3 plus X'34' is the changed value.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 4, 32, 54, 55.

00D44037

Explanation: The DB2-DL/I batch support cannot continue because the stack of save areas has been exhausted. The error can occur when multiple levels of recursion have been invoked.

This abend reason code is issued by the following CSECTs:

DSNMTV03 DSNMTV04 DSNMTV05

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

Operator Response: Notify the system programmer

System Programmer Response: This might be a multiple recursion problem caused by the execution of a changed data capture exit.

Problem Determination: Verify that the user exit(s) are not being recursively invoked during a data base update operation.

00D44038

Explanation: The DB2 IMS Attach facility attempted to notify the IMS subsystem that captured DB2 table data is ready for propagation. However, the IMS exit manager was not available for notification.

This abend reason code is issued by the following CSECT: DSNMTV03

System Action: DB2 propagation processing is abnormally terminated.

User Response: Notify the system programmer.

System Programmer Response: This is a site problem. The required release of IMS is not available.

Problem Determination: Verify that the IMS release that supports data propagation from DB2 to IMS is installed.

00D44039

Explanation: The DB2-DL/I batch support cannot continue because the record format (RECFM) for the DDOTV02 output data set has a format of fixed or fixed block.

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

System Programmer Response: Change the RECFM parameter in the DCB from fixed 'F' or fixed blocked 'FB' to variable 'V' or variable blocked 'VB'. Specify LRECL=4092 and a BLKSIZE of at least LRECL+4. Then rerun the job.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Check the DDOTV02 DD for the proper DCB-RECFM value of 'V' or 'VB'.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5.

00D44050

Explanation: The DB2-DL/I batch support cannot continue because a DB2 prepare problem was detected.

This abend reason code is issued by the following CSECT: DSNMTV05

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: This is an internal error. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The WAL control block in the dump contains an IMS attach trace table. The last entry in the trace table will have an ID of PREP. The CALL STATUS contains the two-byte return code and four-byte reason code of the failure.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 4, 32, 54, 55.

00D44051

Explanation: The DB2-DL/I batch support cannot continue because a DB2 commit continue problem was detected.

This abend reason code is issued by the following CSECT: DSNMTV05

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: This is an internal error. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The WAL control block in the dump contains an IMS attach trace table. The last entry in the trace table will have an ID of COMC. The CALL STATUS contains the two-byte return code and four-byte reason code of the failure.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 4, 32, 54, 55.

00D44052

Explanation: The DB2-DL/I batch support cannot continue because a DB2 abort problem was detected.

This abend reason code is issued by the following CSECT: DSNMTV05

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: This is an internal error. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The WAL control block in the dump contains an IMS attach trace table. The last entry in the trace table will have an ID of ABRT. The CALL STATUS contains the two-byte return code and four-byte reason code of the failure.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 4, 32, 54, 55.

00D44053

Explanation: The DB2-DL/I batch support cannot continue because a DL/1 XRST call problem was detected.

This abend reason code is issued by the following CSECT: DSNMTV05

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably an application program error. Check the PCB status code for a non-blank value, validate the PCB used for the call, and validate the parameters passed by the call. Correct the application program and resubmit the job.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Follow normal IMS debugging techniques to gather the IMS documentation.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 4, 32, 54, 55.

00D44054

Explanation: The DB2-DL/I batch support cannot continue because an IMS XRST call problem was detected. An XRST call, if issued, must be issued before any SQL call is issued; only one XRST call should be issued.

This abend reason code is issued by the following CSECT: DSNMTV05

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably an application program error. Correct the application program so it will issue the XRST call before any SQL statements are processed. Then resubmit the job. Also make sure only one XRST call is issued by the application program.

Check the DDOTV02 data set to see if an INDOUBT unit of recovery has been erroneously aborted.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Follow normal IMS debugging techniques to gather the DL/I documentation.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 4, 32, 54, 55.

00D44055

Explanation: The DB2-DL/I batch support cannot continue because an IMS CHKP call problem was detected by IMS.

This abend reason code is issued by the following CSECT: DSNMTV05

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably an application program error. Check the PCB status code for a non-blank value, validate the PCB used for the call, and validate the parameters passed by the call. Correct the application program and resubmit the job.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Follow normal IMS debugging techniques to gather the IMS documentation.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 4, 32, 54, 55.

00D44056

Explanation: The DB2-DL/I batch support cannot continue because an IMS ROLL or ROLB call problem was detected by IMS.

This abend reason code is issued by the following CSECT: DSNMTV05

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably an application program error. Check the PCB status code for a non-blank value, validate the PCB used for the call, and validate the parameters passed by the call. Correct the application program and resubmit the job.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Follow normal IMS debugging techniques to gather the IMS documentation.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 4, 32, 54, 55.

00D44057

Explanation: The DB2-DL/I batch support cannot continue because an IMS call problem was detected by the DB2-DL/I batch support. An IMS SYNC, ROLS, or SETS call is not allowed.

This abend reason code is issued by the following CSECT: DSNMTV05

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably an application program error. Correct the application program to use supported IMS calls and resubmit the job.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Follow normal IMS debugging techniques to gather the IMS documentation.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 4, 32, 54, 55.

X'D7.....' Codes

00D70001

Explanation: Either the data space manager (DSM) subcomponent of DB2 could not access some storage group definition, or the storage group contains no volume IDs. Possible sources of the error include use of an incorrect name for the storage group and removal of all volume IDs via ALTER STOGROUP without providing new ones.

This reason code is issued by the following CSECT: DSNPGSGI

System Action: A 'resource not available' code is returned to the caller.

User Response: If you are unable to resolve the problem yourself, notify the system programmer or database administrator.

System Programmer Response: Notify the database administrator if appropriate. Otherwise, check the SQLCA for the name of the storage group. Check this storage group (via an SQL SELECT on SYSIBM.SYSSTOGROUP) to ensure that it exists. Check for associated SYSIBM.SYSVOLUMES table entries to see if any volume IDs exist for this storage group. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Obtain output listing from SELECT * FROM SYSIBM.SYSSTOGROUP and SELECT * FROM SYSIBM.SYSVOLUMES, details of the request that resulted in this code, and contents of the SQLCA. Also obtain operator's console sheet showing related messages, if any. Use this documentation to determine the cause of the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 14, 15, 32, 35.

00D70002

Explanation: The required data sets are not available to DB2. This is probably a user error. For example, the user might have forgotten to create the needed VSAM data clusters using access method services before issuing a CREATE TABLESPACE request with the USING VCAT parameter.

System Action: A 'resource not available' code is returned to the end user.

User Response: If you are unable to resolve the problem, notify the system programmer or database administrator.

System Programmer Response: Take one or both of these actions:

- Make the needed data set available.
- Be sure it is cataloged in the appropriate integrated catalog facility (ICF) catalog.

The data set names appear in the SQLCA, in the DSNP-prefixed message that contained this code, or in an earlier DSNP-prefixed message for the same user (same connection and correlation IDs).

If the data set name is correct, is cataloged, and appears in the VTOC, run the access method services DIAGNOSE command on the integrated catalog facility (ICF) catalog identified by the first qualifier of the data set name. The DIAGNOSE command is described in *DFSMS/MVS: Access Method Services for the Integrated Catalog*.

Problem Determination: Obtain the following information to determine the cause of the problem:

- Listings of the integrated catalog facility (ICF) catalog and VTOC showing the data set
- Details of the request that led to this code
- The contents of the SQLCA
- The operator's console sheet showing any related messages

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 10, 12, 14, 15, 32, 35.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This reason code is issued by the following CSECTs:

DSNPCLO0 DSNPSCTC DSNPSCTD DSNPSCT0 DSNPSCTE

00D70003

Explanation: Some or all of the data sets already exist. The data space manager (DSM) subcomponent of DB2 has discovered the preexistence of a data set having the same name as one it was about to create. The name of the data set appears in the SQLCA and/or in message DSNP002I (DEFINE FAILED FOR data-set-name) or DSNP023I (RENAME NEW DATASET SHOULD NOT EXIST FOR data-set-name).If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem. Refer to Section 2 (Volume 1) of *Administration Guide* for data set naming conventions.

This may occur if a user creates a data set with VSAM access method services (intending to use it for a table space or index), then creates the table space or index via SQL CREATE statement, but forgets to specify USING VCAT.

Another possibility is that the data set remained from some prior, unsuccessfully completed DROP or DELETE or backout operation of DB2. This failure would probably occur if the data set or integrated catalog facility (ICF) catalog were unavailable at the time of the DROP or DELETE or backout. For example, packs may be offline, or other operational problems may exist. In this case, the table space would be dropped, but the data sets could remain and be brought back online at a later time.

There should have been some indication of this type of failure at the time it occurred. (for example, some DSNP-prefixed message indicating the data set was not deleted). You might check recent console sheets for such a message; however, it may have happened a long time ago.

This reason code is issued by the following CSECTs: DSNPDFN1 DSNPRNM0

System Action: Error indication is returned to the end user.

User Response: If you are unable to resolve the problem yourself, notify the system programmer or database administrator.

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System Programmer Response: Notify the database administrator if appropriate. Otherwise, either use access method services to delete the data set or use a different name for the table or index you are trying to create.

If the data set name is correct, is cataloged, and appears in the VTOC, run the access method services DIAGNOSE command against the integrated catalog facility (ICF) catalog identified by the first qualifier of the data set name. The DIAGNOSE command is described in *DFSMS/MVS: Access Method Services for the Integrated Catalog*.

Problem Determination: Information is needed concerning the history of the use of this data set; that is, of the table space/index name in conjunction with this database name. Listings of the console, integrated catalog facility (ICF) catalog, and VTOC may also be needed, with details of the request that resulted in this code, and contents of the SQLCA. Also obtain operator's console sheet showing related messages, if any. Use this documentation to determine the cause of the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3, 10, 12, 14, 15, 32, 35.

00D70004

Explanation: Certain data set(s) are pending deletion. Creation of a new data set is blocked by the presence of the name on a drop list. This is usually a user error. It usually occurs when the user has dropped an old object (table space, index, and so forth) and then attempted to redefine it without committing the drop.

This reason code is issued by the following CSECTs: DSNPCPS0, DSNPDFN1

System Action: Error indication is returned to the user.

User Response: You must commit the drop prior to redefining. Notify the system programmer or database administrator, if necessary.

System Programmer Response: The user must commit the drop of the data set on the drop list. Collect the materials listed in the Problem Determination section of this message to determine the specific cause of the problem.

Problem Determination: Documentation is needed showing activities from the last committed action up to and including details of the request that resulted in this code. You also need to examine the contents of the SQLCA. Also obtain operator's console sheet showing related messages, if any. Use this documentation to determine the cause of the problem. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 14, 32, 35.

00D70005

Explanation: The specified data set was access method services user-defined. It does not have the required DB2 attributes.

System Action: No action is taken with the named data set. An error code is returned and a dump is not taken.

Operator Response: Notify the system programmer.

System Programmer Response: Delete the named data set and define it with the correct attributes. Refer to Section 2 of *Installation Guide* for the correct data set definition attributes.

Problem Determination: Obtain an access method services LISTCAT for the named data set's attributes.

This reason code is issued by the following CSECTs: DSNPSCTC DSNPSCT0

00D70006

Explanation: The data sets are not owned by this DB2 subsystem. The data sets backing a table space or index can be deleted only by the data space manager (DSM) subcomponent of the DB2 subsystem that created them or by one having the same authorization ID at the time of installation. This is a safety feature to restrict DSM from deleting data sets that might have been created by the user but that have a name that matches the one we are trying to delete. This safety feature also prevents the deletion of data sets that might have been created by some other DB2 subsystem and that are still needed there.

This reason code is issued by the following CSECTs: DSNPDLT1 DSNPDLTE

System Action: The data sets remain intact.

User Response: If you are unable to resolve the problem yourself, notify the system programmer or database administrator.

System Programmer Response: Notify the database administrator if appropriate. Otherwise, check the name of the data sets in question. Delete those names, then issue appropriate DROP and DELETE requests on the DB2 subsystem that created them (see the 'OWNER' parameter in the integrated catalog facility (ICF) catalog entry for the data set), or issue access method services DELETE CLUSTER statements directly.

Problem Determination: Obtain integrated catalog facility (ICF) catalog and VTOC listings, details of the request that resulted in this code, and contents of the SQLCA. Also obtain operator's console sheet showing related messages, if any. This documentation will assist you in determining the cause of the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 10, 12, 14, 15, 32, 35.

00D70007

Explanation: The specified data set must be cataloged in an ICF catalog. It was found in a non-ICF catalog.

This reason code is issued by the following CSECTs: DSNPSCT0 DSNPSCTC DSNPSCTE

System Action: No action is taken with the named data set. An error code is returned and a dump is not taken.

Operator Response: Notify the system programmer.

System Programmer Response: Delete the named data set and re-DEFINE using an ICF catalog

Problem Determination: Obtain an access method series LISTCAT for the named data set's catalog types. Refer to Section 2 of *Installation Guide* for the correct catalog usage.

00D70010

Explanation: This is an internal error. An attempt to extend a data set failed because a problem was detected in the DSM notify process.

System Action: The data sharing extend is incomplete.

Operator Response: Notify the system programmer or database administrator.

System Programmer Response: For additional information, see the description of message DSNP021I.

Problem Determination: Obtain the console sheet showing the associated DSNP021I message and any related messages preceding that message.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This reason code is issued by the following CSECTs:
DSNPXTN0 DSNPNUX1 DSNPNUX2

00D70011

Explanation: The data space manager (DSM) subcomponent of DB2 has been requested to extend a table space or index space, but the table space or index space has already been extended to its maximum size. The size of a partition depends on the number of partitions, and can be 1, 2 or 4GB. If the table space or index space is not partitioned, the maximum size is 64GB (32 data sets—'pieces'—of 2 GB each). The maxiumum size for an NPI for a large partitioned table spaceis 512GB (128 data sets of 4GB each).

For the name of the data set from which the name of the table space, index space, and/or partition can be derived, see message DSNP001I or DSNP007I and/or the SQLCA. Refer to Section 2 (Volume 1) of *Administration Guide* for data set naming conventions.

This reason code is issued by the following CSECT:
DSNPXTN0

System Action: No extension is done. Whatever operation was in progress is terminated and uncommitted activities are backed out.

User Response: If you are unable to resolve the problem yourself, notify the system programmer or database administrator.

System Programmer Response: Notify the database administrator if appropriate. Otherwise, if the table space is partitioned and there is space in other partitions, you may be able to redefine the table space with new partitioning parameters so that the data that has overloaded this partition is directed to others. If the table space is not partitioned, you probably have more than one table residing in this table space. Define another table space, unload this one, then reload the tables into the separate spaces. (Be aware that this is a very large amount of data to move. Careful planning is recommended.)

Problem Determination: If you believe the table space or index space has not yet reached maximum size, provide listings of the console, integrated catalog facility (ICF) catalog, and VTOC. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 10, 12, 14, 15, 32, 35.

00D70012

Explanation: A password or security error has occurred. An attempt to access a integrated catalog facility (ICF) catalog entry for a cluster (data set) failed because of some security violation. This is probably a user error. It may be caused either by the incorrect specification of a password or the changing of the password in the DB2 catalog (via SQL ALTER) but not in the integrated catalog facility (ICF) catalog (via access method services ALTER) or vice versa.

This reason code is issued by the following CSECTs:

DSNPAVLR DSNPSCTD DSNPSCT0

System Action: A 'resource not available' code is returned to the end user.

User Response: Ensure that the correct password is being used. If you are unable to resolve the problem yourself, notify the database administrator.

System Programmer Response: Notify the database administrator if appropriate. Otherwise, check the passwords and/or RACF authorizations.

Problem Determination: Obtain output from SQL SELECT * FROM SYSIBM.SYSTABLESPACE and (if storage group related) SELECT * FROM SYSIBM.SYSSTOGROUP. Also obtain integrated catalog facility (ICF) catalog listing, details of the request that resulted in this code, and contents of the SQLCA. Also obtain operator’s console sheet showing related messages, if any. This documentation will assist you in determining the cause of the problem if it is not merely an incorrect password. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 10, 14, 15, 32, 35.

00D70013

Explanation: A required integrated catalog facility (ICF) catalog does not exist or is inaccessible. An attempt to access an integrated catalog facility (ICF) catalog entry for a cluster (data set) failed. This is probably a user error.

System Action: A 'resource not available' code is returned to the end user.

User Response: If you are unable to resolve the problem, notify the system programmer or database administrator.

System Programmer Response: Do the following:

- Check that the proper catalog name was specified and is available to DB2.
- Check the associated DSNP012I message on the operator’s console for the integrated catalog facility (ICF) return and reason codes.
- See the description of DSNP012I.
- Look for any related messages on the console sheet.
- Refer to the appropriate MVS publication for a description of message IDC3009I.

Problem Determination: Obtain the following to help you determine the cause of the problem:

- Details of the request that resulted in this code
- Contents of the SQLCA

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 10, 14, 32, 35.

This reason code is issued by the following CSECTs:

DSNPDLT1 DSNPSCTC DSNPSCTD DSNPSCT0 DSNPDLTE

00D70014

Explanation: An attempt to extend a data set failed, because a problem was detected in media manager services.

This reason code is issued by the following CSECT: DSNPXTN0

System Action: Abort the request.

User Response: Notify the operator, system programmer, or database administrator.

Operator Response: Notify the system programmer or database administrator.

System Programmer Response: Notify the database administrator if appropriate. Otherwise, check the packs available to the data set. They may merely be full or the data set may have reached its maximum allowable extents. For additional information, see the description of message DSNP001I.

Problem Determination: Obtain console sheet showing associated DSNP001I, DSNO007I, or DSNP011I messages and any related messages preceding them. This documentation will assist you in determining the cause of the problem. For additional information, see the description of these messages.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 3, 4, 5, 10, 12, 14, 32, 35.

00D70015

Explanation: An attempt to update the high-used RBA for a data set failed in media manager services.

This reason code is issued by the following CSECTs:

DSNPIPP DSNPRSP0 DSNPRST0 DSNPXTN0

System Action: Abort the request.

Operator Response: Notify the system programmer or database administrator.

System Programmer Response: Notify the database administrator (DBA), if appropriate. The DBA should be made aware of the extend problem. However, this is probably a system problem.

Problem Determination: Obtain console sheet showing associated DSNP001I, DSNO007I, or DSNP011I messages and any related messages preceding them. This documentation will assist you in determining the cause of the problem. For additional information, see the description of these messages.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 3, 4, 5, 10, 12, 14, 32, 35.

00D70016

Explanation: This is an internal error. An attempt to extend a data set failed because a problem was detected in the DSM notify process.

System Action: The data sharing extend is incomplete.

Operator Response: Notify the system programmer or database administrator.

System Programmer Response: For additional information, see the description of message DSNP021I.

Problem Determination: Obtain the console sheet showing the associated DSNP021I message and any related messages preceding that message.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This reason code is issued by the following CSECTs: DSNPNUX1, DSNPNUX2

00D70017

Explanation: An error occurred while attempting to obtain information from an integrated catalog facility (ICF) catalog.

System Action: The request is terminated.

System Programmer Response: Ensure that the proper packs and catalog are online and operating correctly. See message DSNP012I.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 3, 4, 5, 10, 14, 32, 35.

This reason code is issued by the following CSECTs:

DSNPAVLR DSNPCLO0 DSNPSCTC DSNPSCTD DSNPSCT0

00D70018

Explanation: This is a DB2 internal error. One of the following circumstances has occurred:

- A data set inquiry function was called for a partitioned table space or index space. Its function applies only to nonpartitioned table spaces or index spaces.
- The reset function of data space manager (DSM) was called on a table space that had been opened incorrectly.

This reason code is issued by the following CSECTs: DSNPGNP0, DSNPRST0

System Action: Abort the request.

Operator Response: Notify the system programmer.

System Programmer Response: Collect the materials listed in the Problem Determination section of this message. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Request a dynamic dump. In the dump, the second parameter passed to the data set inquiry function identifies the table space or index space. The third parameter is the table space or index space object descriptor block (OBD). The OBD indicates whether or not the table space or index space is partitioned. If it is partitioned, the calling module is in error. If it is not partitioned, the test in the data set inquiry function must be at fault.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 10, 14, 15, 32, 35

00D70019

Explanation: The data space manager (DSM) subcomponent of DB2 could not release the extend lock it acquired against a data set during an attempt to extend that data set.

This reason code is issued by the following CSECT: DSNPXTN0

System Action: The SQL request that led to the abend is terminated, and the unit of recovery that issued the request is backed out.

Operator Response: Notify the system programmer.

System Programmer Response: Investigate the DSM messages associated with this condition (at least message DSNP015I) for clues to the problem. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This problem is probably the result of either: (1) an attempt by DSM to free a lock it did not hold or, (2) a problem in IRLM. The IRLM return and reason codes appear in the associated DSNP015I message. For additional information, see the description of this message.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 3, 4, 5, 10, 14, 32, 35.

00D70020

Explanation: This is probably an internal error. An attempt to extend a data set failed because a problem was detected in media manager services during the DSM notify process.

System Action: The request is terminated.

Operator Response: Notify the system programmer or database administrator.

System Programmer Response: For additional information, see the description of message DSNP021I.

Problem Determination: Obtain the console sheet showing the associated DSNP021I message and any related messages preceding that message.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This reason code is issued by the following CSECT: DSNPNUX1

00D70021

Explanation: The data space manager (DSM) subcomponent of DB2 could not write a required log record.

This reason code is issued by the following CSECT: DSNPDFN1

System Action: Abort the request.

Operator Response: Notify the system programmer.

System Programmer Response: Collect the materials listed in the Problem Determination section of this message. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 14, 32, 33, 35.

00D70022

Explanation: The data space manager subcomponent of DB2 is unable to acquire a needed lock. The extend request can not be completed.

This reason code is issued by the following CSECT: DSNPXTN0

System Action: Abort the request.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain documentation from message DSNP014I. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: See message DSNP014I.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 14, 32, 35.

00D70023

Explanation: There is an insufficient amount of space in primary allocation to format control pages.

This reason code is issued by the following CSECT: DSNPIPP

System Action: The requested table space or index space creation is backed out.

Operator Response: Notify the system programmer or database administrator.

System Programmer Response: Notify the database administrator if appropriate. Otherwise, increase the primary allocation value in the data set that was defined directly via access method services. (This should not happen for storage group related data sets, because the DB2 interpreter ensures a sufficient setting for the primary value.)

Problem Determination: Obtain integrated catalog facility (ICF) catalog and VTOC listings, details of the request that led to this code, and contents of the SQLCA. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem. Results of SQL SELECT * FROM SYSIBM.SYSTABLESPACE may also be useful. Also obtain the operator’s console sheet showing related messages, if any.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 10, 12, 15, 32, 35.

00D70024

Explanation: No data sets exist for a nonpartitioned table space or index space. Because at least one existed at create time, a serious problem might have occurred for this table space or index space. The name of the data set that DB2 expected to find for the table space or index space appears in message DSNP012I and/or in the SQLCA along with the reason code.

System Action: The request is terminated.

System Programmer Response: Ensure that the data set and its pack are available to DB2 and that the data set has not been inadvertently deleted or migrated by any DASD operation.

If the data set name is correct, is cataloged, and appears in the VTOC, run the access method services DIAGNOSE command on the integrated catalog facility (ICF) catalog identified by the first qualifier of the data set name. The DIAGNOSE command is described in *DFSMS/MVS: Access Method Services for the Integrated Catalog*.

Problem Determination: Obtain the following:

- The integrated catalog facility (ICF) catalog
- The VTOC listings
- Details of the request that led to this code
- Contents of the SQLCA
- The operator's console sheet showing related messages

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 10, 12, 14, 32, 35.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This reason code is issued by the following CSECTs: DSNPCPN0 DSNPGNP0

00D70025

Explanation: An access method services request failed.

This reason code is issued by the following CSECT: DSNPAMSI

System Action: Abort the request.

Operator Response: Notify the system programmer or database administrator.

System Programmer Response: Examine messages DSNP009I and DSNP010I on the operator's console for the access method services messages they encompass. Refer to the appropriate MVS publication for information about specific access method services messages received.

Problem Determination: See the message DSNP009I description.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 10, 12, 14, 32, 35.

00D70026

Explanation: This is an internal error. An attempt to extend a data set failed because a problem was detected in the DSM notify process.

System Action: The data sharing extend did not complete.

Operator Response: Notify the system programmer or database administrator.

System Programmer Response: For additional information, see the description of message DSNP022I.

Problem Determination: Obtain the console sheet showing the associated DSNP022I message and any related messages preceding that message.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This reason code is issued by the following CSECT: DSNPXTN0

00D70027

Explanation: The secondary allocation value is 0. No physical extension is done. If this occurs in a create of a segmented table, the primary allocation of the table space is not big enough to allocate the first segment. The first segment consists of a number of pages which are defined in SEGSIZE.

This reason code is issued by the following CSECT: DSNPXTN0

System Action: The request to extend the data set is terminated.

System Programmer Response: Notify the database administrator if appropriate. Otherwise, if you intended to allow physical extension of the data set, change its secondary value to a nonzero quantity.

Problem Determination: Obtain the integrated catalog facility (ICF) catalog and VTOC listings, and (if storage group-defined) the output from SELECT * FROM SYSIBM.SYSSTOGROUP. Also obtain details of the request that resulted in this code, contents of the SQLCA, and the operator's console sheet showing related messages, if any.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 10, 12, 14, 15, 32, 35.

00D70028

Explanation: An HSM request for the recall of a migrated data set failed.

This abend reason code is issued by the following CSECT: DSNPHRC0

System Action: The HSM recall is aborted by data space manager and control returns to the function that issued the recall request. The higher level function will not necessarily terminate processing since the data set may have already been recalled.

Operator Response: If processing was terminated, notify the system programmer or database administrator.

System Programmer Response: If processing was terminated, investigate the reason for the HSM failure via messages issued to the MVS operator's console. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Refer to the problem determination section(s) of the associated DB2 and HSM messages which were issued to the MVS operator's console.

Collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 1.

00D70030

Explanation: Unexpected reason code was received from some DB2 subcomponent invoked by data space manager (DSM).

Almost any DSNP module can issue this reason code.

System Action: Abort the request.

Operator Response: Notify the system programmer.

System Programmer Response: There is not much the system programmer can do here, but see register 2 in the accompanying dump for the unexpected code. Its description may provide a clue to the type of problem. If you suspect an

error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Obtain a listing of the SQL request that resulted in this code and a listing of the contents of the SQLCA. Also obtain operator's console sheet showing related messages, if any. There should be at least one DSNP-prefixed message containing the '00D70030' code. Messages preceding it from other subcomponents (having other prefixes beginning with DSN) may provide additional details about the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 14, 32, 35.

00D70040

Explanation: An attempt to rename an existing data set failed, because a name does not conform to the naming convention.

This reason code is issued by the following CSECTs: DSNPRNM0 DSNPDLTE

System Action: Error indication is returned to the end user.

User Response: Notify the system programmer.

System Programmer Response: Notify the database administrator if appropriate.

Problem Determination: This problem probably arises during execution of the REORG utility with SHRLEVEL REFERENCE or CHANGE. See message DSNP027I or DSNP026I.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 10, 12, 14, 15, 32, 35.

00D70041

Explanation: An attempt to rename an existing data set failed.

This reason code is issued by the following CSECT: DSNPRNM0

System Action: Error indication is returned to the end user.

User Response: Notify the system programmer.

System Programmer Response: Notify the database administrator if appropriate.

Problem Determination: This problem probably arises during execution of the REORG utility with SHRLEVEL REFERENCE or CHANGE. See message DSNP027I.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 10, 12, 14, 15, 32, 35.

00D70042

Explanation: An attempt to rename an existing data set failed, because the old and new names are not compatible. This problem might arise in one or both of the following situations:

1. One data set name is a DB2 page set data set name and another data set name is a non-DB2 page set data set name.
2. Both are DB2 page set data set names, but there is a mismatch in the catalog alias names, the database names, or the table space/index space names.

This reason code is issued by the following CSECT: DSNPRNM0

System Action: Error indication is returned to the end user.

User Response: Notify the system programmer or database administrator.

System Programmer Response: Notify the database administrator if appropriate.

Problem Determination: This problem probably arises during execution of the REORG utility with SHRLEVEL REFERENCE or CHANGE. See message DSNP027I.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 10, 14, 15, 32, 35.

00D70051

Explanation: One of the following is issued on a ROSHARE OWNER database:

- A CREATE TABLESPACE statement
- A CREATE INDEX statement, or
- The REORG utility with SHRLEVEL REFERENCE or SHRLEVEL CHANGE using user-managed data sets

However, the data sets are not defined with VSAM SHAREOPTIONS(1,3).

System Action: An SQLCODE -731 is returned to the end user (for CREATE TABLESPACE or INDEX) The CREATE TABLESPACE or INDEX statement or the REORG utility is not executed.

User Response: Use AMS ALTER SHAREOPTIONS to alter the data set to SHAREOPTIONS(1,3) and resubmit the CREATE TABLESPACE or INDEX statement or the REORG utility.

00D70052

Explanation: An ALTER DATABASE statement is issued to convert a database to ROSHARE OWNER. But, within this database, at least one user defined data set is not defined with VSAM SHAREOPTIONS(1,3). All user-defined data sets that are within this database must be converted to SHAREOPTIONS(1,3) before the database can be altered to ROSHARE OWNER.

This reason code is issued by the following CSECT: DSNPATS0

System Action: An SQLCODE -731 is returned to the end user and the ALTER DATABASE statement is not performed.

User Response: Use AMS ALTER SHAREOPTIONS to alter all user-defined data sets that are within this database to SHAREOPTIONS(1,3), and resubmit the ALTER DATABASE statement.

00D70100

Explanation: A requested resource is not available. Either the data space manager (DSM) or some subcomponent that it invoked discovered that some resource is not available. The name and type of the resource and the reason it is unavailable are placed in the CT control block by the subcomponent that made the discovery. This information is made available to the end user in the SQLCA and/or messages. The reason code in the CT/SQLCA contains the identifier of the subcomponent that discovered the problem.

Almost any DSNP module can issue this reason code.

System Action: Abort the current request.

Operator Response: Notify the system programmer or database administrator.

System Programmer Response: Notify the database administrator if appropriate. Otherwise, determine what resource was unavailable (from SQLCA information) and, if it is something you can control, make it available. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: See the Problem Determination section in the description of the code that appears in the SQLCA or CTRURESN field of the CT and/or in the description of any associated console messages. Obtain details of the request that resulted in this code, and contents of the SQLCA. Also obtain operator's console sheet showing related messages, if any.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 14, 32, 35.

00D79999

Explanation: A severe error has occurred. For example, an invalid data space manager (DSM) function is invoked.

Almost any data space manager (DSM) function can issue this reason code.

System Action: Abort the request.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Obtain the console sheet, dump, details of the request that led to this code, and contents of the SQLCA. Use these in conjunction with the procedures in Section 3 of *Diagnosis Guide and Reference*.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 14, 32, 35.

X'D9.....' Codes

00D90000

Explanation: A recovery manager module received control from its FRR for retry and found an invalid retry point identifier. The name of the module in which the failure occurred appears in the SYS1.LOGREC entry showing this reason code in register 15.

System Action: Standard DB2 diagnostic information is provided. The error is recorded in SYS1.LOGREC, an SVC dump is scheduled, and DB2 subsystem termination is requested. The subsystem termination reason code reflects the function for which retry was unsuccessfully attempted.

Operator Response: Print SYS1.LOGREC, and restart DB2.

System Programmer Response: This is a secondary subsystem error. Obtain a copy of SYS1.LOGREC and the SVC dump for this failure and for the original failure that resulted in the retry attempt.

Problem Determination: Examine the SYS1.LOGREC information and the dumps from both the original failure and this second failure to determine if the recovery parameter area was damaged or if retry incorrectly restored registers for the mainline module.

00D90003

Explanation: A failure occurred while DB2 was attempting to open an object in the shared communications area (SCA).

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

Operator Response: Ensure the coupling facility for the SCA is available, and restart DB2.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNRIT03

00D90004

Explanation: An error occurred while DB2 was attempting to create a service task.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNRIT03

00D90010

Explanation: During the process of re-enabling data sharing, all members, other than the surviving member, are forced to cold start. In the process of setting up the cold start for this member, an active conditional restart control record was discovered in the BSDS. This record could not have been in the BSDS when data sharing was disabled, and this DB2 should have been inactive since data sharing was disabled; therefore, it is unclear what the conditional restart control record is requesting.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

System Programmer Response: Use the change log inventory (DSNJU003) utility to cancel the active conditional restart control record in this member's BSDS.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5. 16.

This abend reason code is issued by the following CSECT: DSNRRGRI

00D90011

Explanation: DB2 determined that the version of the shared communications area (SCA) recorded within the SCA did not match the version of the SCA returned from MVS.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNRRGRI

00D90012

Explanation: An error occurred while DB2 was attempting to create a service task.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNRRGRI

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00D90013

Explanation: Invalid restart parameters for TRKRSITE. When TRKRSITE=YES is specified in DSNZPARM and this DB2 subsystem has not successfully restarted in this tracker site recovery cycle, DB2 must be restarted with a conditional restart specifying BACKOUT=NO, FORWARD=NO, and either an ENDRBA value for non-data sharing, or ENDLRSN value for data sharing. No STARTRBA value should be specified (i.e., do not allow cold start or logs to be skipped at a tracker site). In data sharing, the ENDLRSN value must be the same for all members restarting in this tracker site recovery cycle.

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Insure that the Conditional Restart Control Record is correct, and restart DB2. You can run the Print Log Map Utility (DSNJU004) to examine the current Conditional Restart record. The conditonal restart parameters are created with the Change Log Inventory Utility (DSNJU003). See the DB2 Utility Guide and Reference manual for more information on these utilities.

Problem Determination:

00D9001F

Explanation: An invalid function code was passed to a DB2 service task.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNRRUTT

00D90020

Explanation: During the process of re-enabling data sharing, the surviving member of the previous data sharing disable must be the first member started. An attempt was made to start a member other than the surviving member during the process of re-enabling data sharing.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

Operator Response: To initiate the data sharing re-enable process, start the surviving member of the previous data sharing disable first.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

This abend reason code is issued by the following CSECTs: DSNRRSBS, DSNRRGRC

00D90021

Explanation: After data sharing is disabled, only the surviving member of the group can be started. An attempt was made to start a member other than the surviving member.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNRRSBS

00D90022

Explanation: After reading information from the BSDS of a peer member in its data sharing group, this DB2 was not able to close the peer's BSDS.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

This abend reason code is issued by the following CSECTs: DSNRRGRC, DSNRRINI, DSNRRSBS

00D90050

Explanation: Data sharing re-enable is cancelled.

This DB2 member was cancelled while waiting for other members of the data sharing group to complete their re-enable processing.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

Operator Response: To re-enable data sharing, start the surviving member again.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNRRGRT

00D900E0

Explanation: A DB2 functional recovery routine invoked DB2 subsystem termination because an unrecoverable error was detected.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

Problem Determination: If you suspect an error in DB2, refer

to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the original problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNRNTFY

00D900E1

Explanation: The operator replied 'NO' to message DSNR020I. See message DSNR020I for more information.

System Action: DB2 terminates.

Problem Determination: This abend reason code is issued by the following CSECT: DSNRRGRC

00D900EB

Explanation: This abend reason code appears at a member, other than the surviving member, when the surviving member is not able to complete the process of re-enabling data sharing. This member cannot continue because data sharing was not re-enabled successfully.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

Problem Determination: Determine why the surviving member was not able to complete the data sharing re-enable.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNRCRPR

00D900EC

Explanation: During the process of re-enabling data sharing, a member other than the surviving member was not able to complete it's portion of the re-enabling process.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNRCRPR

00D900F1

Explanation: DB2 received an error while attempting to read shared communications area (SCA) information from the coupling facility.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

System Programmer Response: Correct the problem with the coupling facility, and restart DB2.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

This abend reason code is issued by the following CSECTs: DSNRCRPR, DSNRIT02, DSNRIT03, DSNRNTFY, DSNRRGRC, DSNRRGRH, DSNRRGRI, DSNRRGRT, DSNRRSBS, DSNRSCA

00D900F2

Explanation: DB2 received an error while attempting to write shared communications area (SCA) information to the coupling facility.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

System Programmer Response: Correct the problem with the coupling facility, and restart DB2.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

This abend reason code is issued by the following CSECTs: DSNRIT02, DSNRIT03, DSNRRGRC, DSNRRGRH, DSNRRGRI, DSNRRGRT, DSNRRSBS, DSNRSCA

00D900F3

Explanation: DB2 received an error while attempting to read the BSDS.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

System Programmer Response: Correct the problem with the BSDS, and restart DB2.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 16, 1, 2, 5.

This abend reason code is issued by the following CSECTs: DSNRRGRI, DSNRRINI, DSNRSCA

00D900F4

Explanation: DB2 received an error while attempting to write to the BSDS.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

System Programmer Response: Correct the problem with the BSDS, and restart DB2.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 16, 1, 2, 5.

This abend reason code is issued by the following CSECTs: DSNRNTFY, DSNRRGRT, DSNRSCA

00D900F5

Explanation: DB2 received an error while attempting to read the BSDS of another member in the data sharing group.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

System Programmer Response: Correct the problem with the BSDS, and restart DB2.

Problem Determination: Register 4 contains the member ID of the member whose BSDS was being read.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 16, 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNRRINI

00D900F7

Explanation: DB2 received an error while attempting to acquire a lock.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump might be requested. Depending on the error, DB2 might initiate subsystem termination.

Problem Determination: Register 4 points to the resource that DB2 was attempting to lock.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

This abend reason code is issued by the following CSECTs: DSNRCRPR, DSNRIT02, DSNRIT03, DSNRRGRC, DSNRRGRH, DSNRRGRI, DSNRRSBS, DSNRSCA

00D900F8

Explanation: DB2 received an error while attempting to release a lock used to serialize portions of restart or group restart.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

This abend reason code is issued by the following CSECTs: DSNRIT02, DSNRIT03, DSNRRGRC, DSNRRGRH, DSNRRGRI, DSNRRGRT, DSNRRSBS, DSNRSCA

00D900F9

Explanation: DB2 received an error while attempting to notify other members in the data sharing group of a restart or group restart event.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

This abend reason code is issued by the following CSECTs: DSNRCRPR, DSNRRGRI, DSNRRGRT

00D900FA

Explanation: The starting DB2 subsystem is an incompatible release of DB2 or the code does not have the proper level of SPE applied.

System Action: The restart processing will abend, which will terminate the subsystem. No dumps will be taken.

System Programmer Response: Verify that:

- The correct load libraries are being used to start up the DB2 subsystem.
- The correct level of SPE has been applied.

Stop the DB2 subsystems that are running with a replaceable release.

This abend reason code is issued by the following CSECTs: DSNRRPRC, DSNRRSBS

00D90100

Explanation: A DB2 functional recovery routine invoked DB2 subsystem termination because an unrecoverable error was detected.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the original problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNRTIMR

00D90110

Explanation: This is an internal error.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNRNTFY

00D90111

Explanation: This is an internal error.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNRNTFY

00D91044

Explanation: An internal error was detected in either DB2 or OS/390 RRS.

System Action: The application is abended.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably either an error in DB2 or in OS/390 RRS. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: DB2 records information in the SYS1.LOGREC data set and requests an SVC dump. The error indicates that there can be a problem with DB2 or with OS/390 RRS.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNRUB01

00D92001

Explanation: The checkpoint/restart serial controller (DSNRCRSC) FRR invoked DB2 subsystem termination, because an unrecoverable error was detected while processing a request.

This is a DB2 subsystem termination reason code. For further information, see "IRLM Abend Reason Codes" on page 5-27.

This reason code is issued by the following CSECT: DSNRCRSC

System Action: Subsystem termination is initiated. Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the associated abend.

Operator Response: Print SYS1.LOGREC, and restart DB2.

System Programmer Response: Obtain a copy of the SYS1.LOGREC and the SVC dump for the original error, and follow the instructions associated with it.

Problem Determination: See the original error.

00D92003

Explanation: The restart request servicer (DSNRRRQS) FRR invoked DB2 subsystem termination, because an unrecoverable error was detected while processing a restart request.

This is a DB2 subsystem termination reason code. For further information, see "IRLM Abend Reason Codes" on page 5-27.

This reason code is issued by the following CSECT: DSNRRRQS

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error before DB2 subsystem termination is initiated.

Operator Response: Print SYS1.LOGREC, and restart DB2.

System Programmer Response: Obtain a copy of SYS1.LOGREC and the SVC dump for the original error.

Problem Determination: See the original error.

00D92004

Explanation: The shutdown checkpoint controller (DSNRCSHT) FRR invoked DB2 subsystem termination, because an unrecoverable error was detected while processing a shutdown checkpoint request.

This is a DB2 subsystem termination reason code. For further information, see "IRLM Abend Reason Codes" on page 5-27.

This reason code is issued by the following CSECT: DSNRCSHT

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error before DB2 subsystem termination is initiated.

Operator Response: Print SYS1.LOGREC, and restart DB2.

System Programmer Response: Obtain a copy of SYS1.LOGREC and the SVC dump for the original error.

Problem Determination: See the original error.

00D92011

Explanation: An invalid URE was found during checkpoint processing. An overlay of the URE may have occurred.

This abend reason code is issued by the following CSECT: DSNRPBCW

System Action: The checkpoint process will ABEND to prevent a damaged URE from being written out to the log, and the subsystem will be terminated. This is to prevent the loss or incorrect processing of a DB2 unit of recovery (UR). DB2 Restart will use the previous checkpoint and apply all the DB2 log records up to the point of failure. Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is scheduled.

Operator Response: Collect the SYS1.LOGREC and SVCDUMP, and notify the system programmer. Restart DB2.

System Programmer Response: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 5.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Examine the SVCDUMP and the DB2 Trace Table in the dump to determine the cause of the URE overlay.

00D92012

Explanation: An invalid RURE was found during checkpoint processing. An overlay of the RURE may have occurred.

This abend reason code is issued by the following CSECT: DSNRPBCW

System Action: The checkpoint process will abend to prevent a damaged RURE from being written out to the log, and the subsystem will be terminated. This is to prevent the loss or incorrect processing of a DB2 unit of recovery. DB2 Restart will use the previous checkpoint and apply all the DB2 log records up to the point of failure. Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is scheduled.

Operator Response: Collect the SYS1.LOGREC and SVCDUMP, and notify the system programmer. Restart DB2.

System Programmer Response: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 5.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Examine the SVCDUMP and the DB2 Trace Table in the dump to determine the cause of the RURE overlay.

00D92021

Explanation: An invalid URE was read from the log during the current status rebuild phase of restart. Restart cannot process the damaged URE.

This abend reason code is issued by the following CSECT: DSNRPLCS

System Action: The restart processing abends, which terminates the subsystem. This is to prevent the loss or incorrect processing of a DB2 unit of recovery.

Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is scheduled. The first 4 digits of the RBA of the invalid log record is contained in register 3 and the last 8 digits in register 4.

Operator Response: Do not attempt to restart DB2 until the error is resolved. Notify the system programmer and collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 5.

System Programmer Response: Print the BSDS using the print log map (DSNJU004) utility. Find the checkpoint queue in the output listing from DSNJU004.

Next, run the change log inventory (DSNJU003) utility to create a conditional restart record with the CHKPTRBA option specifying the Begin checkpoint RBA found in the second entry of the checkpoint queue. Restart DB2 using the conditional restart record found. If the same failure occurs, repeat the conditional process using the next begin checkpoint RBA in the checkpoint queue.

Repeat this process, going down the checkpoint queue until DB2 restarts. This will be prior to the time when the invalid URE was written to the log. The restart process is then able to apply all the log records to the end of the log. For information on running DSNJU004 and DSNJU003, see *Utility Guide and Reference* .

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D92022

Explanation: An invalid RURE was read from the log during the current status rebuild phase of restart. Restart cannot process the damaged RURE.

This abend reason code is issued by the following CSECT: DSNRPLCS

System Action: The restart processing will abend, which will terminate the subsystem. This is to prevent the loss or incorrect processing of a DB2 unit of recovery.

Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is scheduled. The first 4 digits of the RBA of the invalid log record is contained in register 3 and the last 8 digits in register 4.

Operator Response: Do not attempt to restart DB2 until the error is resolved. Notify the system programmer and collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 5.

System Programmer Response: Print the BSDS using the print log map (DSNJU004) utility. Find the checkpoint queue in the output listing from DSNJU004.

Next, run the change log inventory (DSNJU003) utility to create a conditional restart record with the CHKPTRBA option specifying the begin checkpoint RBA found in the second entry of the checkpoint queue. Restart DB2 using the conditional restart record found. If the same failure occurs, repeat the conditional process using the next begin checkpoint RBA in the checkpoint queue.

Repeat this process, going down the checkpoint queue until DB2 restarts. This will be prior to the time when the invalid RURE was written to the log. The restart process is then able to apply all the log records to the end of the log. For information on running the DSNJU004 and DSNJU003 utilities, refer to *Utility Guide and Reference*.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D93001

Explanation: The commit/abort FRR (DSNRCAFR) invoked DB2 subsystem termination, because an unrecoverable error was detected during must-complete processing for phase 2 of a commit-UR request.

This is a DB2 subsystem termination reason code. For further information, see “IRLM Abend Reason Codes” on page 5-27.

This reason code is issued by the following CSECTs: DSNRCAFR, DSNRUC02

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error before DB2 subsystem termination is initiated.

Operator Response: Print SYS1.LOGREC, and restart DB2.

System Programmer Response: Obtain a copy of SYS1.LOGREC and the SVC dump for the original error.

Problem Determination: See the original error.

00D9300F

Explanation: The commit/abort secondary FRR invoked DB2 subsystem termination. This occurs only if functional recovery itself fails while processing a failure during must-complete processing for phase 2 of a commit-UR request.

This is a DB2 subsystem termination reason code. For further information, see “IRLM Abend Reason Codes” on page 5-27.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error. Standard DB2 diagnostic information is also recorded in SYS1.LOGREC for the secondary error before DB2 subsystem termination is initiated.

Operator Response: Print SYS1.LOGREC, and restart DB2.

System Programmer Response: Obtain a copy of SYS1.LOGREC for both the original and the secondary error, and the SVC dump for the original error.

Problem Determination: See the original error.

00D93011

Explanation: A subcomponent of DB2 invoked commit when the agent state was invalid for commit-UR invocation. Commit-UR was requested for an agent that was modifying data. Either commit-UR or abort-UR was already in process, or the recovery structure (URE) was damaged.

This abend reason code is issued by the following CSECT: DSNRUC01

System Action: Abnormal termination of the agent results, including backing out (abort-UR) of its activity to the previous point of consistency. This releases all locks held by the agent for its resources.

Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is scheduled. Additional information, identified in the SDWA variable recording area by reason code '00D9CCCC', is added to the SDWA variable recording area (VRA).

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

If the agent were in a must-complete state (in-commit2 or in-abort), the DB2 subsystem is also terminated with reason code '00D93001'. When the subsystem is next restarted, recoverable activity for this agent (such as an ensure-abort or ensure-commit UR) is handled to complete the commit or abort process.

System Programmer Response: This is a DB2 subsystem error. Collect the materials mentioned in the Problem Determination section of this message.

Problem Determination: Examine the SYS1.LOGREC data and the DB2 trace table in the dump to establish whether either commit-UR was invoked incorrectly or the control structure that reflects the state (ACEPROG, UREPROG) was damaged.

00D93012

Explanation: A subcomponent of DB2 invoked commit when the agent state was invalid for commit-UR invocation. Commit-UR was invoked for an agent that was only retrieving data. Either commit-UR or abort-UR was already in process, or the ACE progress state field was damaged.

This abend reason code is issued by the following CSECT: DSNRUC01

System Action: Abnormal termination of the agent results, including backing out (abort-UR) of its activity to the previous point of consistency. This releases all locks held by the agent for its resources.

Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is scheduled. Additional information, identified in the SDWA variable recording area by reason code '00D9CCCC', is added to the SDWA variable recording area.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

System Programmer Response: This is a DB2 subsystem error. Collect the materials mentioned in the Problem Determination section of this message.

Problem Determination: Examine the SYS1.LOGREC data and the DB2 trace table in the dump to establish whether either commit-UR was invoked incorrectly or the control structure (ACEPROG) was damaged.

00D93100

Explanation: This reason code indicates that a DB2 allied agent does not need to participate in the Phase 2 (Continue Commit) call, because all required work has been accomplished during the Phase 1 (Prepare) call.

This reason code is generated by Recovery Manager when it is determined that a DB2 allied agent has not updated any DB2 resource since its last commit processing occurred.

This reason code is issued by the following CSECT: DSNRUC01

System Action: The "yes" vote is registered with the Commit coordinator.

System Programmer Response: None should be required because this is not an error reason code. This reason code is used for communication between components of the DB2 subsystem.

Problem Determination: This reason code is not indicative of an error. See System Programmer Response.

00D94001

Explanation: The commit/abort FRR (DSNRCAFR) invoked DB2 subsystem termination, because an unrecoverable error was detected during must-complete processing for an abort-UR request.

This is a DB2 subsystem termination reason code.

This reason code is issued by the following CSECTs: DSNRCAFR, DSNRUA02

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested

for the original error before DB2 subsystem termination is initiated.

Operator Response: Print SYS1.LOGREC, and restart DB2.

System Programmer Response: Obtain a copy of SYS1.LOGREC and the SVC dump for the original error.

Problem Determination: See the reason code for the original error.

00D9400F

Explanation: The commit/abort FRR invoked DB2 subsystem termination. This occurs only if functional recovery itself fails while processing a failure during must-complete processing for an abort-UR request.

This is a DB2 subsystem termination reason code. For further information, see “IRLM Abend Reason Codes” on page 5-27.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error. Standard DB2 diagnostic information is also recorded in SYS1.LOGREC for the secondary error before DB2 subsystem termination is initiated.

Operator Response: Print SYS1.LOGREC, and restart DB2.

System Programmer Response: Obtain a copy of the SYS1.LOGREC for both the original and the secondary error, and the SVC dump for the original error.

Problem Determination: See the original error.

00D94011

Explanation: A subcomponent of DB2 invoked abort at a point when the agent state is invalid for invoking the function that aborts units of recovery. Either abort-UR or commit-UR phase 2 was already in process, or the agent structure was damaged.

This abend reason code is issued by the following CSECT: DSNRUA01

System Action: Abnormal termination of the agent results and, because the agent is in a must-complete state, the DB2 subsystem is terminated with reason code `'00D94001'`. When the DB2 subsystem is restarted, recoverable activity for this agent is handled to complete the commit or abort process.

Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is scheduled. Additional information, identified in the SDWA variable recording area by reason code `'00D9AAAA7'`, is added to the SDWA variable recording area. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

System Programmer Response: This is a DB2 subsystem error. Collect the materials mentioned in the Problem Determination section of this message.

Problem Determination: Examine the SYS1.LOGREC data and the DB2 trace table in the dump to establish whether commit-UR was invoked incorrectly or the control structure (ACEPROG, UREPROG) was damaged.

00D94012

Explanation: During rollback, the end of the log was read before all the expected log ranges were processed. The abend is accompanied by a DB2 abnormal subsystem termination with reason code 00D94001.

This reason code is issued by the following CSECT: DSNRUA02

System Action: The agent is abnormally terminated. Because the agent is in a must-complete state, the DB2 subsystem is terminated with reason code 00D94001 and message DSNV086E. Standard DB2 diagnostic information is recorded in SYS1.LOGREC. An 04E-D94012 SVC dump is requested.

Operator Response:

1. Run the print log map (DSNJU004) utility to print the content of both BSDSs.
2. Print SYS1.LOGREC.
3. Use the MVS DISPLAY DUMP command to get the failure reason code from dump titles.
4. Notify your system programmer.

System Programmer Response: Obtain a copy of the SYS1.LOGREC and the SVC dump for the original error. Refer to the recovery scenarios in Section 4 (Volume 1) of *Administration Guide* before restarting.

To restart DB2, you must do one of the following:

- Add the missing archive log data sets back to the BSDS with the change log inventory (DSNJU003) utility and increase the MAXARCH parameter in the DSN6LOGP member of DSNZPARM to complete the rollback, or
- Restart DB2 with a conditional restart specifying BACKOUT=NO to bypass the unit of recovery that is in-abort.

Problem Determination: At the time of the abend, registers 3 and 4 contain the 6-byte relative byte address (RBA) of the beginning of this unit of recovery. DB2 must read the log back to this point to complete the ROLLBACK of this unit of recovery.

00D95001

Explanation: The recovery manager’s common FRR (DSNRCRFR) invoked DB2 subsystem termination, because an unrecoverable error was detected during checkpoint (DSNRCPRC) processing.

This is a DB2 subsystem termination reason code. For further information, see “IRLM Abend Reason Codes” on page 5-27.

This reason code is issued by the following CSECTs: DSNRCRFR, DSNRCPRC

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error before DB2 subsystem termination is initiated.

Operator Response: Print SYS1.LOGREC, and restart DB2.

System Programmer Response: Obtain a copy of SYS1.LOGREC and the SVC dump for the original error.

Problem Determination: See the original error.

00D95011

Explanation: The recovery manager checkpoint (DSNRPBCW) FRR invoked DB2 subsystem termination, because an unrecoverable error was detected while performing its checkpoint functions.

This is a DB2 subsystem termination reason code. For further information, see “IRLM Abend Reason Codes” on page 5-27.

This reason code is issued by the following CSECT: DSNRPBCW

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error before DB2 subsystem termination is initiated.

Operator Response: Print SYS1.LOGREC, and restart DB2.

System Programmer Response: Obtain a copy of the SYS1.LOGREC and the SVC dump for the original error.

Problem Determination: See the original error.

00D96001

Explanation: The recovery manager’s restart FRR invoked DB2 subsystem termination, because an unrecoverable error was detected during the restart processor (DSNRRPRC) processing.

This is a DB2 subsystem termination reason code. For further information, see “IRLM Abend Reason Codes” on page 5-27.

This reason code is issued by the following CSECTs:

DSNRCRFR	DSNRRAUB	DSNRRCSL	DSNRRCSR
DSNRRHSL	DSNRRHSR	DSNRRPMU	DSNRRPRC

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error before DB2 subsystem termination is initiated.

Operator Response: Print SYS1.LOGREC, and restart DB2.

System Programmer Response: Obtain a copy of the SYS1.LOGREC and the SVC dump for the original error.

Problem Determination: See the original error.

00D96011

Explanation: The restart participation FRR invoked DB2 subsystem termination, because an unrecoverable error was detected while processing log records during restart.

This is a DB2 subsystem termination reason code. For further information, see “IRLM Abend Reason Codes” on page 5-27.

This reason code is issued by the following CSECT: DSNRPBCS

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error before DB2 subsystem termination is initiated.

Operator Response: Print SYS1.LOGREC, correct the problem, and restart DB2.

System Programmer Response: Obtain a copy of the SYS1.LOGREC and the SVC dump for the original error.

Problem Determination: See the original error.

00D96021

Explanation: The DB2 subsystem was terminated during restart because a failure occurred while attempting to read the log forward MODE(DIRECT). It is accompanied by a recovery log manager abend X'04E' with a reason code describing the specific failure.

Each time a portion of the log is skipped, a read direct is used to validate the beginning RBA of the portion that is read.

This is a DB2 subsystem termination reason code. For further information, see “IRLM Abend Reason Codes” on page 5-27.

This reason code is issued by the following CSECTs: DSNRRHSR, DSNRRCSR

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error before DB2 subsystem termination is initiated.

Operator Response:

1. Run the print log map (DSNJU004) utility to print content of both BSDSs.
2. Print SYS1.LOGREC.
3. Follow instructions for the accompanying recovery log manager error. Use the MVS DISPLAY DUMP command to get the failure reason code from dump titles.

System Programmer Response: Obtain a copy of the SYS1.LOGREC and the SVC dump for the original error. If possible, correct cause of original error and restart DB2. If you cannot correct the error, refer to Section 4 (Volume 1) of *Administration Guide*.

00D96022

Explanation: The restart FRR invoked abend, because, while reading the log forward during restart, the end-of-log was read before all recovery log scopes had been processed. It is followed by DB2 abnormal subsystem termination with the same reason code ('00D96022').

This is a DB2 subsystem termination reason code. For further information, see “IRLM Abend Reason Codes” on page 5-27.

This reason code is issued by the following CSECT: DSNRRHSR

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the abend before DB2 subsystem termination is initiated.

Operator Response:

1. Run the print log map (DSNJU004) utility to print content of both BSDSs.
2. Print SYS1.LOGREC.
3. Follow instructions for the accompanying recovery log manager error. Use the MVS DISPLAY DUMP command to get the failure reason code from dump titles.
4. Notify your system programmer.

System Programmer Response: Obtain a copy of the SYS1.LOGREC and the SVC dump for the original error. If you cannot correct the error, refer to Section 4 (Volume 1) of *Administration Guide*.

Problem Determination: At the time of the abend, registers 2 and 3 (as shown in the dump or in SYS1.LOGREC) contain the 6-byte relative byte address (RBA) of the last log record that was read before end-of-log was encountered.

00D96031

Explanation: The restart FRR invoked DB2 subsystem termination, because a failure occurred while attempting to read the log backward MODE(DIRECT). It is accompanied by a recovery log manager abend X'04E' with a reason code describing the specific failure.

Each time a portion of the log is skipped, a read direct is used to validate the beginning RBA of the portion that is read.

This is a DB2 subsystem termination reason code. For further information, see “IRLM Abend Reason Codes” on page 5-27.

This reason code is issued by the following CSECT: DSNRRAUB

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error before DB2 subsystem termination is initiated.

Operator Response:

1. Run the print log map (DSNJU004) utility to print content of both BSDSs.
2. Print SYS1.LOGREC.
3. Follow instructions for the accompanying recovery log manager error. Use the MVS DISPLAY DUMP command to get the failure reason code from dump titles.
4. Start DB2 again.

System Programmer Response: Obtain a copy of the SYS1.LOGREC and the SVC dump for the original error.

Problem Determination: See the accompanying abend reason code.

00D96032

Explanation: During restart, the end of the log was read before all the expected log ranges had been processed. The abend is accompanied by a DB2 abnormal subsystem termination with the same reason code ('00D96032').

This is a DB2 subsystem termination reason code. For further information, see “IRLM Abend Reason Codes” on page 5-27.

This reason code is issued by the following CSECT: DSNRRAUB

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC. A 04E-D96032 SVC dump is requested. The DB2 subsystem is terminated with DSNV086E message.

Operator Response:

1. Run the print log map (DSNJU004) utility to print content of both BSDSs.
2. Print SYS1.LOGREC.
3. Use the MVS DISPLAY DUMP command to get the failure reason code from dump titles.
4. Notify your system programmer.

System Programmer Response: Obtain a copy of the SYS1.LOGREC and the SVC dump for the original error. Determine where the log went. Refer to Section 4 (Volume 1) of *Administration Guide* before restarting.

Problem Determination: At the time of the abend, registers 2 and 3 contain the 6-byte relative byte address (RBA) of the last log record that was read before end-of-log was encountered.

00D96041

Explanation: The recovery manager's restart function detected an internal error.

This abend reason code is issued by the following CSECT: DSNRXRU

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the error. For more information see message DSNL429.

Operator Response: Notify the system programmer.

System Programmer Response: See message DSNL429 for more information.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 5.

00D98001

Explanation: The recovery manager’s common FRR (DSNRCRFR) invoked DB2 subsystem termination, because an unrecoverable error was detected during indoubt-UR (DSNRRIPR, DSNRRIRD, DSNRRIUN, DSNRIPMU) processing.

This is a DB2 subsystem termination reason code. For further information, see “IRLM Abend Reason Codes” on page 5-27.

This reason code is issued by the following CSECT: DSNRCRFR

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error before DB2 subsystem termination is initiated.

Operator Response: Print SYS1.LOGREC, restart DB2.

System Programmer Response: Obtain a copy of the SYS1.LOGREC and the SVC dump for the original error.

Problem Determination: See the original error.

00D98011

Explanation: The FRR for the resolve-indoubt-UR request servicer (DSNRIURS) invoked DB2 subsystem termination, because an unrecoverable error was detected processing a request.

This is a DB2 subsystem termination reason code. For further information, see “IRLM Abend Reason Codes” on page 5-27.

This reason code is issued by the following CSECT: DSNRIURS

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error before DB2 subsystem termination is initiated.

Operator Response: Print SYS1.LOGREC, and restart DB2.

System Programmer Response: Obtain a copy of the SYS1.LOGREC and the SVC dump for the original error.

Problem Determination: See the accompanying abend reason code.

00D98021

Explanation: The resolved indoubt FRR invoked DB2 subsystem termination because of a failure while attempting to read the log MODE(DIRECT) during forward recovery. It is accompanied by a recovery log manager abend X'04E' with a reason code describing the specific failure.

Each time a portion of the log is skipped, a read direct is used to validate the beginning RBA of the portion that is read.

This is a DB2 subsystem termination reason code. For further information, see “IRLM Abend Reason Codes” on page 5-27.

This reason code is issued by the following CSECT: DSNRRIRD

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error before DB2 subsystem termination is initiated.

Operator Response:

1. Run the print log map (DSNJU004) utility to print content of both BSDSs.
2. Print SYS1.LOGREC.
3. Follow instructions for the accompanying recovery log manager error. Use the MVS DISPLAY DUMP command to get the failure reason code from dump titles.
4. Start DB2 again.

System Programmer Response: Obtain a copy of the SYS1.LOGREC and the SVC dump for the original error.

Problem Determination: See the accompanying abend reason code.

00D98022

Explanation: Resolved indoubt invoked abend when end-of-log was reached before all ranges had been processed for forward recovery. This abend is accompanied by abnormal DB2 subsystem termination with the same reason code ('00D98022').

This is a DB2 subsystem termination reason code. For further information, see “IRLM Abend Reason Codes” on page 5-27.

This reason code is issued by the following CSECT: DSNRRIRD

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error before DB2 subsystem termination is initiated.

Operator Response:

1. Run the print log map (DSNJU004) utility to print content of both BSDSs.
2. Print SYS1.LOGREC.
3. Follow instructions for the accompanying recovery log manager error. Use the MVS DISPLAY DUMP command to get the failure reason code from dump titles.
4. Start DB2 again.

System Programmer Response: Obtain a copy of the SYS1.LOGREC and the SVC dump for the original error.

Problem Determination: At the time of the abend, registers 2 and 3 contain the 6-byte relative byte address (RBA) of the last log record that was read before end-of-log was encountered.

00D98031

Explanation: The resolved indoubt FRR invoked DB2 subsystem termination, because a failure occurred during an attempt to read the log MODE(DIRECT) while reading the log backward. It is accompanied by a recovery log manager abend X'04E' with a reason code describing the specific failure.

Each time a portion of the log is skipped, a read direct is used to validate the begin-scope RBA of the portion that is read.

This is a DB2 subsystem termination reason code. For further information, see “IRLM Abend Reason Codes” on page 5-27.

This reason code is issued by the following CSECT: DSNRRIUN

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error before DB2 subsystem termination is initiated.

Operator Response:

1. Run the print log map (DSNJU004) utility to print content of both BSDSs.
2. Print SYS1.LOGREC.
3. Follow instructions for the accompanying recovery log manager error. Use the MVS DISPLAY DUMP command to get the failure reason code from dump titles.
4. Start DB2 again.

System Programmer Response: Obtain a copy of the SYS1.LOGREC and the SVC dump for the original error.

Problem Determination: See the accompanying abend reason code.

00D98032

Explanation: Resolved indoubt FRR invoked abend when end-of-log was reached before all ranges had been processed for backward recovery. This abend is accompanied by abnormal DB2 subsystem termination with the same reason code ('00D98032').

This is a DB2 subsystem termination reason code. For further information, see “IRLM Abend Reason Codes” on page 5-27.

This reason code is issued by the following CSECT: DSNRRIUN

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error before DB2 subsystem termination is initiated.

Operator Response:

1. Run the print log map (DSNJU004) utility to print content of both BSDSs.
2. Print SYS1.LOGREC.
3. Follow instructions for the accompanying recovery log manager error. Use the MVS DISPLAY DUMP command to get the failure reason code from dump titles.
4. Start DB2 again.

System Programmer Response: Obtain a copy of the SYS1.LOGREC and the SVC dump for the original error.

Problem Determination: At the time of the abend, registers 2 and 3 contain the 6-byte relative byte address (RBA) of the last log record that was read before end-of-log was encountered.

00D99001

Explanation: An attempt to read the CHKPTRBA failed to return a valid checkpoint record. This abend is issued after the DSNR015I error message is issued.

System Action: Restart is abended.

Operator Response: Inform the system programmer.

System Programmer Response: Let the change log inventory (DSNJU003) utility select the checkpoint RBA when building the conditional restart record. If a specific checkpoint is desired, use DSN1LOGP to print out the checkpoint log records within a specified range. If manual selection of the checkpoint RBA is desired, use the print log map (DSNJU004) utility to print the checkpoint queue. Print the checkpoint queue by using the CHKPTRBA keyword.

Problem Determination:

- Print the checkpoint records within the desired range using DSN1LOGP.
- Print the checkpoint queue using DSNJU004.
- Verify the checkpoint queue against the DSN1LOGP report.
- If automatic checkpoint selection was used and the checkpoint was invalid, find the valid checkpoint RBA in the DSN1LOGP report. Use this checkpoint RBA in the CRCR using the CHKPTRBA keyword.
- If an explicit checkpoint was specified and the checkpoint was invalid, let DSNJU003 automatically choose the checkpoint by not specifying a CHKPTRBA keyword.

00D99002

Explanation: Validation of the STARTRBA failed because either the end of the log was reached, or a bad log record was encountered while attempting to find the first complete log record.

System Action: Restart abends.

Operator Response: Inform the system programmer.

System Programmer Response: Check the console log for DSNJ (Log Manager) messages; these may indicate failures in the Log Manager processing, or may reveal additional useful information for diagnostic purposes. Use DSN1LOGP to find a safe STARTRBA to use for restart. If a STARTRBA is specified, the Recovery Manager will use it as a starting point. From the starting point, the Recovery Manager will attempt to find the beginning of a valid log record.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 16.

00D99003

Explanation: CSRONLY was specified in the conditional restart record. Only the DB2 status phase of restart will complete.

System Action: Restart abends.

System Programmer Response: Use the change log inventory (DSNJU003) utility to cancel the current conditional restart record or create a new conditional restart record.

00D99004

Explanation: A log read failed because an internal error was detected by the data manager while examining the log record during DB2 restart.

This abend reason code is issued by the following CSECT: DSNRRHSL

System Action: The execution unit writes a record to SYS1.LOGREC and requests a SVC dump. Restart abends.

User Response: Notify the system programmer.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RM standard diagnostic information is provided in "Recovery Manager Reason Codes (X'D9')". In addition, the following diagnostic information is provided in registers:

Register 0	The data manager ERQUAL that identifies the place within the data manager filter routine where the error was detected
Register 2,3	The RBA of the log record that was being read at the time of the error
Register 8	The address of *ssnm*DBM1's selection block
Register 9	The address of DSCF' selection block

00D9AAAA

Explanation: This reason code identifies additional data stored in the SDWA variable recording area following a failure during abort-UR.

This reason code appears only in the SDWA variable recording area (VRA) and serves only to identify data (in addition to the standard DB2 diagnostic information that is stored in the SDWA). This reason code is the first data item of the standard information. As such, it always appears in the VRA of an SDWA for a primary error completion/reason code. If no data is added, the reason code in the SDWA VRA is the same as that associated with the completion code.

This reason code is issued by the following CSECT: DSNRCAFR

System Action: Five bytes of data preceded by code VRAHEX are stored following the EBCDIC string 'RMC-COMMIT/ABORT'.

Length	Data
1 byte	Retry flags
1 byte	Retry id
1 byte	Notification RMID
2 bytes	ACE progress state (ACEPROG)

System Programmer Response: Use this information in conjunction with other information for the primary failure. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D9BBBB

Explanation: This reason code identifies additional data stored in the SDWA variable recording area following a failure during begin-UR.

This reason code appears only in the SDWA variable recording area (VRA) and it serves only to identify data (in addition to the standard DB2 diagnostic information, stored in the SDWA). This reason code is the first data item of the standard information. As such, it always appears in the VRA of an SDWA for a primary error completion/reason code. If no data is added, the reason code in the SDWA VRA is the same as that associated with the completion code.

This reason code is issued by the following CSECT: DSNRUB01

System Action: The following data is stored preceded by code VRAHEX.

Length	Data
4	Content of ACEURE
4	URE address
4	DSNWRCRD return code
1	Retry flags

System Programmer Response: Use this information with the instructions for the specific failure. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D9CCCC

Explanation: This reason code identifies additional data stored in the SDWA variable recording area following a failure during commit-UR.

This reason code appears only in the SDWA variable recording area (VRA) and serves only to identify data (in addition to the standard DB2 diagnostic information, stored in the SDWA). This reason code is the first data item of the standard information. As such, it always appears in the VRA of an SDWA for a primary error completion/reason code.

This reason code is issued by the following CSECT: DSNRCAFR

System Action: Five bytes of data preceded by code VRAHEX are stored following the EBCDIC string 'RMC-COMMIT/ABORT'.

Length	Data
1 byte	Retry id
1 byte	Notification RMID
1 byte	ACE progress state (ACEPROG)
1 bit	In flight
1 bit	In-Commit1
1 bit	Indoubt
1 bit	In-Commit2
1 bit	End-Commit
1 bit	In-Abort
1 bit	End-Abort
1 bit	(Reserved)

System Programmer Response: Use this information with the instructions for the specific failure. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D9EEEE

Explanation: This reason code identifies additional data stored in the SDWA variable recording area following a failure during end-UR.

This reason code appears only in the SDWA variable recording area (VRA) and serves only to identify data (in addition to the standard DB2 diagnostic information, stored in the SDWA). This reason code is the first data item of the standard information. As such, it always appears in the VRA of an SDWA for a primary error completion/reason code.

This reason code is issued by the following CSECT: DSNRUE01

System Action: The following data is stored preceded by code VRAHEX.

Length	Data
4	URE address
4	DSNWRCRD return code

System Programmer Response: Use this information in conjunction with the information about the error completion code. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

X'E2.....' Codes

00E20001

Explanation: The get variable storage function detected that input parameters passed by the invoker were invalid.

This abend reason code is issued by the following CSECT: DSNSVBK

System Action: The invoker of DSNSGSTG is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. The following general purpose registers contain the indicated diagnostic information:

Register 4 contains the address of the pool header block (PHB), which contains information for the current status of the pool.

Register 7 contains the value of the caller's saved register 14.

Register 3 contains the input request length.

Register 5 contains the input request owner ID.

Offset X'1EF' in the SDWA contains a VRACAN key of X'3D', followed by the module name of the Storage Manager invoker.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3, 5.

00E20002

Explanation: The free variable storage function detected that input parameters (either the pool address or the pool type) passed by the invoker were invalid.

This abend reason code is issued by the following CSECT: DSNSVBK

System Action: The invoker of DSNSFSTG is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. The following general purpose registers contain the indicated diagnostic information:

Register 4 contains the address of the pool header block (PHB), which contains information for the current status of the pool.

Register 7 contains the value of the caller's saved register 14.

Offset X'1EF' in the SDWA contains a VRACAN key of X'3D', followed by the module name of the Storage Manager invoker.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3, 5.

00E20003

Explanation: In order to satisfy an unconditional request for storage, the get variable storage function needed to obtain storage (from GETMAIN) to expand a storage pool. However, GETMAIN indicated that sufficient storage in the private area was not available.

This abend reason code is issued by the following CSECT: DSNSVBK

System Action: The invoker of DSNSGSTG is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Increase region size. If the region size is already defined at the maximum, consider enabling the CONTSTOR system initialization parameter.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 2 contains the ASID, in hexadecimal, of the private area to be printed. Register 4 contains the address of the pool header block (PHB). Register 7 contains the value of the caller's saved register 14.

At offset 1EF in the SDWA, there is a VRACAN key of '3D' (in HEX), followed by the module name of the Storage Manager invoker. The trace information contains the requested amount of storage.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3, 5.

00E20004

Explanation: In order to satisfy an unconditional request for storage, the get variable storage function needed to obtain additional storage (from GETMAIN) to expand a storage pool. However, the pool attributes defined at the time the pool was created indicated that the pool was already at maximum size.

This abend reason code is issued by the following CSECT: DSNSVBK

System Action: The invoker of DSNSGSTG is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 4 contains the address of the pool header block (PHB). Register 7 contains the value of the caller's saved register 14.

At offset 1EF in the SDWA, there is a VRACAN key of '3D' (in HEX), followed by the module name of the Storage Manager invoker.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3, 5.

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00E20005

Explanation: The free variable storage function detected that the address of a block being freed was invalid. That is, it did not lie within an existing storage pool.

This abend reason code is issued by the following CSECT: DSNSVBK

System Action: The invoker of DSNSFSTG is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 4 contains the address of the pool header block (PHB). Register 7 contains the value of the caller's saved register 14. Register 11 contains the address of the invalid block to be freed.

At offset 1EF in the SDWA, there is a VRACAN key of '3D' (in HEX), followed by the module name of the Storage Manager invoker.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3, 5.

00E20006

Explanation: The free variable storage function detected that the block being freed was not allocated. That is, it was already free.

This abend reason code is issued by the following CSECT: DSNSVBK

System Action: The invoker of DSNSFSTG is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 4 contains the address of the pool header block (PHB). Register 7 contains the value of the caller's saved register 14. Register 11 contains the address of the free block.

At offset 1EF in the SDWA, there is a VRACAN key of '3D' (in HEX), followed by the module name of the Storage Manager invoker.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3, 5.

00E20007

Explanation: The allocate variable storage pool function detected that the input parameters passed by the invoker were invalid.

This abend reason code is issued by the following CSECT: DSNSVPL

System Action: The invoker of DSNSGPOL is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. The following general purpose registers contain the indicated diagnostic information:

Register 2 contains the input parameter list address.

Register 3 contains the input maximum pool size.

Register 4 contains the input expansion segment size.

Register 5 contains the input initial segment size.

The trace information contains the address of the invalid parameter list.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3, 5.

00E20008

Explanation: The free variable storage pool function detected that the input parameter (PHB—pool header block) did not represent an existing pool.

This abend reason code is issued by the following CSECT: DSNSVPL

System Action: The invoker of DSNSFPOL is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. The trace information contains the address of the invalid PHB (pool header block).

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3, 5.

00E20009

Explanation: The get fixed blocks function detected that input parameters passed by the invoker were invalid.

This abend reason code is issued by the following CSECT: DSNSFBK

System Action: The invoker of DSNSGBLK is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. The following general purpose registers contain the indicated diagnostic information:

Register 4 contains the address of the pool header block (PHB).

Register 7 contains the value of the caller's saved register 14.

Register 5 contains the number of blocks requested.

The invalid input parameters are also contained in the trace information.

Offset X'1EF' in the SDWA contains a VRACAN key of X'3D', followed by the module name of the Storage Manager invoker.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 3, 5.

00E2000A

Explanation: The get tracked storage function requested storage from the DSNSGETM function for a tracking element in order to track the storage to be returned to the invoker. However, storage for the tracking element was unavailable. The invoker’s request was unconditional.

This abend reason code is issued by the following CSECT: DSNSGMN

System Action: The invoker of DSNSGETM is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 2 contains the ASID, in hexadecimal, of the private area to be printed.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 3, 5.

00E2000B

Explanation: In order to satisfy an unconditional request, the get fixed block(s) function needed to obtain additional storage to expand a storage pool. However, GETMAIN indicated that insufficient storage existed in the private area.

This abend reason code is issued by the following CSECT: DSNSFBK

System Action: The invoker of DSNSGBLK is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Increase region size. If the
region size is already defined at the maximum, consider ena-
bling the CONTSTOR system initialization parameter.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 2 contains the ASID, in hexadecimal, of the private area to be printed. Register 4 contains the address of the pool header block (PHB). Register 7 contains the value of the caller’s saved register 14. The trace information contains the number of blocks requested.

At offset 1EF in the SDWA, there is a VRACAN key of '3D' (in HEX), followed by the module name of the Storage Manager invoker.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 3, 5.

00E2000C

Explanation: In order to satisfy an unconditional request, the get fixed block(s) function needed to obtain additional storage to expand a storage pool. However, the pool attributes defined at the time the pool was created indicated that the pool was already at maximum size.

This abend reason code is issued by the following CSECT: DSNSFBK

System Action: The invoker of DSNSGBLK is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 4 contains the address of the pool header block (PHB). Register 7 contains the value of the caller’s saved register 14. The trace information contains the number of blocks requested.

At offset 1EF in the SDWA, there is a VRACAN key of '3D' (in HEX), followed by the module name of the Storage Manager invoker.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 3, 5.

00E2000D

Explanation: DB2 detected that either the address of a block being freed (the only block or a block on a chain of blocks) was invalid or the block did not lie within an existing storage pool.

System Action: The invoker of DSNSFBLK is abended.

Operator Response: Notify the system programmer.

System Programmer Response: The most likely cause of the problem is a storage overlay or an invalid storage request from a DB2 component. A product other than DB2 could cause the storage overlay problem.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 7 contains the value of the caller’s saved register 14. Register 11 contains the address of the invalid block to be freed.

At offset X'1EF' in the SDWA, there is a VRACAN key of X'3D', followed by the module name of the storage manager invoker.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 3, 5.

This abend reason code is issued by the following CSECT: DSNSFBK

00E2000E

Explanation: DB2 detected that a segment of storage within the pool on which the request was directed was invalid or contained an invalid 'free chain' of free blocks in the segment.

System Action: The invoker of DSNSGBLK/DSNSFBLK is abended.

Operator Response: Notify the system programmer.

System Programmer Response: The most likely cause of the problem is a storage overlay or an invalid storage request from a DB2 component. A product other than DB2 could cause the storage overlay problem.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 4 contains the address of the pool header block (PHB). Register 7 contains the value of the

caller's saved register 14. Register 11 contains the address of the block to be freed if freeing a fixed block.

At offset X'1EF' in the SDWA, there is a VRACAN key of X'3D', followed by the module name of the Storage Manager invoker.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3, 5.

This abend reason code is issued by the following CSECT: DSNSFBK

00E2000F

Explanation: The free fixed block(s) function detected that the only block, or the one block on the chain of blocks, being freed did not represent an allocated block; that is, it was already free.

This abend reason code is issued by the following CSECT: DSNSFBK

System Action: The invoker of DSNSFBLK is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 4 contains the address of the pool header block (PHB). Register 7 contains the value of the caller's saved register 14. Register 11 contains the address of the free block.

At offset 1EF in the SDWA, there is a VRACAN key of '3D' (in HEX), followed by the module name of the Storage Manager invoker.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3, 5.

00E20010

Explanation: The allocate fixed-block pool function detected an invalid input parameter passed by its invoker.

This abend reason code is issued by the following CSECT: DSNSFPL

System Action: The invoker of DSNSGPOL is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. The following general purpose registers contain the indicated diagnostic information:

Register 2 contains the input parameter list address.

Register 3 contains the input request block size.

Register 4 contains the input maximum pool size.

Register 5 contains the input expansion segment size.

The trace information also contains the address of the invalid parameter list.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3, 5.

00E20011

Explanation: The free fixed-block pool function detected that the input parameter either was not a valid pool header block (PHB), or it did not represent an existing pool.

This abend reason code is issued by the following CSECT: DSNSFPL

System Action: The invoker of DSNSFPOL is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. The trace information has the address of the pool header block (PHB).

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3, 5.

00E20012

Explanation: The get tracked storage from the GETMAIN function detected an invalid input parameter passed by its invoker.

This abend reason code is issued by the following CSECT: DSNSGMN

System Action: The invoker of DSNSGETM is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. The following general purpose registers contain the indicated diagnostic information:

Register 2 contains the input parameter list address.

Register 3 contains the input request length.

Register 4 contains the input storage class.

The trace information has the address of the invalid parameter list.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3, 5.

00E20013

Explanation: The get tracked storage from GETMAIN function was unable to obtain sufficient storage in private area to satisfy an unconditional request.

This abend reason code is issued by the following CSECT: DSNSGMN

System Action: The invoker of DSNSGETM is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Increase region size.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 2 contains the ASID, in hexadecimal, of the private area to be printed. The trace information has the address of the parameter list.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 3, 5.

00E20014

Explanation: The free tracked storage function detected that the area requested to be freed was not valid. Either the address did not represent storage currently allocated (via the DSNSGETM function), or the storage class passed as input to DSNSFREM did not match the class assigned to the storage by DSNSGETM.

This abend reason code is issued by the following CSECT: DSNSGMN

System Action: The invoker of DSNSFREM is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. The trace information has the address of the storage and the storage class.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 3, 5.

00E20015

Explanation: The allocate stack function, which is always unconditional, requested storage from GETMAIN to obtain a stack segment. GETMAIN indicated that 8K bytes of private area storage in subpool 229 was not available.

This abend reason code is issued by the following CSECT: DSNSVSTK

System Action: The invoker of DSNSASTK is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Increase maximum private storage.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. There is probably a shortage of private area storage in the address space in which the failure occurred. Register 2 contains the ASID, in hexadecimal, of the private area to be printed.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 3, 5.

00E20016

Explanation: The get stack storage function, in order to satisfy an unconditional request for stack storage, requested storage from GETMAIN. However, GETMAIN indicated that sufficient storage in subpool 229 was not available.

This abend reason code is issued by the following CSECT: DSNSVSTK

System Action: The invoker of DSNSGSTK is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Increase region size.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 2 contains the ASID, in hexadecimal, of the private area to be printed.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 3, 5.

00E20017

Explanation: The free stack storage function detected that the address of the area to be freed did not lie within allocated storage in the stack indicated by the requester.

This abend reason code is issued by the following CSECT: DSNSTACK

System Action: The invoker of DSNSFSTK is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 2 contains the ASID, in hexadecimal, of the private area to be printed.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 3, 5.

00E20018

Explanation: The get stack storage function detected that the amount of storage requested by the invoker was less than or equal to zero.

This abend reason code is issued by the following CSECTs:

DSNB1CHK	DSNB1CPP	DSNB1CPS	DSNB1CST
DSNB1OPP	DSNB1OPS	DSNB1OST	DSNB1RRR
DSNB1RTR	DSNB1SWS	DSNB1SWU	DSNB5COM
DSNFGENM	DSNIBHUN	DSNICINV	DSNIDLEO
DSNILGBW	DSNILREP	DSNIREPR	DSNIRWSL
DSNISEL	DSNISELK	DSNISRTI	DSNISVPT
DSNITDLE	DSNJW101	DSNKCHNP	DSNKDLET
DSNKDLEV	DSNKDLPG	DSNKISRT	DSNKLFIV
DSNKMSP1	DSNKMSV1	DSNKNLDL	DSNKRDST
DSNKREPL	DSNVCONN	DSNVDISC	DSNVEUS2
DSNVIALC	DSNVRMEL	DSNVSTAI	DSNWTRAC
DSNXA02	DSNXICIX	DSNXICX2	DSNXOGC
DSNXOGP	DSNXOLV	DSNXOOP	DSNXOVD
DSNXO1S	DSN3CT30	DSN3ID50	DSN3SI30
DSN9SCNF			

System Action: The invoker of DSNSGSTK is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 3, 5.

00E20019

Explanation: The purge pool function detected that input parameters passed by the invoker were invalid.

This abend reason code is issued by the following CSECT: DSNSPOWN

System Action: The invoker of DSNSPPOL is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. The following general registers contain the indicated diagnostic information:

Register 4 contains the input pool address.

Register 5 contains the input pool owner ID.

The trace information also contains the input parameters.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3, 5.

00E2001A

Explanation: ESTAE recovery can not be established, because either an unexpected error occurred, or SCB is not available.

This abend reason code is issued by the following CSECT: DSNSCON

System Action: The invoker of DSNSCON is abended.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 15 contains the return code from DSN3EST0; this is the MVS ESTAE return code.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3, 5.

00E2001B

Explanation: The SETLOCK OBTAIN function issued a nonzero return code.

This abend reason code is issued by the following CSECTs:

DSNSCON2	DSNSCTL	DSNSFBK	DSNSFPL
DSNSGMN	DSNSHDWN	DSNSINTM	DSNSTERM
DSNSVBK	DSNSVPL	DSNSVSTK	

System Action: The invoker of storage manager functions is abnormally terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3, 5.

00E2001C

Explanation: The purge stack function detected that one of the SKBs (stack block) is not valid and the SKB chain is possibly damaged.

This abend reason code is issued by the following CSECT: DSNSPURS

System Action: The SKB chain is repaired and processing continues.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. The trace information contains the address of the EB for which the stack segments are to be purged.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3, 5.

00E2001D

Explanation: Either GPVT (global pool anchor) or LPVT (local pool anchor) is damaged, and no storage managed by storage manager can be accessed.

This abend reason code is issued by the following CSECT: DSNSRSUP

System Action: The DB2 subsystem is abended. In some cases, the FRR is established by the caller of the storage manager (SM) subcomponent. When this is the case, the SVC dump is requested by the caller. When this is not the case, the SM requests the SVC dump.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A DB2 dump is requested, but in some cases the dump request is made by the caller of storage manager, rather than by storage manager itself. Register 6 contains the address of the EB.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3, 5.

00E2001E

Explanation: The get stack storage function detected that two asynchronous (unrelated) agents use the same stack storage.

This abend reason code is issued by the following CSECT: DSNSVSTK

System Action: The invoker of DSNSGSTK is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 2 contains the address of the stack segment (SKB). Register 6 contains the address of the EB. In the event of an ABEND, DSNTFRCV saves information in the VRA of the SDWA.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3, 5.

00E2001F

Explanation: In order to satisfy an unconditional request for storage, the get variable storage function needed to obtain storage (from GETMAIN) to expand a storage pool. However, GETMAIN indicated that sufficient storage in common service area (CSA) to expand the pool was not available.

This abend reason code is issued by the following CSECT: DSNSVBK

System Action: The invoker of DSNSGSTG is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Increase common service area (CSA) size.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. The common service area (CSA) portion of the dump should be printed. Register 4 contains the address of the pool header block (PHB). Register 7 contains the value of the caller's saved register 14.

At offset 1EF in the SDWA, there is a VRACAN key of '3D' (in HEX), followed by the module name of the Storage Manager invoker.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3, 5.

00E20020

Explanation: The get variable pool function needed to obtain storage (from GETMAIN) to create pool header block (PHB) to represent the pool, but GETMAIN indicated that sufficient storage in private area was not available.

This abend reason code is issued by the following CSECT: DSNSVPL

System Action: The invoker of DSNSGPOL is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Increase region size.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 2 contains the ASID, in hexadecimal, of the private area to be printed.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3, 5.

00E20021

Explanation: The get variable pool function needed to obtain storage (from GETMAIN) to create pool header block (PHB) to represent the pool, but GETMAIN indicated that sufficient storage in common service area (CSA) was not available.

This abend reason code is issued by the following CSECT: DSNSVPL

System Action: The invoker of DSNSGPOL is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Increase common service area (CSA) size.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. The common service area (CSA) portion of the dump should be printed.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3, 5.

00E20022

Explanation: In order to satisfy an unconditional request, the get fixed block(s) function needed to obtain additional storage to expand a storage pool. However, GETMAIN indicated that sufficient storage in common service area (CSA) was not available.

This abend reason code is issued by the following CSECT: DSNSFBK

System Action: The invoker of DSNSGBLK is abnormally terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Increase common service area (CSA) size.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 4 contains the address of the pool header block (PHB). Register 7 contains the value of the saved caller's register 14. The common service area (CSA) portion of the dump should be printed.

At offset 1EF in the SDWA, there is a VRACAN key of '3D' (in HEX), followed by the module name of the Storage Manager invoker.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3, 5.

00E20023

Explanation: The get fixed pool function needed to obtain storage (from GETMAIN) to create pool header block (PHB) to represent the pool, but GETMAIN indicated that sufficient storage in private area was not available.

This abend reason code is issued by the following CSECT: DSNSFPL

System Action: The invoker of DSNSGPOL is abnormally terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Increase region size.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 2 contains the ASID, in hexadecimal, of the private area to be printed.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3, 5.

00E20024

Explanation: To create a pool header block (PHB) that represents the pool, the get fixed pool function requested storage from GETMAIN. However, GETMAIN indicated that insufficient storage existed in the common service area (CSA) to satisfy the request.

This abend reason code is issued by the following CSECT: DSNSFPL

System Action: The invoker of DSNSGPOL is abnormally terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Increase common service area (CSA) size.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. The common service area (CSA) portion of the dump should be printed.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3, 5.

00E20025

Explanation: The get tracked storage from GETMAIN function was unable to obtain sufficient storage in common service area (CSA) to satisfy an unconditional request.

This abend reason code is issued by the following CSECT: DSNSGMN

System Action: The invoker of DSNSGETM is abended.

System Programmer Response: Increase common service area (CSA) size.

Operator Response: Notify the system programmer.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. The trace information has the address of the parameter list. The common service area (CSA) portion of the dump should be printed.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3, 5.

00E20026

Explanation: Either the allocate stack storage function or the get stack storage function was unable to obtain 4KB of private area storage in subpool 229 for an all-segment table in which a record (representing a stack storage segment) was to be inserted.

This abend reason code is issued by the following CSECT: DSNSVSTK

System Action: The invoker of the function is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Increase region size.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. There is probably a shortage of private area storage in the address space in which the failure occurred. Register 2 contains the ASID, in hexadecimal, of the private area to be printed.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3, 5.

00E20027

Explanation: The free variable storage function detected that unallocated storage in the block being freed has been modified.

This abend reason code is issued by the following CSECT: DSNSVBK

System Action: The invoker of DSNSFSTG is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested.

The following general purpose registers (GPRs) contain the indicated diagnostic information:

GPR	Content
4	address of the pool header block (PHB)
7	value of the caller's saved register 14
11	address of the block to be freed

The block to be freed includes two parts: a four word header of control information and the block itself. The second word in the header (offset of 4) is the length of the block.

The third word in the header (offset of 8) is the address of the storage requester. The block is made up of two parts: allocated storage and two words of unallocated storage (padding area of '03').

At offset 1EF in the SDWA, there is a VRACAN key of '3D' (in HEX), followed by the module name of the Storage Manager invoker.

00E20028

Explanation: Either the get stack, deallocate stack or release stack storage function detected that an SKB was invalid or was not represented accurately in the all-segment table.

This abend reason code is issued by the following CSECTs: DSNSVSTK, DSNSTACK

System Action: The invoker is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 7 contains the value of the stack segment (SKB).

00E20029

Explanation: The free variable storage function detected that although the address of the block being freed was within the specified storage pool it was not the address of the beginning of a variable block.

This abend reason code is issued by the following CSECT: DSNSVBK

System Action: The invoker of DSNSFSTG is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested.

The following general purpose registers (GPRs) contain the indicated diagnostic information:

GPR	Content
4	value of the pool header block (PHB)
7	address of the caller's saved register 14
11	address of the invalid block to be freed

At offset 1EF in the SDWA, there is a VRACAN key of '3D' (in HEX), followed by the module name of the Storage Manager invoker.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 3, 5.

00E2002A

Explanation: The SMC Recovery Stack Management function detected that the number of allowed entries in the SMC Recovery Stack has been exceeded, or the structure has been incorrectly modified.

This abend reason code is issued by the following CSECTs:

DSNSCTL	DSNSFBK	DSNSRSUP	DSNSTACK
DSNSVBK	DSNSVSTK		

System Action: The invoker is abended.

User Response: None required.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 6 contains the address of the current execution block (EB). This EB has a pointer to the current head stack block (SKB) that is encountering the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 3, 5.

00E2002B

Explanation: This abend code is used to force percolation in the case when an abend is encountered while in Storage Manager code and the Storage Manager has been called recursively.

This abend reason code is issued by the following CSECTs:

DSNSCTL	DSNSFBK	DSNSRSUP	DSNSTACK
DSNSVBK	DSNSVSTK		

Problem Determination: Refer to the originating abend code.

X'E3.....' Codes

00E30001

Explanation: A service controller internal inconsistency has been encountered. This is probably a DB2 subsystem error.

This abend reason code is issued by the following CSECTs:

DSNTAAL	DSNTBAB	DSNTBAP1	DSNTBCM1
DSNTBFR	DSNTBRB	DSNTLBAC	DSNTLCAU
DSNTLDU	DSNTLIDE	DSNTSFST	DSNTSGST
DSNTSINI	DSNTCGET	DSNTCSTR	DSNTDINQ
DSNTLSUS	DSNTTIM		

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. The execution unit is abnormally terminated.

Operator Response: Notify the system programmer.

System Programmer Response: This is a DB2 internal error. Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The service controller has detected an internal inconsistency. The problem can be determined by analyzing the CSECT involved in the abend.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00E30002

Explanation: DSNTSTR2 loaded an out-of-date system parameter CSECT: DSN6SPRM. This error occurs if code maintenance has been applied and CSECT DSN6SPRM contained in the load module specified in the 'PARM=' parameter of the -START DB2 command has been reassembled. Message DSNT105I is also produced as a result of this error.

This abend reason code is issued by the following CSECT: DSNTSTR2

System Action: DB2 is terminated with abend code '04F'.

Operator Response: Notify the system programmer.

System Programmer Response: Reassemble DSN6SPRM, and linkedit the specified load module again.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 9.

00E30003

Explanation: An error was returned from a data manager restore operation. This abend is issued to ensure that changes made to the catalog by a failing BIND function are backed out.

This abend reason code is issued by the following CSECTs:

DSNTBAB	DSNTBCM1	DSNTBRB

System Action: The BIND function is abended. All effects of the BIND operation are rolled back. A record is written to SYS1.LOGREC, and an SVC dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: This is a DB2 internal error. Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The service controller code, using the data manager restore function, has detected an error while trying to undo the results of a BIND operation. The data manager return and reason code encountered can be found in the CTDMRETC and CTSIRCOD fields of the cursor table pointed to by register 7 in the SDWA.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00E30004

Explanation: This abend is issued by the service controller initialization module whenever an error return code is received from a database services subcomponent participating in the DB2 startup process. This abend ensures that DB2 is terminated.

This abend reason code is issued by the following CSECT: DSNTSTRT

System Action: The database services shutdown process is initiated after an SVC dump is requested, and a record is written to the SYS1.LOGREC data set. DB2 is abended.

Operator Response: Notify the system programmer.

System Programmer Response: This is a DB2 internal error. Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A list of all database services subcomponents whose initialization process has been completed may be obtained from the SVC dump requested by this abend. Register 2 in the SDWA points to a structure that contains the following diagnostic information:

- 0 (0) Module qualifier that identifies the area within DSNTSTRT at which the error was detected. The qualifier should be:
  - A (10) Error found upon return from the SCC startup initialization process
  - B (11) Error found upon return from the SCC IRLM identify process
  - C (12) Error found upon return from the buffer manager initialization process
  - D (13) Error found upon return from the data manager initialization process
  - E (14) Error found upon return from the data space manager initialization process
  - F (15) Error found upon return from the RDS initialization process
- 2 (2) Error return code from the invoked subcomponent
- 4 (4) Error reason code from the invoked subcomponent
- 8 (8) Pointer to a structure containing a character string SSCM followed by a 32-bit map representing the following information:
  - Bit 0 1 if DB2 has successfully 'signed on' to IRLM
  - Bit 1 1 if the buffer manager subcomponent initialization process is completed
  - Bit 2 1 if the data manager subcomponent initialization process is completed

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Bit 3 1 if the data space manager subcomponent initialization process is completed
Bit 4 Not used
Bit 5 1 if the RDS subcomponent initialization process is completed
Bit 6 Not applicable
Bit 7 1 if the SCC initialization process is completed
Bit 7 – 31 Not used

C (12) Pointer to invoked subcomponent's RMFT.

From this information the appropriate subcomponent's startup process may be identified.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E30005

Explanation: A service task could not be created during the database services initialization process. This is probably a DB2 error.

This abend reason code is issued by the following CSECT: DSNTSTRT

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. DB2 is abended.

Operator Response: Notify the system programmer.

System Programmer Response: This is possibly a DB2 internal error. Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Register 2 in the SDWA points to a structure that contains the following diagnostic information:

0 (0) Should equal X'3'
2 (2) Return code from the service task creation function of the agent services manager (ASM) subcomponent
4 (4) Abend reason code from the service task creation function of the agent services manager (ASM) subcomponent
8 (8) Not used
C (12) Not used

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E30008

Explanation: DSNTSTR2 loaded an incorrect version of the system parameter CSECT DSN6SPRM while DB2 was executing. Message DSNT103I is generated before the abend occurs.

This abend reason code is issued by the following CSECT: DSNTSTR2

System Action: DB2 is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Restart DB2 with a -START DB2 PARM= command, where the parameter block that follows the 'PARM=' parameter specifies an MVS/XA version of the DB2 subsystem parameters.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 9.

00E3000A

Explanation: A bad recovery element was detected by the database services standard ESTAE and FRR recovery routines. This is probably a DB2 subsystem error.

This abend reason code is issued by the following CSECTs:

DSNB1CFC	DSNB1CMS	DSNB1CST	DSNB1DRN
DSNB1OST	DSNB1RST	DSNB5COM	DSNB5RAP
DSNGESLC	DSNIARPL	DSNIBCUR	DSNIBHIS
DSNIBRES	DSNIBRTO	DSNIDDBD	DSNIDPRO
DSNIECUR	DSNILABR	DSNILCUR	DSNILDBP
DSNILHIS	DSNPAMS1	DSNTAAL	DSNTABA
DSNTAC1	DSNTAC2	DSNTADL	DSNTAEA
DSNTANU	DSNTBAB	DSNTBCM	DSNTDMST
DSNTDSTP	DSNTRCKP	DSNTRSTE	DSNTSTOP
DSNTSTRT	DSNTXACT	DSNTXSTB	DSNUADP2
DSNUAHR2	DSNUGRAR	DSNXACKB	DSNXACKP
DSNXARVB	DSNXERD	DSNB1ABP	DSNB1CMD
DSNB1DBP	DSNB1MIG		

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. The execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: This is a DB2 internal error. Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This error is detected when a module invokes the macro DSNTSFRR to disconnect a functional recovery element (FRE) from a functional recovery chain to which it is not connected. The name of the module passing the invalid FRE is the module issuing the abend.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E3000B

Explanation: The database services section (DSN6SPRM) in the DB2 initialization parameter module (DSNZPARM) does not exist.

This abend reason code is issued by the following CSECT: DSNTSTR2

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. DB2 is abended.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably an installation error. Obtain a copy of SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Register 2 in the SDWA points to a structure that contains the following diagnostic information:

0 (0) Should equal X'1'
2 (2) Return code from the get descriptor function of the system parameter manager (SPM) subcomponent of DB2
4 (4) Not applicable
8 (8) Not applicable
C (12) Not applicable

First, ensure that DSNZPARM was installed correctly. Then, using the return code from SPM, determine why the descriptor is not available.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 9.

00E3000C

Explanation: A database services TCB service task that cannot be reinstated has been abnormally terminated. Entries in SYS1.LOGREC that precede this entry indicate the source of the error.

This abend reason code is issued by the following CSECT: DSNTSREI

System Action: The executing unit is abended. A record is written to SYS1.LOGREC.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a copy of SYS1.LOGREC, and determine the cause of the problem from the information that precedes this entry.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3, 5.

00E3000D

Explanation: A failure occurred and was detected while an ESTAE functional recovery was being established.

This abend reason code is issued by the following CSECTs:

DSNBICST	DSNBIOST	DSNIDDBD	DSNIDPRO
DSNILDBP	DSNTBAP	DSNTDMST	DSNTSTOP
DSNTSTRT			

System Action: The executing unit is abended. A record is written to SYS1.LOGREC.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a copy of SYS1.LOGREC, and determine the cause of the problem from the information that precedes this entry.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3, 5.

00E3000E

Explanation: The execution unit supporting the database services checkpoint process has abended. The CSECT involved in the abend writes a record to SYS1.LOGREC and requests an SVC dump.

This abend reason code is issued by the following CSECT: DSNTRCKP

System Action: DB2 is abended. A record is written to SYS1.LOGREC.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a copy of SYS1.LOGREC, and determine the cause of the problem from the information that precedes this entry.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E3000F

Explanation: The database services functional recovery load module, DSNTF, has an unrecognizable entry point.

This abend reason code is issued by the following CSECT: DSNTSTRT

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. DB2 is abended.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably an installation error. Obtain a copy of SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Register 2 in the SDWA points to a structure that contains the following diagnostic information:

0 (0)	Should equal X'4'
2 (2)	Not applicable
4 (4)	Not applicable
8 (8)	Not applicable
C (12)	Not applicable

The abend is generated whenever the DB2 load module DSNTFEPL is not link-edited with a load module entry point name of DSNTF. To correct this, link-edit DSNTFEPL again with the correct entry point name.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3, 5.

00E30010

Explanation: The database services initialization process could not read the DB2 bootstrap data set (BSDS).

This abend reason code is issued by the following CSECT: DSNTSTR2

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. DB2 is abended.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably an installation error. Obtain a copy of SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This error can usually be traced to a VSAM error occurring while reading the BSDS. Before examining the dump, examine the operator console log and SYSLOG to determine if VSAM has encountered any errors on the BSDS.

Register 2 in the SDWA points to a structure that contains the following diagnostic information:

0 (0)	Should equal X'2'
2 (2)	Return code from a BSDS read request function of the recovery log manager (RLM) subcomponent
4 (4)	Abend reason code from a BSDS read request function of the recovery log manager (RLM) subcomponent
8 (8)	Not applicable
C (12)	Not applicable

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3, 5, 16.

00E30011

Explanation: Either the maximum number of concurrent table spaces is less than or equal to zero, or the DSN6SPRM is invalid.

This abend reason code is issued by the following CSECT: DSNTSTR2

System Action: DB2 is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If the maximum number of concurrent table spaces is less than or equal to zero, specify a valid value using either the DSMAX parameter in the DSN6SPRM assembler macro of the DSNTIJUZ job stream, or update the main storage sizes via the installation update panels. All other parameters contained in this version of the CSECT must also be specified again. Then do one of the following:

- Resubmit installation job DSNTIJUZ with the link-edit SYSIN file NAME parameter matching the -START DB2 'PARM=' parameter, or
- Reassemble DSN6SPRM and relink-edit DSNZPARM by resubmitting installation job DSNTIJUZ. The link-edit SYSIN file NAME parameter must match the -START DB2 'PARM=' parameter.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 3, 5, 9.

00E30013

Explanation: The value specified in the DSN6SYSP CSECT to define reserve storage is either negative or zero.

This abend reason code is issued by the following CSECT: DSNTSTR2

System Action: DB2 is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Reassemble DSN6SPRM and relink-edit the DSNZPARM load module. This is done by resubmitting the installation job stream, DSNTIJUZ, that built the load module named in the -START DB2 command 'PARM=' parameter.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 3, 5, 9.

00E30014

Explanation: The value specified in the DSN6SYSP CSECT to define reserve storage for a 'must complete' process is either negative or 0.

This abend reason code is issued by the following CSECT: DSNTSTR2

System Action: DB2 is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Reassemble DSN6SPRM and relink-edit the DSNZPARM load module. This is done by resubmitting the installation job stream, DSNTIJUZ, that built the load module named in the -START DB2 command 'PARM='

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 3, 5, 9.

00E30015

Explanation: The value specified in the DSN6SYSP CSECT to define reserve storage for a 'short on storage' condition is either negative or 0.

This abend reason code is issued by the following CSECT: DSNTSTR2

System Action: DB2 is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Reassemble DSN6SPRM and linkedit the DSNZPARM load module again. This is done by resubmitting the installation job stream, DSNTIJUZ, that built the load module named in the -START DB2 command 'PARM=' parameter.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 3, 5, 9.

00E30016

Explanation: DSNTSTR2 loaded an out-of-date system parameter CSECT DSN6SYSP. This error can occur only if code maintenance has been applied, and CSECT DSN6SYSP in the load module specified in the 'PARM=' parameter of the -START DB2 command has not been reassembled. This abend is issued after message DSNT106I is generated.

This abend reason code is issued by the following CSECT: DSNTSTR2

System Action: DB2 is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Reassemble DSN6SPRM and linkedit the DSNZPARM load module again. This is done by resubmitting installation job stream, DSNTIJUZ, that built the load module named in the -START DB2 command 'PARM=' parameter.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 3, 5, 9.

00E30017

Explanation: While loading the DB2 database services function recovery and emergency shutdown modules, the Service Controller function abends with this reason code. This is because it detected a load module which was loaded with an invalid addressing capability. The abend is preceded by message DSNT107E.

This abend reason code is issued by the following CSECT: DSNTSTRT

System Action: DB2 database services startup is terminated.

System Programmer Response: Refer to message DSNT107E.

Problem Determination: Refer to message DSNT107E.

00E30018

Explanation: The service controller has determined that the number of concurrent threads specified by the installation and the number of concurrent databases specified by the installation cannot be supported in the amount of virtual storage available.

This abend reason code is issued by the following CSECT: DSNTSTR2

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. DB2 is terminated with abend code '04F'.

Operator Response: Notify the system programmer.

System Programmer Response: Decrease the number of concurrently active databases. The value for concurrently active databases is specified as the DSMAX parameter in the DSNZPARM macro DSN6SPRM.

To correct the problem, you may have to adjust CTHREAD and DSMAX. The maximum amount of virtual storage required by DB2 includes both the amount of virtual storage required to support CTHREAD concurrent users (defined in DSN6SYSP) and DSMAX concurrent databases. It is recommended that you use the DB2 install panel DSNTIPE to recalculate the minimum amount of storage required for your environment.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 9.

00E30019

Explanation: The Service Controller has determined that the number of concurrent threads specified by the installation cannot be supported by the amount of virtual storage available.

This abend reason code is issued by the following CSECT: DSNTSTR2

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. DB2 is terminated with abend code '04F'.

Operator Response: Notify the system programmer.

System Programmer Response: Decrease the number of concurrently active threads. The value for concurrently active threads is specified as the CTHREAD parameter in the DSNZPARM macro DSN6SYSP.

To correct the problem, you may have to adjust CTHREAD and DSMAX. The maximum amount of virtual storage required by DB2 includes both the amount of virtual storage required to support CTHREAD concurrent users and DSMAX concurrent databases (defined in DSN6SPRM). It is recommended that you use the DB2 install panel DSNTIPE to recalculate the minimum amount of storage required for your environment.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 9.

00E3001A

Explanation: Either the maximum number of concurrently active threads is less than or equal to zero, or CSECT DSN6SYSP is invalid.

This abend reason code is issued by the following CSECT: DSNTSTR2

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. DB2 is terminated with abend code '04F'.

Operator Response: Notify the system programmer.

System Programmer Response: If the maximum number of concurrently active threads specified in CSECT DSN6SYSP is less than or equal to zero, specify a new one. If it is not, generate a new DSNZPARM load module.

The value is specified either by the CTHREAD parameter of the DSN6SYSP assembler macro in the DSNTIJUZ job stream or it is specified in the DSNTIPE installation panel. All other parameters contained in this version of the CSECT must also be specified.

To generate a new DSNZPARM load module:

- Resubmit the installation job DSNTIJUZ with the link-edit SYSIN file NAME parameter matching the -START DB2 PARM= parameter, or
- Reassemble DSN6SYSP and relink-edit the DSNZPARM load module by resubmitting the installation job DSNTIJUZ. The link-edit SYSIN file NAME parameter matching the -START DB2 PARM= parameter.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3, 5, 9.

00E3001B

Explanation: A plan could not be executed because the system from which you are attempting to run is disabled or unknown. The system type might be unknown if the attach library that you are using is from a previous release of DB2 that does not support the ENABLE and DISABLE options of the bind operation.

This abend reason code is issued by the following CSECT: DSNTAAL

System Action: The plan is not allocated.

System Programmer Response: Refer to the SYSIBM.SYSPLSYSTEM table to determine the systems from which the plan can be executed, or correct the attach library.

00E30021

Explanation: A processing error has occurred during authorization checking.

This abend reason code is issued by the following CSECT: DSNTAXAC

System Action: The request to allocate a plan to the authorization ID is denied.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5.

00E30034

Explanation: The authorization ID associated with this connection is not authorized to use the specified plan name or the specified plan name does not exist.

This abend reason code is issued by the following CSECT: DSNTAUTH

System Action: The request to allocate a plan to the authorization ID is denied.

User Response: Verify that the correct plan name was specified. If the plan exists, then authority to execute the plan must be granted.

00E30035

Explanation: A processing error has occurred during authorization checking.

This abend reason code is issued by the following CSECT: DSNTAUTH

System Action: The request to allocate a plan to the authorization ID is denied.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5.

00E30036

Explanation: A processing error has occurred during authorization checking.

This abend reason code is issued by the following CSECT: DSNTLBAC

System Action: The IRLM query request is denied.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5.

00E30037

Explanation: An internal logic error occurred while invoking a distributed transaction manager function.

This abend reason code is issued by the following CSECTs:

DSNTDINQ	DSNTLSUS	DSNTCGET

System Action: DB2 writes a SYS1.LOGREC record and requests a SVC dump.

User Response: Notify the system programmer.

Operator Response: Collect the SYS1.LOGREC listing and the SVC dump.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00E30040

Explanation: An internal logic error occurred while the catalog access function was being invoked.

This abend reason code is issued by the following CSECT: DSNTCSRC

System Action: The START RLIMIT command fails. The governing status prior to issuing this command continues unchanged.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: At the time of the abend, the registers contain the following information:

Register Contents

0	Address of the catalog access package parameter list
2	Catalog access return code
3	Catalog access reason code
4	Data manager return code
5	Data manager reason code
7	CT address

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5.

00E30041

Explanation: An internal error occurred when trying to obtain a limit from the resource limit specification table.

This abend reason code is issued by the following CSECT: DSNTCGET

System Action: A record is written to SYST1.LOGREC, and an SVC dump is requested. The requested execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5.

00E30065

Explanation: The service controller's BIND processor detected an error in the user's database request module (DBRM) while building the SYSDBRM record.

This abend reason code is issued by the following CSECT: DSNTBCM1

System Action: The BIND command fails.

User Response: An invalid field in the DBRM was found while processing the BIND command. The DBRM might be bad. Rebuild the DBRM and reissue the BIND command.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 5.

00E30066

Explanation: The service controller's BIND processor has detected an invalid release dependency mark in the cursor table.

This abend reason code is issued by the following CSECT: DSNTBBP

System Action: The BIND command fails.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 5.

The service controller module DSNTBBP detected an unknown value in the CTRELDEP field of the BIND CT. The BIND CT is pointed to by GPR7 at the time of the abend and is mapped by DSNDCT. The one byte CTRELDEP field should have been set by the RDS BIND processor (DSNXEPR) or one of the functions it invokes.

00E30067

Explanation: The BIND process program abended while attempting to use a BIND parameter. This usually indicates that the parameter list provided to the service controller BIND function is invalid (such as invalid addresses or incorrect key).

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. The BIND subcommand is terminated.

User Response: Notify the system programmer.

System Programmer Response: Obtain a copy of SYS1.LOGREC and the SVC dump.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Register 2 contains an indication of the type of parameter as follows:

00000101	Input parameter list.
00000102	Communication information block (CIB).
00000103	Invalid BIND subcommand name. Registers 3 and 4 contain the invalid subcommand name.
00000104	Subcommand information block (SIB).
00000201	DBRM member name list.
00000202	Plan-ID list.
00000203	Message block in user storage. Other register contents are as follows:

R3	R4	
<	4	Simple reference R8 = zero
>0	>4	MVCL R8 = From address R4 = move length To and from lengths are equal.
0	>4	GETMAIN for user storage failed R4 = storage length required R8 = GETM To fix this problem, increase your region size.
<0	>4	FREEMAIN of user storage failed R4 = length of storage of free R8 = address of storage to free

00000204	Message block in user storage. R8 = Message block address.

Except as indicated above, the information in the other registers is as follows:

R3	Parameter address
R4	Parameter length
R5	Parameter storage key
R8	Input parameter list address

00000205	Package-list name list.
00000206	ENABLE/DISABLE system list.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 20.

This abend reason code is issued by the following CSECTs:

DSNTBAP	DSNTBAP1	DSNTBAP2

00E30068

Explanation: A function invoked by a BIND subcommand has returned an unexpected error.

This abend reason code is issued by the following CSECTs:

DSNTAAL	DSNTBAB	DSNTBAP1	DSNTBBP
DSNTBCM1	DSNTBFR	DSNTBRB	DSNTBCM2
DSNTBRB2	DSNTBFR2	DSNTBCM3	DSNTBAP

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. The BIND subcommand is terminated.

User Response: Notify the system programmer.

System Programmer Response: This is an internal DB2 error. Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The service controller code has detected an internal inconsistency. The problem can be determined by analyzing the CSECT involved in the abend.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E30069

Explanation: An attempt to allocate a cursor table (CT) failed.

This abend reason code is issued by the following CSECTs:

DSNTXSTB	DSNTDMST	DSNTDSTP

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. DB2 is abended.

Operator Response: Notify the system programmer.

System Programmer Response: This is an internal DB2 error. Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The service controller code has detected an internal inconsistency. The problem can be determined by analyzing the CSECT involved in the abend.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E30070

Explanation: An attempt was made to use the Internal Resource Lock Manager (IRLM) facilities, but the IRLM was not available. Either the IRLM had not been started by the operator, or the IRLM has encountered a problem causing it to terminate abnormally.

This abend reason code is issued by the following CSECTs:

DSNTAAL	DSNTBAB	DSNTBCM1	DSNTBFR
DSNTBRB	DSNTSFST	DSNTSGST	DSNTSINI

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. The requesting execution unit is abended.

User Response: Notify the system programmer.

Operator Response: The IRLM should be started before the DB2 subsystem is started. If this does not resolve the problem (that is, if the IRLM actually was started before DB2 was started) notify the system programmer.

System Programmer Response: This is probably not a DB2 problem. Obtain a copy of SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: If IRLM abended, and if you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem. Otherwise, ensure that the IRLM is started before the -START DB2 command is issued.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 9, 18.

00E30071

Explanation: Either DB2 terminated without successfully signing off from IRLM, or another subsystem with the same SSNAME is still connected. This abend reason code accompanies message DSNT380I.

This abend reason code is issued by the following CSECT: DSNTLIDE

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. DB2 is abended.

Operator Response: Determine if another DB2 subsystem is active. If another subsystem is not active, and IMS is not sharing the same IRLM, cancel IRLM prior to starting DB2. Regardless, notify the system programmer.

System Programmer Response: Obtain a copy of SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

If the error was caused by a previously unsuccessful QUIT from the IRLM, manually stop IRLM. If IMS is using the same IRLM, refer to the IMS documentation to determine the effect of IRLM terminating while IMS is connected.

If you are running multiple versions of DB2, ensure that the SSNAME specified by the DSN6SPRM macro during the installation of the member DSNZPARM is not the same as the SSNAME in another version of DB2.

Problem Determination: A previously unsuccessful sign-off from the IRLM is documented by an abend of X'00E30075' during the previous termination of DB2.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3, 5, 9, 18.

00E30072

Explanation: An error was encountered during an IRLM lock query request.

This abend reason code is issued by the following CSECTs: DSNTLAGL, DSNTLQRY

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. The execution unit is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: This is a DB2 internal error. Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: At the time of the abend, the registers contains the following information:

R2 Address of the lock request RLPL
R4 Address of the IRLM query request RLPL
R5 Address of the IRLM query RLQD
R7 CT address

Refer to "Section 5. IRLM Messages and Codes" on page 5-1 for information identifying IRLM return and reason codes.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 18.

00E30073

Explanation: An unrecoverable system error occurred while processing a LOCK or UNLOCK request.

This abend reason code is issued by the following CSECTs:

DSNTAAL	DSNTBAB	DSNTBCM1	DSNTBFR
DSNTBRB	DSNTSFST	DSNTSGST	DSNTSINI

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. The requested execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: This is a DB2 internal error. Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The service controller (SC) subcomponent has detected an internal inconsistency. The problem can be determined by analyzing the CSECT involved in the abend.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 18.

00E30074

Explanation: A global out-of-storage condition was encountered by the Internal Resource Lock Manager (IRLM) during the processing of a LOCK or UNLOCK request.

This abend reason code is issued by the following CSECTs:

DSNTAAL	DSNTBAB	DSNTBCM1	DSNTBFR
DSNTBRB	DSNTSFST	DSNTSGST	DSNTSINI

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. The requesting execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably not a DB2 problem. Obtain a copy of SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The name of the module issuing the abend is recorded in the SYS1.LOGREC entry. It is also recorded in the SVC dump as the CSECT involved in the abend. A parameter in the IRLM procedure specifies the amount of the common service area (CSA) to be used by IRLM. Do one of the following:

- Increase the CSA limit.
- Use a local IRLM (that is, an IRLM option that causes IRLM to operate from another address space).
- Using IRLM lock tracing, determine what application is acquiring so many locks that it causes the IRLM CSA limit to be exceeded.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00E30075

Explanation: During the normal sign-off from IRLM or during the abnormal shutdown of DB2, an AUTO-STOP of IRLM using SVC 34 abnormally terminated. Message DSNT383I is issued.

This abend reason code is issued by the following CSECT: DSNTLQUI

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. DB2 is abended.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably a DB2 internal error. Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The name of the CSECT issuing the abend is found in both the SYS1.LOGREC and the SVC dump. Register 2 contains the SVC return code.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 3, 5, 36.

00E30076

Explanation: An attempt to sign-off from IRLM failed.

This abend reason code is issued by the following CSECT: DSNTLQUI

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. DB2 is abended.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably an internal DB2 error. Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The service controller subcomponent has detected an internal inconsistency. The problem can be determined by analyzing the CSECT involved in the abend. This CSECT is found in both the SYS1.LOGREC and the SVC dump.

The request parameter list (RLPL) used during the sign-off process resides in the IRLM interface manager’s communication block (DSNTLMC) from ACOM.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00E30077

Explanation: A database command processor encountered an error when attempting to create a cursor block (CUB) on a DB2 catalog table.

This abend reason code is issued by the following CSECTs:

DSNTDINQ	DSNTDMST	DSNTDDIS

System Action: An error was detected during the generation of messages to satisfy a DATABASE command. A DSNT305I message appears on the console of the requester, with the RC parameter of 12 and a REASON parameter of X'00E30089'.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably an internal DB2 error. Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information may be found in the Display Command Communication Area, whose address is found in register 8, and by the Display Command subcode in register 2.

00E30078

Explanation: IRLM called the service controller IRLM interface status exit with register 0 equal to 1 in order to notify DB2 that IRLM is terminating. This is not a DB2 subsystem error.

This abend reason code is issued by the following CSECT: DSNTLSTA

System Action: DB2 is abended when IRLM is terminated before DB2 is terminated. An entry is written to SYS1.LOGREC.

00E30079

Explanation: An error was encountered on return from the Internal Resource Lock Manager (IRLM) IDENTIFY function.

This abend reason code is issued by the following CSECT: DSNTLIDE

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. DB2 is abended.

Operator Response: Notify the system programmer.

System Programmer Response: This may be an internal DB2 error or an operator procedure problem. Obtain a copy of SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: In the SVC dump, register 2 contains the return code and register 3 contains the reason code from the identify function to the IRLM. Examine the reason code in register 3, either from the dump or system console log. A reason code of X'4004' indicates that the identify function code (51, X'33') does not exist in the IRLM SSVT. This may be due to the operator issuing a stop IRLM command followed by a start DB2 command before the IRLM has completed termination processing. The sequence of commands can be determined from the system console log.

A reason code of X'4008' indicates that the IRLM is unavailable, that is, IRLM is not started and the autostart is not requested by parameters in DSNZPARM.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E3007A

Explanation: DB2 encountered an IRLM request error indicating that IRLM is not available to take requests.

This abend reason code is issued by the following CSECT: DSNTLCAU

System Action: DB2 terminates because it cannot complete an IRLM request.

Operator Response: Notify the system programmer.

System Programmer Response: Look for the IRLM error code or messages to find out why IRLM is not available to take the DB2 request. Most likely, IRLM is terminating at the same time.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination:

Refer to the IRLM problem determination process.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5.

00E30080

Explanation: An attempt was made to start the Internal Resource Lock Manager (IRLM) using the MGCR (SVC 34), and a nonzero return code was returned.

This abend reason code is issued by the following CSECT: DSNTLIDE

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. DB2 is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Examine the SVC return code to determine whether this is a system problem or a DB2 internal problem. Obtain a copy of SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Register 2 contains the SVC return code.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 36.

00E30081

Explanation: An attempt was made to start the Internal Resource Lock Manager (IRLM). IRLM did not come up in the time limit specified to DB2.

This abend reason code is issued by the following CSECT: DSNTLIDE

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. DB2 is abended.

Operator Response: Notify the system programmer.

System Programmer Response: This problem can be circumvented. To do this, either specify a longer time limit in the IRLMSWT parameter of the DSN6SPRM assembler macro in the DSNTIJUZ job stream, or update the IRLM system wait time parameter in the DB2 installation update panel. You must also specify all other parameters contained in this version of the CSECT. Then resubmit the installation job DSNTIJUZ with the link-edit SYSIN file NAME parameter that matches the -START DB2 'PARM=' parameter. Refer to Section 2 of *Installation Guide* for additional information.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 9, 36.

00E30082

Explanation: IRLM discovered a bad request parameter list (RLPL). This may occur if the RLPL storage is overlaid while an agent is suspended.

This abend reason code is issued by the following CSECT: DSNTLSUS

System Action: The execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: This is a DB2 internal error. Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: An IRLM request was made that IRLM could not honor immediately. IRLM called DSNTLSUS to suspend the request. While waiting, the request parameter list (RLPL) was changed and is no longer valid. Someone may be reusing the RLPL, or the storage may have been overlaid.

Register 2 contains a pointer to the RLPL.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E30083

Explanation: This agent has been selected as the victim of a deadlock or a timeout.

This reason code is not used in abends.

This reason code is issued by the following CSECTs:

DSNTAAL DSNTBAB DSNTBCM1 DSNTBFR DSNTBRB

00E30084

Explanation: Message DSNT305I appears on the console of the requester with RC=8 and REASON=E'00E30084'. This message tells the requester that an error was detected while building the database command display. Other entries in the SYS1.LOGREC help to identify the source of the error.

This abend reason code is issued by the following CSECTs: DSNTDMSG, DSNTDMUL

System Action: This is a DB2 subsystem error. No SVC dump is requested because a previous dump of the failing subcomponent is expected.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00E30085

Explanation: An error was indicated by the RDS Authorization function. This is an internal DB2 error.

This abend reason code is issued by the following CSECT: DSNTDMI

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. The command is abended after displaying a DSNT305I message with an RC parameter of 12 and a REASON parameter of X'00E30089'.

Operator Response: Notify the system programmer.

System Programmer Response: This is an internal DB2 error. Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The error return code address of the Display Command Communication Area is found in register 8.

00E30086

Explanation: An error was indicated by the data manager (DM) subcomponent. This is probably an internal DB2 error.

This abend reason code is issued by the following CSECTs: DSNTDMI, DSNTDCST

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. The command is abended after displaying a DSNT305I message with an RC parameter of 12 and a REASON parameter of X'00E30089'.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably an internal error. Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The error return code of the data manager may be found in the cursor table (CT), the address of which is found in register 7.

00E30089

Explanation: This code is used in the REASON parameter of the DSNT305I database command message to inform the requester that the execution unit supporting the database command processor has terminated. Other entries in the SYS1.LOGREC identify the source of the error.

This abend reason code is issued by the following CSECT: DSNTDMSG

System Action: A DSNT305I message appears on the console of the requester, with an RC parameter of 12 and a REASON parameter of X'00E30089'. This is probably a DB2 subsystem error. No SVC dump is requested because a prior dump of the failing subcomponent is expected.

Operator Response: Notify the system programmer.

System Programmer Response: See the SYS1.LOGREC for prior failure.

00E30090

Explanation: A service controller internal inconsistency has been encountered during message generation.

This abend code is issued by the following CSECTs: DSNTDMSG, DSNTDMUL

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. The execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: At the time of the abend, register 2 contains the message number that was to be generated.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5.

00E30091

Explanation: A failure was detected during the retry process of DB2 recovery.

System Action: DB2 is abended after a record is written to SYS1.LOGREC and an SVC dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably an internal DB2 error. Obtain a copy of SYS1.LOGREC and the an SVC dump. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This abend is issued by DSNTFRCV of the service controller (SC) subcomponent.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00E30092

Explanation: A retry recovery failure has been detected. This is a critical error.

This abend reason code is issued by the following CSECT: DSNTFRCV

System Action: DB2 is abended. This is probably a DB2 subsystem error.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a copy of the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The service controller recovery module has detected an internal inconsistency. The problem can be determined by analyzing the CSECT involved in the abend. The name of this CSECT is found in both the SYS1.LOGREC and the SVC dump.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 3, 5.

00E30093

Explanation: A shortage of virtual storage exists in the database services address space.

This abend reason code is issued by the following CSECT: DSNTSGST

Operator Response: Resubmit your request when DB2 activity diminishes.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00E30094

Explanation: A shortage of virtual storage exists in the database services address space. However, there should have been enough space available. The fixed size of the emergency pool is probably too small.

This abend reason code is issued by the following CSECT: DSNTSGST

System Action: A record is written to SYS1.LOGREC. An SVC dump is requested. DB2 is abended.

Operator Response: Resubmit your request when DB2 activity diminishes.

System Programmer Response: This is a DB2 error. Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 3, 5.

00E30095

Explanation: DB2 is unable to acquire a modify lock because of an incompatible retained lock held by one or more other DB2 subsystems in the DB2 data sharing group. Retained locks are locks that persist across DB2 abnormal terminations.

System Action: SQLCODE -904 is returned to the user. This reason code and the resource name are also returned.

System Programmer Response: Use the DISPLAY DATABASE command to display the DB2 member names owning the retained locks. You must restart those subsystems to remove the 'resource unavailable' condition.

Problem Determination: This reason code is issued by the following CSECTs:

DSNTAAL	DSNTBAB	DSNTBAS2	DSNTBCM1
DSNTBCM3	DSNTBFR	DSNTBIAB	DSNTBRB
DSNXEAAL			

00E30096

Explanation: DB2 is unable to acquire a modify lock. Lock negotiation failed because another DB2 subsystem in the DB2 data sharing group is abnormally terminating.

This abend reason code is issued by the following CSECTs: DSNTBFR

System Action: A 'resource unavailable' condition is returned to the user. This reason code, the resource type, and the resource name are also returned.

User Response: Resubmit the request.

System Programmer Response: Determine why the other DB2 member abnormally terminated. The 'resource unavailable' condition will be cleared when that DB2 member has completely terminated.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00E3009E

Explanation: The plan depends on new facilities of the release from which fall back has occurred.

This abend reason code is issued by the following CSECT: DSNTAAL

System Action: The allocation for the user failed.

User Response: Do not use this plan until your DB2 subsystem is remigrated to the newer release.

System Programmer Response: Warn the user community NOT to run this plan until you have remigrated to the newer release.

00E30100

Explanation: This reason code can be returned in the following cases:

- A parallel task running on a DB2 terminates abnormally.
- An assisting DB2 terminates abnormally.

This reason code is issued by the following CSECTs: DSNTTTC, DSNTTREB

System Action: The member name where the failure occurred is returned to the application as the resource name in SQLCODE -904. In a non-data-sharing environment, the

member name is blank, and the failure occurrs on the local DB2.

Operator Response: Enter DISPLAY GROUP from an active DB2 to see if a DB2 subsystem is down. Restart the failed DB2 subsystem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E30101

Explanation: The result of issuing a SETFRR macro indicates that this FRR is not the top FRR.

This abend reason code is issued by the following CSECT: DSNTAC1

System Action: A record is written to SYS1.LOGREC. An SVC dump is requested.

System Programmer Response: This is probably a DB2 internal error. Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 5.

00E30104

Explanation: This reason code is used by the service controller (SC) subcomponent to respond NO on a prepare-to-commit notification.

This abend reason code is issued by the following CSECT: DSNTAC1

System Action: If the service controller indicates that DB2 cannot commit to perform the work requested by the application since the last commit point, it responds NO on the prepare-to-commit notification (COMMIT1). This forces the commit to be changed to an abort, causing the work performed by the application since the last commit point to be backed out.

00E30105

Explanation: IRLM was informed of a link failure to a coupling facility that contains a lock table being actively used by this data sharing group.

System Action: The DB2 subsystem is terminated with this reason code.

System Programmer Response: See IRLM message DXRxxxE to determine the root cause of the failure and the appropriate corrective action.

Problem Determination: This abend reason code is issued by the following CSECT: DSNTLSTA

00E30301

Explanation: You have attempted to execute a plan that does not exist. This reason code is used by the automatic BIND function to indicate that no record exists in SYSIBM.SYSPLAN for the plan-ID you are attempting to run, so plan allocation fails.

This reason code is issued by the following CSECT: DSNTBAB

System Action: The plan is not executed.

User Response: Determine if the object name was correctly specified. If so, ensure that the plan exists (by selecting from SYSIBM.SYSPLAN).

00E30302

Explanation: This reason code is used by the automatic BIND function to indicate that the plan currently being allocated is not operational. The automatic BIND for the plan failed because the plan was dependent on something that was altered or dropped. An unavailable database might also cause this problem.

This reason code is issued by the following CSECT: DSNTBAB

System Action: The autobind fails, and the plan cannot be allocated.

System Programmer Response: Determine what made the plan not operational. Make sure the required database is available. Issue a REBIND subcommand for the plan.

00E30303

Explanation: You have attempted to execute a package that does not exist. This reason code is used by the automatic package BIND function to indicate that no record exists in SYSIBM.SYSPACKAGE for the package-ID you are attempting to run, so package allocation fails.

This abend reason code is issued by the following CSECT: DSNTBAB2

System Action: Package allocation fails.

User Response: Determine if the object name was correctly specified. If so, ensure that the package exists (by selecting from SYSIBM.SYSPACKAGE).

00E30305

Explanation: This reason code is used by the automatic BIND function to indicate that the package currently being allocated is not operational. That upon which the package was dependent has been altered or dropped, causing the automatic BIND for the package to fail.

This abend reason code is issued by the following CSECT: DSNTBAB2

System Action: Agent allocation fails or DROP package fails.

System Programmer Response: Determine what has made the package not operational. Issue a REBIND subcommand for the package.

00E30306

Explanation: This reason code is returned when the automatic bind for plan is disabled. The automatic bind is disabled through the installation process.

This abend reason code is issued by the following CSECTs: DSNTAAL, DSNXAAB, DSNXEAAL

System Action: The plan is not automatically bound.

System Programmer Response: Rebind the plan prior to execution.

00E30402

Explanation: This subcode is found in register 2 to clarify abend reason code X'00E30077'. See X'00E30077' for more information.

This reason code is issued by the following CSECT: DSNTDINQ

00E30405

Explanation: This subcode is found in register 2 to clarify abend reason code X'00E30077'. See X'00E30077' for more information.

This reason code is issued by the following CSECT: DSNTDINQ

00E30406

Explanation: This subcode is found in register 2 to clarify abend reason code X'00E30077'. See X'00E30077' for more information.

This reason code is issued by the following CSECT: DSNTDMST

00E30407

Explanation: This subcode is found in register 2 to clarify abend reason code X'00E30077'. See X'00E30077' for more information.

This reason code is issued by the following CSECT: DSNTDDIS

00E30700

Explanation: A resource limit as determined from the active resource limit specification table has been exceeded. The SQL statement has been terminated with an SQLCODE -905.

This abend reason code is issued by the following CSECTs: DSNB1GET, DSNXSRID

System Action: The current SQL statement contains an SQLCODE -905.

User Response: See the text for the SQLCODE -905. It will specify the resource limit that was exceeded. The SQLCODE -905 text will also include the name of the resource limit specification table that was used to derive the limit. Determine why the limit was exceeded.

Operator Response: Notify the system programmer.

System Programmer Response: An SQL statement used too much resource space. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5.

00E30800

Explanation: An attempt was made to identify to an IRLM that does not support the level of function DB2 needs. Message DSNT803I accompanies this abend reason code.

System Action: Message DSNT803I is issued to the console, and DB2 terminates abnormally with this reason code. A record is written to SYS1.LOGREC. No SVC dump is taken.

System Programmer Response: DB2 Version 4 requires IRLM Version 2.1. DB2 Version 4 will not run with any earlier release of IRLM. Ensure that the STEPLIB statement in your IRLM startup procedure is referencing the correct IRLM code library.

Problem Determination: This reason code is issued by the following CSECT: DSNTLIDE

00E30802

Explanation: DB2 was not able to identify to IRLM because another subsystem already identified to IRLM. Message DSNT811E accompanies this abend reason code.

System Action: Message DSNT811E is issued to the console. DB2 terminates abnormally with this reason code. A record is written to SYS1.LOGREC. No SVC dump is taken.

System Programmer Response: IRLM Version 2.1 enforces a one to one (1:1) mapping between IRLM and DB2. Multiple DBMS subsystems can no longer use the same IRLM. Ensure that:

- Each DB2 subsystem is associated with its own IRLM subsystem.
- The correct IRLM procedure name and subsystem name are specified in the DB2 system parameters.

Problem Determination: This reason code is issued by the following CSECT: DSNTLIDE

00E30803

Explanation: An error occurred in one of the DB2-supplied exits to IRLM. This abend reason code is issued only in a DB2 sharing data environment and indicates an internal error in DB2 or IRLM.

System Action: A record is written to SYS1.LOGREC and an SVC dump is initiated. DB2 terminates abnormally.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSNTLPNE

00E30805

Explanation: DB2 could not activate one of the exits used with IRLM for data sharing. This is a DB2 internal error.

System Action: A record is written to SYS1.LOGREC and an SVC dump is initiated. DB2 terminates abnormally.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This reason code is issued by the following CSECT: DSNTRSTE

00E30806

Explanation: IRLM could not successfully join its IRLM data sharing group. Message DSNT800I accompanies this abend reason code.

System Action: Message DSNT800I is issued to the console, and DB2 abnormally terminates with this reason code. A record is written to SYS1.LOGREC. No SVC dump is taken.

System Programmer Response: Some possible reasons why IRLM could not join its data sharing group are:

- The lock structure is not properly defined in the active MVS CFRM administrative policy. The lock structure name is a concatenation of the DB2 data sharing group name and the string 'LOCK1', separated by an underscore (_). For example, if the DB2 data sharing group name is DSNCAT, DSNCAT_LOCK1 would be the lock structure name.

  Ensure that the lock structure is properly defined in the active MVS CFRM policy. The name of the lock structure that IRLM attempted to access is given in message DSNT800I. IRLM issues message DXR138E to indicate that the lock structure definition could not be accessed in the active MVS CFRM policy.
- IRLM could not connect the lock structure. The reason for the connect failure is given in IRLM message DXR135E.
- IRLM could not join its data sharing group. The reason for the join failure is given in IRLM message DXR134E.
- IRLM joined the wrong group. The set of IRLMs that are connected to a given lock structure must all be members of the same group.

  Ensure that the GROUP parameter is correctly specified in the IRLM startup procedure. If you give an incorrect group name, IRLM connects the lock structure, and then times out waiting for responses from other connectors. IRLM issues message DXR133I for the timeout.

Problem Determination: This reason code is issued by the following CSECT: DSNTLIDE

00E30807

Explanation: DB2 failed on the IRLM Identify request because no lock structure name was specified. Message DSNT810E accompanies this abend reason code.

System Action: Message DSNT810E is issued to the console, and DB2 terminates abnormally with this reason code. A record is written to SYS1.LOGREC. No SVC dump is taken.

System Programmer Response: This condition occurs if you are not running DB2 in data sharing mode, but the associated IRLM is running with global scope (SCOPE=GLOBAL in the IRLM startup procedure). If you are not running DB2 in data sharing mode, ensure that the associated IRLM startup procedure specifies SCOPE=LOCAL. Conversely, if you are running DB2 in data sharing mode, ensure that the associated IRLM startup procedure specifies SCOPE=GLOBAL.

Problem Determination: This reason code is issued by the following CSECT: DSNTLIDE

00E30808

Explanation: DB2 issued an IRLM PURGE request to purge retained locks, but the PURGE request was not successful. This abend reason code accompanies message DSNT807I.

System Action: A record is written to SYS1.LOGREC and an SVC dump is initiated. The DB2 restart process is terminated.

System Programmer Response: The IRLM return and reason codes are in the SYS1.LOGREC record.

Problem Determination: This abend reason code is issued by the following CSECT: DSNTRSTE

00E30809

Explanation: DB2 failed on the IRLM Identify request because IRLM did not return the lock structure version ID. Message DSNT809I accompanies this abend reason code.

System Action: Message DSNT809I is issued to the console, and DB2 abnormally terminates with this reason code. A record is written to SYS1.LOGREC. No SVC dump is taken.

System Programmer Response: This condition occurs if you are running DB2 in data sharing mode, but the associated IRLM is running with local scope (SCOPE=LOCAL in the IRLM startup procedure). If you are running DB2 in data sharing mode, ensure that the associated IRLM startup procedure specifies SCOPE=GLOBAL. Conversely, if you are not running DB2 in data sharing mode, ensure that the associated IRLM startup procedure specifies SCOPE=LOCAL.

Problem Determination: This reason code is issued by the following CSECT: DSNTLIDE

X'E4.....' Codes

Many of the utilities codes ask you to determine the failing environment. This means that you should determine the following things:

- The address space in which the failure occurred
- The utility that was running
- Whether it was a restart of a utility that failed previously
- Whether the job step invocation was through the DSNUTILB program
- Whether a -DISPLAY or -TERM UTILITY command was involved.

To assist you in determining the problem, register 2 might contain a secondary reason code. This secondary reason code might be an IBM internal reason code; therefore, it might not be documented in this manual.

When DB2 resources are unavailable to utilities, message DSNT500I are issued along with the utility reason code. Refer to message DSNT500I for the correct action.

00E40000

Explanation: A function of DB2 was invoked and attempted to establish a functional recovery environment. The functional recovery element (FRE) that was created was not the first one.

This abend reason code is issued by the following CSECTs: DSNUGCKW DSNUGCUR

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. The execution unit is abended.

Operator Response: Notify the system programmer.

Problem Determination: This is a DB2 internal error. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E40001

Explanation: No cursor table was present at entry to database services portion of utility.

This abend reason code is issued by the following CSECT: DSNUGRAR

System Action: The utility job step that caused the function to be requested is abended. Utility processing is not initiated.

System Programmer Response: This is an internal error. Determine the failing environment. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40002

Explanation: The caller of the database services portion of the utility was in the wrong protect key.

This abend reason code is issued by the following CSECTs: DSNUGBAC, DSNUGRAR

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment.

If a JOBLIB or STEPLIB is being used in the batch utility job, check that all application program libraries included in the concatenation are authorized.

Check that the batch utility program DSNUTILB was included in the MVS program properties table during the installation of DB2. The entry for DSNUTILB in the MVS program properties table was provided by MVS. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40003

Explanation: An error occurred while getting FRBPARM from application storage.

This abend reason code is issued by the following CSECT: DSNUGRAR

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

System Programmer Response: Determine the failing environment., in particular whether invocation was through program DSNUTILB. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: If the environment was DSNUTILB, the problem could be internal.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40004

Explanation: An error occurred while getting FRB from application storage.

This abend reason code is issued by the following CSECT: DSNUGRAR

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

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System Programmer Response: Determine the failing environment. In particular, determine whether invocation was through program DSNUTILB. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: If the environment was DSNUTILB, the problem could be internal.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40005

Explanation: A nonzero reason code was returned from MVS sort.

This abend reason code is issued by the following CSECT: DSNUGSOR

System Action: Any error message generated by sort in conjunction with the nonzero reason code is directed to the device/data set identified by the UTPRINT DD statement in the utility job step.

Error message DSNU044I, that contains the nonzero reason code, is directed to the device/data set identified by the SYSPRINT DD statement in the utility job step.

User Response: Determine the cause of the error. If the error can be corrected, the utility may be restarted from the beginning of the sort phase by using the 'RESTART(PHASE)' parameter. If the error prevents the utility from completing, the -TERM command should be issued to remove the stopped utility from the system. The -TERM UTILITY should seldom be used when the stopped utility is REORG.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to release the resources claimed by the stopped utility (this may not be necessary).

Problem Determination: This abend is accompanied by the utility message DSNU044I, that contains the sort reason code and an SVC dump. In most cases, the error messages from SORT that are sent to the device/data set identified by the UTPRINT DD statement identify the problem. The dump may not be needed. If SORT is unable to open the UTPRINT data set, only the message and abend are provided. In this case, correct the problem associated with the UTPRINT DD statement, and restart the job with the RESTART(PHASE) option.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40006

Explanation: An error was detected while manipulating the utility-in-progress bits of the DBA table. The error might occur if the SYSIBM.SYSUTIL table and the DBA table are out of sync, if the utility-in-progress condition was not properly reset after execution of a prior utility, or if a resource unavailable condition exists.

This abend reason code is issued by the following CSECT: DSNUGUIP

System Action: Utility processing is abended. This abend might be accompanied by message DSNT500I. An SDUMP might be requested.

User Response: If applicable, correct the resource unavailable condition identified by the DSNT500I message. For an explanation of resource types, see "Resource Types" on page X-7. Either restart the utility from the last commit point or terminate the utility and submit it again.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code. Consult the system programmer to diagnose the problem.

System Programmer Response: Use the -DISPLAY UTILITY command to display the status of any utilities in progress. Determine if another utility is active on the same table space. Use the -DISPLAY DATABASE command to determine if the table space has a utility-in-progress condition set on.

The utility-in-progress bit is turned on only for table spaces. If a utility is run against an index, the utility-in-progress bit is turned on for the appropriate table space.

A utility-in-progress condition set without a corresponding entry for an active or stopped utility in the SYSUTIL table is an inconsistent condition caused by a prior error. To resolve this, issue a -START DATABASE command specifying the proper table space with the ACCESS(FORCE) parameter. This causes the utility-in-progress status to be cleared.

If the problem cannot be corrected, determine the failing environment. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: If the condition cannot be corrected, determine the failing environment.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61, 72.

00E40007

Explanation: The COPY utility function is unable to open the table space as directed. The failure can occur because the table space is currently not available. The failure can also be an internal error.

This abend reason code is issued by the following CSECTs: DSNUBAID DSNUBASI

System Action: If the table space is currently not available, a DSNT500I RESOURCE UNAVAILABLE message is directed to the device or data set identified by the SYSPRINT DD statement. The utility job step is placed in the stopped state.

User Response: If the abend was accompanied by a DSNT500I message, look up DSNT500I in "DSNT... Messages" on page 3-201 to determine the cause of the resource unavailability. You can restart the utility when the resource becomes available, or you can terminate the utility job step and resubmit the job at a later time.

If a DSNT500I message was not issued, an internal processing error occurred. Provide the system programmer with dumps and messages for fault analysis.

Operator Response: After the environmental information is determined, an operator with SYSOPR authority can terminate the utility job step and free the resources, but this might not be necessary.

System Programmer Response: If a DSNT500I message preceded the abend, follow the procedures outlined under that message number in "DSNT... Messages" on page 3-201 for Problem Determination. Otherwise, determine the failing environment.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40009

Explanation: An error was detected while attempting to access the target object (table space or index space).

This abend reason code is issued by the following CSECTs: DSNUGACC, DSNUGAGS, DSNUGUTC, DSNURLOG

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. The DSNT500I message might be preceded by other related messages on the console. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning. If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E4000A

Explanation: An error has been detected while force closing a page set.

This abend reason code is issued by the following CSECTs: DSNUCLVE, DSNUGACC

System Action: Utilities processing is abended.

User Response: Notify the system programmer.

System Programmer Response: This is an internal error. Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E4000C

Explanation: This is an internal control error. The utility subcomponent that manages the function control flow associated with DB2 database services has been requested to perform a function that it does not recognize.

This abend reason code is issued by the following CSECTs:

DSNUBCOP DSNUBFFR DSNUCBFW DSNUGRAR

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

User Response: To determine how much of the requested function within the job step was completed, examine the data set/device identified by SYSPRINT. Consult the system programmer to diagnose the problem. Determine whether the utility job step should be terminated in order to release resources.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to free resources (this might not be necessary).

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E4000D

Explanation: An error was detected while scanning or updating table SYSIBM.SYSUTIL.

This abend reason code is issued by the following CSECTs:

DSNUGSRI DSNUGDIS DSNUGSRI DSNUGTER

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning. Refer to Table 3 in "Appendix B. Problem Determination" on page X-5 for an explanation of resource type codes.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E4000E

Explanation: An error was detected while attempting to create a cursor block (CUB).

This abend reason code is issued by the following CSECTs: DSNUGACC, DSNUKINE

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning. Refer to Table 3 in "Appendix B. Problem Determination" on page X-5 for an explanation of resource type codes.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E4000F

Explanation: An error was detected while checking or setting the state of the database exception table (DBET). This abend might be accompanied by message DSNT500I.

System Action: Utilities processing is abended. An SDUMP might be requested.

User Response: Correct the 'resource unavailable' condition identified by message DSNT500I. Either restart the utility from the last commit point or terminate the utility and restart it from the beginning. Refer to Table 3 in "Appendix B. Problem Determination" on page X-5 for an explanation of resource type codes.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem.

If the condition cannot be corrected, determine the failing environment.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECTs:

DSNUGCKP DSNUGDTC DSNUGSRX DSNUGTER
DSNURBXC DSNURICP DSNUBAFI DSNUBAID
DSNUBARI

00E40010

Explanation: A request to IRLM on behalf of a DB2 utility to lock a page or an entire table space has failed. This is either an internal DB2 or an IRLM problem. The error occurred in the database services address space.

This abend reason code is issued by the following CSECTs: DSNUCDA1, DSNUCRVL

System Action: The utility job is abended. An SVC dump is requested (with the address of the IRLM parameter list, RLPL, in register 4). The utility is placed in the stopped state.

User Response: Consult the system programmer to diagnose the problem. Determine if the utility should be terminated.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to free resources (this might not be necessary).

System Programmer Response: Check the IRLM return and reason codes in the RLPL. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40011

Explanation: An attempt to extend the error range information in the database allocation table (DBAT) failed.

This abend reason code is issued by the following CSECT: DSNUCDA1

System Action: The I/O error that did not get recorded in the DBAT table was reported in error message DSNU086E, that was directed to the device/data set identified by the SYSPRINT DD statement. The utility job step is placed in the stopped state.

User Response: The system programmer should be notified and given the relevant environmental information. Subsequent to its correction, the stopped utility can be restarted using the RESTART option, or it can be terminated and resubmitted at a later time.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to release the resources claimed by the stopped utility (this might not be necessary).

System Programmer Response: Determine the failing environment. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40012

Explanation: An error was detected while attempting to find a database descriptor block (DBD) address.

This abend reason code is issued by the following CSECTs:

DSNUGACC DSNUGCKP DSNUGMAP DSNUQUIA
DSNUSINI

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning. Refer to Table 3 in "Appendix B. Problem Determination" on page X-5 for an explanation of resource type codes.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 60, 61, 46.

00E40013

Explanation: An error was detected while creating a ECB exit for -STOP DB2.

This abend reason code is issued by the following CSECT: DSNUGBAC

System Action: Utilities processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40014

Explanation: An error was detected from the terminate thread function.

This abend reason code is issued by the following CSECT: DSNUGBAC

System Action: Utilities processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40015

Explanation: A RECOVER utility was initiated with the ERROR RANGE option specified. The request was rejected when it was determined that there was not a sufficient number of alternate tracks for the pages in the error range to be recovered.

This abend reason code is issued by the following CSECT: DSNUCRVT

System Action: The abend was issued in the database services address space. The dumps requested are dependent upon the JCL of the utility job step. The utility job step is abended. The utility is placed in the 'stopped' state.

User Response: Recovery can be accomplished by resubmitting the RECOVER utility without the ERROR RANGE option. Recovery can be by data set or the table space as a whole.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to free resources (this might not be necessary).

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40016

Explanation: A Recover utility was initiated with the ERROR RANGE option specified. An error was detected by the media manager while processing a MMCNVT macro invocation. This is an internal error within either DB2 or the media manager.

This abend reason code is issued by the following CSECT: DSNUCRVT

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to free resources if that should prove necessary (this might not be necessary).

System Programmer Response: The MMCNVT macro converts a VSAM RBA to its physical track address (CCHHR). At the time of abend, the following registers contain relevant information:

R2 Address of media manager interface block (MMIB).
R3 Address of field containing VSAM RBA to be converted.
R4 Address of area to receive CCHHR.
R5 MMCNVT places UCB address here.
R8 Return code from media manager. If you suspect an error in media manager, refer to *DFSMS/MVS: Diagnosis Reference for DFSMSdfp*.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40017

Explanation: An error was detected from terminate identify.

This abend reason code is issued by the following CSECT: DSNUGBAC

System Action: Utilities processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40018

Explanation: Either an error was detected during the execution of a restarted utility or a condition was detected that might have required restart of a utility. A message is issued prior to this abend code to indicate the type of error.

This abend reason code is issued by the following CSECT: DSNUGBAC

System Action: Utility processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Check messages issued prior to this abend code to determine the cause of the error. Correct the error, and restart the job.

Problem Determination: This abend is forced to allow restart of the utility when work data sets are used and the disposition is (MOD,DELETE,CATLG).

00E4001A

Explanation: An error was detected while using SVC 99 to retrieve information on the DD statements supplied.

This abend reason code is issued by the following CSECT: DSNUGCDD

System Action: Utility processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment.

Problem Determination: This is a DB2 internal error. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E4001C

Explanation: An error was detected while attempting to map externals to a specific file object descriptor (OBD).

This abend reason code is issued by the following CSECT: DSNUGMAP

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning. Refer to Table 3 in “Appendix B. Problem Determination” on page X-5 for an explanation of resource type codes.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E4001D

Explanation: An error was detected while attempting to read a row from the SYSIBM.SYSSYNONYMS table.

This abend reason code is issued by the following CSECT: DSNUGMAP

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning. Refer to Table 3 in “Appendix B. Problem Determination” on page X-5 for an explanation of resource type codes.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E4001E

Explanation: An error was detected while attempting to read a row from the SYSIBM.SYSTABLES table.

This abend reason code is issued by the following CSECTs:

DSNUGMAP DSNUGTBN DSNUKINP DSNUCBRK

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 4, 5, 32, 46.

00E4001F

Explanation: An error was detected while attempting to read a row from the SYSIBM.SYSINDEXES table.

This abend reason code is issued by the following CSECT: DSNUGMAP

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning. Refer to Table 3 in “Appendix B. Problem Determination” on page X-5 for an explanation of resource type codes.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40020

Explanation: An error was detected while attempting to RARQ to the database storage.

This abend reason code is issued by the following CSECT: DSNUGPRE

System Action: Utilities processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40021

Explanation: Utility processing was performing an AUTHORIZATION CHECK for the utility user and specified object, when an error was detected. A necessary resource for the check was not available.

This abend reason code is issued by the following CSECTs: DSNUGMAP, DSNUKINE

System Action: Utility processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Make the resource available and either -TERM the utility and resubmit it, or resubmit the utility with the RESTART parameter. Refer to message DSNT500I in "DSNT... Messages" on page 3-201. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This abend is accompanied by the message DSNT500I, that identifies the unavailable resource. The message is written to the SYSPRINT data set.

00E40022

Explanation: An error was detected while attempting to read a row from the SYSIBM.SYSUTIL table.

This abend reason code is issued by the following CSECT: DSNUGSUU

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning. Refer to Table 3 in "Appendix B. Problem Determination" on page X-5 for an explanation of resource type codes.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40023

Explanation: The internal protocols required for utility update of table the SYSIBM.SYSUTIL have been violated. Utility modifications to SYSIBM.SYSUTIL were not committed.

This abend reason code is issued by the following CSECTs: DSNUGSRI, DSNUGSRX

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to release the resources claimed by the stopped utility (this might not be necessary).

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 47.

00E40024

Explanation: Internal protocols required for utility serialization were violated. Specifically, utility serialization cleanup was not invoked upon completion of utility processing.

This abend reason code is issued by the following CSECT: DSNUGUCA

System Action: The utility job step is terminated, placing the utility in the stopped state.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to release the resources claimed by the stopped utility (this might not be necessary).

System Programmer Response: Determine the failing environment. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 47.

00E40025

Explanation: Utility processing attempted to allocate resources for this utility job step. The allocate protocol has returned a nonzero return code.

This abend reason code is issued by the following CSECT: DSNUGUCA

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning. Refer to Table 3 in "Appendix B.

Problem Determination" on page X-5 for an explanation of resource type codes.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to release the resources claimed by the stopped utility, but this might not be necessary.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40027

Explanation: An error has been detected while attempting to update a row of the SYSIBM.SYSUTIL table.

This abend reason code is issued by the following CSECT: DSNUGSUU

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning. Refer to Table 3 in "Appendix B. Problem Determination" on page X-5 for an explanation of resource type codes.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40028

Explanation: An error has been detected while attempting to COMMIT.

This abend reason code is issued by the following CSECTs: DSNUGUCA, DSNUGAGS

System Action: Utilities processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40029

Explanation: An error has been detected while attempting to read a row from the SYSIBM.SYSUTIL table.

This abend reason code is issued by the following CSECTs: DSNUGUCA, DSNUGAGS

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning. Refer to Table 3 in "Appendix B. Problem Determination" on page X-5 for an explanation of resource type codes.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E4002A

Explanation: During utility restart processing, a record in the SYSUTILX checkpoint/restart area was not recognized. The utility might not be restartable.

This abend reason code is issued by the following CSECT: DSNUGSUG

System Action: Utility processing is abended.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to release the resources claimed by the stopped utility.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error. Collect the following diagnostic items listed in "Appendix B. Diagnostic Items for Problem Determination": 1, 2, 4, 30, 31, 46, 49.

00E4002B

Explanation: The utility check pending protocol detected invalid parameters for the setting or resetting of the check pending state.

This abend reason code is issued by the following CSECT: DSNUGCKP

System Action: The utility job is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 60, 61.

00E4002D

Explanation: This abend is issued as a result of an error other than the 'resource unavailable' condition that was encountered while attempting to update a DB2 catalog for the setting or resetting of the check pending state.

This abend reason code is issued by the following CSECT: DSNUGCKP

System Action: An SVC dump is requested, the error flag in the DBA table is set on for the table space for which the check pending state is being set or reset, and processing continues.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Determine the reason for the catalog access error. This abend is accompanied by console message DSNU972I. See the problem determination for this message for a description of how processing is affected by this error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 60, 61.

00E40030

Explanation: A -DISPLAY UTILITY or -TERM UTILITY command has failed in the command subsystem.

This abend reason code is issued by the following CSECT: DSNUGCCC

System Action: Command processing is terminated. For -TERM UTILITY, all previous actions taken by the command are backed out.

System Programmer Response: Determine the failing environment. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This error is accompanied by additional messages and/or SVC dumps that identify the failure in the utility command subsystem. Refer to this manual under those messages and/or codes for additional problem determination.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40033

Explanation: Internal control blocks were scanned for internal IDs representing the SYSIBM.SYSUTIL table. No corresponding ID was found.

This abend reason code is issued by the following CSECTs:

DSNUGAGS DSNUGDIS DSNUGSRI DSNUGTER

System Action: The utility job step is terminated, placing the utility in the stopped state.

Operator Response: An operator with SYSOPR authority can issue the TERM UTILITY command to release the resources claimed by the stopped utility, but this might not be necessary.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 47.

00E40034

Explanation: The utility message generator was unable to obtain the requested storage. The available storage used to buffer messages produced by the database memory is full and a request to obtain more storage from subpool 229 failed.

This abend reason code is issued by the following CSECT: DSNUGMSG

System Action: Utility processing abends. No SYSABEND dump or SVC dump is requested.

User Response: This abend occurs due to a system resource limit. It might be necessary to modify the utility control statement.

If the abend occurs as a result of the LOAD utility, attempt to restart the job. If failure recurs, it might be necessary to change the discard limit or correct the situation that caused many error messages to be produced.

If the abend occurs as a result of the REPAIR utility, change the beginning page number to the last page number printed plus one, or change the number of pages to be dumped to a smaller number. Resubmit the job.

If the abend occurs as a result of the RECOVER INDEX utility, the unique index might have to be dropped and recreated as a nonunique index. If a unique index is required and the data contains a large number of duplicates, the duplicates must be reduced before attempting to recover the index again.

Problem Determination: Refer to the prior error messages to determine how to correct the problem.

00E40035

Explanation: The -START ACCESS FORCE command was issued when DSNDB01.SYSUTILX was in a pending state, which prohibits further processing. The pending state was either copy or recovery pending.

This abend reason code is issued by the following CSECT: DSNUGTER

System Action: Utility processing is abended.

User Response: Notify the system programmer so that the pending condition can be resolved.

System Programmer Response: Issue a -DISPLAY DATABASE command to determine the state of DSNDB01.SYSUTILX. If the state is copy pending, do a full image copy. If the state is recovery pending, use the RECOVER utility to recover DSNDB01.SYSUTILX.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00E40040

Explanation: An error was returned from the DSNILREQ protocol during page level locking. This abend code is accompanied by message DSNT500I that explains the 'resource unavailable' condition.

This abend reason code is issued by the following CSECTs: DSNUCBFW, DSNUCBRP.

System Action: Utility processing is abended and the utility is placed in a stopped state.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Then, either restart the utility from the last commit point or terminate the utility and restart it from the beginning.

System Programmer Response: If the conditions identified in the DSNT500I message can not be corrected, determine the failing environment. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Refer to the description for message DSNT500I.

Refer to Table 3 in "Appendix B. Problem Determination" on page X-5 for an explanation of resource type codes.

00E40045

Explanation: A failure has occurred during an attempt to free storage.

This abend reason code is issued by the following CSECTs: DSNUGSTB, DSNUGSTA

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

Operator Response: An operator with SYSOPR authority can terminate the utility job step and free the resources (this might not be necessary). However, this should not be done until after the diagnostic environment has been established.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40051

Explanation: Invalid OTYPE was passed to DSNUGMAP.

This abend reason code is issued by the following CSECT: DSNUGMAP

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

Operator Response: An operator with SYSOPR authority can terminate the utility job step and free up any resources (this might not be necessary). However, this should not be done until after the diagnostic environment has been established.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40053

Explanation: An invalid OBID of zero was found by the module that maps external object names to OBIDs.

This abend reason code is issued by the following CSECT: DSNUGMAP

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

User Response: Notify the system programmer.

Operator Response: An operator with SYSOPR authority can terminate the utility job step and free any resources (this might not be necessary). However, this should not be done until after the diagnostic environment has been established.

System Programmer Response: Determine the failing environment. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: OBIDs are extracted from the DB2 catalog. The OBID for a table space is found in the SYSIBM.SYSTABLESPACE table. The OBID for a table is found in the SYSIBM.SYSTABLES table. The OBID for a index is found in the SYSIBM.SYSINDEXES table. If the object exists, the OBID cannot be zero.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40070

Explanation: A utility data set could not be opened. The abend was issued to place the utility in the stopped state for review and correction.

This abend reason code is issued by the following CSECT: DSNUGSDA

System Action: Utility error message DSNU036I or DSNU037I was issued. to identify the DD statement associated with the DCB that could not be opened. If neither message was issued, the SYSPRINT DD statement was omitted. The utility job step is placed in the stopped state.

User Response: If the ddname is one you submitted, review and correct it. Then resubmit the job. If the ddname is one the system provided, consult the system programmer. If neither message was issued, verify that the SYSPRINT DD statement exists.

Operator Response: An operator with SYSOPR authority can terminate the utility to release the held resources, but this may not be necessary.

System Programmer Response: Correct the JCL, and resubmit the job.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40071

Explanation: An I/O error was encountered on a required OS/VS data set. An abend was issued to place the utility in a stopped state for review and correction. Resubmit the utility.

This abend reason code is issued by the following CSECT: DSNUGSDA

System Action: One of two utility error messages (DSNU032E or DSNU040I) is sent to the data set/device associated with the SYSPRINT DD statement of the utility job step. The error message identifies the error and the data set in error.

The utility is stopped at the beginning of the phase that used the OS/VS data set.

User Response: If the utility message was DSNU032E, the job can be restarted if an undamaged output data set is provided. Obtain an undamaged output data set, and restart the utility job step with the RESTART(PHASE) option. The job cannot be restarted if an unload data set, during the RELOAD phase of either the LOAD or REORG, is used as input instead of output.

If utility message was DSNU040I, determine the problem as described in Problem Determination. Then either resubmit the utility job using the RESTART option, or -TERM the utility job step.

Operator Response: An operator with SYSOPR authority can terminate the utility and release any held resources (this might not be necessary).

Problem Determination: Problem determination depends upon which error message was directed to the data set/device identified by the SYSPRINT DD statement.

If DSNU032E was issued, an I/O error was encountered on a required utility work data set. The message describes the error and the data set in error.

If DSNU040I was issued, an error has occurred during BSAM access to the data set defined by the DD statement specified in the message. The DECB provided as a hexadecimal string contains the ECB in the first four bytes. The first byte of the ECB contains status bits that indicate the cause of the error.

There might be an IOS message on the MVS console SYSLOG indicating the type of I/O error that occurred. If an IOS message was issued, follow the problem determination directions for the message. Refer to the appropriate MVS publication for the meaning of the status bits.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40072

Explanation: An error was encountered while processing a BSAM data set.

This abend reason code is issued by the following CSECT: DSNUGSDA

System Action: A message identifying the error might have been sent to the data set/device associated with the SYSPRINT DD statement of the utility job step. If no prior message was produced, a dump was requested. The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

User Response: If a message was produced to identify the error, refer to that message description for the proper action. If no message can be found, then notify the system programmer.

Operator Response: Notify the user or system programmer.

System Programmer Response: Review the job output and failing environment. If a message was produced to identify the error, correct the error and resubmit or restart the job. If no message was produced, then a dump should have been requested. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Problem determination depends upon which error message, if any, was directed to the data set/device identified by the SYSPRINT DD statement. If a message was produced, it describes the type of error and data set involved. Refer to the message description for information on what action to take. If no message was produced, then this might be an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40073

Explanation: An internal error was encountered while processing a BSAM data set. The utility in progress issued an internal read to a BSAM data set after end-of-file was returned for the data set.

This abend reason code is issued by the following CSECT: DSNUGSDA

System Action: The utility job step is terminated, placing the utility in the stopped state.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to release the resources claimed by the stopped utility (this might not be necessary).

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 4, 5, 32, 46.

00E40074

Explanation: An internal error was encountered while processing a BSAM data set. The utility in progress issued an internal point to a BSAM data set which is opened for write. Point is only valid for data sets opened for read.

This abend reason code is issued by the following CSECT: DSNUGSDA

System Action: The utility job step is terminated, placing the utility in the stopped state.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to release the resources claimed by the stopped utility (this might not be necessary).

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 17, 32.

00E40075

Explanation: An end-of-data (EOD) has been encountered while attempting to reposition an input data set during the restart of a utility.

This abend reason code is issued by the following CSECT: DSNUGSDA

System Action: Processing is abnormally terminated. A system dump is requested.

User Response: Review the JCL and ensure that the input data set is correct. Further analysis might be necessary.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 61, 32.

00E40079

Explanation: A utility work data set has a block size that is too small to accommodate the data to be written. An abend is issued to place the utility job step in a stopped state. This allows the error to be reviewed and corrected, and the job step to be resubmitted.

This abend reason code is issued by the following CSECT: DSNUGSDA

System Action: Utility error message DSNU038I is directed to the device/data set identified by the SYSPRINT DD statement. The utility job step is placed in the stopped state.

User Response: Delete the data set in error. Change the JCL so that the block size for the data set with the ddname nominated in error message DSNU038I is at least the indicated block size. Resubmit the utility job step with RESTART(PHASE) option.

Problem Determination: Utility error message DSNU038I is directed to the device/data set identified by the SYSPRINT DD statement. It gives the name of DD statement that defines the data set with the inadequate block size and gives the minimum block size in bytes.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40080

Explanation: An error has been detected during utility termination cleanup. The DSNXKACC CLOSEALL protocol has returned an error.

This abend reason code is issued by the following CSECT: DSNUGUCA

System Action: The utility job step is placed in the stopped state.

Problem Determination: This abend code might be accompanied by a DSNT500I error message that might indicate a correctable problem.

If the DSNT500I message has not been issued or if the problem can not be corrected, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40081

Explanation: The REORG utility has completed the UNLOAD phase while processing in a shared mode and has attempted to change to an exclusive mode for the RELOAD and subsequent phases. Utility processing has detected an internal error.

This abend reason code is issued by the following CSECT: DSNUGSRX

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to release the resources claimed by the stopped utility (this might not be necessary).

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic item listed in “Appendix B. Problem Determination” on page X-5: 47.

00E40082

Explanation: An error has been detected by utility serialization protocols. Protocols were issued in the wrong order.

This is an internal error and cannot be corrected by the user.

This abend reason code is issued by the following CSECT: DSNUGSRX

System Action: Utility processing is abnormally terminated and the utility is placed in a stopped state. An SDUMP is requested.

User Response: The -TERM UTIL command can be issued to free resources held by the failing utility.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00E40083

Explanation: An error was detected by utility serialization protocols. Required parameters are missing or contain invalid values.

This is an internal error and cannot be corrected by the user.

This abend reason code is issued by the following CSECT: DSNUGASO

System Action: Utility processing is abnormally terminated and the utility is placed in a stopped state. An SDUMP is requested.

User Response: Issue the -TERM UTIL command to free resources held by the failing utility.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00E40085

Explanation: A utility serialization LOCK or UNLOCK request has received an error from the IRLM. Either message DSNU099I is issued prior to this abend code to provide information about the error or message DSNI002I is issued if the problem occurred while running the START DATABASE ACCESS(FORCE) command.

This abend reason code is issued by the following CSECTs:

DSNUGDIS DSNUGSRI DSNUGSRX DSNILSTS

System Action: Either the utility job step is terminated and the utility is placed in a stopped state or the START DATABASE command abnormally terminates.

User Response: Notify the system programmer. An attempt can be made to restart the utility or rerun the START DATABASE command.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command if the user does not wish to attempt to restart the utility. For the START DATABASE command, rerun the command.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem. For the START DATABASE command, no response is needed.

00E40090

Explanation: Utility processing is unable to invoke the designated utility, because an internal error has occurred. The specified utility is not recognized by the utility job controller.

This abend reason code is issued by the following CSECTs:

DSNUGUTC DSNUGDFL DSNUGSRI

System Action: The utility job step is terminated, placing the utility in the stopped state.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to release the resources claimed by the stopped utility (this might not be necessary).

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40091

Explanation: Utility access path creation was invoked specifying an incorrect OBID.

This abend reason code is issued by the following CSECT: DSNUGACC

System Action: The utility job step is terminated, placing the utility in the stopped state.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to release the resources claimed by the stopped utility (this might not be necessary).

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40096

Explanation: Utility access path creation has detected an invalid OBID. The specified value is too small, too large, or does not exist in the subsystem.

This abend reason code is issued by the following CSECT: DSNUGACC

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to release the resources claimed by the stopped utility (this might not be necessary).

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E400A0

Explanation: An error was detected while the internal structure to access the tables of a table space was being built. The table space had no tables.

This abend reason code is issued by the following CSECT: DSNUGACC

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to release the resources claimed by the stopped utility (this might not be necessary).

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E400AF

Explanation: A DSNGDALT macro invocation has returned a nonzero return code. An attempt to modify a DBD by setting the OBDIFIB bit on was unsuccessful.

This abend reason code is issued by the following CSECTs: DSNUGFIB, DSNURFIB

System Action: Processing is abended.

User Response: This abend might be caused by an unavailable resource. Check for a DSNT500I message being issued prior to the abend. A dump will be suppressed in this case. If

no 'resource unavailable' condition is indicated, notify the system programmer.

System Programmer Response: Determine the failing environment. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E400B0

Explanation: Utilities invocation of CREATE THREAD has ended abnormally.

This abend reason code is issued by the following CSECTs: DSNUGBAC, DSNUGUTC

System Action: The utility job step is terminated. No record of the utility job step remains in the system.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E400C0

Explanation: A -STOP DB2 MODE(FORCE) command has been entered while a utility was executing, or a -STOP DB2 MODE(QUIESCE) command has been entered while a utility with multiple input statements was executing and the current input statement execution has completed.

This abend reason code is issued by the following CSECTs: DSNUGPRE, DSNUGUTC

System Action: Utility processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the reason that the -STOP DB2 command was issued. After DB2 has been started again, the utility job can be restarted.

00E400C1

Explanation: DB2 failed while attempting to latch or unlatch an index page. This is an internal error.

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECTs:

DSNUSIDX	DSNURFBI	DSNUCBRL	DSNUKGET
DSNUKIFK	DSNURBXA	DSNURBXC	DSNURBXZ
DSNURBXE			

00E40100

Explanation: DB2 failed during execution of the DSNBGETP macro.

This abend reason code is issued by the following CSECTs:

DSNUCBFW	DSNUBCL5	DSNUCRVA	DSNUBAFI
DSNUBAID	DSNUBASI	DSNUBASM	DSNUBASP

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40101

Explanation: DB2 failed during execution of the DSNBSETW macro.

This abend reason code is issued by the following CSECT: DSNUBASP

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40102

Explanation: The data manager subcomponent of DB2 failed during execution of the DSNICCOB macro.

This abend reason code is issued by the following CSECT: DSNUAHR2

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40103

Explanation: The data manager subcomponent of DB2 failed during execution of the DSNICCUB macro.

This abend reason code is issued by the following CSECTs: DSNUADP1, DSNUADP2

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40104

Explanation: The data manager subcomponent of DB2 failed during execution of the DSNIDISP macro.

This abend reason code is issued by the following CSECTs: DSNUGDTC, DSNULOG1

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40105

Explanation: The data manager subcomponent of DB2 failed during execution of the DSNIDLET macro. This abend reason code is issued by the following CSECTs:

DSNUADP1	DSNUADP2	DSNURLAP	DSNURRRI

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning. Refer to Table 3 in “Appendix B. Problem Determination” on page X-5 for an explanation of resource type codes.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40106

Explanation: The data manager subcomponent of DB2 failed during execution of the DSNILRDO macro.

This abend reason code is issued by the following CSECTs: DSNUCLVL, DSNUCRVL

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning. If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40107

Explanation: The data manager subcomponent of DB2 failed during execution of the DSNIISRT macro.

This abend reason code is issued by the following CSECTs: DSNUAHR2, DSNURLAP

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40108

Explanation: The data manager subcomponent of DB2 failed during execution of the DSNINEXH macro.

This abend reason code is issued by the following CSECTs:

DSNUADP1	DSNUADP2	DSNUAHR2	DSNUPLGR

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning. Refer to Table 3 in "Appendix B. Problem Determination" on page X-5 for an explanation of resource type codes.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40109

Explanation: The data manager subcomponent of DB2 failed during execution of the DSNIPGER macro.

This abend reason code is issued by the following CSECTs: DSNUCRVT, DSNUCRVA

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning. Refer to Table 3 in "Appendix B. Problem Determination" on page X-5 for an explanation of resource type codes.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E4010A

Explanation: DB2 failed during execution of the DSNIPSCB macro.

This abend reason code is issued by the following CSECTs:

DSNUCLVL	DSNUCLVS	DSNUCRVI	DSNUGUIP
DSNUSINI	DSNUBACI	DSNUBAII	DSNURLOG

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E4010B

Explanation: DB2 failed during execution of the DSNIPZOP macro.

This abend reason code is issued by the following CSECTs:

DSNUCBFW	DSNUCLVE
DSNUCRVA	DSNUKINT
DSNUCLRS	DSNUCLVS
DSNUCRVT	DSNURBXC

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E4010C

Explanation: The data manager subcomponent of DB2 failed during execution of the DSNIREPL macro.

This abend reason code is issued by the following CSECTs: DSNUAHR2, DSNURLAP

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E4010D

Explanation: The data manager subcomponent of DB2 failed during execution of the DSNISETH macro.

This abend reason code is issued by the following CSECTs:

DSNUADP1 DSNUADP2 DSNUAHR2 DSNUBCL5
DSNUPLGR DSNURRRI

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E4010E

Explanation: The data manager subcomponent of DB2 failed during execution of the DSNISRCF macro.

This abend reason code is issued by the following CSECT: DSNUCRVT

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E4010F

Explanation: The data manager subcomponent of DB2 failed during execution of the DSNIURBA macro.

This abend reason code is issued by the following CSECT: DSNULOG1

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40110

Explanation: The data space manager subcomponent of DB2 failed during execution of the reset of an index space or table space page set.

This abend reason code is issued by the following CSECTs:

DSNUCLRS DSNUCRVA DSNUCTER

System Action: The utility job is abnormally terminated. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility or terminate the utility and submit it again.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 32, 46, 61.

00E40111

Explanation: The data space manager subcomponent of DB2 failed during execution of the DSNPXTND macro.

This abend reason code is issued by the following CSECT: DSNUCBFW

System Action: The utility job is abended. DSM provides diagnostic information.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40112

Explanation: DSNUGMAP, a utilities program, failed.

This abend reason code is issued by the following CSECT: DSNUCBFW

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40113

Explanation: The data space manager subcomponent of DB2 failed during execution of the reset of an index space or table space page set.

This abend reason code is issued by the following CSECTs:

DSNUCLRS DSNUCRVA DSNUCTER

System Action: The utility job is abnormally terminated. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message and either restart the utility or terminate the utility and submit it again. If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that will give more information about the problem. Notify the system programmer.

System Programmer Response: If the condition identified cannot be corrected, determine the failing environment, and if you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: See message DSNT500I in this manual for a 'resource unavailable' condition.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 32, 46, 61.

00E40114

Explanation: DB2 failed during execution of DSNICLPS.

This abend reason code is issued by the following CSECTs:

DSNUCLRS DSNUCRVA DSNUGUIP

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40115

Explanation: The data manager subcomponent of DB2 failed during execution of DSNIUSTP.

This abend reason code is issued by the following CSECTs:

DSNUCLVE DSNUCRVA DSNURBXA DSNURBXC

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40116

Explanation: Either DSN3SYNC or DSN3ABRT failed.

This abend reason code is issued by the following CSECTs:

DSNUBCL0 DSNUCRVA DSNUCRV0

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40117

Explanation: DSNURBXB, a utilities module, failed.

This abend reason code is issued by the following CSECT: DSNUCRVI

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40118

Explanation: The data space manager subcomponent of DB2 failed during execution of the DSNPGNPO macro.

This abend reason code is issued by the following CSECT: DSNUCRVA

System Action: The utility job is abended. The DSM provides any required diagnostic information, such as messages, dumps, or log records.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

00E40119

Explanation: This abend reason code is issued in these instances:

- During recovery, a full image copy was not found for the DB2 directory or the DB2 catalog table space.
- The MERGECOPY utility did not recognize a record from the SYSIBM.SYSCOPY catalog table.

This abend reason code is issued by the following CSECT: DSNUBCL0

System Action: The utility job is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: When the recovery of the DB2 catalog or directory table space is requested, make sure that a full image copy has been taken first. If the MERGECOPY utility abended, either issue a select statement or run the REPORT utility to check the SYSIBM.SYSCOPY table for invalid rows.

00E4011A

Explanation: An error occurred in the RECOVER utility while applying log with log RBA=0.

This abend reason code is issued by the following CSECTs: DSNUCLVL, DSNUCRVL

System Action: The utility job is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Make sure the SYSLGRNX table space is not empty before applying the log.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 53, 60.

00E4011B

Explanation: The data manager subcomponent of DB2 failed during the execution of DSNIHDFM.

This abend reason code is issued by the following CSECTs: DSNUCRVA, DSNUCLVE

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be requested.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility or terminate the utility and execute it from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5.

00E4011C

Explanation: The log manager subcomponent of DB2 failed during execution of the DSNJLGR macro.

This abend reason code is issued by the following CSECTs: DSNULOG1, DSNUGLGR

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

System Programmer Response: Register 2 contains a secondary reason code. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 6, 16, 32, 33, 53, 60, 61.

00E4011D

Explanation: DB2 detected an error during execution of the DSNIDDRN macro. This is an internal error.

This abend reason code is issued by the following CSECT: DSNUCBRP

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 4, 31, 32, 47, 50.

00E4011F

Explanation: The RECOVER utility is unable to clear the group buffer pool pending status.

System Action: The RECOVER utility abends with this code.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNUCARS

00E40120

Explanation: A delete of SYSLGRNX information failed during -TERM UTILITY command processing for a REORG utility in the RELOAD phase.

This abend reason code is issued by the following CSECT: DSNUBCOP

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40121

Explanation: A RDJFCB macro invocation returned a nonzero return code.

This abend reason code is issued by the following CSECT: DSNUBCKB

System Action: Processing is abended.

User Response: This is probably a user error. A DD statement might be missing or specified incorrectly. If the DD statements appear to be correct, there might be another cause of the error and you should notify the system programmer.

System Programmer Response: Determine the failing environment. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The DD statement referred to by the COPYDDN Utility keyword might be missing or specified incorrectly. If COPYDDN was not specified, a DD statement with a default name equal to SYSCOPY must be present in the job step.

00E40122

Explanation: A IEFAB4UV invocation returned a nonzero return code.

This abend reason code is issued by the following CSECT: DSNUBCKB

System Action: Processing is abnormally terminated.

User Response: Notify the system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 4, 5, 32, 46.

00E40123

Explanation: The RECOVER TABLESPACE utility cannot access the SYSIBM.SYSVOLUMES catalog table to process a concurrent copy produced by the DFDSS DUMP command.

System Action: The RECOVER TABLESPACE utility abends.

System Programmer Response: Resolve the access problem to the SYSVOLUMES catalog table. Then restart the RECOVER TABLESPACE utility.

Problem Determination: See the console for additional diagnostic messages.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNUCADF.

00E40124

Explanation: A down level internal control block was detected.

System Action: The utility job step that requested the function is abended. The abend is accompanied by message DSNU424I.

User Response: Refer to the APAR mentioned in message DSNU424I.

System Programmer Response: Refer to the APAR mentioned in message DSNU424I.

Problem Determination: Refer to the APAR mentioned in message DSNU424I.

This abend reason code is issued by the following CSECT: DSNUBARR

00E40163

Explanation: An error was detected during activity history recording insert of SYSIBM.SYSLGRNG or SYSLGRNX.

This abend reason code is issued by the following CSECT: DSNUAHR2

System Action: Processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40164

Explanation: An error was detected during activity history recording update of SYSIBM.SYSLGRNG or SYSLGRNX.

This abend reason code is issued by the following CSECT: DSNUAHR2

System Action: Processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40165

Explanation: An error was detected during an execution unit switch while performing application history recording or drop processing.

This abend reason code is issued by the following CSECTs: DSNUAHR1, DSNUADP1

System Action: Processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40166

Explanation: A delete of SYSIBM.SYSLGRNX information failed during DROP processing.

This abend reason code is issued by the following CSECT: DSNUADP2

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40167

Explanation: A delete of SYSIBM.SYSCOPY information failed during DROP processing.

This abend reason code is issued by the following CSECT: DSNUADP1

System Action: Processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40168

Explanation: The buffer manager (BM) subcomponent of DB2 failed during the execution of the DSNBPFPP macro.

This abend reason code is issued by the following CSECT: DSNUCRVA

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is a DB2 subsystem internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40189

Explanation: An error was detected while inserting records from SYSIBM.SYSCOPY.

This abend reason code is issued by the following CSECT: DSNUBINS

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be requested.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point, or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00E40190

Explanation: An error was detected while scanning the SYSIBM.SYSCOPY catalog table.

This abend reason code is issued by the following CSECTs: DSNUMDEL DSNUBAUS

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be requested.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00E40191

Explanation: An error was detected while deleting records from SYSIBM.SYSCOPY.

This abend reason code is issued by the following CSECT: DSNUMDEL

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be requested.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00E40192

Explanation: An invalid call to DSNULOG1 was detected when a partial recovery function in DSNULOG1 was invoked. The passed parameter is not a TOCOPY or TORBA to SYSCOPY, SYSUTILX, or DSNDB01.

This abend reason code is issued by the following CSECTs: DSNULOG1 DSNUBAUS

System Action: Utility processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

00E40193

Explanation: An error was detected while a utility was attempting to retrieve catalog table information. This is an internal error. This abend reason code is issued by the following CSECTs:

DSNUKINT DSNUGTBN DSNUGPAR

System Action: The utility job is abended. A SYSABEND dump of batch storage and an SVC dump of the database services storage are requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 60, 61.

00E40194

Explanation: This is an internal error. An error was detected running the COPY utility with the SHRLEVEL CHANGE option.

System Action: The utility job step that requested the function is abended. The utility job is placed in the stopped state.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 4, 5, 32,

This abend reason code is issued by the following CSECT: DSNUBAID

00E40195

Explanation: This is an internal error. An error was detected running the COPY utility with the SHRLEVEL CHANGE option.

System Action: The utility job step that requested the function is abended. The utility job is placed in the stopped state.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 4, 5, 32,

This abend reason code is issued by the following CSECT: DSNUBAID

00E40201

Explanation: RUNSTATS was unable to reposition and continue processing after a COMMIT.

This abend reason code is issued by the following CSECTs: DSNUSIDX, DSNUSTBL

System Action: Utility processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error. Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40202

Explanation: An error was detected while scanning a table space or index during RUNSTATS processing.

This abend reason code is issued by the following CSECTs: DSNUSIDX, DSNUSTBL

System Action: Utilities processing is abended.

User Response: If message DSNT500I was issued, assure that the indicated resource is available and resubmit the job, otherwise notify the system programmer.

System Programmer Response: If message DSNT500I was issued, refer to the description of the message in “DSNT... Messages” on page 3-201, otherwise, this is an internal error. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40203

Explanation: An error was detected in a parameter list passed to the RUNSTATS message-formatting routine.

This abend reason code is issued by the following CSECT: DSNUSMSG

System Action: Utilities processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61,

00E40204

Explanation: An error was detected while attempting to locate the PB0 control block for a table space partition.

This abend reason code is issued by the following CSECT: DSNUSTBL

System Action: Utilities processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61,

00E40205

Explanation: An error was returned from COMMIT or ABORT processing during RUNSTATS.

This abend reason code is issued by the following CSECTs:

DSNUSDRB DSNUSIDX DSNUSTBL

System Action: Utilities processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40206

Explanation: An error was detected while updating the statistics in the SYSIBM.SYSCOLUMNS catalog table.

This abend reason code is issued by the following CSECTs: DSNUSCT1, DSNUSUCO

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message, terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 4, 5, 32, 46.

00E40207

Explanation: An error was detected while updating the statistics in the SYSIBM.SYSINDEXES Catalog table.

This abend reason code is issued by the following CSECTs: DSNUSCT2, DSNUSUIX

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message, terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 4, 5, 32, 46.

00E40208

Explanation: An error was detected while updating the statistics in the SYSIBM.SYSINDEXPART Catalog table.

This abend reason code is issued by the following CSECTs: DSNUSCT3, DSNUSUIP

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message, terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 4, 5, 32, 46.

00E40209

Explanation: An error was detected while updating the statistics in the SYSIBM.SYSTABLEPART Catalog table.

This abend reason code is issued by the following CSECTs: DSNUSCT4, DSNUSUTP

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message, terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 4, 5, 32, 46.

00E40210

Explanation: An error was detected while updating the statistics in the SYSIBM.SYSTABLES Catalog table.

This abend reason code is issued by the following CSECTs: DSNUSCT5, DSNUSUTB

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message, terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 4, 5, 32, 46.

00E40211

Explanation: An error was detected while updating the statistics in the SYSIBM.SYSTABLESPACE Catalog table.

This abend reason code is issued by the following CSECTs: DSNUSCT6, DSNUSUTS

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message, terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 4, 5, 32, 46.

00E40212

Explanation: A 'resource unavailable' condition was detected while attempting to access a catalog table during RUNSTATS processing.

This abend reason code is issued by the following CSECT: DSNUSVAL

System Action: Utility processing is abended. The abend will be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message and restart the utility. If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that will give more information about the problem. Notify the system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: If the condition identified cannot be corrected, determine the failing environment and If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: See message DSNT500I in this manual. See the secondary reason code from register 2, also in this manual. Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40213

Explanation: An error was detected while updating the statistics in the SYSIBM.SYSCOLDIST catalog table.

This abend reason code is issued by the following CSECT: DSNUSUCD

System Action: Utilities processing is abended. Message DSNT500I might accompany this abend. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message, terminate the utility, and start it again from the beginning. If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code. Notify the system programmer.

System Programmer Response: If the condition identified cannot be corrected, determine the failing environment. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 4, 5, 32, 46.

00E40214

Explanation: An error was detected while updating the statistics in the SYSIBM.SYSTABSTATS catalog table.

This abend reason code is issued by the following CSECTs: DSNUSUPT DSNUSATS

System Action: Utilities processing is abended. Message DSNT500I might accompany this abend. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message, terminate the utility, and start it again from the beginning. If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code. Notify the system programmer.

System Programmer Response: If the condition identified cannot be corrected, determine the failing environment. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 4, 5, 32, 46.

00E40215

Explanation: An error was detected while updating the statistics in the SYSIBM.SYSINDEXSTATS catalog table.

This abend reason code is issued by the following CSECTs: DSNUSUPI DSNUSAIX DSNUSACD

System Action: Utilities processing is abended. Message DSNT500I might accompany this abend. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message, terminate the utility, and start it again from the beginning. If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code. Notify the system programmer.

System Programmer Response: If the condition identified cannot be corrected, determine the failing environment. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 4, 5, 32, 46.

00E40216

Explanation: An error was detected while updating the statistics in the SYSIBM.SYSCOLSTATS catalog table.

This abend reason code is issued by the following CSECTs: DSNUSUPC DSNUSACO

System Action: Utilities processing is abended. Message DSNT500I might accompany this abend. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message, terminate the utility, and start it again from the beginning. If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code. Notify the system programmer.

System Programmer Response: If the condition identified cannot be corrected, determine the failing environment. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 4, 5, 32, 46.

00E40217

Explanation: An error was detected while updating the statistics in the SYSIBM.SYSCOLDISTSTATS catalog table.

This abend reason code is issued by the following CSECTs: DSNUSUPD DSNUSACD

System Action: Utilities processing is abended. Message DSNT500I might accompany this abend. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message, terminate the utility, and start it again from the beginning. If DSNT500I was not issued,

register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code. Notify the system programmer.

System Programmer Response: If the condition identified cannot be corrected, determine the failing environment. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 4, 5, 32, 46.

00E40220

Explanation: An error was detected while accessing the SYSIBM.SYSSTOGROUP catalog table during STOSPACE processing.

This abend reason code is issued by the following CSECT: DSNUTSSA

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40221

Explanation: An error was detected while accessing the SYSIBM.SYSTABLEPART catalog table.

This abend reason code is issued by the following CSECTs: DSNUTSSA, DSNUKINP

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40222

Explanation: An error was detected while accessing the SYSIBM.SYSINDEXPART catalog table during STOSPACE processing.

This abend reason code is issued by the following CSECT: DSNUTSSA

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40223

Explanation: An error was detected while accessing the SYSIBM.SYSTABLESPACE catalog table.

This abend reason code is issued by the following CSECTs: DSNUTSSA, DSNUKINP

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40224

Explanation: An error was detected while accessing the SYSIBM.SYSINDEXES catalog table during STOSPACE processing.

This abend reason code is issued by the following CSECT: DSNUTSSA

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40225

Explanation: An error has been detected by DSNPSCAT during STOSPACE processing.

This abend reason code is issued by the following CSECT: DSNUTSSA

System Action: Utilities processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40300

Explanation: An error occurred in END INDEX LOAD processing following a sequence of index entry loads.

This abend reason code is issued by the following CSECTs: DSNURBXA, DSNURBXC

System Action: The utility job is abended. A SYSABEND dump of batch storage is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40301

Explanation: An error was encountered while attempting to obtain the high used RBA for the data sets associated with the table space being reorganized.

This abend reason code is issued by the following CSECT: DSNURFIT

System Action: Processing abnormally terminates.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the reason the high used RBA could not be obtained, correct the situation, and restart the utility.

Problem Determination: The data sets associated with the table space being reorganized must be opened in order to obtain the high used RBA. Ensure that the data sets are available and can be opened by the utility.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5.

00E40302

Explanation: An error occurred while attempting to force a page set closed.

This abend reason code is issued by the following CSECTs:

DSNURBXA DSNURBXB DSNURCLP DSNURBXC

System Action: The utility job is abended. A SYSABEND dump of batch storage is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40303

Explanation: An attempt was made to access the SYSIBM.SYSINDEXES catalog table to retrieve the NAME, CREATOR, TBNAME and TBCREATOR columns. An error was returned from the DSNXKACC protocol used to access SYSIBM.SYSINDEXES.

This abend reason code is issued by the following CSECTs: DSNUGIXN, DSNUKINT

System Action: The utility job is abended. Unless a 'resource unavailable' condition was indicated, a SYSABEND dump of batch storage is requested.

User Response: If a 'resource unavailable' message was issued, refer to the description for that message. If the unavailable resource becomes available, the utility step is restartable.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference*for information on identifying and reporting the problem.

Problem Determination: This might be an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40304

Explanation: An error occurred during key/RID pair delete processing for a nonclustering index.

This abend reason code is issued by the following CSECT: DSNURBXA

System Action: The utility job is abended. A SYSABEND dump of batch storage is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference*for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 60, 32, 46, 61, 5.

00E40305

Explanation: An error occurred during the reset of an index space or table space page set or page set partition.

This abend reason code is issued by the following CSECTs: DSNURBXC, DSNUGRST

System Action: The utility job is abended. The abend may be accompanied by message DSNT500I. The DSNT500I may be preceded by other related messages on the console. An SDUMP may be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message and either restart the utility or terminate the utility and submit it again. If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that will give more information about the problem. Notify the system programmer.

System Programmer Response: If the condition identified cannot be corrected, determine the failing environment, and if you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference*for information on identifying and reporting the problem.

Problem Determination: See message DSNT500I in this manual. See the secondary reason code from register 2.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40306

Explanation: An error occurred during a locate or create PSCB for a table space or index space page set.

This abend reason code is issued by the following CSECTs: DSNURBXB, DSNURBXC

System Action: The utility job is abended. A SYSABEND dump of batch storage is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference*for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40307

Explanation: An error occurred during the creation of a dynamic cursor block (CUB) for a table space or index space page set.

This abend reason code is issued by the following CSECT: DSNURBXB

System Action: The utility job is abended. A SYSABEND dump of batch storage is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference*for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40308

Explanation: An error occurred while attempting to allocate or deallocate storage for the table space record buffer.

This abend reason code is issued by the following CSECT: DSNURBXB

System Action: The utility job is abended. A SYSABEND dump of batch storage is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference*for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40309

Explanation: An error occurred during the construction of an index entry. The error occurred while reading the table space record, while extracting the key from the table space record, or while connecting the entry into the index.

This abend reason code is issued by the following CSECT: DSNURBXB

System Action: The utility job is abended. A SYSABEND dump of batch storage is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference*for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E4030A

Explanation: A mismatch was found between the total number of keys processed during the current phase and the total number of keys expected to be processed in this phase.

This abend reason code is issued by the following CSECTs: DSNURBXD, DSNURSIX

System Action: The utility job is abnormally terminated, and all target objects are placed in recover pending state. Message DSNU255I was issued earlier to report both the keys processed and the keys expected. A dump is requested.

User Response: TERM the utility and re-access the indexes by running REPAIR utility to reset the recover pending states on indexes. Run the CHECK INDEX utility to determine if any of the affected indexes are inconsistent. Inconsistent indexes may be recovered by the RECOVER INDEX utility.

System Programmer Response: Determine the failing environment. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference*for information on identifying and reporting the problem.

Problem Determination: If working data set was manipulated by user during restart process, make sure it was handled properly.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 4, 5, 32, 46.

00E4030B

Explanation: A mismatch was found between the total number of records processed during the current phase and the total number of records expected to be processed in this phase.

This abend reason code is issued by the following CSECTs: DSNURILD, DSNURULD

System Action: The utility job is abnormally terminated, all target objects are placed in recover pending state. Message DSNU254I was issued earlier to report both of the records processed and the records expected. A dump is requested.

User Response: Notify the system programmer. Table space can be recovered by RECOVERY utility

System Programmer Response: Determine the failing environment. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference*for information on identifying and reporting the problem.

Problem Determination: Make sure that the unload data set was handled correctly.

Collect the following diagnostic items: listed in “Appendix B. Problem Determination” on page X-5: 1, 5.

00E4030C

Explanation: An internal error occurred while building the dictionary.

This abend reason code is issued by the following CSECTs: DSNUDCTI DSNUDCTB DSNUDCTC DSNUDCTV DSNURBDC DSNURPDC DSNURWBF

System Action: The utility is stopped.

Operator Response: If necessary, an operator with SYSOPR authority can issue the -TERM UTILITY command to release the resources claimed by the stopped utility.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference*for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items: listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 4, 5, 32, 46.

00E4030D

Explanation: A LOAD or REORG utility detected an index that was potentially in a physically inconsistent state, which prohibited the LOAD or REORG utility from completing its processing for that index.

This abend reason code is issued by the following CSECTs: DSNURBXA, DSNURBXE

System Action: The utility job is abended. No SYSABEND dump or SVC dump is requested.

User Response: If the abend occurred during REORG utility processing, all indexes that were not built must be recovered using the DB2 Recover Index utility. To determine which indexes did not complete processing, use the DB2 -DISPLAY DATABASE command with the SPACENAM and RESTRICT options. Indexes that have not completed processing are in a 'RECP' (recover pending) or 'PSRCP' (page set recover pending) state. Terminate the failed REORG utility using the DB2 -TERM UTIL command. Submit a job to recover the inconsistent indexes using the DB2 Recover Index utility.

If the abend occurred during LOAD utility processing, the data might need to be recovered if one or more of the indexes not built is unique. In that case, recovering the indexes without first recovering the data could cause error messages for duplicate keys to be issued during the Recover Index utility processing.

Problem Determination: Message DSNU548I is issued before this abend and specifies which index was in a 'PSRCP' (page set recover pending) state. The LOAD or REORG utility could not process an index in such a state and abnormally terminated. 'PSRCP' is set for secondary indexes of a partitioned table space and indicates that the index might be physically inconsistent. This occurs when a DB2 utility physically alters such an index during utility processing (that is, during the build process for that index). If the utility is unable to complete that process, the index is left in the 'PSRCP' state and must be recovered before DB2 can use it.

00E4030E

Explanation: In REORG with SHRLEVEL CHANGE, during processing of the log, a log record is inconsistent with the table that maps between old and new RIDs. Specifically, one of these is true:

- The log record implies that before an update, the data record was a pointer data record, but the mapping table implies that the data record was a regular or overflow data record.
- The log record implies that before an update, the data record was a regular or overflow data record, but the mapping table implies that the data record was a pointer data record.

This abend reason code is issued by the following CSECT: DSNURLXL

System Action: The utility job step that caused the function to be requested abends. The utility job is placed in the stopped state.

System Programmer Response: This is an internal error. Determine the failing environment. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference*for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, either 2 or 4 (depending on whether the ABEND

is issued from DSNUTILA or DSNUTILB), 5, 32, 37, 47, 50, 64, 66, 72, 86, 87.

00E4030F

Explanation: After the last iteration of log processing, one or more index keys in the shadow copy are not unique.

REORG with SHRLEVEL CHANGE operates as follows:

1. Unloads data from the original copy of the area (table space or partition) being reorganized
2. Reloads into a shadow copy of that area
3. Iteratively applies the log (which records applications' writing of the original copy) to the shadow copy so that the shadow copy and the original copy contain the same data

If the table space has any unique indexes, those indexes will enforce uniqueness of the relevant index keys in the original copy. Those index keys should also be unique in the shadow copy.

This abend reason code is issued by the following CSECT: DSNURLOG.

System Action: The utility job step that caused the function to be requested abends. The utility job is placed in the stopped state.

System Programmer Response: This is an internal error. Determine the failing environment. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference*for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, either 2 or 4 (depending on whether the ABEND is issued from DSNUTILA or DSNUTILB), 5, 32, 37, 47, 50, 64, 66, 72, 86, 87.

00E40310

Explanation: An error occurred during the restart of a LOAD or REORG utility execution. An appropriate error message is issued.

This abend reason code is issued by the following CSECTs: DSNURELD, DSNURULD

System Action: The utility is abended.

User Response: Respond to the error message issued prior to the abend by making the correction in the input as indicated. Then restart the LOAD or REORG utility execution.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40311

Explanation: An error occurred during commit processing.

This abend reason code is issued by the following CSECTs:

DSNUK001	DSNUPREC	DSNUPTSS	DSNURELD
DSNURENF	DSNURULD	DSNURWBF	

System Action: The utility is abended. A SYSABEND dump of batch storage is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference*for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40312

Explanation: An error occurred during abort processing.

This abend reason code is issued by the following CSECTs: DSNURELD DSNURULD

System Action: The utility is abended. A SYSABEND dump of batch storage is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference*for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40313

Explanation: An error occurred while the first or next key entry was being retrieved from an index.

This abend reason code is issued by the following CSECTs:

DSNUKGET	DSNURBXC	DSNURCRI	DSNURFBI
DSNURLAP	DSNURLXL		

System Action: The utility job is abended. A SYSABEND dump of batch storage is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40314

Explanation: An error occurred while repositioning the cursor block (CUB) to the last index entry that was retrieved.

This abend reason code is issued by the following CSECT: DSNURFBI

System Action: The utility job is abended. A SYSABEND dump of batch storage is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60, 61.

00E40315

Explanation: An error occurred while repositioning the main cursor block (CUB). The error occurred at the location defined by the record identifier (RID) of the last table space record that was retrieved.

This abend reason code is issued by the following CSECT: DSNURFBR

System Action: The utility job is abended. A SYSABEND dump of batch storage is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40316

Explanation: An error occurred while the first or next record entry was being retrieved from a table space.

This abend reason code is issued by the following CSECTs:

DSNURFBR DSNURWES DSNUKICK DSNUCRUL

System Action: The utility job is abended. A SYSABEND dump of batch storage is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40317

Explanation: An object descriptor block (OBD) could not be found for the OBID associated with the object descriptor.

This abend reason code is issued by the following CSECTs: DSNURLXL, DSNUnnnn

'nnnn' is the CSECT name identifier given in VRARRK5 of the VRA in the SDWA. DSNUnnnn is the full CSECT name given in the dump title.

System Action: The utility job is abended. A SYSABEND dump of batch storage is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40318

Explanation: An error occurred while preparing for or ending a series of data record loads or while attempting a data record load.

This abend reason code is issued by the following CSECTs: DSNURWBF, DSNUGTER

System Action: The utility job is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40319

Explanation: An error occurred while retrieving information from the SYSIBM.SYSTABLES catalog table.

This abend reason code is issued by the following CSECT: DSNURWIR

System Action: The utility job is abended. A SYSABEND dump of batch storage is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E4031A

Explanation: One or more broken pages were detected in the shadow data set while copying pages for the inline copy during REORG TABLESPACE SHRLEVEL(CHANGE). Message DSNU518I in the job output identifies each broken page.

This abend reason code is issued by the following CSECTS: DSNURCCP

System Action: The utility job is abended. An SDUMP of the ssnDBM1 address space is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of Diagnosis Guide and Reference for information on identifying and reporting the problem.

Problem Determination: This is an internal error. Collect the following diagnostic items listed in Appendix B, "Problem Determination" on page X-5: 1, 2, 5, 32,, 37, 47, 50, 64, 66, 72, 86, 87.

00E4031B

Explanation: For the area (table space or partition) being reorganized, REORG with SHRLEVEL REFERENCE or CHANGE unloads data from the original data sets and reloads data into shadow data sets. REORG then exchanges the names of the original and shadow data sets, using temporary names during the renaming. The original name of a data set is in the form "catname.DSNDBx.dbname.psname.I0001.Annn." The shadow name of a data set is in the form "catname.DSNDBx.dbname.psname.S0001.Annn." The temporary name of a data set is in the form "catname.DSNDBx.dbname.psname.T0001.Annn." REORG uses such data sets for indexes as well as data.

To exchange the names of the original and shadow data sets, REORG performs the following renaming:

1 In the switch phase, it renames the original data set from the original name to the temporary name

2 In the switch phase, it renames the shadow data set from the shadow name to the original name

3 In the utilterm phase, it renames the original data set from the temporary name to the shadow name (for user-managed data sets). It deletes the temporary for DB2-managed data sets.

This abend code means that during the switch phase of REORG, one of these errors was detected:

1 On rename 1, a data set with a temporary name already exists.

2 On rename 2, a data set with an original name already exists.

These error conditions can arise for a DB2-managed or user-managed data set.

Message DSNU360I also appears, with the name of the data set and with a context code of 1, or 2.

This abend reason code is issued by the following CSECT: DSNURRNM.

System Action: The utility job step that caused the function to be requested abends. The utility job is placed in the stopped state.

User Response: Take one of the following actions:

- Delete the data set and then restart the utility.
- TERM the utility. Delete the data set before trying to execute REORG again with SHRLEVEL REFERENCE or CHANGE.

00E4031C

Explanation: For the area (table space or partition) being reorganized, REORG with SHRLEVEL REFERENCE or CHANGE unloads data from the original data sets and reloads data into shadow data sets. REORG then exchanges the names of the original and shadow data sets, using temporary names during the renaming. The original name of a data set is in the form "catname.DSNDBx.dbname.psname.I0001.Annn." The shadow name of a data set is in the form "catname.DSNDBx.dbname.psname.S0001.Annn." The temporary name of a data set is in the form "catname.DSNDBx.dbname.psname.T0001.Annn." REORG uses such data sets for indexes as well as data.

To exchange the names of the original and shadow data sets, REORG performs the following renaming:

1 In the switch phase, it renames the original data set from the original name to the temporary name

2 In the switch phase, it renames the shadow data set from the shadow name to the original name

3 In the utilterm phase, it renames the original data set from the temporary name to the shadow name (for user-managed data sets). It deletes the temporary for DB2-managed data sets.

If a -TERM UTILITY is issued after any renaming, the -TERM UTILITY undoes the renaming that the REORG performed by renaming:

4 The original data set from the shadow name to the temporary name

5 The shadow data set from the original name to the shadow name

6 The original data set from the temporary name to the original name

During REORG, or during -TERM UTILITY, an attempt to rename a data set failed due to a system problem. This error condition can arise for a DB2-managed or user-managed data set.

Message DSNP027I also appears, with the old and new names of the data set and with other information.

This abend reason code is issued by the following CSECT: DSNURRNM.

System Action: The job step that caused the function to be requested abends. The utility job or the -TERM UTILITY command is placed in the stopped state.

User Response: If this condition arises during renaming 1, 2, or 3, and you can correct the problem. Choose between these actions:

- Correct the problem and then RESTART the utility.
- TERM the utility.

If this condition arises during renaming 1, 2, or 3, and you cannot correct the problem, TERM the utility and notify the system programmer.

If this condition arises during renaming 4, 5, or 6, notify the system programmer.

System Programmer Response: This is an internal error. Determine the failing environment. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 4, 5, 10, 12, 32. Also, collect the information that appears with message DSNP027I.

00E40320

Explanation: A failure occurred while attempting to restart the RELOAD phase of the LOAD or REORG utility.

This abend reason code is issued by the following CSECT: DSNURWUC

System Action: The utility job is abended. A SYSABEND dump of batch storage is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40321

Explanation: An error occurred while retrieving information from the SYSIBM.SYSCOLUMNS catalog table.

This abend reason code is issued by the following CSECTs:

DSNUKINE DSNUROFL DSNUCBRK

System Action: The utility job is abended. A SYSABEND dump of batch storage is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40322

Explanation: An error occurred while attempting to add an entry to an index.

This abend reason code is issued by the following CSECT: DSNURBXA

System Action: Processing of the index for which the error occurred is terminated. The index is internally identified as an unavailable resource. A utility error message identifies the index for which the error occurred. An SVC dump of the database services storage is requested but will be suppressed if a previous 'resource unavailable' message has been issued to document the condition. The processing of index entries for other indexes proceeds.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40323

Explanation: An error occurred during the execution of a LOAD or REORG utility. Prior to this abend, error messages identifying the specific problem were issued. The abend is issued so that work data sets, which will be needed if the utility is restarted, are saved.

This abend reason code is issued by the following CSECTs:

DSNURELD DSNURWBF DSNURBXD DSNURVIX DSNURENF

System Action: Utility processing is abended. No SYSABEND dump or SVC dump is requested.

User Response: Respond to the error messages issued prior to the abend. Correct the input and either -TERM the utility and resubmit it or resubmit the utility with the RESTART parameter. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: When work data sets are used and the disposition is MOD, DELETE, and CATLG, (DISP=(MOD,DELETE,CATLG)), this abend still allows you to restart the utility. Refer to the prior error messages to determine how to correct the problem.

00E40324

Explanation: An error occurred during the construction of an index entry. The error occurred while extracting the key from the table space.

This abend reason code is issued by the following CSECT: DSNURBXB

System Action: The utility job is abended. A SYSABEND dump of batch storage and an SVC dump of the database services storage are requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 60, 61.

00E40325

Explanation: An error occurred during the construction of an index. The error occurred while loading the index entries into the index page set.

This abend reason code is issued by the following CSECT: DSNURBXB

System Action: The utility job is abended. A SYSABEND dump of batch storage and an SVC dump of the database services storage are requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 60, 61.

00E40326

Explanation: An error occurred during the construction of an index. The error occurred during sort.

This abend reason code is issued by the following CSECT: DSNURBXB

System Action: The utility job is abended. A SYSABEND dump of batch storage and an SVC dump of the database services storage are requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 60, 61.

00E40333

Explanation: An error occurred while attempting a forced write of RELOAD phase data buffers.

This abend reason code is issued by the following CSECT: DSNURFIS

System Action: RELOAD phase processing is terminated. An SDUMP of the *ssnm*DBM1 address space is requested.

System Programmer Response: Determine the failing environment. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00E40334

Explanation: LOAD or REORG utility processing was attempting to retrieve COLUMN information from the SYSIBM.SYSFIELDS catalog table when an error was detected.

This abend reason code is issued by the following CSECTs: DSNURFIT, DSNURWIS, DSNUBACI, DSNUBAFI

System Action: Utility processing is abended. An SDUMP is requested unless this abend is accompanied by a DSNT500I message written to the SYSPRINT data set.

User Response: Notify the system programmer.

System Programmer Response: Correct the indicated error, if possible, and resubmit the terminated utility job with the RESTART parameter. If the problem can not be corrected, and if you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: If this abend is due to an unavailable resource, message DSNT500I provides sufficient problem determination and correction information. Register 2 contains a secondary reason code that might provide additional information.

00E40335

Explanation: An error has been detected while attempting to read a row from the SYSIBM.SYSRELS table.

This abend reason code is issued by the following CSECT: DSNUGRLN

System Action: The utility job is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 32, 60, 61.

00E40336

Explanation: LOAD or REORG utility used the DSNXIFPS protocol to invoke a field procedure for encode or decode and an error code was returned that indicates a DB2 internal error.

This abend reason code is issued by the following CSECTs: DSNURFBR, DSNURWBG

System Action: Utility processing is abended. An SDUMP is requested.

User Response: Notify the system programmer.

Problem Determination: This is an internal error. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00E40340

Explanation: The LOAD or REPAIR utility used the DSNXVCCR protocol to invoke a conversion routine for a date/time data type. An error code was returned that indicates a DB2 internal error.

This abend reason code is issued by the following CSECTs:

DSNURWBG	DSNURWUT	DSNUCBRK

System Action: The utility job is abended. An SDUMP of the *ssnm*DBM1 address space is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40345

Explanation: The subtask performing an MVS sort terminated abnormally.

This abend reason code is issued by the following CSECTs: DSNUREKY, DSNURELD, DSNURBXD

System Action: Any error message generated by sort in conjunction with the abend is directed to the device/data set identified by the UTPRINT DD statement in the utility job step.

User Response: Determine the cause of the error. If the error can be corrected, the utility can be restarted from the beginning of the reload phase by using the 'RESTART(PHASE)' parameter. If the error prevents the utility from completing, the -TERM command should be issued to remove the stopped utility from the system.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to release the resources claimed by the stopped utility (this might not be necessary).

Problem Determination: This error can be caused by abend 00E40005 and error message DSNU044I issued from the subtask. If this is the case, correct the error causing the subtask to abend. In most cases, the error messages from SORT that are sent to the device/data set identified by the UTPRINT DD statement identify the problem. The dump might not be needed. If SORT is unable to open the UTPRINT data set, only the message and abend are provided. In this case,

correct the problem associated with the UTPRINT DD statement, and restart the job with the RESTART(PHASE) option.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40346

Explanation: The LOAD or REORG subtask creating a COPY data set terminated abnormally.

System Action: Any error message generated by the subtask in conjunction with the abend is directed to the device and data set identified by the SYSPRINT DD statement in the utility job step.

User Response: Determine the cause of the error. If you can correct the error, restart the utility from the beginning of the reload phase by using the 'RESTART(PHASE)' parameter. If the error prevents the utility from completing, issue the -TERM command to remove the stopped utility from the system.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to release the resources claimed by the stopped utility (this might not be necessary).

Problem Determination: This error can be caused by out of space situations on the data sets identified by the COPYDDN and RECOVERYDDN keywords. If this is the case, correct the data set allocations and restart the job with the RESTART(PHASE) option.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60,

00E40401

Explanation: An error has been detected while scanning for a specified key in REPAIR by KEY processing.

This abend reason code is issued by the following CSECT: DSNUCBRP

System Action: Utilities processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40403

Explanation: An error has been detected while scanning for the requested RECORD during REPAIR by record processing.

This abend reason code is issued by the following CSECT: DSNUCBRP

System Action: Utilities processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40404

Explanation: An error has been returned from the get-page function, DSNBGETP.

This abend reason code is issued by the following CSECT: DSNUCBRP

System Action: Utilities processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40405

Explanation: An error has been returned from the open-piece function, DSNBOPPP.

This abend reason code is issued by the following CSECT: DSNUCBRP

System Action: Utilities processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40406

Explanation: An error has been returned from the replace-page function, DSNBRELP.

This abend reason code is issued by the following CSECT: DSNUCBRP

System Action: Utilities processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40410

Explanation: The data manager protocol DSNISETR returned an error.

This abend reason code is issued by the following CSECTs: DSNUCDEL, DSNURLAP

System Action: Utilities processing is abended.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

00E40411

Explanation: An error has been returned from a DSNIDLET protocol during REPAIR DELETE processing.

This abend reason code is issued by the following CSECT: DSNUCDEL

System Action: Utilities processing is abended.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

00E40413

Explanation: An error has been detected by the REPAIR utility. Specifically, the DSNINOTC protocol has returned an error.

This abend reason code is issued by the following CSECTs:

DSNUCBRP DSNUCBRR DSNUCDEL

System Action: The utility job step is placed in the stopped state.

Problem Determination: This abend code may be accompanied by a DSNT500 error message that may indicate a correctable problem. If the DSNT500 message has not been issued or if the problem can not be corrected, collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40414

Explanation: An error was detected while trying to determine the highest member ID in the data sharing environment. This is an internal error.

This abend reason code is issued by the following CSECTs: DSNUPREC, DSNUCALA, DSNUAHR2.

System Action: Utilities processing is abended.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00E40415

Explanation: An error was detected while trying to determine the member name for the data sharing member ID. This is an internal error.

This abend reason code is issued by the following CSECTs: DSNUPREC, DSNUPLGR, DSNUCALA

System Action: Utilities processing is abended.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00E40500

Explanation: An error was returned by the reset function, DSNPRSPS or DSNPREST.

This abend reason code is issued by the following CSECT: DSNUGTER

System Action: Utilities processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This abend might be accompanied by one or more DSN messages to the operator's console. The DSN messages might indicate a user error that can be corrected. If DSN messages do not accompany this message, the likely cause of the abend is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 32, 46, 60, 61.

00E40600

Explanation: There was a utility abend on the batch side of DB2. This abend can be issued by either the CATMAINT or the REPAIR DBD utility. The utility terminates and all work up to the time of abend is backed out.

This abend reason code is issued by the following CSECTs:

DSNUECML DSNUECMU DSNUECM0 DSNUECM1
DSNUEXDB DSNUEXDL DSNUEXLO DSNUEXUN
DSNUEXUP

System Action: The execution unit driving this function proceeds normally. A user dump is requested.

Operator Response: Notify the system programmer, request the user dump, and print the SYS1.LOGREC, and the BSDS.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: SYSOUT might contain the record being processed at the time of abnormal termination.

The following general purpose registers (GPRs) contain the indicated diagnostic information:

GPR	Content
2	Address of the error message
5	Address of the load table

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 61.

00E40601

Explanation: There was a utility abend in the DB2 database services address space (*ssnm*DBM1).

This abend can be issued by either the CATMAINT or the REPAIR DBD utility. The utility terminates and all work up to the time of abend is backed out.

This abend reason code is issued by the following CSECTs:

DSNUECMI DSNUECM2 DSNUEXDL

System Action: The execution unit driving this function proceeds normally.

Operator Response: Notify the system programmer, request the SVC dump, and print the SYS1.LOGREC, and the BSDS.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The following general purpose registers (GPRs) contain the indicated diagnostic information:

GPR	Content
2	Address of the error message
7	Address of CT

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 5

00E40609

Explanation: A DBD was encountered which is noncontiguous in the EDM pool due to prior operations and the DBD is currently accessed by users. The utility requires the DBD to be contiguous in the EDM pool.

This abend reason code is issued by the following CSECT: DSNUECMI

System Action: The utility that detected this condition returns "RESOURCE NOT AVAILABLE" to its invoker.

User Response: Allow all SQL access to this database to cease; this will allow the DBD to be flushed from the EDM pool. After all users have finished accessing the database, invoke the utility again. A contiguous DBD will be brought into the EDM pool.

00E40702

Explanation: An error has been detected by CHECK DATA utility during table scanning processing. The data manager protocol DSNISRCF has returned an error.

This abend reason code is issued by the following CSECT: DSNUKSCT

System Action: Utility processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5.

00E40703

Explanation: An error has been detected by CHECK DATA utility during table scanning processing. The data manager protocol DSNINXTR has returned an error.

This abend code is issued by the following CSECT: DSNUKSCT

System Action: Utility processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5.

00E40704

Explanation: The CHECK DATA utility detected an error during table scanning processing or delete processing. The data manager protocol DSNISETR returned an error.

This abend reason code is issued by the following CSECTs:

DSNUKSCT DSNUKRDN DSNUKRDY

System Action: Utility processing abends.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5.

00E40705

Explanation: The data manager protocol DSNIEXTK returned an error.

This abend reason code is issued by the following CSECTs: DSNUKSCT, DSNUKICK, DSNURLXL

System Action: Utility processing abends.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5.

00E40706

Explanation: The CHECK DATA utility detected an error while processing primary keys matching. The data manager protocol DSNKSET returned an error.

This abend reason code is issued by the following CSECTs: DSNUKIFK, DSNUKNFK

System Action: Utility processing abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5.

00E40707

Explanation: The CHECK DATA utility detected an error while processing primary keys matching. The data manager protocol DSNKNEX returned an error.

This abend reason code is issued by the following CSECT: DSNUKIFK

System Action: Utility processing abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5.

00E40708

Explanation: The CHECK DATA utility detected an error while positioning records for cascade delete processing. The data manager protocol DSNISETD returned an error.

This abend reason code is issued by the following CSECT: DSNUKRDY

System Action: Utility processing abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5.

00E40709

Explanation: An error has been detected by the CHECK DATA utility during positioning of records for cascade delete processing. The data manager protocol DSNINEXD has returned an error.

This abend reason code is issued by the following CSECT: DSNUKRDY

System Action: Utilities processing is abended.

User Response: Correct the error condition identified by the DSNT500I message, terminate the utility and restart it from the beginning.

Operator Response: Notify the system programmer.

System Programmer Response: If the condition identified cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5.

00E4070A

Explanation: The CHECK DATA utility detected an error during insert records processing. The data manager protocol DSNISRT returned an error.

This abend reason code is issued by the following CSECTs: DSNUKRDN DSNUKRDY

System Action: Utility processing abended.

User Response: Review the definition of the exception tables involved to determine if the following conditions are causing the error:

- The exception table has referential constraints.
- The exception table has unique indexes.
- The exception table "table-name2" is identical with "table-name1" in the FOR EXCEPTION keyword.

If none of these is the cause, notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: If the errors listed in the User Response section are not the cause, this is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5.

00E4070B

Explanation: The CHECK DATA utility detected an error during cascade delete processing. The data manager protocol DSNIDLET returned an error.

This abend reason code is issued by the following CSECT: DSNUKRDY

System Action: Utility processing abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5.

00E4070F

Explanation: An error was detected during the execution of a restarted utility. A message is issued prior to this abend code to indicate the type of error.

This abend reason code is issued by the following CSECT: DSNUK001

System Action: Utility processing is abended.

User Response: Check messages issued prior to this abend code to determine the cause of the error. Correct the error, and restart the job.

Problem Determination: This abend is forced to allow restart of the utility when work data sets are used and the disposition is (MOD,DELETE,CATLG).

00E40900

Explanation: The DIAGNOSE utility forced an ABEND. The specified instance of the specified utility TRACEID or message, from the DIAGNOSE ABEND utility input statement, was encountered during utility processing while DIAGNOSE mode was on.

This abend reason code is issued by the following CSECT: DSNUGABN

System Action: The utility is abended as requested.

User Response: Continue with the diagnosis procedure in progress.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The ABEND option of the DIAGNOSE utility was invoked to force an abend on a particular instance of a specified utility TRACEID or message. The instance of that TRACEID or message was encountered during utility processing while DIAGNOSE mode was active and an abend was forced to occur at that point.

00E40901

Explanation: The DIAGNOSE utility failed while attempting to set the batch utility address space nonswappable.

This abend reason code is issued by the following CSECT: DSNUDIAG

System Action: Utility processing is abended.

User Response: Terminate the utility and restart it from the beginning. If the problem persists, wait until fewer applications are running on the system before resubmitting the job.

System Programmer Response: Determine the environment for the SYSEVENT TRANSWAP failure. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The DIAGNOSE utility attempted to set the batch utility address space nonswappable by issuing a SYSEVENT TRANSWAP operation. The operation failed to set the address space nonswappable.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 61.

00E40902

Explanation: A bad parameter has been detected for the DIAGNOSE WAIT function.

This abend reason code is issued by the following CSECT: DSNUDWTC

System Action: Utilities processing is abended. An SVC dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46. 60,

00E40903

Explanation: An error has been detected while creating the service task for the DIAGNOSE WAIT function.

This abend reason code is issued by the following CSECT: DSNUDWTC

System Action: Utilities processing is abended. An SVC dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46. 60,

00E40904

Explanation: An error has been detected during the DIAGNOSE WAIT function.

This abend reason code is issued by the following CSECT: DSNUDWTC

System Action: Utilities processing is abended. An SVC dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46. 60,

00E40905

Explanation: An error has been detected while deleting the service task for the DIAGNOSE WAIT function.

This abend reason code is issued by the following CSECT: DSNUDWTC

System Action: Utilities processing is abended. An SVC dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46. 60,

00E40906

Explanation: An error has been detected while issuing a WTOR message.

This abend reason code is issued by the following CSECT: DSNUDWTC

System Action: Utilities processing is abended. An SVC dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46. 60,

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00E40907

Explanation: An error has been detected while attempting to map externals to a specific database descriptor (DBD).

This abend reason code is issued by the following CSECT: DSNUGMAP

System Action: Utilities processing is abended. The abend may be accompanied by message DSNT500I. An SDUMP may be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message and either restart the utility from the last commit point or terminate the utility and start it again from the beginning. If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that will give more information about the problem.

Operator Response: Notify the system programmer.

System Programmer Response: If the condition identified cannot be corrected, determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: See message DSNT500I in this manual. Refer to Table 3 in “Appendix B. Problem Determination” on page X-5 for an explanation of resource type codes. See the secondary reason code from register 2, also in this manual. Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5, 32, 46, 60.

X'E5.....' Codes

00E50001

Explanation: A latch acquisition request violates latch deadlock prevention protocols. If the request was unconditional, the execution unit owns a latch at a level equal to or greater than the level of the requested latch. If the request was conditional, the execution unit already owns a latch at the requested level. This is a DB2 subsystem error.

This abend reason code is issued by the following CSECT: See Problem Determination.

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer of the abend.

System Programmer Response: Collect the necessary diagnostic material. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This abend is issued by the in-line expansions of the latch acquisition macros DSNVLTHS and DSNVLTHX.

At the time of the abend, diagnostic information has been placed in general registers 2 through 5.

Register	Contents
2	Latch class number (1-32).
3	Address of the latch.
4, 5	Latch class name (1 to 8 characters, left-justified).

Registers 2-12 of the invoking module were saved in the save area pointed to by register 13 at the time the error was detected.

It is the responsibility of the requesting resource manager to have functional recovery in place before requesting a latch. It is expected that a record will be written to SYS1.LOGREC and a DB2 SVC dump will be requested. Examine SYS1.LOGREC and, if available, the SVC dump to determine the subcomponent and module requesting the latch.

00E50002

Explanation: A release latch request was issued for a latch not held by the requesting execution unit. This is a DB2 subsystem error.

This abend reason code is issued by the following CSECT: See Problem Determination.

System Action: The requesting execution unit is abended.

System Programmer Response: Collect the necessary diagnostic material. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Operator Response: Notify the system programmer of the abend.

Problem Determination: This abend is issued from within the in-line expansions of the latch release macros DSNVUNLS and DSNVUNLX and from module DSNVXUL0.

At the time of the abend, diagnostic information is placed in general registers 2 through 5.

If the abend is issued from the in-line expansion macros, then the registers are set as follows:

Register	Contents
2	Latch class number (1-32)
3	Address of the latch
4, 5	Latch class name (1-8 characters, left justified)

If the abend is issued from DSNVXUL0, then the registers are set as follows:

Register	Contents
2	Latch class number (1-32)
3	Address of the latch
4	Address of the holder of the latch
5	First waiter for the latch

Registers 2-12 of the abending module were saved in the save area pointed to by register 13 at the time the error was detected.

It is the responsibility of the requesting resource manager to have functional recovery in place while holding a latch. A record is written to SYS1.LOGREC, and a DB2 SVC dump is requested. Examine SYS1.LOGREC and, if available, the SVC dump to determine the subcomponent and module requesting the latch.

00E50004

Explanation: An error was found while attempting to resume a waiter after a latch was released. This abend is issued when the next resource options block (ROB) to be resumed is the same as the immediately previous ROB. That is, the ROBCHNA of a ROB points to itself.

This abend reason code is issued by the following CSECT: DSNVXUL0

System Action: The current execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Collect the necessary diagnostic materials. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A record is written to SYS1.LOGREC, and a DB2 SVC dump is requested.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00E50005

Explanation: A resource options block (ROB) which was to be added to a latch waiter chain was discovered to be on the chain already. The same ROB cannot be on the same latch waiter chain twice. This is probably a DB2 subsystem error.

This abend reason code is issued by the following CSECTs:

DSNVSLT0 DSNVSUL0 DSNVXLT0

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer.

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System Programmer Response: Collect the necessary diagnostic materials. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: At the time of the abend, general register three contains the address of the ROB which would have been added to the latch waiter chain.

A record is written to SYS1.LOGREC and a DB2 SVC dump is requested.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E50006

Explanation: An execution unit which, according to tracking information, is currently suspended on a latch waiter chain issued a request to acquire a latch. A single execution unit cannot be doing both at the same time. This is probably a DB2 subsystem error.

This abend reason code is issued by the following CSECTs: DSNVSLT0, DSNVXLT0, and any CSECT that issues the DSNVLTHS or DSNVLTHX latch acquisition macros.

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Collect the necessary diagnostic materials. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: At the time of the abend, general register zero contains the address of the latch upon which the execution unit is supposedly waiting and general register two contains the address of the resource options block (ROB) which was put on the latch waiter chain.

A record is written to SYS1.LOGREC and a DB2 SVC dump is requested.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E50007

Explanation: An execution unit which, according to tracking information, is currently suspended on a latch waiter chain issued a request to test or to release a latch. A single execution unit cannot be doing both at the same time. This is probably a DB2 subsystem error.

This abend reason code is issued by the following CSECTs: DSNVLTT0, DSNVSUL0, DSNVXUL0, and any CSECT that issues the DSNVUNLS or DSNVUNLX latch release macros.

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Collect the necessary diagnostic materials. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: At the time of the abend, general register zero contains the address of the latch upon which the execution unit is supposedly waiting and general register two contains the address of the resource options block (ROB) which was put on the latch waiter chain.

A record is written to SYS1.LOGREC and a DB2 SVC dump is requested.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E50008

Explanation: A latch manager module detected that an execution unit requesting latch manager service pointed to an invalid execution block (EB). This is probably a DB2 subsystem error.

This abend reason code is issued by the following CSECTs:

DSNVLTT0 DSNVSLT0 DSNVSUL0 DSNVXLT0 DSNVXUL0

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Collect the necessary diagnostic materials. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A record is written to SYS1.LOGREC and a DB2 SVC dump is requested.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E50009

Explanation: A latch manager module detected an invalid resource options block (ROB) while processing a request for service. This is probably a DB2 subsystem error.

This may be either an abend reason code or a DB2 subsystem termination code.

This reason code is issued by the following CSECTs:

DSNVLFRR DSNVLTT0 DSNVSLT0 DSNVSUL0 DSNVXLT0 DSNVXUL0

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Collect the necessary diagnostic materials. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A record is written to SYS1.LOGREC and a DB2 SVC dump is requested.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E50012

Explanation: A caller in TCB mode requested the SRB redispatch function. SRB redispatch can only be requested by SRB-mode callers. This is probably a DB2 subsystem error.

This abend reason code is issued by the following CSECT: DSNVSDC0

System Action: The requesting task is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Collect the necessary diagnostic material. If you suspect an error in DB2, refer to Section

3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The recovery routine in DSNVSDC0 creates diagnostic material, an entry in SYS1.LOGREC and a DB2 SVC dump is requested. These must be examined to determine the task and resource manager which made the illegal request.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E50013

Explanation: A DB2 execution unit has been abended. This abend code must ultimately be issued by resource managers when the CANCEL exit is driven as a result of a suspend request.

This abend reason code is issued by the following CSECTs:

DSNVEUS1	DSNVEUS3	DSNVASTM	DSNVCST0
DSNVDST0	DSNVFEB	DSNVSLT0	DSNVSUL0
DSNVXLT0			

System Action: The agent cancel processing continues.

Operator Response: Notify the system programmer only if the abend results in the termination of the DB2 subsystem.

System Programmer Response: This reason code may be issued as a result of any connected TCB abend, or operator -STOP DB2 MODE(FORCE) command. No further action is required.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA). If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: If DB2 abends, examine the SVC dump to determine the suspended resource manager and the state of the failing subcomponent. For example, the ACEMC (must complete) bit should be off.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E50014

Explanation: Either the execution block (EB) or the agent services global communication area (VGCA) was invalid. The error was detected when the agent services resume function attempted to resume a TCB in an address space other than the primary of the resume requester. This is a subsystem error.

This abend reason code is issued by the following CSECT: DSNVRSRB

System Action: The error is percolated (passed) to the recovery routine for the TCB that was to have been resumed.

Operator Response: Notify the system programmer.

System Programmer Response: The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA). If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: An entry is written to SYS1.LOGREC, and a DB2 dump is requested by the FRR DSNVSRR. Examine the SVC dump and determine the resource manager module requesting the resume operation. Register 3 contains the SRB address. Register 5 contains the EB address. If the VGCA is invalid, its address is in register 8. The EB in question is that of the target TCB.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E50015

Explanation: The MVS control block (either RB or STSV - SRB Status Save Area) that was the intended object of a resume request was invalid. The RB or STSV address was obtained from the DB2 EB (execution block) at offset X'1C' This is a subsystem error.

This abend reason code is issued by the following CSECTs:

DSNVSR	DSNVRSRB	DSNVSDC0

System Action: If the CSECT that abends is DSNVRSRB, the error is percolated (passed) to the recovery routine for the TCB that was to have been resumed. If the CSECT that abends is DSNVSR, the error is percolated to the DB2 SRB recovery task DSNVRCT. Ultimately, the subsystem may be terminated abnormally. If the CSECT that abends is DSNVSDC0, the error will be retried one time and, if unsuccessful, the DB2 subsystem is terminated with a 00E50054 reason code.

Operator Response: Notify the system programmer.

System Programmer Response: The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA). If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A SYS1.LOGREC entry and a DB2 SVC dump are requested by the FRR DSNVSRR and by the recovery routine in DSNVSDC0. Register 6 contains the target EB address.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E5001A

Explanation: A CANCEL THREAD command caused the thread to be terminated. A dump is provided for diagnostic purposes as a result of the CANCEL command DUMP keyword.

System Action: DB2 writes a SYS1.LOGREC record and requests an SVC dump. The execution unit abends.

Operator Response: Notify the system programmer.

System Programmer Response: The command might have been used to terminate a thread that was in a state where no processing was occurring and the thread could not continue.

If you suspect an internal DB2 error, obtain a copy of the SYS1.LOGREC listing and the SVC dump. Determine the failing environment (DB2, IMS, CICS, or TSO).

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5 1, 2, 5.

The module that was suspended while waiting for some action to be taken is the module that issued the abend.

00E50029

Explanation: The Agent Services function which establishes the DB2 tasking structure abends with this reason code following the detection of a load module which was loaded without the 31-bit addressing capability. The abend is preceded by message DSNV029.

This abend reason code is issued by the following CSECT: DSNVASIM

System Action: Subsystem start-up is terminated.

System Programmer Response: See message DSNV029I.

00E50030

Explanation: A request was made to initialize an already-initialized DB2 address space. This is a subsystem error.

This abend reason code is issued by the following CSECT: DSNVASIM

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Examine the SVC dump and determine the resource manager module (contents of register 14 in save area pointed to by register 13) that invoked DSNVASIM. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A record is written to SYS1.LOGREC, and an SVC dump is requested. Register 6 contains the address of the EB. Field EBPASCE contains the ASCE address of the address space to be initialized.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E50031

Explanation: An agent termination request was issued from a secondary execution unit for an agent created with APLOPT=1. This is an invalid use of the terminate allied agent function.

This abend reason code is issued by the following CSECT: DSNVTRTH

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the resource manager module that invoked DSNVTRTH. Register 14, in the save area pointed to by register 13, contains the return address of the invoking module. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: A record is written to SYS1.LOGREC, and a DB2 SVC dump is requested.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E50032

Explanation: An agent services manager functional request was issued with an invalid specification of the ACE operand. This is an invalid use of the requested service.

This abend reason code is issued by the following CSECTs:

DSNVTRTH	DSNVDISC	DSNVCONN

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Verify that the ACE control block is a valid allied agent. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA). If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A record is written to SYS1.LOGREC, and an SVC dump is requested. Register 1 at entry to the module normally contains the ACE address. However, if register 1 at entry to DSNVTRTH is zero, then the address at register 6 is the ACE address to be terminated. That address points to the EBROB which, in turn, points to the ROBACE.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E50035

Explanation: During the processing of a request to perform system agent allocation, a resource manager returned a nonzero return code from an allocation notification. This is a subsystem error.

This abend reason code is issued by the following CSECT: DSNVIALC

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The error is recorded on SYS1.LOGREC, and an SVC dump is requested. Register 7 contains the nonzero allocation return code.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E50036

Explanation: A request was made to perform system agent allocation for an agent that had already been allocated.

This abend reason code is issued by the following CSECT: DSNVIALC

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The error is recorded on SYS1.LOGREC, and an SVC dump is requested. The fullword address at register 6, which points to the EBROB, should have been zero. That address points to the ROBACE which, in turn, points to the ACERAL.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E50040

Explanation: DB2 subsystem termination was invoked following an unrecoverable error while processing a terminate allied agent request at the thread, sign on, or identify level. The FRR (DSNVTFRR) covering module DSNVTRTH was unable to recover. This is a subsystem termination reason code.

This reason code is issued by the following CSECT: DSNVTFRR

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Scan the MVS system log and the contents of SYS1.LOGREC for DB2 abends occurring immediately before the system termination message DSNV086E. Follow the failure analysis procedures for the specific abend(s). Refer to "Appendix A. CICS Transaction Abend/Dump Code" on page X-3 for information about X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5.

00E50041

Explanation: DB2 subsystem termination was invoked following an unrecoverable error while processing a terminate agent structure request. The FRR (DSNVTFRR) covering module DSNVFACE was unable to recover. This is a subsystem termination reason code.

This abend reason code is issued by the following CSECT: DSNVTFRR

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Scan the MVS system log and the contents of SYS1.LOGREC for DB2 abends occurring immediately before the system termination message DSNV086E. Follow the failure analysis procedures for the specific abend(s). Refer to "Appendix A. CICS Transaction Abend/Dump Code" on page X-3 for information about X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5.

00E50042

Explanation: An execution unit which, according to tracking information, is currently suspended on a latch waiter chain is in the agent termination process. This may indicate that a latch manager request is still incomplete or has not been serviced properly. This is probably a DB2 subsystem error.

This abend reason code is issued by the following CSECTs: DSNVFACE, DSNVTEB

System Action: The current execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: At the time of the abend, general register zero contains the address of the latch upon which the execution unit is supposedly waiting and general register two contains the address of the resource options block (ROB) which was put on the latch waiter chain.

A record is written to SYS1.LOGREC and a DB2 SVC dump is requested.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E50044

Explanation: A terminate agent request was issued for an agent with an active unit of recovery (URE). This is an invalid use of the terminate allied agent service and is a subsystem error.

This abend reason code is issued by the following CSECT: DSNVTRTH

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: The error is recorded on SYS1.LOGREC, and an SVC dump is requested. Register 1 at entry to the module contains the ACE address of the agent to be terminated. The ACEURE field should have been zero.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E50045

Explanation: DB2 subsystem termination was invoked following an unrecoverable error while processing a create allied agent service request at the thread, sign on, or identify level. The FRR (DSNVCFRR) covering module DSNVCRTH was unable to recover. This is a subsystem termination reason code.

This reason code is issued by the following CSECT: DSNVCFRR

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Scan the MVS system log and the contents of SYS1.LOGREC for DB2 abends occurring immediately before the system termination message DSNV086E. Follow the failure analysis procedures for the specific abend(s). Refer to "Appendix A. CICS Transaction Abend/Dump Code" on page X-3 for information about X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5.

00E50046

Explanation: DB2 subsystem termination was invoked following an unrecoverable error while processing a create agent structure request. The FRR (DSNVCFRR) covering module DSNVGACE was unable to recover. This is a subsystem termination reason code.

This reason code is issued by the following CSECT: DSNVCFRR

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Scan the MVS system log and the contents of SYS1.LOGREC for DB2 abends occurring immediately before the system termination message DSNV086E. Follow the failure analysis procedures for the specific abend(s). Refer to "Appendix A. CICS Transaction Abend/Dump Code" on page X-3 for information about X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5.

00E50047

Explanation: DB2 subsystem termination was invoked following an unrecoverable error while processing a Format EB RMRQ request. The FRR (DSNVCFRR) covering module DSNVFEB was unable to recover. This is a subsystem termination reason code.

This reason code is issued by the following CSECT: DSNVCFRR

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Scan the MVS system log and the contents of SYS1.LOGREC for DB2 abends occurring immediately before the system termination message DSNV086E. Follow the failure analysis procedures for the specific abend(s). Refer to "Appendix A. CICS Transaction Abend/Dump Code" on page X-3 for information about X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5.

00E50050

Explanation: The MVS cross-memory lock (CML) of the system services address space was held by the invoking resource manager execution unit during invocation of the cancel, suspend, resume, or SRB redispatch functions. This violates the entry protocols for these functions.

This abend reason code is issued by the following CSECTs: DSNVSR, DSNVSDC0

System Action: The requesting execution unit is abended.

Because resource manager serialization cannot be maintained without the use of this lock, normal recovery is not possible for this abend. The recovery routine terminates the DB2 subsystem through invocation of the agent services subsystem termination protocol.

An '00E50054' recovery reason code is placed in the SDWACOMU field of the SDWA, indicating that synchronization services was responsible for DB2 subsystem termination.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Internal protocols specify that no MVS locks may be held at DSNVSR or DSNVSDC0 invocation Determine the invoking resource manager, the function requested, and the current owner (ASCB) of the CML lock at the time of the error. Diagnostic information for this error may be obtained through the SYS1.LOGREC and DB2 SVC dump materials provided.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E50051

Explanation: The resource manager requesting the resume function specified the TCTL=YES option while executing in TCB mode. This violates the entry protocols for this function. This is a subsystem error.

This abend reason code is issued by the following CSECT: DSNVSR

System Action: Mainline processing is abended with an '04E' abend code and this reason code.

Because this error is an internal resource manager protocol violation, normal recovery is not possible for this abend. The recovery routine terminates the DB2 subsystem through invocation of the agent services subsystem termination protocol. An '00E50054' recovery reason code is placed in the SDWACOMU field of the SDWA indicating that synchronization services was responsible for DB2 subsystem termination.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Internal protocol documentation specifies that the TCTL=YES option is valid only for resource managers executing in SRB mode at time of invocation.

Determine the invoking resource manager at time of error. Diagnostic information for this error may be obtained through the SYS1.LOGREC and DB2 SVC dump materials provided.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E50052

Explanation: The MVS cross-memory lock (CML) of the system services address space could not be released during termination processing of the cancel, suspend, resume, or SRB redispatch functions.

This abend reason code is issued by the following CSECTs: DSNVSR, DSNVSDC0

System Action: Mainline processing is abended with an '04E' abend code and this reason code.

Because resource manager serialization can no longer be maintained without the use of this lock, normal recovery is not possible for this abend. The recovery routine terminates the DB2 subsystem through invocation of the agent services subsystem termination function.

An '00E50054' recovery reason code is placed in the SDWACOMU field of the SDWA indicating that synchronization services was responsible for DB2 subsystem termination.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: For this abend to occur, the CML lock must have been successfully obtained at some point during mainline processing. Determine the invoking resource manager, the function requested, and the current owner (ASCB) of the CML lock at the time of the error. Diagnostic information for this error may be obtained through the SYS1.LOGREC and DB2 SVC dump materials provided.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 7.

00E50054

Explanation: The DB2 subsystem is abended by the synchronization services recovery routine when an unrecoverable error is encountered during recovery processing for the suspend, cancel, resume, or SRB redispatch functions. This is a subsystem termination reason code.

This reason code is issued by the following CSECTs: DSNVSRR, DSNVSDC0

System Action: The DB2 subsystem is terminated. This reason code is associated with an '04F' abend code indicating that synchronization services was responsible for termination.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Scan the MVS system log and the contents of SYS1.LOGREC for DB2 abends occurring immediately before the system termination message DSNV086E. Follow the failure analysis procedures for the specific abend(s). Refer to "Appendix A. CICS Transaction Abend/Dump Code" on page X-3 for information about X'04F' and X'04E' abend completion codes.

One of the following conditions was encountered during recovery processing for the requested function:

- Unable to complete resume processing for an SRB mode execution unit that was suspended at time of error.
- Errors were encountered during primary recovery processing causing entry to the secondary recovery routine.
- Recovery initiated retry to mainline Suspend/Resume code caused retry recursion entry into the functional recovery routine.
- Unable to obtain or release the cross-memory lock (CML) of the system services address space either during mainline processing or during functional recovery processing (for example, reason code '00E50051' or '00E50052').
- The invoking resource manager requested the TCTL=YES option of the resume function while executing in TCB mode (for example, reason code '00E50051').

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5.

00E50055

Explanation: The synchronization services functional recovery routine was unable to successfully complete resume processing for a suspended TCB mode execution unit. The resume processing was requested by the cancel or resume functions. This reason code is placed in the SDWACOMU field of an SDWA.

This reason code is issued by the following CSECT: DSNVSRR

System Action: Because the suspended TCB mode execution unit must not be permitted to remain in a suspended state, the recovery routine invokes the MVS CALLRTM (TYPE=ABTERM) service to abend the execution unit with an '04F' completion code. Depending upon which execution unit was terminated, the DB2 subsystem may be abended.

Operator Response: Notify the system programmer, and restart DB2 if necessary.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Scan the MVS system log and the contents of SYS1.LOGREC for DB2 abends occurring immediately before the abend of the execution unit. Follow the failure analysis procedures for the specific abend(s). Refer to "Appendix A. CICS Transaction Abend/Dump Code" on page X-3 for information about X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 7.

00E50059

Explanation: When preparing to resume an SRB, the target EB (execution block) was validated by checking the EB identifier code in the first halfword of the control block. The identifier code was in error.

This abend reason code is issued by the following CSECTs: DSNVSR, DSNVSDC0

System Action: If the CSECT detecting the error is

DSNVSR, the error is percolated (passed) to the DB2 SRB recovery task DSNVRCT. Ultimately, DB2 is terminated abnormally.

If the CSECT detecting the error is DSNVSDC0, the code detecting the error will be retried once. If validation fails, the DB2 subsystem is terminated abnormally with a 00E50054 reason code.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: A LOGREC entry and a DB2 dump are requested by the FRR DSNVSRR and by the recovery routine in DSNVSDC0. Register 6 contains the address of the invalid EB.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E50062

Explanation: An application request (RARQ) was issued to a resource access list (RAL). At the time of the request, the RAL had the RAL suppress (RALSUPPR) flag on, and the function vector list entry (FVLE) that was accessed (through FRBFVLE) did not have FVLEBIT0 on. This is not allowed. That is, the FVLE function is not allowed during RAL suppress.

This error may indicate that an IMS/VS or CICS caller had completed Commit Phase 1 and that the next request was not Commit Phase 2, Abort, or Terminate with the Commit or Abort option. This abend is the result of an internal system problem, possibly the DB2 attachment facility or the requesting IMS/VS or CICS subsystem.

This abend reason code is issued by the following macro: DSNARARQ

System Action: The allied task requesting the RARQ is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The recovery routines of the module invoking the DSNARARQ macro should have requested SYS1.LOGREC recording and either an SVC or application dump (or both.) The FRB contains the FRBRALE and FRBFVLE entries. It also contains the pointers to the RAL and to the execution block address (FRBEB). Register 3 contains the address of the RAL from FRBRAL. Register 4 contains the address of the RALE as located by the FRBRAL pointer (and as indexed by FRBRALE). Register 6 contains the address of the EB from FRBEB.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 22, 23, 24, 25, 26.

00E50063

Explanation: A resource access request (RARQ) was issued to a function vector list entry (FVLE) that is valid but unauthorized for this allied user at this time. This abend occurs if a request is issued out of sequence. For example, two consecutive CREATE THREAD requests would give this result. This abend also occurs if a request is issued that is never authorized for the caller. For example, it occurs if a BATCH protocol user issues a PREPARE request. A program call (PC) is issued to module DSN3ABND, which issues the X'04E' abend with this reason code.

This abend reason code is issued by the following CSECT: DSN3ABND

System Action: The task issuing the RARQ is abended. However, DB2 recovery may translate this abend to a return code 256 with this reason code.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is a user error. The issuer of the RARQ was not authorized to use the requested function at this time. The following diagnostic information is available:

- An entry in the DB2 trace table is made for entry to module DSN3ABND. The items traced are the RALE and the FVLE of the intended DSNARARQ request. To determine the sequence of DSNARARQ requests, examine the previous trace table entries for the same execution block (EB).
- An application dump is requested with DB2-supplied control blocks. This includes the FRB associated with the intended DSNARARQ request. Fields FRBRALE and FRBFVLE contains the indexes for the intended request.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 4, 5.

00E50065

Explanation: RMRQ linkage was requested, specifying a function code that is undefined in the resource manager function table (RMFT) of the designated resource manager.

This abend reason code is issued by the following CSECT: DSNVRMEL

System Action: The execution unit under which RMRQ was requested is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The recovery routine of the abended resource manager module requested SYS1.LOGREC recording and a DB2 SVC dump. Register 14 points to the resource manager module that requested linkage to the undefined function.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E50069

Explanation: This abend code is issued during recovery processing for the suspend function when executing in SRB mode under the recovery routine established by the MVS SRBSTAT(SAVE) service. Because the recovery routine established by this service is the only routine in the FRR stack at the time of error, normal RTM percolation to the invoking resource manager recovery routine is not possible.

After recovery processing for the initial mainline error has successfully completed, the RTM environment is exited through retry to a routine that restores the original FRR stack. This routine then issues an '04E' abend with this reason code. This causes entry into the original recovery routine established during suspend initialization.

This abend reason code is issued by the following CSECTs: DSNVSRR, DSNVSDC0

System Action: After this abend is intercepted by the original suspend recovery routine, a SYS1.LOGREC entry and DB2 SVC dump are requested to document the original error. The original recovery reason code is placed in the SDWACOMU field of the SDWA indicating the actions performed during recovery processing of the initial error. Control is then returned to the invoking resource manager's recovery routine through RTM percolation.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Because this abend is used only to permit the transfer of the initial recovery reason code to the invoking resource manager's recovery routine, no further recovery actions are required for this abend. Diagnostic information for the initial error encountered during mainline processing may be obtained through the SYS1.LOGREC and SVC dump materials provided.

00E50070

Explanation: This abend reason code is issued in response to a delete service task request specifying purge. Additionally, any service task not deleted by the owning resource manager at subsystem shutdown is abended with this reason code.

This abend reason code is issued by the following CSECTs:

DSNVEUS3 DSNVDST0 DSNVEOT1

System Action: This abend usually occurs through MVS CALLRTM and, in certain cases, is issued by the service task dispatcher executing under the TCB being abended. The service task is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: If the service task is abended with a completion code of X'04F', no DB2 SVC dump is taken. Some resource managers have elected to terminate their service tasks with the purge option. Consequently, the abend may or may not be an actual error. At the time of the abend, register 6 points to the execution block (EB) of the execution unit that was active when the abend occurred. The EBSQH field in turn contains a pointer to the service queue header associated with the abending service task.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E50071

Explanation: This abend reason code is issued following a cancel return from the resume service during an attempt to notify the create service task requester. Because the requester has been terminated, the newly created service task must be terminated.

This abend reason code is issued by the following CSECT: DSNVEUS3

System Action: The service task is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA). If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: At the time of the abend, register 6 points to the execution block (EB) assigned to the service task dispatcher. The EBSQH field, in turn, contains a pointer to the service queue header associated with the abending service task. From the SQH, determine the requesting resource manager. Prior SYS1.LOGREC entries may indicate why the requester was terminated.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E50072

Explanation: This abend reason code is issued following an unanticipated cancel return from DSNVSR for an execution unit not expected to be canceled. This code is also a subsystem termination reason code if the abend was issued by module DSNVCST0.

This abend reason code is issued by the following CSECTs:

DSNVEUS3 DSNVEUS4 DSNVCST0 DSNVEOT1

System Action: The DB2 subsystem is abended.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: At the time of the abend, register 6 points to the execution block (EB) associated with the abending execution unit.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E50073

Explanation: Execution unit switch processing detected an invalid execution block (EB) or an invalid resource options block (ROB). This is probably a DB2 subsystem error.

This abend reason code is issued by the following CSECTs:

DSNVEUS2 DSNVEUS3 DSNVTEB

System Action: The current execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Collect the necessary diagnostic materials. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: At the time of the abend, general register zero contains the address which should have pointed to a valid control block but did not.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00E50074

Explanation: This abend reason code is issued in response to a nonzero return code from ATTACH during an attempt to create a service task.

This abend reason code is issued by the following CSECT: DSNVEUS4

System Action: The ATTACH is retried. If a failure occurs again, DB2 is terminated.

Operator Response: Notify the system programmer, and restart DB2 if necessary.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Register 2, in the SDWA, contains the return code from the ATTACH request.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00E50075

Explanation: On an execution unit switch request, an invalid service queue header (SQH) and/or service task identifier (STID) was specified. Alternately, the specified or implicit address space may be invalid. This is an internal DB2 protocol error.

This abend reason code is issued by the following CSECT: DSNVEUS1

System Action: The requester is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Using the SYS1.LOGREC entry and the associated SVC dump, determine the resource manager module that requested the execution unit switch.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00E50076

Explanation: A request was made for an execution unit switch to a service task currently undergoing delete processing. This is an internal DB2 protocol error.

This abend reason code is issued by the following CSECT: DSNVEUS1

System Action: The requester is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Using the SYS1.LOGREC entry and the associated SVC dump, determine the resource manager module that requested the execution unit switch. A resource manager should not request deletion of a service task and then attempt to execute under the same task.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00E50077

Explanation: A deadlock condition was encountered. A request was made to either delete or synchronously execute a service task already participating in a chain of service tasks leading to the current request. This is an internal subsystem protocol error.

This abend reason code is issued by the following CSECTs: DSNVEUS1, DSNVDST0

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Using the SYS1.LOGREC entry and the associated SVC dump, determine the resource manager module that requested the function. If the recording FRR is EUS1FRRE, then the deadlock was detected by the execution unit switch service. Otherwise, the error was found during a delete service task request.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00E50078

Explanation: A request was received to create a service task, but the service task controller is terminating. This code is also a subsystem termination reason code if the abend was issued by module DSNVCST0.

This abend reason code is issued by the following CSECT: DSNVCST0

System Action: The requesting execution unit is terminated. The entire subsystem may also be terminated.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Using the SYS1.LOGREC entry and associated SVC dump, determine the resource manager

requesting the creation of a service task. DB2 was probably already terminating when this error was encountered. New service tasks cannot be created during subsystem termination.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00E50079

Explanation: An invalid address space (ASCE) was specified as the target of an execution unit switch request. This can occur if the target is an allied address space or if the address space was concurrently undergoing termination.

This abend code may also be issued when a passed agent services control block is determined to be invalid.

This abend reason code is issued by the following CSECTs:

DSNVEUS1 DSNVSR DSNVSDC0

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Using the SYS1.LOGREC entry and the associated SVC dump, determine the resource manager module that requested the execution unit switch, suspend, resume, cancel, or SRB dispatch function. Using register 6 as a pointer to the execution block (EB), verify that the agent services control blocks — execution block (EB) and resource options block (ROB) — are valid.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00E50080

Explanation: An execution unit (SRB or TCB) processor determined that the current MVS Functional Recovery Routine (FRR) stack contained one or more entries for FRR’s which should not exist. This check is made at the conclusion of a resource manager function executing under the SRB or TCB.

This error reason code is issued by the following CSECTs: DSNVEUS2, DSNVEUS3.

System Action: An SVC dump is requested specifying an abend code of X'04E' and this reason code. The extraneous FRR entries are deleted from the stack. Execution continues. The application is not notified.

Operator Response: Notify the system programmer of the SVC dump.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: MVS console data is logged and the SVC dump is taken. No record is written to SYS1.LOGREC.

One or more resource manager functions created an FRR which was not deleted. Examine the current FRR stack in the PSA of the active CPU. The only valid stack entries are those established by DB2 and MVS Dump Services and, if DSNVEUS2, an entry established by that module. The format of the FRR stack is provided as data area FRRS in the appropriate MVS debugging guides.

00E50081

Explanation: A TCB execution unit processor determined that the list of active ESTAE exits associated with the TCB contained one or more entries for ESTAEs which should not be active. This check is made at the conclusion of a resource manager function executing under the TCB.

This error reason code is issued by the following CSECT: DSNVEUS3.

System Action: An SVC dump is requested specifying an abend code of X'04E' and this reason code. The extraneous ESTAE entries are deleted. Execution continues. The application is not notified.

Operator Response: Notify the system programmer of the SVC dump.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: MVS console is logged and the SVC dump is taken. No record is written to SYS1.LOGREC.

One or more resource manager functions created an ESTAE exit which was not deleted. Locate the TCB requesting the dump (It will be a DB2 service task in the home address space at the time the dump was requested.) Field TCBSTABB points to a chain of STAE Control Blocks (SCB) for active exits. The only valid SCBs are for the ESTAE exit established (with a token) by DSNVEUS3 and an ESTAI exit established when the task was created. SCBs are located in LSQA. The SCB format is provided as a data area in the appropriate MVS debugging guides.

00E50094

Explanation: The macro service to get a resource options block (ROB) determined that a ROB taken from the ROB cache was not formatted properly. This can occur if the queue which controls the ROB cache was overlaid, if the ROB itself was overlaid, or if there is a programming error in DB2.

This abend reason code is issued by the following CSECTs: Any CSECT which invokes the get ROB service may use this abend reason code.

System Action: The requesting execution unit is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Register zero, which should appear in the SYS1.LOGREC entry for this abend, contains the address which should have pointed to a ROB but apparently did not.

Use the SYS1.LOGREC entry and the associated dump to examine the area which should have been a ROB. It may also be helpful to examine the chain of ROBs in the cache. This chain is anchored in the DB2 DSNDVGCA control block.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00E50095

Explanation: The macro service to release a resource options block (ROB) determined that a ROB passed to it for release was not formatted properly and did not, in fact, appear to be a ROB at all. This can occur as a result of a storage overlay or if there is a programming error in DB2.

This abend reason code is issued by the following CSECTs: Any CSECT which invokes the release ROB service may use this abend reason code.

System Action: The requesting execution unit is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Register zero, which should appear in the SYS1.LOGREC entry for this abend, contains the address which should have pointed to a ROB but apparently did not.

Use the SYS1.LOGREC entry and the associated dump to examine the area which should have been a ROB.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E50096

Explanation: A request was made to suspend an execution unit but the resource options block (ROB) which is required for this request is invalid. This is probably a DB2 subsystem error.

This abend reason code is issued by the following CSECTs: Any CSECT that requests suspension is subject to this abend since it is issued by the in-line expansion of the macro used to make the request.

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Collect the necessary diagnostic materials. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: At the time of the abend, general register zero contains the address which should have pointed to a valid ROB but did not.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E50097

Explanation: A request was made to resume an execution unit but the resource options block (ROB) which is required for this request is invalid. This is probably a DB2 subsystem error.

This abend reason code is issued by the following CSECTs: Any CSECT that requests the resume service is subject to this abend since it is issued by the in-line expansion of the macro used to make the request.

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: At the time of the abend, general register zero contains the address which should have pointed to a valid ROB but did not.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E50098

Explanation: A request was made to resume an execution unit but a non-zero return code was received from the IEAMSCHD service attempting to schedule a client or enclave SRB.

System Action: The requesting execution unit is abended.

User Response: Notify the system programmer and rerun the application.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: At the time of the abend, general register zero contains the return code from IEAMSCHD.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

This abend reason code is issued by the following CSECTs: DSNVSR DSNVEUS1

00E50100

Explanation: The ASCE could not be found during recover stack processing. This is an internal subsystem error.

This abend reason code is issued by the following macro: DSNVRSTK

System Action: The requesting recovery routine is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Using register 6 as the address of the execution block (EB), check that field EBPASCE contains a valid ASCE address. Also determine the recovery module invoking the macro from the information provided by the SYS1.LOGREC entry and the associated SVC dump.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E50101

Explanation: The agent cancel function was unable to establish an ESTAE while preparing to cancel all active allied agents during processing of the -STOP DB2 MODE(FORCE) command.

This abend reason code is issued by the following CSECT: DSNVAGCL

System Action: The abend is passed on to a subsystem support subcomponent (SSS) ESTAE. Probably, DB2 is abended.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: The inability to establish an ESTAE is normally due to insufficient free space in the local system queue area (LSQA) for an ESTAE control block (SCB).

If necessary, increase the size of the system services address space.

Problem Determination: Review the associated SVC dump for usage and free areas in the LSQA subpools belonging to the system services address space.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00E50102

Explanation: An unrecoverable error occurred while canceling all active agents during processing of the -STOP DB2 MODE(FORCE) command. This is a subsystem termination reason code.

This abend reason code is issued by the following CSECT: DSNVAGCL

System Action: The subsystem is abended.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Review the SYS1.LOGREC entries for failures immediately preceding subsystem termination. Refer to “Appendix A. CICS Transaction Abend/Dump Code” on page X-3 for information about X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5.

00E50105

Explanation: This in an internal error.

This abend reason code is issued by the following CSECT: DSNVAI

System Action: The caller's task is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5. 84.

00E50106

Explanation: This in an internal error.

This abend reason code is issued by the following CSECT: DSNVAI

System Action: The caller's task is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5. 84.

00E50107

Explanation: This in an internal error.

This abend reason code is issued by the following CSECT: DSNVAI

System Action: The caller's task is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5. 84.

00E50500

Explanation: An MVS LOCAL or CML lock could not be obtained during DB2 subsystem abnormal termination processing.

This abend reason code is issued by the following CSECT: DSNVATRM

System Action: The execution unit is abended. The error is recorded on SYS1.LOGREC, and abnormal DB2 subsystem termination is completed under a different execution unit if possible.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A SYS1.LOGREC entry is requested. Reason code '00E50504' is placed in the SDWA variable recording area (VRA). The VRA data contains information about the status of subsystem termination at the time of error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5.

00E50501

Explanation: An MVS local or CML lock could not be released during DB2 subsystem abnormal termination processing.

This abend reason code is issued by the following CSECT: DSNVATRM

System Action: The execution unit is abended. The error is recorded on SYS1.LOGREC. DB2 subsystem termination is completed under a different execution unit if possible.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A SYS1.LOGREC entry is requested. Reason code '00E50504' is placed in the SDWA variable recording area (VRA). The VRA data contains information about the status of subsystem termination at the time of error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5.

00E50502

Explanation: An MVS LOCAL lock could not be obtained during DB2 subsystem abnormal termination processing.

This abend reason code is issued by the following CSECT: DSNVATR4

System Action: The execution unit is abended. The error is recorded on SYS1.LOGREC, and abnormal DB2 subsystem termination is completed under a different execution unit if possible.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A SYS1.LOGREC entry is requested. Reason code '00E50502' is placed in the SDWA variable recording area (VRA). The VRA data contains information about the status of the subsystem termination at the time of error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5.

00E50503

Explanation: An MVS LOCAL lock could not be released during DB2 subsystem abnormal termination processing.

This abend reason code is issued by the following CSECT: DSNVATR4

System Action: The execution unit is abended. The error is recorded on SYS1.LOGREC, and abnormal DB2 subsystem termination is completed under a different execution unit if possible.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A SYS1.LOGREC entry is requested. Reason code '00E50503' is placed in the SDWA variable recording area (VRA). The VRA data contains information about the status of the subsystem termination at the time of error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5.

00E50504

Explanation: This reason code is used to define the format of the information recorded in the SDWA variable recording area (VRA) by the subsystem termination processor. The code identifies additional information provided in the VRA for abends encountered in module DSNVATRM.

This abend reason code is issued by the following CSECT: DSNVATRR

System Action: Recording of the error encountered during subsystem termination continues.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: For information about finding the SDWA refer to Section 3 of *Diagnosis Guide and Reference*

00E50505

Explanation: This reason code is used to define the format of the information recorded in the SDWA variable recording area (VRA). The code identifies additional information provided in the VRA for abends encountered in module DSNVATR4.

This abend reason code is issued by the following CSECT: DSNVATRR

System Action: Recording of the error encountered during subsystem termination continues.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00E50701

Explanation: A failure occurred during Commit Phase 1. This abend is used to effect abort, deallocation, and end-UR processing.

This abend reason code is issued by the following CSECTs: DSNVEUS2, DSNVEUS3

System Action: The DB2 subsystem is abended.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Standard DB2 diagnostic information may be obtained through SYS1.LOGREC and SVC dump materials generated at the time of the abend. Register 6 contains the address of the active EB when the commit failed. The DB2 global trace table contains an entry for the commit-UR function exit. The entry contains return and reason codes.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00E50702

Explanation: An error occurred while processing in SRB mode which could not be recovered.

This termination reason code is issued by the following CSECT: DSNVEUS2

System Action: The DB2 subsystem is abended with this reason code.

Operator Response: Notify the system programmer and restart DB2.

System Programmer Response: Scan the SYS1.LOGREC entries looking for one or more DB2 abends immediately prior to the subsystem termination. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A DB2 dump of the original failure was requested by the recovery routine for DSNVEUS2 and a record written to SYS1.LOGREC. Refer to “Appendix A. CICS Transaction Abend/Dump Code” on page X-3 for information about X'04F' and X'04E' abend completion codes.

00E50703

Explanation: This subsystem termination reason code is used following an error while attempting to resume a suspended execution unit. The successful completion of resume processing was indoubt.

This reason code is issued by the following CSECTs:

DSNVCST0 DSNVDST0 DSNVEUS1 DSNVEUS3

System Action: The DB2 subsystem is abended.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: Scan the SYS1.LOGREC entries for one or more DB2 abends occurring immediately prior to the subsystem termination. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: DB2 diagnostic information may be obtained through SYS1.LOGREC and SVC dump materials generated at the time of the original error. Refer to "Appendix A. CICS Transaction Abend/Dump Code" on page X-3 for information about X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5.

00E50704

Explanation: An error occurred in the DB2 Service Task Controller which could not be recovered.

This termination reason code is issued by the following CSECT: DSNVEUS4

System Action: The subsystem is terminated with this reason code. Additionally, if no SDWA was provided to the recovery routine, a subsystem termination dump is requested.

Operator Response: Notify the system programmer and restart DB2.

System Programmer Response: Scan the SYS1.LOGREC entries looking for one or more DB2 abends immediately prior to the subsystem termination. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: If an SDWA was available, a DB2 dump of the original failure was requested and should be analyzed to determine the nature of the original error. If no SDWA was available, the standard MVS SVC dump taken by subsystem termination must be analyzed. The Service Task Controller is the first descendent TCB of the job step TCB in the failing home address space. Refer to "Appendix A. CICS Transaction Abend/Dump Code" on page X-3 for information about X'04F' and X'04E' abend completion codes.

00E50705

Explanation: A subsystem termination was requested for one of the following reasons:

1. An agent was flagged as executing in 'must complete' mode,
2. An execution unit holds a latch,
3. An agent is marked as being on a latch waiter queue, when none of these conditions should be true. Additionally, the subsystem termination may have been preceded by an abend with this reason code.

This termination reason code is issued by the following CSECTs:

DSNVEOT1 DSNVEUS2 DSNVEUS3

System Action: The DB2 subsystem is abended.

Operator Response: Notify the system programmer and restart DB2.

System Programmer Response: Scan the SYS1.LOGREC entries looking for one or more DB2 abends immediately prior to the subsystem termination. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: DB2 diagnostic information may be obtained through SYS1.LOGREC and SVC dump materials generated at the time of the original error. Refer to the accompanying abend code to determine the failure while in 'must complete' state. Refer to "DB2 Abend Completion Codes (X'04E' and X'04F)" on page 1-6 for information about X'04F' and X'04E' abend completion codes.

If subsystem termination was requested by module DSNVEUS2, a standard MVS SVC dump will be generated.

The 'must complete' indicator is bit ACEMC. Latch-held indicators are in field EBLTCHLD. Latch waiter status information is in field EBLWSI.

Usually these conditions occur as the result of a prior failure where the associated recovery routine did not perform correct resource cleanup. The condition may also occur if a resource manager function does not release all latches and/or reset the 'must complete' bit before returning control to either DSNVEUS2 or DSNVEUS3.

00E50706

Explanation: Either an unrecoverable error occurred while processing an End-of-Task condition on a DB2 service task or an asynchronous service task terminated for reasons other than an explicit "Delete Service Task" request. An abend with this reason code is requested if the latter situation occurs.

This termination reason code is issued by the following CSECT: DSNVEOT1

System Action: The subsystem is terminated with this reason code. Additionally, if no SDWA was provided to the recovery routine, a subsystem termination dump is requested.

Operator Response: Notify the system programmer of the failure and restart DB2.

System Programmer Response: Scan the SYS1.LOGREC entries looking for one or more DB2 abends immediately prior to the subsystem termination. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: If an SDWA was available, a DB2 dump of the original failure was requested and should be analyzed to determination the nature of the original error. If no SDWA was available, the standard MVS SVC dump taken by subsystem termination must be analyzed. Refer to "Appendix A. CICS Transaction Abend/Dump Code" on page X-3 for

information about X'04F' and X'04E' abend completion codes.

00E50707

Explanation: An ESTAE could not be established to protect a service task, the service task controller, or the recovery control task. This is a subsystem termination reason code.

This reason code is issued by the following CSECTs:

DSNVEUS3 DSNVEUS4 DSNVEOT1 DSNVRCT

System Action: The DB2 subsystem is abended.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: Review the usage and the free areas in the LSQA subpools of the two DB2 address spaces. If necessary, increase the private area size of the failing address space. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: If subsystem termination was requested by module DSNVRCT, a standard MVS SVC dump was requested. If insufficient private storage is the cause of the problem, other DB2 resource managers may have abended. Refer to "Appendix A. CICS Transaction Abend/Dump Code" on page X-3 for information about X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 5.

00E50708

Explanation: An abend occurred while connecting an allied agent to the System Services address space. The connection must complete so that the allied agent can be terminated.

This termination reason code is issued by the following CSECT: DSNVCONN

System Action: The DB2 subsystem is terminated with this reason code.

Operator Response: Notify the system programmer of the failure and restart DB2.

System Programmer Response: Scan the SYS1.LOGREC entries looking for one or more DB2 abends immediately prior to the subsystem termination. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A DB2 dump of the original error was requested and a record entered into SYS1.LOGREC. Refer to "Appendix A. CICS Transaction Abend/Dump Code" on page X-3 for information about X'04F' and X'04E' abend completion codes.

00E50709

Explanation: Subsystem termination was requested following a failure in a service task, the service task controller, or the recovery control task that could not be recovered by the ESTAE of the failing task.

This reason code is issued by the following CSECT: DSNVSTAI

System Action: The DB2 subsystem is abended.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: Scan the SYS1.LOGREC entries for one or more DB2 abends occurring immediately prior to the subsystem termination. Determine the registers and the failing task at the time of the error. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: DB2 diagnostic information may be obtained through SYS1.LOGREC and SVC dump materials generated at the time of the original error. Refer to "Appendix A. CICS Transaction Abend/Dump Code" on page X-3 for information about X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5.

00E50710

Explanation: An abend occurred while disconnecting an allied agent from its home address space. The disconnect function is required before the agent can be connected to the Systems Services address space and then terminated.

This termination reason code is issued by the following CSECT: DSNVDISC

System Action: The DB2 subsystem is terminated with this reason code.

Operator Response: Notify the system programmer of the failure and restart DB2.

System Programmer Response: Scan the SYS1.LOGREC entries looking for one or more DB2 abends immediately prior to the subsystem termination. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A DB2 dump of the original error was requested and a record entered into SYS1.LOGREC. Refer to "Appendix A. CICS Transaction Abend/Dump Code" on page X-3 for information about X'04F' and X'04E' abend completion codes.

00E50711

Explanation: An error occurred in a latch manager function and the status of one or more execution units waiting for a latch is indoubt. The latch manager functional recovery routine could not determine whether all waiting execution units had been resumed.

This termination reason code is issued by the following CSECT: DSNVLFRR

System Action: The DB2 subsystem is terminated with this reason code.

Operator Response: Notify the system programmer of the failure and restart DB2.

System Programmer Response: Scan the SYS1.LOGREC entries looking for one or more DB2 abends immediately prior to the subsystem termination. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A DB2 dump of the original error was requested and a record entered into SYS1.LOGREC. Refer to "Appendix A. CICS Transaction Abend/Dump Code" on page X-3 for information about X'04F' and X'04E' abend completion codes.

00E50712

Explanation: An error occurred in a latch manager function attempting to terminate the holder of a DB2 latch. The holder's TCB has been set nondispatchable by MVS and a CALLRTM to terminate this TCB has failed.

This termination reason code is used by the following CSECTs: DSNVXLT0, DSNVLFRR

System Action: The DB2 subsystem is terminated with this reason code.

Operator Response: Notify the system programmer of the failure and restart DB2.

System Programmer Response: Scan the SYS1.LOGREC entries for one or more DB2 abends immediately prior to the subsystem termination. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A DB2 dump of the error is requested and a record entered into SYS1.LOGREC. Register 3 at time of error contains the latch-holder's TCB address in the home address space and register 4 contains the return code from CALLRTM. Refer to "DB2 Abend Completion Codes (X'04E' and X'04F)" on page 1-6 for information about X'04E' and X'04F' abend completion codes.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E50713

Explanation: The agent services recovery control task was entered in the suspend CANCEL exit. Subsystem termination was requested with this reason code.

This reason code is issued by the following CSECT: DSNVRCT

System Action: The DB2 subsystem is abended.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: Scan the SYS1.LOGREC entries for one or more DB2 abends occurring immediately prior to the subsystem termination. It may be necessary to analyze the MVS SVC dump requested by the subsystem termination processor. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: An MVS SVC dump was requested by the subsystem termination processor. Refer to "Appendix A. CICS Transaction Abend/Dump Code" on page X-3. for information about X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 5.

00E50715

Explanation: Subsystem termination was requested following an unrecoverable error in a DB2 SRB mode execution unit.

This reason code is issued by the following CSECT: DSNVRCT

System Action: The SRB-related task was abended as a result of SRB to TCB percolation. The DB2 subsystem is abended.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: Scan the SYS1.LOGREC entries for one or more DB2 abends occurring immediately prior to the subsystem termination. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: DB2 diagnostic information may be obtained through SYS1.LOGREC and SVC dump materials generated at the time of the original error. Refer to "Appendix A. CICS Transaction Abend/Dump Code" on page X-3 for information about X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5.

00E50717

Explanation: The subsystem was terminated, because resource manager ESTAE exits could not be purged for the default service task.

This reason code is issued by the following CSECT: DSNVEUS3

System Action: The DB2 subsystem is abended.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: Scan the SYS1.LOGREC entries for one or more DB2 abends occurring immediately prior to the subsystem termination. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: If an abend preceded the subsystem termination request, DB2 diagnostic information may be obtained through SYS1.LOGREC and SVC dump materials. Refer to "Appendix A. CICS Transaction Abend/Dump Code" on page X-3 for information about X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5.

00E50719

Explanation: A failure occurred in a service task, the service task controller, or the recovery control task and was not recovered by the ESTAE of the failing task. No SDWA was provided to the ESTAE exit. This is a subsystem termination reason code.

This reason code is issued by the following CSECT: DSNVSTAI

System Action: The DB2 subsystem is abended.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: Scan the SYS1.LOGREC entries for one or more DB2 abends occurring immediately prior to the subsystem termination. Register 3 contains the abend code of the original error. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Module DSNVSTAI was unable to generate a standard DB2 SYS1.LOGREC entry and SVC dump, because system diagnostic work area (SDWA) was not provided by the recovery termination management (RTM) facility of MVS. An MVS SVC dump was requested by system termination. To determine the location of the error, examine the RB structure of the failing TCB.

DB2 diagnostic information may have been obtained by other recovery routines if an abend preceded the subsystem termination request. Refer to “Appendix A. CICS Transaction Abend/Dump Code” on page X-3 for information about X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 5.

00E50725

Explanation: Subsystem termination was requested because of an unrecovered error in a DB2 scheduled SRB-mode execution unit.

This reason code is issued by the following CSECT: DSNVRCT

System Action: The SRB-related task DSNVRCT was abended. due to SRB to TCB percolation. The DB2 subsystem is abended.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: Scan the SYS1.LOGREC entries for one or more DB2 abends occurring immediately prior to the subsystem termination. If necessary, analyze the MVS SVC dump requested by subsystem termination. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: DB2 diagnostic information may be obtained through SYS1.LOGREC and SVC dump materials obtained as a result of abends occurring prior to subsystem termination. Refer to “Appendix A. CICS Transaction Abend/Dump Code” on page X-3 for information about X'04F' and X'04E' abend completion codes.

An MVS SVC dump was requested by system termination. To determine the location of the error, examine the RB structure of the failing TCB. Register 1 contains the original SRB abend code.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 5.

00E50727

Explanation: A secondary failure occurred during agent services functional recovery processing. This is a subsystem termination reason code.

This reason code is issued by the following CSECTs:

DSNVEUS1 DSNVEUS2 DSNVDST0 DSNVEOT1 DSNVSTAI

System Action: The DB2 subsystem is abended.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: Scan the SYS1.LOGREC entries for one or more DB2 abends occurring immediately prior to the subsystem termination. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem. Determine the functional recovery routine that failed and the registers at the time of the error.

Problem Determination: DB2 diagnostic information may be obtained through SYS1.LOGREC and SVC dump materials generated at the time of the original error. If the subsystem termination request was issued by module DSNVEUS2, an MVS SVC dump was requested. Refer to “Appendix A. CICS Transaction Abend/Dump Code” on page X-3 for information about X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 5.

00E50730

Explanation: A thread being processed through thread deallocation was found to still have an outstanding unit of recovery and is marked as being inflight. This is a subsystem termination reason code.

System Action: The DB2 subsystem is terminated with this reason code.

Operator Response: Contact the system programmer.

System Programmer Response: Scan the SYS1.LOGREC entries and associated console listing for one or more DB2 abends prior to subsystem termination. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A DB2 dump of the error is requested and a record is entered into SYS1.LOGREC. Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

This abend reason code is issued by the following CSECTs: DSNVIALC

X'E6.....' Codes

This chapter contains Instrumentation Facility abend codes.

00E60000

Explanation: This reason code is used to indicate that information has been added to the SDWA variable recording area (VRA) following the data provided by the DSNWRCRD service. This is done so that anyone examining a SYS1.LOGREC entry can determine, from the reason code, what additional data has been placed in the VRA. The reason code is the first data item in the VRA, as mapped by macro IHAVRA.

This abend code is issued by the following CSECT: DSNWVCM1

System Action: The command being processed, failed. The DB2 subsystem remains operational.

Problem Determination: The diagnostic data table (DSNDDDT control block) should appear in the SDWA variable recording area.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 5.

00E60008

Explanation: This reason code is used to indicate that MVS and DB2 dispatching units do not match. There is an internal DB2 dispatching unit problem which should not occur.

This abend code is issued by the following CSECT: DSNWVAPR

System Action: The function being traced is abended. The DB2 subsystem remains operational and the functional recovery of TRACE will retry if possible.

Problem Determination: The problem is either the ASID of EB primary (EBPASCE->ASCE->ASID) did not match the EPAR ASID, or the ASID of the EB home (EBHASCE->ASCE->ASID) did not match the MVS home dispatching unit (PSAAOLD->ASCB->ASID), or the PSATOLD did not match the EBEXU field. Analyze the dump and previous SYS1.LOGREC entries do isolate the cause of the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E60086

Explanation: An internal logic problem occurred trying to obtain the MVS CML lock.

This abend reason code is issued by the following CSECTs: DSNWARDA, DSNWVOPX

System Action: The request is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Request the SYS1.LOGREC and SVC dump. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 5.

00E60087

Explanation: An internal error occurred attempting to free the MVS CML lock.

This abend reason code is issued by the following CSECTs: DSNWARDA, DSNWVOPX

System Action: The request is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Request the SYS1.LOGREC and SVC dump. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This error is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 5.

00E60088

Explanation: An internal logic problem occurred on a READS request. The event is being traced asynchronously, which is not allowed.

This abend reason code is issued by the following CSECT: DSNWVSR2

System Action: The request is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Request the SYS1.LOGREC and SVC dump. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 5.

00E60100 through 00E60199

Explanation: The reason codes 00E60100 through 00E60199 are used by the instrumentation facility component (IFC) when a trace event occurs for which IBM service personnel have requested a dump using the IFC selective dump service aid.

This abend reason code is issued by the following CSECT: DSNWVAPR

System Action: The abending agent might be retried or terminated, depending upon the serviceability dump request.

Problem Determination: The abend is issued on the occurrence of a specified trace event. A SVC dump is taken to the SUS1.DUMPxx data set. Problem determination methods depend on the condition that IBM service personnel are attempting to trap.

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X'E6.....' Reason Codes

This chapter contains Instrumentation Facility (IFI) reason codes. The first number is the return code; the number after the slash is the reason code. Information on the Instrumentation Facility can be found in Appendix E (Volume 2) of *Administration Guide*.

00000004/00E60800

Explanation: The command was completed, but the return area was not large enough to accommodate all the output messages. The return area contains the last complete message segment that fit. The IFCABM field in the IFCA indicates the number of bytes moved to the return area. The IFCABNM field in the IFCA indicates the number of bytes which were not moved because the return area was too small.

This reason code is issued by the following CSECT: DSNWACMD

User Response: Allocate more storage for the return area, if desired, and reissue the request.

00000004/00E60801

Explanation: The command was partially completed, but an internal error was encountered. Check the return area for a message.

This reason code is issued by the following CSECT: DSNWACMD

User Response: Dependent upon the message in the return area.

00000004/00E60802

Explanation: The instrumentation facility request was partially completed, but the return area was not large enough to accommodate all the output. The return area contains the last complete record that fit. The IFCABM field in the IFCA indicates the number of bytes moved to the return area for the READS or READA request. The IFCABNM field in the IFCA indicates the number of bytes that could not fit in the return area.

This reason code is issued by the following CSECT: DSNWARDA

User Response: Allocate more return area storage and reissue the request.

00000004/00E60803

Explanation: No data was returned from the READA request because none was available. Either the OPn storage buffer was empty or the application program had already retrieved all the trace records.

This reason code is issued by the following CSECT: DSNWARDA

User Response: None. No data existed to be read.

00000004/00E60804

Explanation: No data was returned from the READS or READA request, or no data was returned for at least one of the requested IFCIDs on a READS request for multiple IFCIDs. This can happen for one of these reasons:

- The destination OPx value specified in the IFCA was not active for a READA request.
- The qualification information specified did not match a process for a READS request.
- No information was available for a READS request.
- The user return area on a READS or READA request was too small to receive even a single record.

This reason code is issued by the following CSECTs: DSNWAAPI, DSNWARDA, DSNWALCK, DSNWARDS

User Response: If the OPn destination was not active, then activate the OPn destination or issue the request using an OPn destination that is active.

If the IFCABNM field (number of bytes not moved) is nonzero, then the user return area is too small. Increase the size of the user return area, and resubmit the request.

00000004/00E60805

Explanation: The request for information resulted in an abend.

This reason code is issued by the following CSECT: DSNWAAPI

User Response: Dependent upon the abend code in the log record. Refer to the IFCABM field in the IFCA (the number of bytes moved to the return area) to determine if partial information was returned.

Problem Determination: See EREP log record in SYS1.LOGREC. See the Environmental Record Editing and Printing program (EREP) User's Guide and Reference for instructions on how to print SYS1.LOGREC.

00000004/00E60806

Explanation: The request for information resulted in an abend, perhaps because one of the parameters on the call was invalid. If a SYSUDUMP or SYSABEND DD statement is present in your JCL, you will receive an abend dump.

This reason code is issued by the following CSECT: DSNWAAPI

User Response: Dependent upon the abend code.

Problem Determination: See abend code in abend dump or EREP log record in SYS1.LOGREC. Examine the parameter list. Among other possible causes, the high-order bit of the last parameter must be on in order to indicate the end of the parameter list. See the Environmental Record Editing and Printing program (EREP) User's Guide and Reference for instructions on how to print SYS1.LOGREC.

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00000004/00E60807

Explanation: The request for information resulted in an abend, possibly because either the ACE token passed was invalid or became invalid during processing. In this case, no SDUMP is taken and control returns to the application program.

This reason code is issued by the following CSECT: DSNWAAPI

User Response: If your application program does not pass a token, you can reissue the previous IFI request from the application program.

Problem Determination: If the application program passes an ACE token, the token is probably invalid.

00000004/00E60808

Explanation: The request for information resulted in an abend. Perhaps a DB2 structure became invalid while your application program was using it.

This reason code is issued by the following CSECT: DSNWAAPI

User Response: To reduce the chance of this occurring, issue requests from a task with a higher priority than DB2 and its users. Certain requests (for example, a READS for IFCIDs 0147 and 0148) are more likely to encounter this type of problem. The request may be reissued. No SDUMP is taken and control is returned to the application program.

00000004/00E60809

Explanation: An IFI READS request for the IDCID 129 record was only partially successful. The request attempted to obtain CIs that have yet to be written. All available complete CIs were returned.

This reason code is issued by the following CSECT: DSNWALOG

User Response: No response is needed. All available CI's were returned.

Problem Determination: Examine the WQALLRBA and WQALLNUM fields of the READS request. (WQALLRBA + (WQALLNUM * 4KB)) > ending RBA of the last complete CI in the log.

00000004/00E60810

Explanation: A READS request for IFCID 0254 was partially successful. The return area was not large enough to accommodate all output. The return area contains as many complete records as can fit.

User Response: Allocate more return area storage and reissue the request.

Problem Determination: This reason code is issued by the following CSECT: DSNWATGS

00000004/00E60811

Explanation: On a READS request for IFCID 0254, no data was returned because no qualified group buffer pools were connected.

User Response: Ensure that the qualified group buffer pools are connected and reissue the request.

Problem Determination: This reason code is issued by the following CSECT: DSNWATGS

00000004/00E60812

Explanation: On a READS request for IFCID 0306, log records are returned. The end-of-scope log point has been reached and no position is held in the log. The end-of-scope log point is returned in field QW0306ES, and the number of records is returned in field QW0306CT from the QW0306 section.

User Response: A WQALMODT request to terminate the log position might be necessary to release held resources, or a WQALMODF request after a pause to initiate a first call.

Problem Determination: This reason code is issued by the following CSECT: DSNWALRS

00000004/00E60813

Explanation: On a READS request for IFCID 0306, no data is returned because no log records were found that met the criteria. No position is held in the log. The end-of-scope log point is returned in field QW0306ES and zero is returned in field QW0306CT from the QW0306 section.

User Response: If this is caused by a WQALMODN call, issue a WQALMODF call after a pause to initiate a first call. However, there is still no guarantee that log records will be returned that meet the criteria.

Problem Determination: This reason code is issued by the following CSECT: DSNWALRS

00000004/00E60814

Explanation: On a READS request for IFCID 0306, a WQALMODT call was invoked to terminate log position when no position is held in the log.

Problem Determination: This reason code is issued by the following CSECT: DSNWALRS

00000008/00E60820

Explanation: The command request did not complete normally. Check the IFCABM field in the IFCA to see if any message segments have been returned. There are many reasons for this condition, including:

- Command authorization failure
- Command processor abend
- Command syntax error
- Command output limit being exceeded.

This reason code is issued by the following CSECT: DSNWACMD

Problem Determination: To determine the reason for the failure, analyze the message or messages that are returned.

00000008/00E60821

Explanation: The request was not processed because a specified IFCID is not valid for the READS or WRITE function.

This reason code is issued by the following CSECT: DSNWAAPI

User Response: Remove or replace the invalid IFCID.

Problem Determination: Check the IFCA diagnostic area (IFCAD) for the IFCID in error.

00000008/00E60823

Explanation: The WRITE request was not processed because the IFCID specified was not active.

This reason code is issued by the following CSECT: DSNWAAPI

User Response: Activate the IFCID or reissue the request with a different IFCID.

00000008/00E60824

Explanation: An authorization failure occurred. On a READA request, the ownership token specified did not match the owner of an active trace, or on either a READA or READS request the user did not have the correct monitor authority.

This reason code is issued by the following CSECTs: DSNWARDA, DSNWARDS

User Response: Reissue the request with the correct ownership token for the desired OPn destination or obtain the appropriate monitor authority, as needed.

Problem Determination: Examine the specified ownership token and the monitor authority of the user.

00000008/00E60825

Explanation: Stack storage was not available for copying the output area.

This reason code is issued by the following CSECTs: DSNWAAPI, DSNWARDS

00000008/00E60826

Explanation: On a READA request, the destination specified did not match a valid destination.

This reason code is issued by the following CSECT: DSNWARDA

User Response: Reissue the request using a valid destination.

00000008/00E60827

Explanation: On a READA request, the destination specified did not have an instrumentation facility buffer assigned. The application program must start a trace to the destination specified before attempting a READA request.

This reason code is issued by the following CSECT: DSNWARDA

User Response: Start a trace to the desired destination, and reissue the request.

00000008/00E60828

Explanation: On a READS request for IFCID 149 or 150, IRLM was not able to return all the data that was applicable to the queried agent or resource. IRLM can return a maximum of 32KB of lock data about a given agent or resource. If IRLM notifies DB2 that more than 32KB of lock data is applicable for a given agent or resource, then DB2 does not request the information from IRLM. No data is returned, and reason code 00E60828 is issued by IFI.

This reason code is issued by the following CSECT: DSNWALCK

User Response: The READS request for IFCID 149 OR 150 continues to return code 00E60828 until less than 32KB of lock data is applicable to the given agent or resource that the READS request for IFCID 149 or 150 is querying. You can continue to issue READS requests for IFCID 149 or 150 with no guarantee that the volume of lock data has decreased.

00000008/00E60829

Explanation: On a READS request, an unexpected return code was received from IRLM.

This reason code is issued by the following CSECT: DSNWALCK

00000008/00E60830

Explanation: An unexpected return code was received on a READS request.

This reason code is issued by the following CSECT: DSNWARDS

User Response: Reissue the request. If the condition persists, contact your IBM support center and tell them the message you are encountering.

00000008/00E60831

Explanation: A number of abends have occurred while processing IFI requests resulting in the disabling of all IFI request and MONITOR trace processing.

This reason code is issued by the following CSECT: DSNWAAPI

User Response: Issue a -START TRACE to clear the condition. This condition may not be cleared by issuing the -START TRACE command via instrumentation facility interface COMMAND function.

Problem Determination: Obtain a copy of the system or terminal log. If a dump was produced, have it printed. Print a copy of the contents of SYS1.LOGREC for the time period involved. Forward these items along with a copy of the system log to the systems programmer.

00000008/00E60832

Explanation: The IFCID specified on a READS was not active.

This reason code is issued by the following CSECT: DSNWAAPI

User Response: Issue a -START TRACE for monitor class 1.

00000008/00E60833

Explanation: A request for storage from the log-read storage pool has failed due to exhaustion of available storage or four log-read read requests are already holding storage from the pool.

This reason code is issued by the following CSECT: DSNWALOG

User Response: Allow other active READS requests for IFCID 129 to finish and then reissue the request.

Problem Determination: Examine the activity of READS requests for IFCID 129. If requests for more than 64 CIs are active at the same time, storage problems may occur.

00000008/00E60834

Explanation: An unexpected return code was received from log manager macro DSNJOLGR.

This reason code is issued by the following CSECT: DSNWALOG

User Response: Reissue the request. If the problem persists, contact your IBM service representative.

Problem Determination: Examine the validity of WQALLRBA and WQALLNUM fields.

00000008/00E60835

Explanation: An unexpected return code was received from Log Manager Macro DSNJLGR.

This reason code is issued by the following CSECT: DSNWALOG

User Response: Reissue the request. If the problem persists, contact your IBM service representative.

Problem Determination: Examine the validity of WQALLRBA and WQALLNUM fields.

00000008/00E60836

Explanation: An unexpected return code was received from log manager macro DSNJCLGR.

This reason code is issued by the following CSECT: DSNWALOG

User Response: Reissue the request. If the problem persists, contact your IBM service representative.

Problem Determination: Examine the validity of WQALLRBA and WQALLNUM fields.

00000008/00E60837

Explanation: On an IFI READS request for IFCID 1 or 2, storage was not available to satisfy the request.

This reason code is issued by the following CSECT: DSNWASTA

User Response: Reissue the request. This condition is only temporary and should be extremely rare. If this condition persists, contact your IBM support representative, and tell them the message you are encountering.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5.

00000008/00E60838

Explanation: On a READS request for IFCID 0254, a resource was unavailable while attempting to collect statistics for a specific group buffer pool.

User Response: Reissue the request. If the problem persists, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The group buffer pool name and the reason code returned from the internal macro are saved in fields IFCAGBPN and IFCAR0B.

This reason code is issued by the following CSECT: DSNWATGS

00000008/00E60839

Explanation: On a READS request for IFCID 149 or 150, IRLM was not able to return all the data that was available to the queried agent or resource. IRLM can return a maximum of 32KB of lock data about an agent or resource. If IRLM notifies DB2 that more than 32KB of lock data is available for that agent or resource, DB2 requests the information from IRLM, but returns up to 32KB of information to the application and IFI issues this reason code.

Problem Determination: This reason code is issued by the following CSECT: DSNWALCK

0000000C/00E60840

Explanation: An invalid function was specified. The function specified does not match one of the IFI supported functions.

This reason code is issued by the following CSECT: DSNWAAPI

User Response: Correct the function field of the DSNWLI call so that it is a left-justified, 8-character field containing WRITE, READA, READS, or COMMAND.

0000000C/00E60841

Explanation: The IFCA was specified incorrectly. The return code and reason code will be placed at the correct offset in the erroneous IFCA. The IFCA length might be invalid, or the IFCA eye-catcher (IFCAID) might be missing.

This reason code is issued by the following CSECT: DSNWAAPI

User Response: Examine the length of the IFCA and the eye-catcher field of the IFCA. Correct any mistakes.

Problem Determination: See the return and reason codes placed at the correct offset in the erroneous IFCA.

0000000C/00E60842

Explanation: The return area was specified incorrectly. The length might be invalid. The length of the return area must be a fullword. The valid range for the return area length on IFI READS requests is X'000000064' to X'7FFFFFFF'. The valid range for the return area length on all other IFI requests is X'000000064' to X'00100000'.

This reason code is issued by the following CSECT: DSNWAAPI

User Response: Respecify the return area length to conform to the valid range.

0000000C/00E60843

Explanation: The IFCID area was specified incorrectly. The length might be invalid. The valid range is from X'0006' to X'0044'.

This reason code is issued by the following CSECT: DSNWAAPI

User Response: Respecify the IFCID area length field to conform to the valid range.

Problem Determination: Examine the length field of the IFCID area.

0000000C/00E60844

Explanation: The qualification area was specified incorrectly. The length might be invalid, or the WQAL eye-catcher (WQALEYE) might be missing.

This reason code is issued by the following CSECT: DSNWAAPI

User Response: Correct any incorrect specification of the qualification area length and eye-catcher fields.

Problem Determination: Examine the length and eye-catcher fields of the qualification area.

0000000C/00E60845

Explanation: An IFCID specified for a READS or a WRITE request was invalid.

This reason code is issued by the following CSECT: DSNWAAPI

User Response: Replace the errant IFCID with a valid one or remove it from the request.

Problem Determination: Check the IFCA diagnostic area for the IFCID in error.

0000000C/00E60846

Explanation: The output area was specified incorrectly.

This reason code is issued by the following CSECT: DSNWAAPI

User Response: Correct either the output area length or the output area parameter on the DSNWLI call, depending on which one is in error.

Problem Determination: The length might be invalid; the valid range is from X'000A' to X'1000'. Also, the output area parameter on the DSNWLI call may have been specified as zero. The output area parameter must point to a valid output area.

0000000C/00E60847

Explanation: The buffer information area was specified incorrectly.

This reason code is issued by the following CSECT: DSNWAAPI

User Response: Check that the buffer information area has an eye-catcher value of 'WBUF' and a length value equal to the length of 'WBUF' and correct any invalid values.

Problem Determination: The length might be invalid, or the 'WBUF' eye-catcher might be missing.

0000000C/00E60849

Explanation: The parameters are specified incorrectly on the IFI command request.

This abend reason code is issued by the following CSECT: DSNWAAPI

User Response: If the selective dump function is not being used, check that the parameters are specified correctly on the IFI request. If the selective dump function is being used, notify the system programmer.

Problem Determination: If the selective dump function is not being used, check that the parameters are correctly specified on the command request. Among other possible causes, the high-order bit of the last parameter must be on in order to indicate the end of the parameter list. For assembler users, this can be done by using the VL option on the call. Another possible cause is the sixth parameter is specified on the IFI request. The sixth parameter is reserved for the selective dump function.

0000000C/00E60850

Explanation: An invalid WQALLTYP value was specified on a READS request.

This abend reason code is issued by the following CSECT: DSNWARDS

User Response: Correct the invalid WQALLTYP value and reissue the request.

Problem Determination: Examine the validity of the WQALLTYP field. It must be 'CI'.

0000000C/00E60851

Explanation: An invalid WQALLMOD value was specified on a READS request.

This abend reason code is issued by the following CSECT: DSNWALOG

User Response: Correct the invalid WQALLMOD value and reissue the request.

Problem Determination: Examine the validity of the WQALLMOD field. It must be 'F' or 'R'.

0000000C/00E60852

Explanation: An invalid WQALLRBA value was specified on a READS request. The starting CI log RBA must end in X'000'.

This abend reason code is issued by the following CSECT: DSNWARDS

User Response: Correct the invalid WQALLRBA value and reissue the request.

Problem Determination: Examine the validity of the WQALLRBA field. It must end in X'000'.

0000000C/00E60853

Explanation: An invalid WQALLNUM value was specified on a READS request. The valid range is X'0001' to X'0007'.

This abend reason code is issued by the following CSECT: DSNWARDS

User Response: Correct the invalid WQALLNUM value and reissue the request.

Problem Determination: Examine the validity of the WQALLNUM field. The valid range is X'0001' to X'0007'.

0000000C/00E60854

Explanation: The specified WQALLRBA was not in the active log.

This abend reason code is issued by the following CSECT: DSNWALOG

User Response: Correct the invalid WQALLRBA value and reissue the request.

Problem Determination: Examine the validity of the WQALLRBA field. Check the beginning RBA of the active log. The WQALLRBA field must be greater than or equal to the beginning RBA value of the active log. The RBA of the first CI in the active log will be returned in field IFCAFCI or it can be determined by running the print log map (DSNJU004) utility.

0000000C/00E60855

Explanation: A log RBA value past the end of the current active log was specified. The specified WQALLRBA value was beyond the end of the log. The CI has yet to be written.

This abend reason code is issued by the following CSECT: DSNWALOG

User Response: Correct the invalid WQALLRBA value and reissue the request.

Problem Determination: Examine the validity of the WQALLRBA field. Check the ending RBA of the log. The WQALLRBA field must be less than the ending RBA value.

0000000C/00E60856

Explanation: No complete CI's are available from the RBA specified in WQALLRBA.

This abend reason code is issued by the following CSECT: DSNWALOG

User Response: Lower the value in WQALLRBA by at least X'1000' or wait until at least one CI has been written beyond the RBA specified in WQALLRBA and reissue the request.

Problem Determination: Examine the WQALLRBA field and determine whether or not one complete CI beyond WQALLRBA has been written to the log.

0000000C/00E60857

Explanation: This code indicates that an IFI READS request for IFCID 185 contained an invalid WQALCDCD value.

System Action: Control returns to the user program with return code 0000000C in field IFCARC1 and reason code 00E60857 in field IFCARC2.

User Response: WQALCDCD is a user-specified field in the QUAL_AREA of an IFI READS for IFCID 185. Reissue the request with a valid WQALCDCD value. For IFI READS requests for IFCID 185, the valid values are A, Y, and N. If a value is not specified, a value of A is used as the default.

0000000C/00E60858

Explanation: This code indicates that an IFI READS request for IFCID 185 was denied because the system parameters indicate that data capture processing is not allowed on this DB2 system. The system parameter field SPRMCDC is set to 'no'.

System Action: Control returns to the user program with return code 0000000C in field IFCARC1 and reason code 00E60858 in field IFCARC2.

User Response: Inspect system parameter SPRMCDC. If change data capture is not allowed on this system, consult with the database administrator to determine if the system parameter should be changed to 'yes' to allow DB2 data capture processing.

00000008/00E60859

Explanation: An IFI READS request for IFCID 129 was made to pass the last partially full log CI to the log exit, but the log exit is not active. Either the log exit (DSNJW117) was not installed, or an error in the exit has deactivated the exit.

This reason code is issued by the following CSECT: DSNWALOG

User Response: Either install the log capture exit, or look for message DSNJ150E indicating that the log capture exit has been deactivated. See the description for DSNJ150E for more information about reactivating the log capture exit.

0000000C/00E60860

Explanation: On a READS request for IFCID 0254, an error was encountered while collecting statistics for a group buffer pool.

User Response: Reissue the request. If the problem persists, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The group buffer pool name is saved in field IFCAGBPN. The reason and return code from the internal macro are saved in fields IFCAR0B and IFCAR1B.

This reason code is issued by the following CSECT: DSNWATGS

0000000C/00E60861

Explanation: An invalid WQALGBPN value was specified on a READS request.

User Response: Correct the invalid WQALGBPN value and reissue the request.

Problem Determination: Examine the validity of the WQALGBPN field. The qualifier is an 8-byte group buffer pool name in which an imbedded X'00' is used as a pattern character.

This reason code is issued by the following CSECT: DSNWATGS

00000008/00E60863

Explanation: On a READS request for IFCID 0306, a resource was unavailable while attempting to read the log.

User Response: Reissue the request. If the problem persists, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This reason code is issued by the following CSECT: DSNWALRS

00000008/00E60864

Explanation: On a READS request for IFCID 0306, the return area supplied was not large enough to hold one log record. No log record is returned, but position is held in the log.

User Response: Increase the size of the return area and issue a WQALMODN request. If the problem persists, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The size of the return area required is returned in field IFCABSRQ of the IFCA return area.

This reason code is issued by the following CSECT: DSNWALRS

00000008/00E60865

Explanation: On a READS request for IFCID 0306, no data is returned for a WQALMODF call because log position is already held in the log, possibly by a previous WQALMODF call.

User Response: You might want to use a WQALMODN request instead.

Problem Determination: This reason code is issued by the following CSECT: DSNWALRS

00000008/00E60866

Explanation: On a READS request for IFCID 0306, no data is returned for a WQALMODN call because no log position is held in the log.

User Response: A WQALMODF call might be necessary before a WQALMODN call.

Problem Determination: This reason code is issued by the following CSECT: DSNWALRS

0000000C/00E60867

Explanation: An invalid WQALLRBA value was specified on a READS request for IFCID 0306. The specified value exceeds the end-of-log.

User Response: Correct the WQALLRBA field. A pause might also be necessary before you issue a WQALMODF request again.

Problem Determination: This reason code is issued by the following CSECT: DSNWALRS

0000000C/00E60868

Explanation: The return area was specified incorrectly for IFCID 0306. The return area did not reside in ECSA storage.

User Response: Respecify the return area and make sure that it resides in ECSA storage.

Problem Determination: This reason code is issued by the following CSECT: DSNWALRS

0000000C/00E60869

Explanation: An invalid WQALLCRI field was specified on a READS request for IFCID 0306.

User Response: Correct the invalid WQALLCRI field and reissue the request.

Problem Determination: Check the validity of the WQALLCRI field. It must be X'00'.

This reason code is issued by the following CSECT: DSNWALRS

0000000C/00E60870

Explanation: An invalid WQALLOPT field was specified on a READS request for IFCID 0306.

User Response: Correct the invalid WQALLOPT field and reissue the request.

Problem Determination: Check the validity of WQALLOPT field. It must be X'00' or X'01'.

This reason code is issued by the following CSECT: DSNWALRS

00000008/00E60871

Explanation: On a READS request for IFCID 306, log records are returned, but data is not decompressed as requested.

This reason code is issued by the following CSECT: DSNWALRS

Problem Determination: See the reason code in field
QW0306DG to determine why decompression was not per-
formed. One reason code can be 00C90064, which means that
the decompression dictionary changed since the log record
was written.

00000008/00E60872

Explanation: On a READS request for IFCID 0306, no data is returned for a WQALMODD call because log position is already held in the log, possibly by a previous WQALMODF or WQALMODN call.

User Response: If WQALMODD is desired, make sure that a WQALMODT call has been issued first.

Problem Determination: This reason code is issued by the following CSECT: DSNWALRS

0000000C/00E60873

Explanation: On a READS request for IFCID 0306, no data is returned for a WQALMODF call because the RBA supplied was too old. This is because DB2 has migrated into and out of or out of data sharing mode.

User Response: The change of mode into and out of data sharing also changes the log sequencing from RBA to LRSN and back to RBA. A log read application that is sensitive to log sequencing should take an appropriate action. A cold start of the application might be necessary.

Problem Determination: This reason code is issued by the following CSECT: DSNWALRS

X'E6.....' Abend Codes

This chapter contains Instrumentation Facility (IFI) abend codes.

00E60886

Explanation: This reason code is used to indicate that an invalid IAMQ function was passed to module DSNWVZXT. This problem should not occur.

This abend code is issued by the following CSECT: DSNWVZXT

System Action: The function requested is abended. The DB2 subsystem remains operational and the functional recovery will retry if possible.

Problem Determination: The IAMQ function requested does not match a function handled by DSNWZXT. Analyze the dump and previous SYS1.LOGREC entries do isolate the cause of the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E60887

Explanation: The reason code is set by the Instrumentation Statistics Facility FRR routine when an abend condition occurs during statistics gathering. The reason code only appears in the VRA data of SYS1.LOGREC to indicate the WWAB block exists in the variable recording area following the standard DB2 information.

This code is issued by the following CSECT: DSNWVZSS

System Action: Depending on the number of errors the Instrumentation Statistics Facility may be turned off. The FRR will attempt a retry to RTM to keep the DB2 subsystem operational.

System Programmer Response: The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA). If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Normally the standard SYS1.LOGREC entries provide the necessary information to isolate the failing module. The WWAB control block in the variable recording area provides the resource manager RMID last called (WWABRMID) and the RMID of which resource manager Instrumentation Statistics Facility called when the failure occurred (WWABFRMS). If WWABFRMS is binary zero, then the error occurred in the Instrumentation Statistics Facility.

00E60888

Explanation: The reason code is set by the Instrumentation Accounting Facility FRR routine when an abend condition occurs during the accounting function. The reason code only appears in the VRA data of SYS1.LOGREC to indicate the WWAB block exists in the variable recording area following the standard DB2 information.

This code is issued by the following CSECT: DSNWVZSA

System Action: Depending on the number of errors the Instrumentation Accounting Facility may be turned off. The FRR will attempt a retry to RTM to keep the DB2 subsystem operational.

System Programmer Response: The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA). If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Normally the SYS1.LOGREC standard entries provide the necessary information to isolate the failing module. The WWAB control block in the variable recording area provides the resource manager RMID last called (WWABRMID) and the RMID of which resource manager Instrumentation Statistics Facility called when the failure occurred (WWABFRMS). If WWABFRMS is binary zero, then the error occurred in the Instrumentation Accounting Facility.

00E60889

Explanation: The reason code is set by the Instrumentation
Statistics Facility FRR routine when an abend condition occurs
during statistics gathering. The reason code only appears in
the VRA data of SYS1.LOGREC to indicate the FRT block
exists in the variable recording area following the standard
DB2 information.

This code is issued by the following CSECT: DSNWAAPI

System Action: Depending on the number of errors the
Instrumentation Statistics Facility may be turned off. The FRR
will attempt a retry to RTM to keep the DB2 subsystem opera-
tional.

System Programmer Response: The recovery routine for
the CSECT issuing this reason code records information in the
variable recording area (VRA). If you suspect an error in DB2,
refer to Section 3 of *Diagnosis Guide and Reference* for infor-
mation on identifying and reporting the problem.

Problem Determination: This reason code indicates that the
IFC FRR tracking area has been recorded.

00E60900

Explanation: This is an informational code. One or more data rows defined with DATA CAPTURE CHANGES might not have been retrieved.

This abend code is issued by the following CSECTs: DSNILEDA, DSNWACDC

System Action: All successfully retrieved data rows defined with DATA CAPTURE CHANGES are returned in the return area. One header instance of 0185 is returned for each data row associated with a failure or warning. A reason code in field QW0185RC in the header indicates the reason for the failure or warning.

Problem Determination: Inspect the reason code in QW0185RC to determine the cause of each failure or warning.

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00E60901

Explanation: The available buffer is not large enough to hold the largest 0185 record instance.

This abend code is issued by the following CSECT: DSNILESP

System Action: No data is returned.

User Response: Reissue the IFI READS request for IFCID 0185 with a larger return area. The suggested size of the new area is 4KB more than the original size.

00E60902

Explanation: The IFI READS request for IFCID 0185 is invalid. The READS request tried to retrieve captured DB2 table changes, but no data was captured for the current SQL statement.

This abend code is issued by the following CSECT: DSNILEDA

System Action: No data is returned.

User Response: Ensure that the IFI READS request follows the current SQL statement and precedes any subsequent SQL statement. Captured data must be retrieved at the time of the SQL call.

00E60903

Explanation: One or more data rows marked with DATA CAPTURE CHANGES were not retrieved. In addition, there is insufficient space in the return area to hold all the data in an IFI READS request for IFCID 0185. This is a combination code for 00E60900 and 00E60802.

This abend code is issued by the following CSECT: DSNILESP

System Action: As many complete 0185 records as can fit are returned in the return area. Also, one 0185 header record is returned for each failed data row. The reason code in field QW0185RC in the header indicates the reason for the failure.

User Response: Refer to the description of reason codes 00E60900 and 00E60802 for details.

00E60904

Explanation: The IFI READS request for IFCID 0185 could not be executed successfully because a resource was not available. Some 0185 record instances might have been returned to the return area before the problem occurred.

This abend code is issued by the following CSECT: DSNILEDA

System Action: The last 0185 record instance returned is type D (QW0185TP = D). Field QW0185RC contains a reason code for the specific unavailable resource. In addition, the data portion (QW0185DR) of this record instance contains the following message:

```
UNSUCCESSFUL EXECUTION CAUSED BY AN
UNAVAILABLE RESOURCE. REASON reason,
TYPE OF RESOURCE type,
AND RESOURCE NAME name
```

In the message, *reason* is identical to field QW0185RC. The variables *type* and *name* identify the specific resource that is unavailable at the time.

User Response: Retrieve all returned record instances. Examine the reason code (QW0185RC) for each instance for other possible errors or warnings. Use the reason code in QW0185RC and the error message in QW0185DR to determine why the resource is unavailable. Refer to "Resource Types" on page X-7 in Appendix B. Problem Determination for an explanation of resource type codes. Refer to "Section 4. DB2 Codes" on page 4-1 for an explanation of the given reason code.

00E60A00

Explanation: A down-level data description was detected. A requester specified no data description to be returned in an IFI READS request for IFCID 0185. That is, the WQALCDCD field of the qualification area is set to N, but a description change (ALTER TABLE ADD) that requires a refresh of the data description occurred. This reason code does not apply to the success or failure of the IFI request, but rather to the status of the data in the IFCID 0185 record.

This abend code is issued by the following CSECT: DSNILEDS

System Action: This reason code is only issued once for each table within each SQL scope. The 0185 record instance that contains this reason code has the header portion only. Moreover, contents of all time stamp, log RBA, and operation code fields in the header are all zeros.

User Response: The requester can issue an SQL DESCRIBE to get the new description, or can consider changing the DataPropagator NonRelational (DPropNR) exit routine to set WQALCDCD to A or Y.

00E60A01

Explanation: The data row marked with DATA CAPTURE CHANGES is rejected by the installation-defined edit procedure 'proc-name' for the object table. This reason code does not apply to the success or failure of the IFI request, but rather the status of the data in the IFCID 0185 record.

This abend code is issued by the following CSECT: DSNILEDR

System Action: The following message is returned in the data area of 0185:

```
VIOLATION OF INSTALLATION DEFINED
EDIT PROCEDURE proc-name.
REASON CODE: reason-code
```

In the message, *proc-name* is the edit procedure name and *reason-code* is EXPLRC2 returned by the edit procedure.

User Response: Examine the edit procedure for any errors. If it is not an edit procedure error, determine the requirements imposed by the edit procedure.

00E60A08

Explanation: The following message is returned in the data portion of the data row area in the 0185 trace record:

```
COLUMN column_name ON TABLE table_name IN VIOLATION
OF INSTALLATION DEFINED FIELD PROCEDURE.
RT: return_code, RS: reason_code,
MSG: message_token.
```

An installation field procedure returned an error indicated by *return_code* for column *column_name* on table *table_name*. Use *return_code* to determine the problem. The *return code* can be:

4 Invalid value on decode
8 Invalid parameter value
12 Field procedure error on any function

Use *reason_code* and *message_token* for additional information. This reason code does not apply to the success or failure

of the IFI request, but to the status of the data in the IFCID 0185 record.

This abend code is issued by the following CSECT: DSNXRCDC

System Action: Whenever this reason code is present in the QW0185RC field in the record header, no record is returned in the data row section for this table. The message listed above takes its place. The length of the record corresponds to the message length.

Programmer Response: Examine the field procedure for any errors. If it is not a field procedure error, determine the requirements imposed by the field procedure.

00E60A09

Explanation: The following message is returned in the data portion of the data row area in the 0185 trace record:

```
INCORRECT DATA RETURNED FROM FIELD PROCEDURE fieldproc_name
FOR TABLE table_name AND COLUMN column_name,
MSG: message_token
```

Unexpected data was returned from field procedure *fieldproc_name* and for column *column_name* on table *table_name*. For more information see *message_token*. This reason code does not apply to the success or failure of the IFI request, but to the status of the data in the IFCID 0185 record.

This abend code is issued by the following CSECT: DSNXRCDC

System Action: Whenever this reason code is present in the QW0185RC field in the record header, no record is returned in the data row section for this table. The message listed above takes its place. The length of the record corresponds to the message length.

Programmer Response: Correct the field procedure so that it returns values and their descriptions that are mutually consistent.

00E60A0A

Explanation: The following message was returned in the data portion of the data row area in the 0185 trace record:

```
AN INSTALLATION FIELD PROCEDURE HAS RETURNED A RETURN CODE
IN REGISTER 15 OTHER THAN AN EXPECTED 0 OR 4
```

This indicates that an installation field procedure returned an unexpected error. This reason code does not apply to the success or failure of the IFI request, but to the status of the data in the IFCID 0185 record.

This abend code is issued by the following CSECT: DSNXRCDC

System Action: Whenever this reason code is present in the QW0185RC field in the record header, no record is returned in the data row section for this table. The message listed above takes the place of the record. The length of the record corresponds to the message length.

Programmer Response: Examine the field procedure for the specific return code generated.

00E60A0B

Explanation: This is a warning code, and does not represent an error. For the corresponding data row with this reason code in field QW0185RC, a date or time column value was returned in the ISO format, even though the date/time installation option was specified as LOCAL. Invocation of local date and time exits is not supported for captured data. This reason code does not apply to the success or failure of the IFI request, but to the status of the data in the IFCID 0185 record.

This abend code is issued by the following CSECT: DSNXRCDC

System Action: A date or time column value was returned in the ISO format even though the installation option was specified as LOCAL.

Programmer Response: The requester needs to be aware that a date or time was returned in ISO format since the LOCAL date and time installation option, which was in effect at the time of capture, is not supported for data capture.

00E60B01

Explanation: An installation field procedure wrote beyond the end of the output buffer.

This abend code is issued by the following CSECT: DSNXRCDC

System Action: The execution unit requests an SVC dump, and terminates abnormally.

Operator Response: Notify the system programmer.

System Programmer Response: Correct the field procedure. See the Field Procedures in Appendix B (Volume 2) of *Administration Guide*.

Problem Determination: At the time of abend the register contents are:

R2 The first 4 characters of the field procedure name
R3 The second 4 characters of the field procedure name

00E60B02

Explanation: Invalid data was returned from the edit procedure. The data is invalid for one or more of these reasons:

- The first byte or the last byte of the input record was modified by the exit.
- The length of the edited data is greater than the maximum allowed for this row, or less than one.
- The exit returned a row that overran the output area.

This abend code is issued by the following CSECT: DSNILEDR

System Action: An execution unit requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00E60B03

Explanation: An internal inconsistency was detected by DB2 during data propagation processing.

This abend code is issued by the following CSECTs: DSNXIBCD, DSNXIBCL, DSNXIBC2, DSNXIBGE

System Action: An execution unit requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Notify the system programmer.

Problem Determination: At the time of abend, register 2 points to the error message. Collect the following diagnostic items listed in Appendix B, "Problem Determination": 1, 2, 5.

00E60B04

Explanation: During the retrieval of captured table data in preparation for propagation to IMS, an invalid data type was found. This data type is not supported for propagation from DB2 to IMS. Since the invalid data type cannot be returned to the Data Propagator (DPROP) exit routine, processing is terminated abnormally. This is an internal DB2 error.

This abend code is issued by the following CSECT: DSNXRCDC

System Action: An execution unit requests an SVC dump, and terminates abnormally.

Operator Response: Notify the system programmer.

System Programmer Response: The current SQL statement performed an INSERT, UPDATE, or DELETE, for a DB2 table that was defined with DATA CAPTURE CHANGES. The captured data changes are reflected in the DB2 log.

Check the captured table data information returned to DPROP for propagation to determine which data type is invalid.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

X'E7.....' Codes

00E70004

Explanation: An inconsistency has been detected in the subsystem catalog tables.

This abend reason code is issued by the following CSECTs: DSNXOCK, DSNXOLV

System Action: The application program abends.

Operator Response: Notify the system programmer or database administrator.

System Programmer Response: Notify the database administrator if appropriate. Otherwise, use the information under the Problem Determination section to resolve the problem.

Problem Determination: The module name and the name of the inconsistent subsystem catalog table can be found in the SQLCA. Refer to Section 4 of *Diagnosis Guide and Reference* for information about how to find the SQLCA.

Register 7 is the cursor table pointer and is always restricted entirely over the relational data system (RDS) subcomponent.

Dump the page set containing the inconsistent subsystem catalog using the DUMP option of the REPAIR utility.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 48.

00E70005

Explanation: A relational data system (RDS) subcomponent internal inconsistency was detected.

This abend reason code is issued by the following CSECTs: Any of the RDS modules

System Action: The application program abends.

Operator Response: Notify the system programmer.

System Programmer Response: This code generates an SVC dump and SYS1.LOGREC entries. Use information from those two sources and from the Problem Determination section of this code to resolve the problem. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The abend code can be issued by any of the RDS modules. The module name can be found in the SQLCA. SQLERRD1 in the SQLCA contains a unique code that identifies the location within the module where the error was detected. SQLERRM might contain some meaningful information for this particular error.

Refer to Section 4 of *Diagnosis Guide and Reference* for information about how to find the SQLCA.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 14.

00E70006

Explanation: An internal inconsistency has been reported to the relational data system (RDS) subcomponent by the RDS subcomponent of DB2.

This abend reason code is issued by the following CSECTs: Any of the RDS interpreter modules

System Action: The application program abends.

User Response: Notify the system programmer.

Operator Response: Provide a print of the SVC dump to the system programmer.

System Programmer Response: Use the information in the 'Problem Determination' section of this message to resolve the problem.

Problem Determination: The abend code may be issued by any of the RDS interpreter modules (DSNX...). The module name appears in the SQLCA. SQLERRD1 in the SQLCA contains a unique code that identifies the location within the module at which the error was detected. SQLERRM contains information describing the particular error.

Refer to Section 4 of *Diagnosis Guide and Reference* for information about how to find the SQLCA.

Collect the following diagnostic item listed in “Appendix B. Problem Determination” on page X-5: 2.

00E70007

Explanation: A bad application-supplied address was encountered while trying to copy SQLCA back to the application program.

This abend reason code is issued by the following CSECT: DSNXERD

System Action: The application program abends.

System Programmer Response: Contact the application programmer.

Problem Determination: The register contents at the time of abend are as follows:

- R2 A decimal code identifying the data:
  - 1 FRB address is bad.
  - 2 FRBPARM has the bad address used to locate the RDIIN.
  - 18 RDICODEP has the bad address used to locate the SQLCA.
- R3 The bad application data area address.
- R4 The length of the data.
- R5 The key of the data or the address of the CT if the SQLCA contains SQLCODE -902.
- R8 The address of the FRB in the application address space (RDIIN) or the address of the RDA if the SQLCA contains SQLCODE -902

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 4 or 23.

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00E70009

Explanation:

An invalid value was returned by the Access Control Authorization exit routine, DSNX@XAC.

System Action:

The authorization check is abended. An SVC dump is requested by DB2 functional recovery.

Operator Response:

Notify the system programmer.

System Programmer Response:

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination:

The abend with this reason code is issued because the access control authorization exit routine returned an invalid value in one of the return fields. The register contents at the time of abend are set as follows:

- Register 3 points to the field that has the invalid value. This field may be in the EXPL or XAPL control block. The control block eye catcher will enable you to distinguish between the two.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

This abend reason code is issued by the following CSECTs: DSNXACAE

00E7000A

Explanation: A relational data system (RDS) subcomponent abended because one or more parallel tasks abended.

System Action: The application program abends.

Operator Response: Notify the system programmer.

System Programmer Response: Use the information in the Problem Determination section of this message to resolve the problem.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

This abend code is issued by the RDS modules that detect abends of other parallel tasks.

This abend reason code is issued by the following CSECTs: DSNXRGF, DSNXRGN

00E7000C

Explanation: The application program supplied an invalid address.

This abend reason code is issued by the following CSECTs:

DSNXECP DSNXEDC DSNXRIVB DSNXROUT DSNXERT DSNXEVPN DSNXROUA DSNXEALC DSNXELOC DSNXEPM

System Action: The application program abends.

User Response: Correct the invalid address. See Problem Determination for instructions on how to determine the failing SQL statement and the bad address. Use this information to determine the application's incorrect setting of the address. For further information, refer to Section 5 of *Application Programming and SQL Guide*.

Operator Response: Notify the user or system programmer.

System Programmer Response: Assist the user in determining the invalid address.

Problem Determination:

At the time of abend the register contents are:

R2 A decimal code identifying the bad data:

1	(1)	The bad FRB address used to locate the FRBPARM.
2	(2)	FRBPARM has the bad address used to locate the RDIIN.
3	(3)	RDIVPARM has the bad address used to locate the SQLDA length.
4	(4)	RDIVPARM has the bad address used to locate the SQLDABC.
5	(5)	RDIVPARM has the bad address used to locate the SQLDA length.
6	(6)	RDIAUXPA has the bad address used to locate the SQLDA length.
7	(7)	RDIAUXPA has the bad address used to locate the SQLDABC.
8	(8)	PVDPTR has the bad address used to locate the data variable.
9	(9)	PVINFO has the bad address used to locate the indicator variable.
10	(A)	Either RDIVPARM or RDIAUXPA has the bad address used to locate the PVARS structure.
11	(B)	RDIAUXPA has the bad address used to locate the SQLN.
12	(C)	RDIAUXPA has the bad address used to locate the SQLDAID.
13	(D)	RDIAUXPA has the bad address used to locate the SQLDABC.
14	(E)	RDIAUXPA has the bad address used to locate the SQLD.
15	(F)	RDIAUXPA has the bad address used to locate the SQLVAR.
16	(10)	PVINFO has the bad address used to locate the indicator variable.
17	(11)	PVDPTR has the bad address used to locate the data variable.
18	(12)	PVDPTR has the bad address used to locate the data variable.
19	(13)	PVDPTR has the bad address used to locate the data variable.

R3 The bad data address.
R4 The length of the data.
R5 The key of the data.
R8 If register 2 = 8 or 9, R8 contains the address of the RDIVPARM. If register 2 = 16 or 17, R8 contains the address of the RDIAUXPA. Otherwise, R8 contains the address of the RDIIN. This is the application's invocation parameter list. The address of the RDIIN may not be valid if the RDIIN could not be located (Register 2 = 1 or 2).

The program name identifies the failing program. The statement number refers to the statement number in the DB2 precompiler listing. The SQL statement executed can then be

found in the application program's compiler/assembler listing. For example, if the statement number is X'00E6', refer to statement number 230 in the DB2 precompiler listing. This precompiler statement number can be cross-referenced to the program's compiler/assembler listing.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 4 or 23.

Use the following offsets to trace through the control blocks.

PVARS:

Offsets	Len	Description
0 (0)	4	LENGTH OF BLOCK
4 (4)	12	PVENTY, OCCURS ONCE FOR EACH HOST VARIABLE IN THE SQL STATEMENT

PVENTRY:

Offsets	Len	Description
0 (0)	2	COLUMN TYPE
2 (2)	2	COLUMN LENGTH
4 (4)	4	PVDPTR, POINTER TO HOST VARIABLE DATA
8 (8)	4	PVINFO, POINTER TO INDICATOR

FRB:

Offsets	Len	Description
0 (0)	4	BLOCK IDENTIFIER "FRB"
4 (4)	2	RAL ENTRY NUMBER
6 (6)	2	FVL ENTRY NUMBER
8 (8)	4	FRBPARM, POINTER TO PARAMETER LIST (RDIIN)
12 (C)	2	PARAMETER COUNT
14 (E)	2	RETURN CODE
16 (10)	4	REASON CODE
20 (14)	4	FEEDBACK
24 (18)	4	PRH PC LX/EX VALUE
28 (1C)	2	REQUEST QUALIFIER VALUE
30 (1E)	2	RESERVED
32 (20)	0	END OF USER FRB SECTION

RDIIN:

Offsets	Len	Description
0 (0)	2	PARM LIST LENGTH
2 (2)	2	FLAGS
4 (4)	2	CALL TYPE
6 (6)	8	PROGRAM NAME
14 (E)	8	TIMESTAMP
22 (16)	2	SECTION #
24 (18)	4	PTR TO ERROR CODE STRUCTURE
28 (1C)	4	RDIVPARM PTR TO USER INPUT VARIABLES (PVARS STRUCTURE)
32 (20)	4	RDIAUXPA PTR TO DB2 RETURN VARIABLES (PVARS STRUCTURE)
36 (24)	2	STATEMENT #
38 (26)	2	STATEMENT TYPE

00E7000F

Explanation: A deadlock condition has been detected.

This abend reason code is issued by the following CSECT: DSNXIDPM

System Action: The requested operation is not performed.

User Response: Rerun the application.

System Programmer Response: If the deadlock condition becomes chronic, examine the mix of applications running to determine why the deadlock is occurring.

Problem Determination: The requested operation is not performed. Message DSNT375I is issued and an SQLCODE -904 is issued. For more information, refer to the SQL code or to the description of the DSNT375I message.

00E70010

Explanation: A timeout condition has been detected.

This abend reason code is issued by the following CSECT: DSNXIDPM

System Action: The requested operation is not performed.

User Response: Rerun the application.

Problem Determination: The requested operation is not performed. Message DSNT376I is issued and an SQLCODE -904 is issued. For more information, refer to the SQL code or to the description of the DSNT376I message.

00E70011

Explanation: During an authorization check for plan or command authorization, an execution unit switch took place to a new execution unit and the new execution unit abended.

This abend reason code is issued by the following CSECTs: Any module that invokes the DSNXCHK macro

System Action: The calling execution unit is also abended.

Operator Response: Notify the system programmer. Print SYS1.LOGREC. Also print the dump from any previous dump data set if the failing module name is DSNXACKP or the dump title is 'RDS AUTHCHK'.

System Programmer Response: See problem determination and if you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The module issuing this abend reason code has invoked the DSNXCHK macro to perform an authorization check for either the application plan or the command authorization. The DSNXCHK macro does a cross-memory execution unit switch to module DSNXACKP. Look for a previous dump in which the failing module name is DSNXACKP, the dump title is RDS AUTHCHK, or the failure is an allocation failure.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 5.

00E70012

Explanation: A user exit has written beyond the end of the output buffer.

This abend reason code is issued by the following CSECTs: DSNXRPCC, DSNXVTRS

System Action: The application program abends.

Operator Response: Notify the system programmer.

System Programmer Response: Correct the exit routine. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: At the time of abend the register contents are:

- R2 contains the first 4 characters of the exit routine name.
- R3 contains the next 4 characters of the exit routine name.

If the exit routine name is DSNXVDTX then DECPDLEN contains the LOCAL DATE LENGTH specified on the DB2 Installation Application Programming Defaults Panel. The exit routine wrote beyond this length in returning a local date format to DB2.

If the exit routine name is DSNXVTMX then DECPTLEN contains the LOCAL DATE LENGTH specified on the DB2 Installation Application Programming Defaults Panel. The exit routine wrote beyond this length in returning a local time format to DB2.

00E70013

Explanation: DRDS at the server site supplied an invalid address.

This abend reason code is issued by the following CSECTs:

DSNXECP DSNXEDC DSNXRIVB DSNXROUT

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: This is a DB2 internal error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 5, 14.

00E70014

Explanation: DB2 could not validate the data definition control support tables during startup.

System Action: The requested operation is not performed.

User Response: Notify the system programmer.

Operator Response: Provide a print of the SVC dump to the system programmer.

Problem Determination: The data definition control support tables could not be validated. No data definition SQL statements can be executed until these tables can be validated.

Register 2 contains the address of a message that indicates the reason for the problem. DB2 startup continues. Correct the problem if it still exists. DB2 will attempt to validate the data definition control support tables when the user attempts to execute any data definition SQL statements.

00E70069

Explanation: An installation error was detected while the CICS Attachment Facility was attempting to establish the connection to DB2 for your CICS transaction. This error can be caused by one of the following:

- The current CICS transaction identifier was not found in any of the resource control table (RCT) entries.
- A valid authorization name was not found using the RCT entry for this CICS transaction. The AUTH= parameter in the RCT specifies up to three sources for authorization checking. None of these yielded a valid name for checking. For example, the RACF group might have been specified, but the user was not a member of any RACF group. Or terminal identifier might have been specified, but the transaction was being run without a terminal.

This abend reason code is issued by the following CSECT: DSNCEXT1

System Action: The request is not processed.

System Programmer Response: Check the RCT table specifications for this transaction to determine if they are missing or incorrect. If modification is needed, change the RCT source and install the RCT again. Refer to Chapter 2-10, "Connecting the CICS Attachment Facility," of *Administration Guide* for more information.

Problem Determination: You might be able to use the DSNC DISPLAY command to check for the existence of an RCT entry for this transaction. If an entry exists, refer to the RCT source. Look at the AUTH= parameter list and determine why CICS was unable to establish a valid authorization name for checking.

00E7006A

Explanation: While processing your request, the IMS Attachment Facility could not identify the DB2 subsystem. The DB2 identification must be defined to the IMS control region, the DL/I batch region, and any dependent region accessing the DB2 subsystem.

This abend reason code is issued by the following CSECTs: DSNMSNO0, DSNMERR0

System Action: The connection is not established.

System Programmer Response: To make the identification to the IMS regions, you must create a subsystem member

(SSM) in the IMSVS.PROCLIB library and identify the SSM to the applicable IMS regions. Refer to Chapter 2-9, "Connecting the IMS Attachment Facility," of *Administration Guide* for more details.

00E7006B

Explanation: The CICS or IMS Attachment Facility detected that a shutdown was in progress for the DB2 subsystem while processing your request. This might occur during initial connection processing or during subsequent requests, depending on the type of DB2 shutdown.

This abend reason code is issued by the following CSECTs: DSNCEXT1, DSNMERR0

System Action: The connection is not established.

User Response: Before you can continue, you must restart the DB2 subsystem. Contact the operator to restart the subsystem, and then resubmit your transaction.

Operator Response: Restart the DB2 subsystem.

00E70081

Explanation: A DROP or ALTER statement was issued but the object cannot be dropped or altered. The object is referenced by a prepared dynamic SQL statement that is currently stored in the prepared statement cache and is in use by an application.

This reason code is issued by the following CSECT: DSNXIDMH

System Action: The requested operation is not performed.

Programmer Response: The requested operation cannot be performed until there are no applications that reference the object using dynamic SQL. Ensure that other applications have quiesced or performed a commit operation. Then try the request again.

Problem Determination: An SQLCODE -904 is issued. The message tokens for that message report the name and type of the object that was being referenced by another application.

00E7009E

Explanation: Object depends on facilities of a release of DB2from which fall back that is later than you are currently running.

This abend reason code is issued by the following CSECTs:

DSNXIAIX	DSNXIATB	DSNXIATS	DSNXICIX
DSNXICTB	DSNXIDIX	DSNXIDTB	DSNXIDTS
DSNXOCA	DSNXOLV		

System Action: The operation is not allowed.

Operator Response: Notify the system programmer.

System Programmer Response: In order to perform the operation on the object, you must use the release of DB2 that supports the new facilities.

Problem Determination: The requested operation is not performed. An SQLCODE -904 and/or message DSNT501I is issued. Message DSNT501I describes which object has the release dependency.

00E7009F

Explanation: An error occurred while loading the catalog DBD during start-up processing.

System Action: If message DSNX204I is issued to the console, DB2 is started ACCESS(MAINT). Otherwise, the current START command processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain copies of SYS1.LOGREC and the SVC dump. If message DSNX204I was issued to the console, see the description of that message.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Register 2 points to a character string that describes the specific error encountered.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNXLDBD

00E70100

Explanation: This is an internal RDS error. The SQLWARN0 field does not contain a valid value while determining SQLSTATE field value. SQLWARNx fields are described in Appendix C of *SQL Reference*.

This abend reason code is issued by the following CSECTs: DSNXERD, DSNXEEZ

System Action: The application program ABENDs.

Operator Response: Notify the system programmer.

System Programmer Response: This is a DB2 internal error. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem. procedures.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00E70105

Explanation: This is an internal RDS error. One of the SQLWARNx fields does not contain a valid value while determining SQLSTATE field value. SQLWARNx fields are described in Appendix C of *SQL Reference*.

This abend reason code is issued by the following CSECTs: DSNXERD, DSNXEEZ

System Action: The application program ABENDs.

Operator Response: Notify the system programmer.

System Programmer Response: This is a DB2 internal error. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 1, 5.

00E70110

Explanation: The commit failed because the application was not connected to the Current Server.

This abend reason code is issued by the following CSECT: DSNXECW

System Action: The reason code or SQLCODE -900 is returned to the application which is in an unconnected state.

User Response: A previous failure has left your application in an unconnected state . Notify the system programmer that a system failure occurred during execution of your application. Any changes made in the last unit of work is rolled back. Re-run your application after determining the state of the Current Server database.

Operator Response: For Communication failure, refer to DSNL500I message.

System Programmer Response: Diagnose the failure that left the user application in an unconnected state. See "Problem Determination" section below.

Problem Determination: Refer to the previous SQL error in the application.

00E70115

Explanation: The unit of work was placed in a state where a rollback operation is required. This can happen when an abend occurs during the execution of a stored procedure, or a restricted SQL operation was issued from a stored procedure.

This item is issued by the following CSECT: DSNXECW.

System Action: In the IMS and CICS environments, all SQL statements are rejected until the rollback occurs. In the other environments, all SQL statements other than a static ROLLBACK are rejected until a static ROLLBACK is executed.

Programmer Response: Correct the stored procedure, rebind it and resubmit the calling application.

00E70120

Explanation: The SYSSTRINGS in-memory cache was not initialized correctly. An SQL operation was attempted that required a character conversion. While attempting to retrieve the necessary SYSSTRINGS record, DB2 detected that the SYSSTRINGS cache was not initialized properly.

This reason code is issued by the following CSECT: DSNXEASC.

System Action: DB2 attempts to re-initialize the SYSSTRINGS cache. If successful, the application process continues execution. An SVC dump and SYS1.LOGREC entries are produced.

System Programmer Response: Use the information in the *Problem Determination* section of this message to resolve the problem. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on reporting the problem.

Problem Determination: This error can occur if DB2 restart did not complete successfully. Examine the console log and SYS1.LOGREC for error messages or abends during the period when DB2 was started. Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 50, 63.

00E70911

Explanation: The current unit of work was the victim in a deadlock, or experienced a timeout, and had to be rolled back. RC00E70911 is the same as the SQLCODE -911. For more information, refer to the SQL return code.

This abend reason code is issued by the following CSECTs: DSNCEXT3, DSNMDR10

System Action: The statement cannot be executed. The application is rolled back to the previous COMMIT.

Operator Response: Notify the system programmer.

If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5.

00E70913

Explanation: The application was the victim in a deadlock or experienced a timeout. RC00E70913 is the same as the SQLCODE -913. For information, refer to the SQL return code.

This abend reason code is issued by the following CSECT: DSNXEEZ

System Action: The statement cannot be executed.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5.

00E72008

Explanation: The relational data system (RDS) sort subcomponent has determined that there is not enough storage to continue the sort process.

This abend reason code is issued by the following CSECTs:

DSNXSORI	DSNXSTS	DSNXSTSE	DSNXSTSG

System Action: The application program abends.

Operator Response: Notify the system programmer.

System Programmer Response: The CT is formatted and a return code with a value of 8 is returned from the sort subcomponent to indicate a resource was unavailable. Check the SYSOUT message file for any errors detected by the sort subcomponent.

00E72018

Explanation: The relational data system (RDS) sort subcomponent has detected an internal inconsistency.

This abend reason code is issued by the following CSECTs:

DSNXSIN	DSNXSINE	DSNXSING	DSNXSMR
DSNXSMRE	DSNXSMRG	DSNXSORI	DSNXSSFE
DSNXSTM	DSNXSTRG	DSNXSTS	DSNXSTSE
DSNXSTSG	DSNXSWFM		

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested.

Operator Response: Notify the system programmer. Provide a print of the SVC dump to the system programmer.

System Programmer Response: This is a DB2 internal error. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The sort subcomponent has detected an internal inconsistency. The precise problem can be determined only by analyzing the abending module at the point of failure. The register contents at the time of abend are set as follows:

- R2 points to the SRTCOMM.
- R3 is an unique decimal code that identifies the error location and error type.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E72048

Explanation: The relational data system (RDS) sort subcomponent has detected an internal inconsistency.

This abend reason code is issued by the following CSECT: DSNXSORI

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested. The application program abends.

Operator Response: Notify the system programmer. Provide a print of the SVC dump to the system programmer.

System Programmer Response: This is a DB2 internal error. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The sort subcomponent has detected an internal inconsistency. The precise problem can be determined only by analyzing the abending module at the point of failure. The register contents at the time of abend are set as follows:

- R2 points to the SPL.
- R3 is an unique decimal code that identifies the error location and error type.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E72058

Explanation: The relational data system (RDS) sort subcomponent has detected an internal inconsistency.

This abend reason code is issued by the following CSECTs:

DSNXSMR DSNXSMRE DSNXSMRG

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested. The application program abends.

Operator Response: Notify the system programmer. Provide a print of the SVC dump to the system programmer.

System Programmer Response: This is a DB2 internal error. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The sort subcomponent has detected that the number of unsorted records input to sort did not equal the number of sorted records returned by sort minus the number of records removed from the sort by the evaluation of column functions. The precise problem can be determined only by analyzing the abending module at the point of failure. The register contents at the time of abend are set as follows:

- R2 points to the SRTCOMM.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E72068

Explanation: The relational data system (RDS) sort subcomponent has detected an internal inconsistency.

This abend reason code is issued by the following CSECTs: DSNXSMR, DSNXSMRG

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested. The application program abends.

Operator Response: Notify the system programmer. Provide a print of the SVC dump to the system programmer.

System Programmer Response: This is a DB2 internal error. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The sort subcomponent has detected an internal inconsistency in the merge process. The precise problem can be determined only by analyzing the abending module at the point of failure. The register contents at the time of abend are: R2 points to the SRTCOMM.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E72078

Explanation: The relational data system (RDS) sort subcomponent has detected an internal inconsistency.

This abend reason code is issued by the following CSECTs: DSNXSMR, DSNXSMRG

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested. The application program abends.

Operator Response: Notify the system programmer. Provide a print of the SVC dump to the system programmer.

System Programmer Response: This is a DB2 internal error. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The Sort subcomponent has detected a sort work file management inconsistency in the merge process. The precise problem can be determined only by analyzing the abending module at the point of failure. The register contents at the time of abend are set as follows:

- R2 points to the SPL.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E72088

Explanation: The relational data system (RDS) sort subcomponent has detected an internal inconsistency.

This abend reason code is issued by the following CSECTs:

DSNXSIN DSNXSINE DSNXSMR DSNXSMRE
DSNXSMRG DSNXSORI DSNXSWFM

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested. The application program abends.

Operator Response: Notify the system programmer. Provide a print of the SVC dump to the system programmer.

System Programmer Response: This is a DB2 internal error. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The sort subcomponent has detected an error from the Data Manager. The precise problem can be determined only by analyzing the abending module at the point of failure. The register contents at the time of abend are set as follows:

- R2 points to the SRTCOMM.
- R3 is an unique decimal code that identifies the error location and error type of the Data Manager request that failed.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E72098

Explanation: The relational data system (RDS) sort subcomponent has detected an internal inconsistency.

This abend reason code is issued by the following CSECT: DSNXSORI

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested. The application program abends.

Operator Response: Notify the system programmer. Provide a print of the SVC dump to the system programmer.

System Programmer Response: This is a DB2 internal error. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The sort subcomponent has detected an invalid request for tag sort processing. The precise problem can be determined only by analyzing the abending module at the point of failure. The register contents at the time of abend are set as follows:

- R2 points to the SRTCOMM.
- R3 is an unique decimal code that identifies the error location and error type.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00E72100

Explanation: DB2 detected an internal inconsistency in sort during parallel query processing.

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested.

Operator Response: Notify the system programmer. Provide a print of the SVC dump to the system programmer.

System Programmer Response: This is a DB2 internal error.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The precise problem can be determined only by analyzing the abending module at the point of failure. The register contents at the time of abend are set as follows:

- R2 points to the SRTCOMM.
- R3 is an unique decimal code that identifies the error location and error type.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

This abend reason code is issued by the following CSECTs:

DSNXSMRE DSNXSORI DSNXSPKY DSNXSPNS
DSNXSPWF DSNXSTSE

00E72200

Explanation: DB2 detected an internal inconsistency in sort during parallel query processing. This is a DB2 internal error.

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested. The application program abends.

Operator Response: Notify the system programmer. Provide a print of the SVC dump to the system programmer.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The precise problem can be determined only by analyzing the abending module at the point of failure. The register contents at the time of abend are set as follows:

- R2 points to the SPL.
- R3 is an unique decimal code that identifies the error location and error type.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNXSPRM

00E79000

Explanation: DB2 received an SQL CALL statement for a stored procedure. The CALL statement was not accepted because one or more columns of the SYSIBM.SYSPROCEDURES catalog table for the procedure contains invalid values.

System Action: The statement cannot be executed. A DSNX9xx message is displayed on the MVS system console to describe the error that was detected.

Programmer Response: Correct the invalid column values in the SYSIBM.SYSPROCEDURES table. Use the -START PROCEDURE command to activate the updated stored procedure definition.

Problem Determination: This reason code is issued by the following CSECT: DSNX9CAT.

00E79001

Explanation: DB2 received an SQL CALL statement for a stored procedure. The CALL statement was not accepted because the procedure was stopped. Possible reasons are:

- The STOP PROCEDURE ACTION(REJECT) command was issued for this procedure, or
- There was a previous abnormal termination of the stored procedure, or

- A previous error reported that one or more columns of the SYSIBM.SYSPROCEDURES catalog table for the procedure contained invalid values.

System Action: The statement cannot be executed.

Programmer Response: If the stored procedure was stopped by an abnormal termination, correct the cause of the abnormal termination.

If the error was caused by a problem in the SYSIBM.SYSPROCEDURES catalog table, correct the error.

Use the -START PROCEDURE command to activate the stored procedure.

Problem Determination: This reason code is issued by the following CSECTs: DSNX9CCM, DSNX9GPL.

00E79002

Explanation: DB2 received an SQL CALL statement for a stored procedure. The CALL statement was not accepted because the procedure could not be scheduled before the installation-defined time limit expired. This can happen for any of the following reasons:

- The DB2 STOP PROCEDURE(name) ACTION(QUEUE) command was in effect. When this command is in effect, a stored procedure cannot be scheduled until a DB2 START PROCEDURE command is issued.
- The stored procedure could not be assigned to a TCB in the DB2-established stored procedures address space in the required time interval, because all available stored procedure TCBs were in use.
- The DB2-established stored procedures address space dispatching priority is low, resulting in delays when processing stored procedure requests. If the delays become excessive, the TCBs in the stored procedure address space do not become available to process new SQL CALL statements in a timely manner.
- The dispatching priority assigned by WLM to the caller of the stored procedure was low, which resulted in WLM not assigning the request to a TCB in a WLM-established stored procedure address space before the installation-defined time limit expired.
- The WLM application environment is quiesced so WLM will not assign the request to a WLM-established stored procedure address space.
- WLM is being used in compatibility mode, and the needed stored procedure address space has not been started using the MVS START command.

System Action: The statement cannot be executed.

Programmer Response: If the stored procedure was stopped, use the DB2 -START PROCEDURE command to activate the stored procedure.

If the DB2-established stored procedures address space was to be used, the cause of thetimeout condition might be one of the following:

- Stored procedure applications might not be completing. If this occurs, the TCB used to process the stored procedure will not become available to process new stored procedure requests.

  Use the -DISPLAY PROCEDURE command to determine the number of DB2 threads that are currently running a stored procedure. If the number of threads seems excessive, use the -DISPLAY THREAD command to look at details about each of the threads.
- If there are not enough stored procedure TCBs available to meet the volume of requests, increase the number of stored procedure TCBs by changing the value of the NUMTCB keyword in the JCL procedure used to start the DB2 stored procedures address space.

If a WLM-established stored procedures address space was to be used, the cause of the timeout condition might be one of the following:

- If goal mode is being used to manage the number of WLM-established stored procedure address spaces, the dispatching priority assigned to the caller of the stored procedure might be too low. If the work is of low priority, WLM might leave it queued for a longer period of time.
- The WLM application environment is quiesced. Issue MVS WLM DISPLAY,APPLENV=wlmenv command to verify the status of the application environment. The MVS WLM VARY,APPLENV=wlmenv,RESUME command can be used to activate the environment if it is quiesced.
- If compatibility mode is being used to manage the number of WLM-established stored procedure address spaces, then the problem may be that there are not enough address spaces or enough TCBs running in those address spaces to support the number of call statements being received. You may need to increase the number of address spaces and TCBs. You may also need to improve the dispatching priority of these address spaces to ensure that they are processing the stored procedure requests quickly enough.

Problem Determination: This reason code is issued by the following CSECTs: DSNX9CAL, DSNX9GPL

00E79003

Explanation: DB2 received an SQL CALL statement for a stored procedure. The CALL statement was not accepted because the SYSIBM.SYSPROCEDURES catalog table or related objects could not be accessed.

System Action: The statement cannot be executed. Message DSNX921 is displayed on the system console to describe the problem.

Programmer Response: Refer to message DSNX921 to determine the cause of the unavailable resource. After the cause of the problem is eliminated, you can reissue the SQL request.

Problem Determination: This reason code is issued by the following CSECTs: DSNX9CAL, DSNX9GPL.

00E79004

Explanation: DB2 received an SQL CALL statement for a stored procedure. The stored procedure could not be accepted, because the DB2-established stored procedures address space is not active.

The DB2-established stored procedures address is not active for any of the following reasons:

- The DB2 module DSNZPARM specified a blank value for the name of the JCL PROC for the DB2-established stored procedure address space.
- The stored procedures address space was cancelled or intentionally terminated by the system administrator.

System Action: The statement cannot be executed.

Programmer Response: DB2 automatically starts the DB2 stored procedures address space during DB2 startup, when a nonblank value is specified for the JCL PROC for the DB2-established stored procedures address space in the DB2 module DSNZPARM. If the DB2-established stored procedures addressspace terminates while DB2 is active, you can issue the -START PROCEDURE(*) command to restart it.

Problem Determination: This reason code is issued by the following CSECTs: DSNX9CAL, DSNX9GPL.

00E79005

Explanation: DB2 received an SQL CALL statement from an MVS subtask that was attached by a stored procedure.

This abend reason code is issued by the following CSECT: DSNX9GPL

System Action: The SQL CALL statement is rejected with SQLCODE -471 and this reason code.

Programmer Response: Programs running in the DB2 stored procedures address space are not allowed to issue SQL CALL statements. This includes programs that run as MVS tasks attached by a DB2 stored procedure.

If you need to issue an SQL CALL statement, you must run your program in a DB2 allied address space rather than the DB2 stored procedures address space.

00E79006

Explanation: DB2 received an SQL CALL statement for a stored procedure. The CALL statement cannot be honored, because the stored procedure load module is not compatible with Language Environment preinitialization environment.

System Action: The SQL CALL statement is rejected with SQLCODE -471 and this reason code.

Programmer Response: Ensure the stored procedure is compiled with a level of the compiler which generates a module that can be a target of a Language Environment preinitialization CEEPIPI call. Ensure that the stored procedure is link edited with the Language Environment runtime library.

Verify that the stored procedure is described correctly in SYSIBM.SYSPROCEDURES as a main or sub program. This failure can occur if the procedure options for the stored procedure indicate it is a sub program and the specification in the catalog indicates it is a main program.

Message DSNX962I will also be displayed on the MVS system console. This message indicates the specific Language Environment preinitialization service that failed and the failing return code.

For the required levels of the compilers, see *Application Programming and SQL Guide*.

00E79007

Explanation: An attempt to call a DB2 stored procedure failed, because the host language specified in the LANGUAGE column of the SYSIBM.SYSPROCEDURES catalog table did not match the language reported by LE/370.

System Action: The attempt to call the stored procedure fails, and the procedure is marked STOP-REJ.

System Programmer Response: Correct the information in the LANGUAGE column of the SYSIBM.SYPROCEDURES catalog table. Once this is corrected issue the START PROCEDURE command to allow the stored procedure to be called.

Problem Determination: This reason code is issued by the following CSECT: DSNX9SER

00E79008

Explanation: The SQL CALL statement could not be processed. The SYSIBM.SYSPROCEDURES catalog column EXTERNAL_SECURITY specified 'Y', requesting that a specific security environment be established. An error occurred while attempting to establish this security environment.

System Action: The SQL CALL statement is rejected with SQLCODE -471 and this reason code.

System Programmer Response: Additional error messages might have been generated by the external security product to describe the error.

00E79009

Explanation: The SQL CALL statement for a stored procedure could not be processed. The SYSIBM.SYSPROCEDURES catalog column EXTERNAL_SECURITY specified 'Y', and the stored procedure was to be run in the DB2-established stored procedures address space. This combination is not supported.

System Action: The SQL CALL statement is rejected with SQLCODE -471 and this reason code.

Programmer Response: If EXTERNAL_SECURITY processing is required, update the SYSIBM.SYSPROCEDURES column WLM_ENV to indicate that the stored procedure is to be run in a WLM-established stored procedures address space.

If EXTERNAL_SECURITY processing is not required, update the EXTERNAL_SECURITY column to contain 'N' or null.

Use the -START PROCEDURE command to refresh the information from the SYSIBM.SYSPROCEDURES catalog table.

00E7900A

Explanation: The SQL CALL statement could not be processed. The SYSIBM.SYSPROCEDURES catalog column PGM_TYPE specified 'S' and the stored procedure was to be run in the DB2-established stored procedures address space. This combination is not supported.

System Action: The SQL CALL statement is rejected with SQLCODE -471 and this reason code.

Programmer Response: If the stored procedure must be called as a subprogram, then update the SYSIBM.SYSPROCEDURES column WLM_ENV to indicate that the stored procedure is to be run in a WLM-established stored procedures address space.

If the stored procedure can be run as a main program, update the PGM_TYPE column to contain 'M'.

Use the -START PROCEDURE command to refresh the information from the SYSIBM.SYSPROCEDURES catalog table.

00E7900B

Explanation: SQL CALL statement could not be processed. DB2 determined that the stored procedure was to be run in a WLM-established stored procedures address space, but the necessary WLM services are not available.

The SYSIBM.SYSPROCEDURES catalog column WLM_ENV specified a non-blank WLM application environment.

System Action: The SQL CALL statement is rejected with SQLCODE -471 and this reason code.

Programmer Response: Update the SYSIBM.SYSPROCEDURES column WLM_ENV to contain blanks.

System Programmer Response: Use the -START PROCEDURE command to refresh the information from the SYSIBM.SYSPROCEDURES catalog table.

00E7900C

Explanation: SQL CALL statement could not be processed. The WLM application environment name specified for the stored procedure is not defined or is currently not available for DB2 use in the active WLM policy.

System Action: The SQL CALL statement is rejected with SQLCODE -471 and this reason code.

Programmer Response: Update the SYSIBM.SYSPROCEDURES column WLM_ENV to specify an application environment that is defined and active in the active WLM policy, or update the WLM policy to contain a valid application environment name.

If the information in the SYSIBM.SYSPROCEDURES catalog table is updated, use the -START PROCEDURE command to refresh the information.

If the WLM policy definition is updated, use the MVS WLM VARY command to activate this new definition.

If the WLM application environment is quiesced, use the MVS WLM VARY APPLENV= applenv,RESUME command to activate the application environment.

00E7900D

Explanation: DB2 received an SQL CALL statement for a stored procedure. The CALL statement could not be honored because the chosen SYSPROCEDURES row for the stored procedure contains column information that is not supported for the current level of the DB2 system. Column values not supported in DB2 Version 4 are:

- A non-zero number in RESULT_SETS
- A non-blank value in WLM_ENV
- A value other than 'M' in PGM_TYPE
- A value other than 'N' in EXTERNAL_SECURITY
- A 'Y' in COMMIT_ON_RETURN

System Action: The SQL CALL statement is rejected with SQLCODE -471 and reason code 00E7900D.

Programmer Response: Ensure that there is a proper matching row in SYSPROCEDURES for the version of DB2 that you are using. In a data sharing or fallback situation, make sure that the row in SYSPROCEDURES contains only values that are allowable for your release level of DB2.

00E79100

Explanation: An internal DB2 error was encountered while processing a stored procedure request.

This abend reason code is issued by the following CSECTs:

DSNX9SER DSNX9STP DSNX9TEX DSNX9WTO.

System Action: The task encountering the error is abended.

User Response: Notify the system programmer.

System Programmer Response: This is a DB2 internal error.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 4.

Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00E79101

Explanation: DB2 received an unexpected return code from a WLM service.

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested. The application program abends.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

This abend reason code is issued by the following CSECTs: DSNX9CAL, DSNX9MON

X'E8.....' Codes

00E80001

Explanation: A required parameter was not passed via the MVS MGCR service which started the DB2 address space. The parameter must be the address of SCOM for the system services address space or the address on an ASCE for the database services address space or the distributed data facility address space.

This abend reason code is issued by the following CSECT: DSNYASCP

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the parameter value in error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 3, 5, 8.

00E80002

Explanation: The DB2 subsystem services address space was not started by a valid subsystem or an error occurred during MVS IEFSSREQ processing.

This abend reason code is issued by the following CSECT: DSNYASCP

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of an 8-byte field that contains the following diagnostic information: bytes 1 through 4, the subsystem name; bytes 5 through 8, the contents of register 15 that contains the return code set by the MVS IEFSSREQ macro.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 3, 5, 8.

00E80003

Explanation: An unsupported pending function request was detected during processing in the system services address space.

This abend reason code is issued by the following CSECT: DSNYASCP

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the pending function request value.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 3, 5.

00E80004

Explanation: An error occurred when a POST was issued from a resource manager address space to the system services address space in order to indicate that the DB2 subsystem startup function completed successfully.

This abend reason code is issued by the following CSECT: DSNYASCP

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: The system services address space might be abnormally terminating.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 3, 5.

00E80005

Explanation: An error occurred when a POST was issued from a resource manager address space to the system services address space in order to indicate that the allied authorization function completed successfully.

This abend reason code is issued by the following CSECT: DSNYASCP

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Probable cause is that the system services address space is abnormally terminating.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 3, 5.

00E80006

Explanation: An unsupported pending function request was detected during processing in the resource manager address space.

This abend reason code is issued by the following CSECT: DSNYASCP

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

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The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the pending function request value.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 3, 5.

00E8000E

Explanation: MVS was unable to establish an ESTAE for the DB2 address space control task.

This abend reason code is issued by the following CSECT: DSNYASCP

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the ESTAE macro return code.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 3, 5.

00E8000F

Explanation: The expected latent parameter passed by the MVS MGCR macro service is invalid. The cause was probably an attempt to start DB2 by some means other than the command -START DB2.

This abend reason code is issued by the following CSECT: DSNYASCP

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the parameter value.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 3, 5, 8.

00E80011

Explanation: MVS was unable to make the address space nonswappable.

This abend reason code is issued by the following CSECT: DSNYASTR

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 3, 5, 8.

00E80012

Explanation: An error occurred when a POST was issued from the system services address space to a resource manager address space in order to indicate the results of the MGCR invocation.

This abend reason code is issued by the following CSECT: DSNYASTR

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: The resource manager address space might be abnormally terminating.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 3, 5, 8.

00E80013

Explanation: MVS was unable to create a resource manager address space.

This abend reason code is issued by the following CSECT: DSNYASTR

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of an 8-byte field that contains the following diagnostic information: bytes 1 through 4, the four character resource manager address space name; bytes 5 through 8, the MGCR return code.

Probable cause is that the MVS auxiliary storage management has inhibited the starting of new address spaces because of a shortage of real storage.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 3, 5.

00E8001F

Explanation: An unsupported function request was detected by the DB2 address space start function.

This abend reason code is issued by the following CSECT: DSNYASTR

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the function request value.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 3, 5.

00E8002F

Explanation: An unsupported function request was detected by the DB2 address space stop function.

This abend reason code is issued by the following CSECT: DSNYASTP

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the function request value.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 3, 5.

00E80031

Explanation: An unsupported input parameter was detected for allied address space initialization.

This abend reason code is issued by the following CSECT: DSNYALLI

System Action: The caller’s task is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the parameter value.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 3, 5.

00E80032

Explanation: An unsupported input parameter was detected for allied address space termination.

This abend reason code is issued by the following CSECT: DSNYALLI

System Action: The caller’s task is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the parameter value.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 3, 5.

00E80033

Explanation: This reason code accompanies a `X'04F'` system abend code. This module detected that the DB2 subsystem was terminating. Refer to “Appendix A. CICS Transaction Abend/Dump Code” on page X-3.

This abend reason code is issued by the following CSECT: DSNYALLI

System Action: The caller’s task is abended with code `X'04F'`.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 3, 5.

00E8003C

Explanation: An address space control element (ASCE) could not be located for the executing address space during EOM processing.

This abend reason code is issued by the following CSECT: DSNYALLI

System Action: The caller’s task is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 3, 5.

00E8003D

Explanation: An unrecovered resource (for example, a latch) was detected for a must-complete function.

This abend reason code is issued by the following CSECT: DSNYALLI

System Action: Abnormal termination of the DB2 subsystem is initiated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Refer to “Appendix A. CICS Transaction Abend/Dump Code” on page X-3 for information on `X'04F'` and `X'04E'` abend completion codes.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 3, 5.

00E8003E

Explanation: MVS was unable to establish an ESTAE in an address space about to be initialized as a DB2 allied address space.

This abend reason code is issued by the following CSECT: DSNYALLI

System Action: The caller's task is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Refer to "Appendix A. CICS Transaction Abend/Dump Code" on page X-3 for information on X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 3, 5.

00E8003F

Explanation: An unsupported function request was detected by the allied address space control function.

This abend reason code is issued by the following CSECT: DSNYALLI

System Action: The caller's task is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the function value.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 3, 5.

00E80041

Explanation: An error occurred when a POST was issued from an allied address space to the system services address space in order to indicate a pending allied authorization request.

This abend reason code is issued by the following CSECT: DSNYAUTH

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: The system services address space might be abnormally terminating.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 3, 5.

00E80042

Explanation: An error occurred when a POST was issued from the system services address space to a resource manager address space in order to indicate a pending allied authorization request.

This abend reason code is issued by the following CSECT: DSNYAUTH

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: The resource manager address space might be abnormally terminating.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 3, 5.

00E8004F

Explanation: An unsupported function request was detected by the allied address space authorization function.

This abend reason code is issued by the following CSECT: DSNYAUTH

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the function request value.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 3, 5.

00E80051

Explanation: An error was detected in the command that was used to start the DB2 subsystem. There are two conditions that can cause this error. If the -START DB2 command is in error, this abend results.

Secondly, if the DB2 subsystem is not running (had never been started, or had been stopped), any DB2 command that is entered is interpreted as being a -START DB2 command. In this second case, the subsystem starts just long enough to discover that the command actually is not a -START DB2 command and then issues the abend.

This abend reason code is issued by the following CSECT: DSNYSTRT

System Action: The DB2 subsystem is terminated.

Operator Response: Reenter the command if it was entered in error; otherwise advise the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

This error does not cause a SYS1.LOGREC record to be written or an SVC dump to be requested. A diagnostic tool (for example, MVS SLIP) is required to get subcomponent diagnostic information.

Problem Determination: Register 9 contains the address of a 12-byte field that contains the following diagnostic information: bytes 1 through 4, the address of the buffer that contains the command used to start DB2; bytes 5 through 8, the general command processor return code; bytes 9 through 12, the IPC command processor return code, or 'FFFFFFFF' if bytes 5 through 8 contain a positive value.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 3, 5.

00E80052

Explanation: A resource manager provided notification of failure during facility startup notification processing.

This abend reason code is issued by the following CSECT: DSNYSTRT

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the RMID of the resource manager that requested DB2 subsystem termination.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 3, 5.

00E80053

Explanation: A resource manager provided notification of failure during release work notification processing.

This abend reason code is issued by the following CSECT: DSNYSTRT

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the RMID of the resource manager that requested DB2 subsystem termination.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 3, 5.

00E80054

Explanation: The recovery manager (RM) subcomponent provided notification of an error during restart recovery processing.

This abend reason code is issued by the following CSECT: DSNYSTRT

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the return code from the recovery manager subcomponent.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 3, 5.

00E80055

Explanation: The recovery manager (RM) subcomponent detected an error during DB2 checkpoint processing.

This abend reason code is issued by the following CSECT: DSNYSTRT

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the return code from the recovery manager subcomponent.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 3, 5.

00E80056

Explanation: During startup, DB2 was unable to access DSN6FAC in ZPARMS and therefore was unable to determine whether the distributed data facility was to be loaded.

This abend reason code is issued by the following CSECT: DSNYSTRT

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Assemble DSN6FAC and re-link-edit the DSNZPARM load module.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 9.

00E80057

Explanation: An error occurred while trying to start a DB2 resource manager address space. A possible cause of this problem would be a JCL error in a start up procedure. Note that the error is probably not in the address space that issued this abend.

This abend reason code is issued by the following CSECT: DSNYSTRT

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 3.

00E80058

Explanation: The version of DB2 that you are attempting to start is not compatible with this version of MVS. This version of DB2 requires MVS/ESA.

System Action: The DB2 subsystem is not started.

Operator Response: Notify the system programmer.

System Programmer Response: Change the DB2 start-up procedures to use a version of DB2 that is compatible with the version of MVS that you are using.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 5.

This abend reason code is issued by following CSECT: DSNYASCP

00E8005F

Explanation: An unsupported function request was detected by the DB2 subsystem startup control function.

This abend reason code is issued by the following CSECT: DSNYSTRT

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the function request value.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 3, 5.

00E80061

Explanation: A resource manager initialization table (RMIT) that has an invalid format was detected.

This abend reason code is issued by the following CSECT: DSNYSDLB

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of an 8-byte field that contains the name of the load module in which the invalid resource manager initialization table (RMIT) format exists.

Probable cause is that the load module does not contain an RMIT or, the linkage editor entry control statement does not specify the RMIT as the module entry point.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 3, 5.

00E8006F

Explanation: An unsupported function request was detected by the definitional control block management function.

This abend reason code is issued by the following CSECT: DSNYSDLB

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the function request value.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 3, 5.

00E8007F

Explanation: An unsupported function request was detected by the application program call parameter management function.

This abend reason code is issued by the following CSECT: DSNYSPCB

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the function request value.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 3, 5.

00E80081

Explanation: An invalid initialization load module list (ILML) was detected.

This abend reason code is issued by the following CSECT: DSNYSIRM

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: The module might not contain an initialization load module list or the linkage editor entry control statement might not specify the initialization load module list as the module entry point.

Register 9 contains the address of an 8-byte field that contains the name of the module that holds the invalid initialization load module list.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 3, 5.

00E80084

Explanation: A resource manager provided notification of failure during subsystem startup notification processing.

This abend reason code is issued by the following CSECT: DSNYSIRM

System Action: The DB2 subsystem is terminated.

Operator Response: Verify that you entered the -START DB2 command using the correct DSNZPARM initialization parameter module. If it was not, reenter the command with the correct DSNZPARM module. Otherwise, notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the RMID of the resource manager that requested DB2 subsystem termination.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 3, 5, 8, 9, 16, 19.

00E8008F

Explanation: An unsupported function request was detected by the resource manager initialization function.

This abend reason code is issued by the following CSECT: DSNYSIRM

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the function request value.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 3, 5.

00E80091

Explanation: An error occurred when a POST was issued from the control address space to a resource manager address space in order to indicate that DB2 shutdown is to be initiated for that address space.

This abend reason code is issued by the following CSECT: DSNYSTOP

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: The resource manager address space might be abnormally terminating.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 3, 5.

00E8009F

Explanation: An unsupported function request was detected by the DB2 subsystem shutdown control function.

This abend reason code is issued by the following CSECT: DSNYSTOP

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the function request value.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 3, 5.

00E800AF

Explanation: An unsupported function request was detected by the resource manager termination function.

This abend reason code is issued by the following CSECT: DSNYSTRM

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the function request value.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 3, 5.

00E800B1

Explanation: A service task could not be created during processing of the -STOP DB2 command.

This abend reason code is issued by the following CSECT: DSNYSCMD

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the return code from the create-service task function of the agent services manager (ASM) subcomponent.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 3, 5.

00E800CE

Explanation: MVS was unable to establish an ESTAE for the stop-work notification function.

This abend reason code is issued by the following CSECT: DSNYSTPW

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the ESTAE macro return code.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 3, 5.

00E800D1

Explanation: A resource manager provided notification of failure during local memory-create notification processing.

This abend reason code is issued by the following CSECT: DSNYAGCS

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 8 contains the address of a 4-byte field that contains the RMID of the resource manager that requested DB2 subsystem termination.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 3, 5.

00E800D2

Explanation: An error was encountered while attempting to obtain the MVS LOCAL lock.

This abend reason code is issued by the following CSECT: DSNYAGCS

System Action: The DB2 subsystem is terminated.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 3, 5.

00E800D3

Explanation: An error was encountered while attempting to release the MVS LOCAL lock.

This abend reason code is issued by the following CSECT: DSNYAGCS

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 2, 3, 5.

00E800DF

Explanation: An unsupported function request was detected by the address space global common services function.

This abend reason code is issued by the following CSECT: DSNYAGCS

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a print of SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Register 9 contains the address of a 4-byte field that contains the function request value.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 3, 5.

00E80100

Explanation: The DB2 subsystem was abended because the DB2 address space control task ESTAE was entered. This reason code is issued for all abend completion codes, except for the X'04E' abend completion code.

This abend reason code is issued by the following CSECT: DSNYECTE

System Action: Termination of the DB2 subsystem is initiated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

The DB2 subsystem is unable to determine the cause of the error.

Problem Determination: The subcomponent that caused the error is unknown. Refer to “Appendix A. CICS Transaction Abend/Dump Code” on page X-3 for information on X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 3, 5, 9, 16, 19.

00E8011D

Explanation: An unrecovered resource (for example, a latch) was detected for a must-complete function.

This abend reason code is issued by the following CSECT: DSNYEATE

System Action: Termination of DB2 subsystem is initiated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Refer to “Appendix A. CICS Transaction Abend/Dump Code” on page X-3 for information on X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 3, 5.

00E8011E

Explanation: The allied address space task primary ESTAE detected that MVS was unable to establish the secondary ESTAE.

This abend reason code is issued by the following CSECT: DSNYEATE

System Action: Abnormal termination of allied address space is continued.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 3, 5.

00E8011F

Explanation: The allied address space task primary ESTAE was entered without a subsystem diagnostic work area (SDWA) provided by MVS RTM.

This abend reason code is issued by the following CSECT: DSNYEATE

System Action: Abnormal termination of the allied address space is continued.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 3, 5.

00E8012D

Explanation: The allied address space task secondary ESTAE detected an unrecovered resource (for example, a latch) for a 'must complete' function.

This abend reason code is issued by the following CSECT: DSNYEAT2

System Action: Abnormal termination of DB2 subsystem is initiated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Refer to “Appendix A. CICS Transaction Abend/Dump Code” on page X-3 for information on X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 3, 5.

00E8012F

Explanation: The allied address space task secondary ESTAE was entered without a subsystem diagnostic work area (SDWA) provided by MVS.

This abend reason code is issued by the following CSECT: DSNYEAT2

System Action: Continue with the abnormal termination of the allied address space.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 3, 5.

00E80130

Explanation: The FRR that protects the -START/-STOP DB2 command processor function was entered while a valid -STOP DB2 command was being processed.

This abend reason code is issued by the following CSECT: DSNYESCF

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Refer to “Appendix A. CICS Transaction Abend/Dump Code” on page X-3 for information on `X'04F'` and `X'04E'` abend completion codes.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 3, 5.

00E80140

Explanation: The ESTAE that protects the stop work notification function was entered.

This abend reason code is issued by the following CSECT: DSNYESWE

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Refer to “Appendix A. CICS Transaction Abend/Dump Code” on page X-3 for information on `X'04F'` and `X'04E'` abend completion codes.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 3, 5.

00E80150

Explanation: An initialization entry point list having an invalid format was detected.

This abend reason code is issued by the following CSECT: DSNYEMCL

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of an 8-byte field that holds the name of the load module in which the invalid initialization entry point list exists.

Probable cause is that the module does not contain an initialization entry point list or the linkage editor entry control statement does not specify the initialization entry point list as the module entry point.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 3, 5.

00E80151

Explanation: An invalid module entry point address was detected in an initialization entry point list entry.

This abend reason code is issued by the following CSECT: DSNYEMCL

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 12-byte field that contains the following diagnostic information: bytes 1 through 8, the name of the load module that contains the initialization entry point list with the invalid entry; bytes 9 through 12, and the entry number of the initialization entry point list entry. Probable cause is that the initialization entry point list entry defines an invalid module entry point or defines a valid entry point for a module that has not been included in the loaded module.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 3, 5.

00E8015F

Explanation: An unsupported function request was detected by the module entry point list (MEPL) management function.

This abend reason code is issued by the following CSECT: DSNYEMCL

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the function request value.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 3, 5.

00E80160

Explanation: During DB2 startup processing, the Initialization Procedures subcomponent detected a load module with an invalid AMODE or RMODE attribute. The abend is preceded by message DSNY006I or by DSNY007I.

This abend reason code is issued by the following CSECTs:

DSNYASCP DSNYASTR DSYSIRM DSNYSTRT

System Action: Subsystem startup is terminated.

Operator Response: See message DSNY006I or message DSNY007I.

System Programmer Response: The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA). If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

See message DSNY006I or message DSNY007I.

Problem Determination: See message DSNY006I or message DSNY007I.

00E80161

Explanation: During DB2 subsystem startup processing, the Initialization Procedures subcomponent detected a load module that was not at the same version of DB2 as the subsystem being started.

This abend reason code is issued by the following CSECT: DSNYASCP

System Action: Subsystem startup is terminated.

Operator Response: See message DSNY010I.

System Programmer Response: The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA). If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

See message DSNY010I.

Problem Determination: See message DSNY010I.

00E80170

Explanation: You requested a facility that was not loaded or started at the time DB2 started. Whether or not to load or start a facility is contained in the DSN6FAC member in ZPARMS.

This reason code is returned to the calling CSECTs by DSNYNFAC along with a return code of 8.

This is not an error in DSNYNFAC. If an error exists, it might be in the calling CSECT or in the DSN6FAC member in ZPARMS.

System Action: This is determined by the caller of DSNYNFAC.

Operator Response: Notify the system programmer.

System Programmer Response: If it can be determined that DSN6FAC is in error, assemble DSN6FAC with corrections and re-link-edit the DSNZPARM load module.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5, 9.

X'E9.....' Codes

00E90101

Explanation: This reason code is issued when a DB2 directory cannot be opened. This is probably a DB2 subsystem error.

This abend reason code is issued by the module identified in the SYS1.LOGREC entry for this abend code.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a print of SYS1.LOGREC and the SVC dump.

Problem Determination: This abend results when any one of a number of DB2 internal directories cannot be opened. One customer-usable directory can also cause this abend if it cannot be opened. This is the DSNZPARM directory that is established at installation.

This directory may have a name different from that specified at installation, because the customer has the option of changing the name during installation. Ensure that the DSNZPARM directory (or its equivalent) is available to be opened.

If the DSNZPARM directory (or its equivalent) is available, the problem is a DB2 subsystem problem. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend is intercepted by an FRR or ESTAE for the subcomponent or module that issued the DSNZOPEN request. The module containing the abended request is identified in the SYS1.LOGREC entry. This information may be useful in communicating with IBM about the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 5, 8, 9, 32.

00E90201

Explanation: An incorrect parameter was encountered. This reason code is issued by module DSNZTGET in response to a DSNZGDE request. This is a DB2 subsystem error.

This abend reason code is issued by the following CSECT: DSNZTGET

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a print of SYS1.LOGREC and the SVC dump.

Problem Determination: Locate the caller’s save area by examining register 13 in the SYS1.LOGREC register save area. Registers 0 and 1 in the caller’s save area identify the incorrect parameter(s).

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 5, 8, 9, 32.

00E90202

Explanation: An error was found in the directory control information for a DB2 directory. This is probably a DB2 subsystem error.

This abend reason code is issued by the following CSECT: DSNZTGET

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a print of SYS1.LOGREC and the SVC dump.

Problem Determination: This abend results when incorrect control information is found for any one of a number of DB2 internal directories. One customer-usable directory can also cause this abend. This is the DSNZPARM directory that is established during installation.

This directory may have a name different from that specified at installation, because the customer has the option of changing the name during installation. Ensure that the DSNZPARM directory (or its equivalent) is available.

If the DSNZPARM directory (or its equivalent) is available, the problem is a DB2 subsystem problem. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 5, 8, 9, 32.

00E90203

Explanation: An error was found in the descriptor control information for a DB2 directory. This is probably a DB2 subsystem error.

This abend reason code is issued by the following CSECT: DSNZTGET

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a print of SYS1.LOGREC and the SVC dump.

Problem Determination: This abend results when the descriptor control information is incorrect for any one of a number of DB2 directories. One customer-usable directory can also cause this abend. This is the DSNZPARM directory that is established at installation.

This directory may have a name different from that specified at installation, because you have the option of changing the name during installation. Ensure that the DSNZPARM directory (or its equivalent) is available.

If the DSNZPARM directory (or its equivalent) is available, the problem is a DB2 subsystem problem. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 5, 8, 9, 32.

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00E90301

Explanation: This reason code is issued when a DB2 directory cannot be closed. This is probably a DB2 subsystem error.

This abend reason code is issued by the module identified in the SYS1.LOGREC entry for this abend code.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a print of SYS1.LOGREC and the SVC dump.

Problem Determination: This abend results when any one of a number of DB2 internal directories cannot be closed. One customer-usable directory can also cause this abend if it cannot be closed. This is the DSNZPARM directory that is established at installation.

This directory may have a name different from that specified at installation, because you have the option of changing the name during installation. Ensure that the DSNZPARM directory (or its equivalent) is available to be opened.

If the DSNZPARM directory (or its equivalent) is available, the problem is a DB2 subsystem problem. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend is intercepted by an FRR or ESTAE for the subcomponent or module that issued the DSNZOPEN request. The module containing the abended request is identified in the SYS1.LOGREC entry. This information may be useful in communicating with IBM about the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 5, 8, 9, 32.

X'F1.....' Codes

The DSN1LOGP service aid can abend with user abend code X'099'. You can find the corresponding abend reason code in register 15 at the time of error.

00F10100

Explanation: An internal error has been detected in the DSN1LOGP service aid.

Operator Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00F10101

Explanation: The stand-alone log read function returned an invalid RBA. See the explanation for message DSN1211E.

Operator Response: If you determine that the data set is a log data set and it is not damaged, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

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X'F3.....' Codes

Many of the following abend reason codes are returned in register 15 at the time of an X'0Cx' system abend and not as the reason code for an X'04E' abend. This is indicated in the descriptions that follow.

00F30001

Explanation: This reason code may be returned to subsystem-type recovery coordinators when they connect to DB2 or during processing of indoubt threads to inform the coordinator that further recovery coordination actions are required.

This reason code is not normally visible to users or operators, but may appear in DB2 traces.

This reason code is issued by the following CSECTs:

DSN3ID30 DSN3RIA0 DSN3RIS0

System Action: Processing continues.

00F30002

Explanation: The requested DB2 subsystem, as specified by the subsystem name, is not active. The option to notify the requester, either via an ECB post or a SEND/MODIFY MVS command, is accepted.

This reason code is issued by the following CSECT: DSN3CL0X

System Action: The request to notify the caller when the subsystem is active is queued for processing during subsystem startup.

User Response: Retry the connection request after DB2 has been started.

00F30003

Explanation: An abend has occurred during an attempt to access or modify the caller-provided function request block (FRB) while executing in the caller's PSW key.

This abend reason code is issued by the following CSECTs:

DSNAPRH DSNAPRHX DSN3CL0X DSN3ID00

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: See Problem Determination.

Problem Determination: This reason code is placed in register 15 during any access to an attachment-provided function request block (FRB). A subsequent X'0Cx' abend indicates an FRB addressability problem. This abend is probably the result of a logic error in the attachment facility.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 5, 49.

00F30004

Explanation: An abend has occurred during an attempt to access the attachment-provided parameter list while executing in the caller's PSW key.

This abend reason code is issued by the following CSECTs:

DSNAPRH	DSNAPRHX	DSN3CL0X	DSN3CT30
DSN3CT80	DSN3EXT0	DSN3ID00	DSN3ID30
DSN3ID80	DSN3PR00	DSN3RIA0	DSN3SI30
DSN3SI80	DSN3TR00		

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: See Problem Determination.

Problem Determination: This reason code is placed in register 15 during any access to an attachment-provided parameter list. A subsequent X'0Cx' abend indicates a parameter addressability problem.

This abend is probably the result of a logic error in the attachment facility. For call attachment users, the abend may have been caused by a bad parameter address passed to call attachment.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 5, 49.

00F30005

Explanation: An error was detected during processing of a request to establish or delete a 'termination ECB'. Either a parameter value was incorrect or an abend occurred while accessing the attachment-provided parameter list.

This reason code is issued by the following CSECT: DSN3EXT0

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: See Problem Determination.

Problem Determination: For the nonabend case, either the ECB address was zero or the Request Code was not 'Establish' or 'Delete'. If the reason code is in register 15 on an abend, either the parameter list or a parameter value was not addressable in the caller's PSW key.

The error may be the result of an internal error in the attachment facility. Call attachment users should check that the supplied ECB address is not zero and that it is addressable in their PSW key.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 5, 49.

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00F30006

Explanation: A failure occurred while processing the 'Subsystem Name' during connection processing. In the abend case, connection processing failed when accessing the 'Subsystem Name' in the caller's PSW key. In the nonabend case, MVS was unable to locate a DB2 subsystem with the specified name.

This reason code is issued by the following CSECT: DSN3ID00

System Action: The request is not processed.

User Response: A dump should be taken in your recovery routine for abend analysis. If the named subsystem could not be found, verify that the correct subsystem name was specified. Call attachment users should note that the Translate function cannot be invoked for this reason code.

System Programmer Response: See Problem Determination.

Problem Determination: If the named subsystem could not be found, scan the MVS system log to verify that it was initialized during MVS IPL processing.

If this reason code was specified in register 15 on an abend, check that the subsystem name value is addressable in the caller's PSW key.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00F30007

Explanation: A failure occurred while processing the 'Connection Type' parameter during connection processing. Either the 'Connection Type' value was invalid or an abend occurred accessing the parameter using the caller's PSW key.

This reason code is issued by the following CSECTs: DSN3CL0X, DSN3ID30.

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: See Problem Determination.

Problem Determination: For the abend case, this reason code is placed in register 15 to identify which parameter was not addressable in the caller's PSW key. This failure is probably the result of a logic error in the attachment facility.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 5, 49.

00F30008

Explanation: A failure occurred while processing the 'Notify Message/Startup ECB' parameter during connection processing. An abend occurs while accessing the parameter or while verifying that the ECB word was addressable in the caller's PSW key. In the nonabend case, either the parameter had a zero length or the supplied ECB address was zero.

This reason code is issued by the following CSECT: DSN3CL0X

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: See Problem Determination.

Problem Determination: For the abend case, this reason code is placed in register 15 to identify which parameter was not addressable in the caller's PSW key. The failure may be due to a logic error in the attachment facility. Call attachment users should verify that the Startup ECB address is nonzero and that the ECB word is addressable in their PSW key.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 5, 49.

00F30009

Explanation: A request was received to establish a termination ECB, but a termination ECB had already been established for the connected task.

This reason code is issued by the following CSECT: DSN3EXT0

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: Obtain all dumps taken by the attachment facility or invoking application.

Problem Determination: This failure is probably the result of a logic error in the attachment facility.

00F30010

Explanation: A request was received to delete a termination ECB, but a termination ECB has not been established for the connected task.

This reason code is issued by the following CSECT: DSN3EXT0

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: Obtain all dumps taken by the attachment facility or invoking application.

Problem Determination: This failure is probably the result of a logic error in the attachment facility.

00F30011

Explanation: A connection or other work request was received, but the designated DB2 subsystem is not active. If the request was to connect to the subsystem, and the Notify Message/Startup ECB was supplied, it was not accepted.

This reason code is issued by the following CSECTs: DSN3CL0X, DSNAPRHX.

System Action: The request is not processed.

User Response: If the failure occurred on a connection request and a Notify Message/Startup ECB was provided, a dump should be taken for problem analysis. Reconnect to DB2 when the subsystem is active again.

System Programmer Response: Obtain all dumps taken by the attachment facility or invoking application.

Problem Determination: The Notify Message or Startup ECB could not be accepted for one of two reasons.

- Storage for a buffer could not be obtained, or

- the length of the Message/ECB parameter was zero.

In the latter case, the attachment facility is probably in error. If insufficient storage was available for a buffer, the size of the CSA in 24-bit storage should be increased.

00F30012

Explanation: The requested DB2 subsystem, as specified by the subsystem name, is not active. The option to notify the requester, either via an ECB post or a SEND/MODIFY MVS command, is accepted, but overlays a previous Notify Message/Startup ECB request.

This reason code is issued by the following CSECT: DSN3CL0X

System Action: The request to notify the caller when the subsystem is active is queued for processing during subsystem startup.

User Response: Retry the connection request after DB2 has been started.

00F30013

Explanation: The requester is not authorized to connect to this DB2 subsystem. This condition might indicate an attempted security violation.

This reason code is issued by the following CSECT: DSN3AUCN

System Action: The connection request is denied.

User Response: Verify that you have specified the correct RACF authorization ID. If necessary, request authorization to access the DB2 subsystem from your security administrator.

System Programmer Response: Examine the console/SYSLOG output for RACF messages issued when a request is denied. Refer the user to your security administrator if the user should be granted authorization to a DB2 subsystem. Refer to Section 3 (Volume 1) of *Administration Guide* for examples of how to authorize users to specific DB2 subsystems.

Problem Determination: During TCB connection processing, Subsystem Support invokes the RACROUTE service (causing a RACF RACHECK) to verify the authorization ID associated with the requester. If the RACF return code indicates the requester is not authorized to connect to this DB2 subsystem, the connection request is terminated with this reason code.

00F30014

Explanation: The requester of a Subsystem Support function (for example, ABORT) for a connection is not in the same PSW key as when the connection was created.

This abend reason code is issued by the following CSECTs:

DSN3AB00	DSN3CM00	DSN3CT80	DSN3PR00
DSN3SI30	DSN3SY00		

System Action: The requester's task is abended with code X'04E'.

User Response: A dump should be taken for problem analysis.

System Programmer Response: See Problem Determination.

Problem Determination: This failure may be the result of a logic error in the attachment facility or an intentional attempt to violate DB2 connection protocols. The error should be evaluated in the same way as a system X'0C2' abend, an attempt by a nonprivileged program to perform privileged operations.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5, 49.

00F30015

Explanation: The attachment facility specified an invalid combination of values of FRBRALE and FRBQUAL. No Program Request Handler exists to service the call.

This reason code is issued by the following CSECT: DSNAPRHX

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: Obtain all dumps taken by the attachment facility and requesting application.

Problem Determination: Register 1 contains a pointer to the FRB at the entry to DSNAPRHX. The FRBRALE and FRBQUAL values in the caller's FRB should be examined to determine which one is in error. Not all combinations of valid FRBRALE and FRBQUAL values are supported. Each RALE is supported differently.

00F30016

Explanation: The attachment facility specified an invalid FRBRALE value. The value is outside the limits of those supported for the requesting connection. This can occur in many cases, one of which is when an SQL call is requested with a blank plan name by the requester.

This reason code is issued by the following CSECT: DSNAPRHX

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: Obtain all dumps taken by the attachment facility and requesting application.

Problem Determination: Register 1 contains a pointer to the FRB at the entry to DSNAPRHX. FRBRALE contains the invalid value that was passed. The value passed is not consistent with the resources allocated to the connected application.

If the plan name contains blanks, an SQL call is invalid. The requester should respecify the plan name and issue the request again.

00F30017

Explanation: The attachment facility specified an invalid FRBQUAL value. The value is outside the limits of those supported for the requesting connection.

This reason code is issued by the following CSECT: DSNAPRHX

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: Obtain all dumps taken by the attachment facility and requesting application.

Problem Determination: Register 1 contains a pointer to the FRB at the entry to DSNAPRHX. FRBQUAL contains the invalid value that was passed. The value passed is not consistent with the resources allocated to the connected application.

00F30018

Explanation: The requester's TCB is not connected to this instance of the DB2 subsystem. The TCB may have been connected to a previous instance.

This reason code is issued by the following CSECT: DSNAPRHX

System Action: The request is not processed.

User Response: You should request a new connection to DB2.

System Programmer Response: See Problem Determination.

Problem Determination: This error could occur if the DB2 subsystem had terminated and the connected application had issued a DB2 work request without re-establishing the connection after the subsystem was restarted.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00F30019

Explanation: The requester's primary ASID (PASID) is not equal to the home ASID (PSAAOLD).

This reason code is issued by the following CSECT: DSNAPRHX

System Action: The request is not processed.

User Response: You may want to take a dump for problem analysis. The request may be retried, but first ensure the CPU is not in cross-memory mode.

System Programmer Response: See Problem Determination.

Problem Determination: No requester of a DB2 attachment facility may be in cross-memory mode. That is, PASID must equal HASID, which must equal SASID.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 49.

00F30020

Explanation: An error was detected while processing the 'Commit Option' on a SSAM termination request. Either the value of the 'Commit Option' parameter was not valid or an abend occurred when accessing the parameter.

This abend reason code is issued by the following CSECTs:

DSN3ID80	DSN3SI80	DSN3TR00

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: See Problem Determination.

Problem Determination: For the abend case, this reason code is placed in register 15 to identify which parameter was not addressable in the caller's PSW key. The failure may be the result of a logic error in the attachment facility. Call Attachment users should note that only 'SYNC' and 'ABRT' are valid terminate options.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 5, 49.

00F30021

Explanation: An attachment facility issued a Subsystem Support request, but provided too few or too many parameters.

This abend reason code is issued by the following CSECTs:

DSN3AB00	DSN3CM00	DSN3CT30	DSN3CT80
DSN3EXT0	DSN3ID30	DSN3ID80	DSN3PR00
DSN3RIA0	DSN3SI30	DSN3SI80	DSN3SY00

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: Obtain all dumps taken by the attachment facility or by the requesting application.

Problem Determination: This failure is probably the result of a logic error in the attachment facility.

Upon entry to each of the CSECTs listed above, register 1 contains the address of the Function Request Block (FRB). FRBPCNT contains the number of passed parameters and FRBPARM points to a list of parameter addresses. The required number of parameters is unique to the calling protocol for each CSECT.

00F30022

Explanation: An error was detected while processing the 'Connection Name' for a connection request. Either the value of the 'Connection Name' parameter was not valid or an abend occurred when accessing the parameter.

This abend reason code is issued by the following CSECT: DSN3ID30

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: See Problem Determination.

Problem Determination: For the abend case, this reason code is placed in register 15 to identify which parameter was not addressable in the caller's PSW key. A 'Connection Name' is invalid if it is not a printable string (e.g. binary zeros). The failure is probably the result of a logic error in the attachment facility.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 5, 49.

00F30023

Explanation: This reason code may be returned during connection processing if the connection name is already in use by another allied address space, but the connection type is different.

This reason code is not normally visible to users or operators, but may appear in DB2 traces. The ally attempting to connect to DB2 should have produced diagnostic information relating to the connection failure.

This reason code is issued by the following CSECT: DSN3ID30

System Action: The connection request is rejected.

System Programmer Response: Collect the diagnostics produced by the allied address space which could not connect to DB2.

Problem Determination: Follow the instructions indicated by the diagnostics to assure that a different connection name will be used on future attempts to connect to DB2.

00F30024

Explanation: The 'connection name' or 'connection type' does not match the name or type established by another connected task in the address space.

This reason code is issued by the following CSECT: DSN3ID30

System Action: The connection request is denied.

User Response: A dump should be taken for problem analysis.

System Programmer Response: See Problem Determination.

Problem Determination: All tasks within an address space connecting to the same DB2 subsystem must connect with the same connection name and type. Tasks within TSO and batch address spaces using the 'BATCH' connection type may specify unequal connection names. The failure is probably the result of a logic error in the attachment facility.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 49.

00F30025

Explanation: A request to establish a DB2 termination ECB has completed successfully; however, DB2 is stopping. The new termination ECB might not be posted.

This reason code is issued by the following CSECT: DSN3EXT0

System Action: Control is returned to the attachment facility.

User Response: Since DB2 is stopping, you should attempt to terminate your connection. Next, issue a connect request and provide a Startup ECB. When the Startup ECB is posted, issue the connect request again to re-establish your connection to the restarted DB2.

00F30026

Explanation: The attachment facility specified an invalid FRBFVLE value. The value is outside the limits of those supported for the requesting connection.

This reason code is issued by the following CSECT: DSNAPRHX

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: Obtain all dumps taken by the attachment facility and requesting application.

Problem Determination: Register 1 contains a pointer to the FRB at the entry to DSNAPRHX. FRBFVLE contains the invalid value that was passed. The value passed must not be zero and it must be consistent with the resource requested by FRBRALE.

00F30027

Explanation: An error occurred while processing the 'Weighting Factor' parameter. This parameter was provided by the attachment facility on a request to allocate a DB2 plan to the application.

Either an abend occurred accessing the 'Weighting Factor' or the value of the parameter is out of range.

This abend reason code is issued by the following CSECT: DSN3CT30

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: See Problem Determination.

Problem Determination: For the abend case, this reason code is placed in register 15 to identify which parameter was not addressable in the caller’s PSW key. The value of the 'Weighting Factor' must be a positive number between zero and 255. The failure is probably the result of a logic error in the attachment facility.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 5, 49.

00F30028

Explanation: This reason code is returned when previous invocations of DB2 have set the thread into a state such that the only acceptable request that can be made for the thread is ABORT. This could occur, for example, if the ally has issued "Prepare to Commit" and DB2 returned a "No" vote on the call. In this situation, the only acceptable request for the ally to make is ABORT.

This reason code is not normally visible to users or operators, but may appear in DB2 traces. The ally may have produced diagnostics to report this condition, or it may handle this condition internally without requiring outside intervention.

This reason code is issued by the following CSECTs: DSN3TR00, DSN3CHM00

System Action: The current allied request is rejected. The state of the thread is unchanged.

System Programmer Response: Collect any diagnostics produced by the allied address space.

Problem Determination: Follow the instructions indicated by the diagnostics, if any.

00F30029

Explanation: This reason code is returned when a COMMIT request is received in an improper context. Either a PREPARE is required before the COMMIT request, or the connection type does not allow a COMMIT request.

This reason code is not normally visible to users or operators, but may appear in DB2 traces.

This reason code is issued by the following CSECTs: DSN3CM00, DSN3TR00

System Action: The current allied request is rejected. The state of the thread is unchanged.

00F30030

Explanation: An abend has occurred during an attempt to access the caller-provided 'INDOUBT RESOLUTION' parameter while executing in the PSW key. This is probably the result of a logic error in the requesting program.

This abend reason code is issued by the following CSECTs: DSN3RIA0, DSN3RIM0

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs this register indicates which parameter caused the error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5.

00F30031

Explanation: This reason code is returned when a DEALLOCATE request is received from a CICS or IMS thread, but PREPARE has already completed for the thread and either COMMIT or ABORT are the only acceptable requests.

This reason code is not normally visible to users or operators, but may appear in DB2 traces.

This reason code is issued by the following CSECT: DSN3TR00

System Action: The current allied request is rejected. The state of the thread is unchanged. The ally issuing the DEALLOCATE request may have produced diagnostics related to this error.

System Programmer Response: Collect the diagnostics produced by the allied address space, if any.

Problem Determination: Follow the instructions indicated by the diagnostics.

00F30032

Explanation: An error occurred while processing the 'Indoubt Resolution' parameter. This parameter was provided by the attachment facility on a request to allocate a DB2 plan to the application.

Either an abend occurred accessing the 'Indoubt Resolution' or the value of the parameter is incorrect for this connection type.

This abend reason code is issued by the following CSECT: DSN3CT30

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: See Problem Determination.

Problem Determination: For the abend case, this reason code is placed in register 15 to identify which parameter was not addressable in the caller’s PSW key. For TSO, batch, and Call Attachment connections, the value of the 'Indoubt Resolution' parameter must be 'NO'. The failure is probably the result of a logic error in the attachment facility.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 5, 49.

00F30033

Explanation: An abend has occurred during an attempt to access the 'Plan Name' parameter while executing in the caller’s PSW key.

This abend reason code is issued by the following CSECT: DSN3CT30

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: See Problem Determination.

Problem Determination: This reason code is placed in register 15 to identify which parameter was not addressable in the caller’s PSW key. The failure may be the result of a logic error in either the attachment facility or the requesting application.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 5, 49.

00F30034

Explanation: The authorization ID associated with this connection is not authorized to use the specified plan name or the specified plan name does not exist.

This reason code is issued by the following CSECTs: DSN3CT30, DSN3SI30

System Action: The request to allocate a plan to the authorization ID is denied.

User Response: Verify that the correct plan name was specified. If this plan exists, then request execution authority to the plan from either the owner of the plan or from another person given authority to grant execution authority to the plan.

00F30035

Explanation: An abend has occurred during an attempt to access the caller-provided authorization ID while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

This abend reason code is issued by the following CSECT: DSN3SI30

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs this register indicates which parameter caused the error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F30036

Explanation: This reason code may be returned during connection processing for a coordinator thread if a coordinator for that connection name already exists. This may be a case of two IMS or CICS systems using the same connection name.

This reason code is not normally visible to users or operators, but may appear in DB2 traces. The ally attempting to connect to DB2 should have produced diagnostic information relating to the connection failure.

This reason code is issued by the following CSECT: DSN3ID30

System Action: The connection request is rejected.

System Programmer Response: Collect the diagnostics produced by the allied address space which could not connect to DB2.

Problem Determination: Follow the instructions indicated by the diagnostics to ensure that a different connection name will be used on future attempts to connect to DB2.

00F30037

Explanation: This reason code may be returned during connection processing for a CICS or IMS dependent (noncoordinator) thread if a coordinator for that connection name does not already exist. This may be an internal error in CICS, IMS, or the attachment package.

This reason code is not normally visible to users or operators, but may appear in DB2 traces. The ally attempting to connect to DB2 should have produced diagnostic information relating to the connection failure.

This reason code is issued by the following CSECT: DSN3ID30

System Action: The connection request is rejected.

System Programmer Response: Collect the diagnostics produced by the allied address space which could not connect to DB2.

Problem Determination: Follow the instructions indicated by the diagnostics.

00F30038

Explanation: An abend has occurred during an attempt to access the 'Correlation ID' parameter while executing in the caller's PSW key.

This abend reason code is issued by the following CSECTs: DSN3CT30, DSN3SI30

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: See Problem Determination.

Problem Determination: This reason code is placed in register 15 to identify which parameter was not addressable in the caller's PSW key. The failure is probably the result of a logic error in the attachment facility.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 5, 49.

00F30039

Explanation: This reason code may be returned on a PREPARE request if Network ID (NID) is specified, but NID was previously specified on the CREATE THREAD request. NID cannot be specified on both requests. This may be an internal error in CICS, IMS, or the attachment package.

This reason code is not normally visible to users or operators, but may appear in DB2 traces. The ally issuing the PREPARE to DB2 should have produced diagnostic information relating to the connection failure.

This reason code is issued by the following CSECT: DSN3PR00

System Action: The PREPARE request is rejected.

System Programmer Response: Collect the diagnostics produced by the allied address space which had the failing request.

Problem Determination: Follow the instructions indicated by the diagnostics.

00F30040

Explanation: The allocation of the plan to the connection failed. Either a resource is unavailable or the requested resource (plan) is not known to DB2.

This reason code is issued by the following CSECT: DSN3CT30

System Action: Information on the failing resource name, object type, and a Database Services reason code, that help to explain the allocation failure, are returned to the attachment facility.

User Response: Unknown plans must be bound before they can be accessed.

Call Attachment users may invoke the TRANSLATE function to move the information returned to the attachment facility into the error message field SQLERRMT in the SQLCA.

System Programmer Response: Refer to message DSNT500I for identification of unavailable resources and diagnostics to be collected. Refer to Table 3 in "Appendix B. Problem Determination" on page X-5 for an explanation of resource type codes.

Problem Determination: See response suggestions above.

00F30042

Explanation: An abend has occurred during an attempt to access the caller-provided recovery coordinator option while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

This abend reason code is issued by the following CSECT: DSN3ID30

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs this register indicates which parameter caused the error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F30043

Explanation: A terminate request was received with the 'Deallocate' option, but a unit of recovery is still outstanding for the connection. Either 'SYNC' or 'ABRT' must be requested before resources can be deallocated.

This reason code is issued by the following CSECT: DSN3TR00

System Action: The termination request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: Obtain all dumps taken by the attachment facility or requesting application.

Problem Determination: This failure is probably the result of a logic error in the attachment facility or a DB2 connection management error. This reason code is placed in register 0 and the return code is placed in register 15.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 82 on page X-7.

00F30044

Explanation: This reason code is returned when a DEALLOCATE request is received with uncommitted work outstanding. Either the PREPARE, COMMIT sequence or an ABORT request is required.

This reason code is not normally visible to users or operators, but may appear in DB2 traces.

This reason code is issued by the following CSECT: DSN3TR00

System Action: The current allied request is rejected. The state of the thread is unchanged. The ally issuing the DEALLOCATE request may have produced diagnostics related to this error.

System Programmer Response: Collect the diagnostics produced by the allied address space, if any.

Problem Determination: Follow the instructions indicated by the diagnostics.

00F30045

Explanation: An error has occurred while attempting to locate the Unit of Recovery associated with a DISPLAY, COMMIT, or ABRT request. This is probably the result of a logic error in the requesting program.

This reason code is issued by the following CSECTs: DSN3RIA0, DSN3RIM0

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 0 and the return code is placed in register 15.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 22, 23, 24, 25, 26.

00F30046

Explanation: A terminate request was received with the 'Commit' option, but this option is not supported for this connection type. Only the 'SYNC' or 'ABRT' options are valid for TSO, batch, and Call Attach connections.

This reason code is issued by the following CSECT: DSN3TR00

System Action: The termination request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: Obtain all dumps taken by the attachment facility or requesting application.

Problem Determination: This failure is probably the result of a logic error in the attachment facility.

00F30047

Explanation: This reason code is returned when a RECOVER INDOUBT-ABORT request is received from a CICS or IMS recovery coordinator, but the thread is already in the process of COMMITing.

This reason code is not normally visible to users or operators, but may appear in DB2 traces.

This reason code is issued by the following CSECT: DSN3RIA0

System Action: The current allied request is rejected. The state of the thread is unchanged. The ally issuing the RECOVER INDOUBT-ABORT request may have produced diagnostics related to this error.

System Programmer Response: Collect the diagnostics produced by the allied address space, if any.

Problem Determination: Follow the instructions indicated by the diagnostics.

00F30048

Explanation: An abend has occurred during an attempt to access the attachment-provided 'Network ID' while executing in the caller's PSW key.

This abend reason code is issued by the following CSECTs: DSN3CT30, DSN3PR00

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: See Problem Determination.

Problem Determination: This reason code is placed in register 15 to identify which parameter was not addressable in the caller's PSW key. The failure is probably the result of a logic error in the attachment facility.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 5, 49.

00F30049

Explanation: A request was received to connect the requester's TCB to a DB2 subsystem, but the TCB is already connected.

This reason code is issued by the following CSECT: DSN3ID30

System Action: The connection request is rejected.

User Response: A dump should be taken for problem analysis.

System Programmer Response: Obtain all dumps taken by the attachment facility or requesting application.

Problem Determination: The failure is probably the result of a logic error in the attachment facility.

00F30050

Explanation: A DB2 request has been received after a failure during a previous request and cleanup of the previous request did not complete. This can happen if DB2 recovery was bypassed on a previous request. This bypass occurs if the application has an enabled unlocked task (EUT) FRR active and requested a retry back to the application mainline code.

This reason code is issued by the following CSECT: DSNAPRHX

System Action: The request is not processed. DB2 will terminate the connection when the TCB terminates.

User Response: You must terminate your task. Do not attempt further DB2 requests. Do not request terminating the connection. You should request a dump for problem analysis.

System Programmer Response: See Problem Determination.

Problem Determination: The diagnostic data should be examined for prior failures while processing a request for this connection. Users of the call attachment facility cannot retry from an EUT FRR routine if an error occurs during DB2 processing.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 49.

00F30051

Explanation: This reason code is returned when a RECOVER INDOUBT request is received from a CICS or IMS recovery coordinator, but the thread is still processing in DB2 code other than EOT. The request cannot be processed at this time but may be successful if issued again later.

This reason code is not normally visible to users or operators, but may appear in DB2 traces.

This reason code is issued by the following CSECT: DSN3RIA0

System Action: The current allied request is rejected. The state of the thread is unchanged. The ally issuing the RECOVER INDOUBT request may have produced diagnostics related to this error.

System Programmer Response: Collect the diagnostics produced by the allied address space, if any.

Problem Determination: Follow the instructions indicated by the diagnostics.

00F30052

Explanation: The caller's connection with DB2 has been terminated, because the caller's recovery coordinator has already terminated.

This abend reason code is issued by the following CSECT: DSNAPRHX

System Action: The request has been processed by terminating the agent.

User Response: Your application program may identify to DB2 when its recovery coordinator has identified again.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5.

00F30053

Explanation: An error occurred while processing the 'Current Level' parameter. This parameter was provided by the attachment facility on a termination request.

Either an abend occurred accessing the 'Current Level' or the value of the parameter is invalid.

This abend reason code is issued by the following CSECTs:

DSN3CT80 DSN3ID80 DSN3SI80

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: See Problem Determination.

Problem Determination: For the abend case, this reason code is placed in register 15 to identify which parameter was not addressable in the caller's PSW key. The value of the 'Current Level' parameter must be zero or a number representing the connection's authority level. The failure is probably the result of a logic error in the attachment facility.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 5, 49.

00F30054

Explanation: The value of the 'Current Level' parameter does not match the current authority level of the connection. This parameter was provided by the attachment facility on a termination request.

This reason code is issued by the following CSECTs:

DSN3CT80 DSN3ID80 DSN3SI80

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: Collect all dumps taken by the attachment facility or requesting application.

Problem Determination: The failure is probably the result of a logic error in the attachment facility.

00F30055

Explanation: The maximum number of concurrent identify level agents has been exceeded.

This abend code is issued by the following CSECT: DSN3ID30

System Action: The connection request is not processed.

User Response: Attempt connection to DB2 at a later time.

System Programmer Response: Ensure that the DB2 system parameters controlling the maximum number of concurrent identifies are correct. These system parameters are Max Users, Max TSO connect, and Max Batch connect on installation panel DSNTIPE.

00F30056

Explanation: An IDENTIFY request for connection to DB2 was rejected. DB2 had been started in restricted access mode. Only authorization IDs authorized to perform maintenance functions are permitted access to DB2.

This reason code is issued by the following CSECT: DSN3AUCN

System Action: The connection request is not processed.

User Response: Retry the connection request after DB2 has been restarted in full access mode.

00F30057

Explanation: An invalid application-supplied address was encountered while accessing the application-provided data.

This abend reason code is issued by the following CSECTs: DSNAET03, DSNAPRHX.

System Action: The application program is abended with code X'04E' and this reason code.

System Programmer Response: Obtain the dump printout from the application programmer. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The register contents at the time of abend are as follows:

R2 A decimal code identifying the bad data:

- 1 FRB address is invalid.
- 2 FRBPARM contains an invalid RDIIN address.
- 18 RDICODEP contains an invalid SQLCA address.

R3 The invalid application data area address.

R4 The address of the RDIIN.

R5 The virtual storage key of the data.

R8 The address of the FRB in the application address space.

Collect the following diagnostic item listed in “Appendix B. Problem Determination” on page X-5: 4.

00F30058

Explanation: Access to DB2 has been denied by the site’s authorization exit.

This reason code is issued by the following CSECTs: DSN3AUCN, DSN3AUSI

System Action: The request is not processed.

User Response: Contact your security administrator and request authority to access this DB2 subsystem.

System Programmer Response: No action is necessary unless the request denial was in error. If it was, the authorization exit should be tested to determine the cause of the error.

00F30059

Explanation: The return code from the authorization exit was not valid. Field EXPLARC must be set by the authorization exit to either 0 or 12.

This abend reason code is issued by the following CSECTs: DSN3AUCN, DSN3AUSI

System Action: The request is not processed.

System Programmer Response: Diagnostics obtained for the failure must be analyzed and the exit corrected.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 5.

00F30060

Explanation: Upon return from an authorization exit, the returned value of the SQL ID was not equal to either the returned primary or one of the returned secondary authorization IDs.

This abend reason code is issued by the following CSECTs: DSN3AUCN, DSN3AUSI

System Action: The request is not processed.

System Programmer Response: Diagnostics obtained for the failure must be analyzed and the exit corrected.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 5.

00F30061

Explanation: An abend occurred while referencing the SIGNON request’s secondary authorization ID parameter provided by the attachment facility.

This abend reason code is issued by the following CSECT: DSN3SI30

System Action: SIGNON processing is terminated.

System Programmer Response: Analyze the diagnostic data to determine which attachment module may have been in error. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This reason code is placed in register 15 to identify which parameter was not addressable with the caller’s PSW key. The failure is probably the result of an error in the attachment facility.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F30062

Explanation: Upon return from the SIGNON authorization exit, the returned value of the primary authorization ID is null. The first character is less than or equal to X'40'.

This abend reason code is issued by the following CSECT: DSN3AUSI

System Action: The request is not processed.

System Programmer Response: Diagnostics obtained for the failure must be analyzed and the exit corrected.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 5.

00F30063

Explanation: The DB2 attachment facility for IMS, CICS, or RRSAF provided a secondary authorization ID value, but no primary authorization ID value. This is a violation of the SIGNON protocol.

This abend reason code is issued by the following CSECT: DSN3SI30

System Action: The SIGNON request is terminated with a return code of 12 and this reason code.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 22, 23, 24, 25, 26, 49.

This is probably an error in the attachment facility.

00F30064

Explanation: The DB2 attachment facility for IMS, CICS, or RRSAF did not provide a value for the primary authorization ID, and the current primary authorization ID is also null. This is a violation of the SIGNON protocol. A user’s connection must have an associated primary authorization ID.

This abend reason code is issued by the following CSECT: DSN3SI30

System Action: The SIGNON request is terminated with a return code of 12 and this reason code.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 22, 23, 24, 25, 26, 49.

This is probably an error in the attachment facility.

00F30065

Explanation: An error occurred in determining the commit state of the thread.

This abend reason code is issued by the following CSECTs:

DSN3PR00 DSN3CM00 DSN3AB00

System Action: The caller is abended in DSN3PR00 and DSN3CM00. In DSN3AB00 a dump is taken and an abort is attempted.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: An SVC dump and associated SYS1.LOGREC entries are produced. These can be used to locate the areas for examination, especially the RAL in the dump.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F30066

Explanation: An abend occurred during an attempt to access the caller-provided ACEE address field while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

This abend reason code is issued by the following CSECT: DSN3SI30

System Action: The sign-on request is not processed.

User Response: You may retry from your recovery routine (ESTAE) and continue execution with the same level of capability you had before the request that abended.

Problem Determination: The reason code is placed in register 15 prior to any access to caller-provided information.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F30067

Explanation: The caller holds a DB2 latch. This is a violation of the Authorization Services request protocol. The caller cannot hold a DB2 latch when requesting connection or sign-on services.

This abend reason code is issued by the following CSECTs: DSN3AUCN, DSN3AUSI

System Action: The connection or sign-on request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A requester of connection or sign-on cannot hold a DB2 latch.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 2, 49. Determine who the requester was.

00F30068

Explanation: The CCB is being freed. This Authorization Service request specifies the address of a CCB that has previously been requested to be freed.

This abend reason code is issued by the following CSECTs: DSN3AUCN, DSN3AUSI

System Action: The connection or sign-on request is not processed.

User Response: A dump should be taken for program analysis.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Authorization Service requests must be serialized. Once a request to free a given CCB is made, no subsequent Authorization Service request can be made referencing the same CCB.

Collect the following diagnostic items as described in "Appendix B. Problem Determination" on page X-5: 2, 5, 49.

00F30069

Explanation: The exit environment is incorrect. Either the exit environment was freed after connection processing or an error occurred acquiring storage for a CCB or during connection processing.

This abend reason code is issued by the following CSECT: DSN3AUSI

System Action: The sign-on request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items, described in "Appendix B. Problem Determination" on page X-5: 3, 5, 49.

00F30070

Explanation: Functional recovery for the connection or sign-on processing could not be established. The executing module could not establish its ESTAE. This can occur if the current address space has insufficient storage. This may lead to an abnormal termination of the DB2 subsystem.

This abend reason code is issued by the following CSECTs: DSN3AUCN, DSN3AUSI

System Action: The connection or sign-on request is not processed. The caller is abended with code X'04E' and this reason code.

User Response: A dump should be taken for problem analysis.

Operator Response: Notify the system programmer and restart DB2 if necessary.

System Programmer Response: Examine the usage and free areas in the LSQA portion of the current address space private area. If necessary, have the size of the private areas expanded.

Problem Determination: The caller should produce a SYS1.LOGREC entry and an SVC dump, so that the system programmer can examine the LSQA area.

Collect the following diagnostic items, described in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F30071

Explanation: A logic error has occurred. An Authorization Service request has been made that references the same CCB as a currently processing request. These requests must be serialized.

This reason code is issued by the following CSECTs: DSN3AUCN, DSN3AUSI

System Action: The connection or sign-on request is not processed.

User Response: Notify the system programmer. A dump should be taken for problem analysis.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Authorization service requests must be serialized. Once an authorization service request is made referencing a given CCB, no subsequent authorization service requests can be made referencing the same CCB until the first request completes.

Collect the following diagnostic items, described in "Appendix B. Problem Determination" on page X-5: 2, 5, 49.

00F30072

Explanation: The requester's authorization ID or password could not be verified. This condition may indicate a security violation.

This reason code is issued by the following CSECT: DSN3AUCN

System Action: The connection request is not processed.

User Response: Verify that you have specified the correct RACF authorization ID and password. If necessary, request authorization to the DB2 subsystem from your security administrator.

System Programmer Response: Examine the console/SYSLOG output for RACF messages issued when a request is denied. Refer the user to your security administrator if the user should be granted access to a DB2 subsystem. If this error occurred during a remote connection request, examine the communications database to determine the security controls in effect for a remote connection request. Refer to Section 3 (Volume 1) of *Administration Guide* for examples of how to authorize users for specific DB2 subsystems.

Problem Determination: During remote connection processing, Authorization Services invokes the RACROUTE service using the RACF RACINIT form to verify the authorization ID and password, if supplied, associated with the requester. If the RACF return code indicates the authorization ID or password could not be verified, the connection request is terminated with this reason code.

00F30073

Explanation: The parameter flag settings on the Authorization Service request contradict each other. One flag is set to request the build of the exit environment. The other flag is set to request the release of the exit environment. These flags are mutually exclusive.

This abend reason code is issued by the following CSECT: DSN3AUCN

System Action: The connection request is not processed. The caller is abended with code X'04E' and this reason code.

User Response: A dump should be taken for problem analysis.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Only one of these flags can be set on when requesting connection processing.

Collect the following diagnostic items, described in "Appendix B. Problem Determination" on page X-5: 2, 49.

00F30074

Explanation: There is a problem in the execution environment. Connection or sign-on was requested from an SRB-mode execution unit, but the authorization services service task that would normally be switched to does not exist.

This abend reason code is issued by the following CSECTs: DSN3AUCN, DSN3AUSI

System Action: The connection or sign-on request is not processed.

User Response: Notify the system programmer. A dump should be taken for problem analysis.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem. for failure analysis procedures.

Problem Determination: Determine why the authorization services service task was not created.

Collect the following diagnostic items, described in "Appendix B. Problem Determination" on page X-5: 3, 4, 49.

00F30075

Explanation: RACROUTE returned an error when a request was made to RACROUTE to free an ACEE.

This reason code is issued by the following CSECTs: DSN3AUCN, DSN3AUSI

System Action: The connection or sign-on request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items, described in "Appendix B. Problem Determination" on page X-5: 1, 2, 3, 49.

00F30076

Explanation: An error occurred while attempting to obtain a CCB.

This abend reason code is issued by the following CSECT: DSN3TM00

System Action: The allied user is abended with code X'04E' and this reason code.

Operator Response: Notify the system programmer.

System Programmer Response: An SVC dump, associated SYS1.LOGREC entries, and SYSLOG should be available. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: General purpose register 2 contains a reason code from authorization services that indicates the cause of the failure.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F30077

Explanation: A plan or package could not be executed for one of these reasons:

- It is disabled in the environment in which you attempted to run.
- The attach library that you are using is from a previous release of DB2 that does not support the ENABLE and DISABLE options of the bind operation.

This reason code is issued by the following CSECT: DSN3CT30

System Action: The plan or package is not executed.

System Programmer Response: One of the following:

- Rebind the plan or package to enable it to execute in the present environment.
- Check the SYSPLSYSTEM or SYSPKSYSTEM catalog table to find an environment in which the plan or package can be executed.
- Correct the attach library.

00F30078

Explanation: An abend occurred during an attempt to access the caller-provided connecting system type code while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

This abend reason code is issued by the following CSECT: DSN3ID30

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs this register indicates which parameter caused the error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F30080

Explanation: CSECT DSNAPRHX was unable to cancel its ESTAE.

This abend reason code is issued by the following CSECT: DSNAPRHX

System Action: The application program is abended with code X'04E' and this reason code.

User Response: Notify the system programmer. The application may be retried.

System Programmer Response: See Problem Determination.

Problem Determination: A nonzero return code was received from the Cancel ESTAE operation. The return code has been placed into Register 2. Refer to *MVS/ESA Programming: Assembler Services Reference* for the meaning of the return code.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 4, 5.

00F30081

Explanation: An abend occurred during an attempt to access the caller-provided accounting token field while executing in the key of the caller. This is probably the result of a logic error in the requesting program.

This abend reason code is issued by the following CSECT: DSN3SI30

System Action: The SIGNON request is not processed.

User Response: You may retry from your recovery routine (ESTAE) and continue execution with the same level of capability you had before the request was abnormally terminated.

Problem Determination: The reason code is placed in register 15 prior to any access to caller-provided information.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F30082

Explanation: This reason code is returned when the automatic bind for plan is disabled. The automatic bind is disabled through the installation process.

This reason code is issued by the following CSECT: DSN3CT30

System Action: The plan is not automatically bound.

System Programmer Response: Rebind the plan prior to execution.

00F30083

Explanation: This reason code is returned because an allied application, or its recovery routine, attempted to issue an SQL request following an abend that could not be retried (that is, CANCEL, DETACH).

This reason code is issued by the following CSECT: DSNAPRHX

System Action: Control is returned to the calling program, either the application program or its recovery routine, so that end-of-task processing can take place.

User Response: If you feel that this is a DB2 problem, notify the system programmer.

System Programmer Response: This reason code is issued because an allied application had an MVS CANCEL or DETACH issued against it and its recovery routine either retried back to the application, or did itself, try to execute another SQL statement to DB2. This call is rejected to help allow the application to be processed through end-of-task processing.

Problem Determination: If you believe that this error is not the result of the above reason, then collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5.

00F30085

Explanation: The requester's password could not be verified. This condition might indicate a security violation.

System Action: The connection request is not processed.

User Response: Verify that you specified the correct RACF password for this requester.

System Programmer Response: Examine the console/SYSLOG output for RACF messages issued when a request is denied. If this error occurred during a remote connection request, examine the communications database to determine the security controls in effect for a remote connection request. Refer to Section 3 (Volume 1) of *Administration Guide* for examples of how to set up the security controls for remote connection requests in the communications database.

Problem Determination: During remote connection processing, Authorization Services invokes the RACROUTE service using the RACF RACINIT form to verify the authorization ID and password, if supplied, associated with the requester. If the RACF return code indicates the password could not be verified, the connection request is terminated with this reason code.

This reason code is issued by the following CSECT: DSN3AUCN

00F30086

Explanation: The requester's password is expired. This condition might indicate a security violation.

System Action: The connection request is not processed.

User Response: Change your password so that it is no longer expired.

System Programmer Response: Examine the console/SYSLOG output for RACF messages issued when a request is denied. If this error occurred during a remote connection request, examine the communications database to determine the security controls in effect for a remote connection request. Refer to Section 3 (Volume 1) of *Administration Guide* for examples of how to set up the security controls for remote connection requests in the communications database.

Problem Determination: During remote connection processing, Authorization Services invokes the RACROUTE service using the RACF RACINIT form to verify the authorization ID and password, if supplied, associated with the requester. If the RACF return code indicates the password expired, the connection request is terminated with this reason code.

This reason code is issued by the following CSECT: DSN3AUCN

00F30087

Explanation: The requester's authorization ID or password could not be verified by the site's security exit routine. This condition might indicate a security violation.

System Action: The connection request is not processed.

User Response: Verify that you specified the correct RACF authorization ID and password. If necessary, request authorization to the DB2 subsystem from your security administrator.

System Programmer Response: Examine the console/SYSLOG output for RACF messages issued when a request is denied. If this error occurred during a remote connection request, examine the communications database to determine the security controls in effect for a remote connection request. Refer to Section 3 (Volume 1) of *Administration Guide* for examples of how to set up the security controls for remote connection requests in the communications database.

Problem Determination: During remote connection processing, Authorization Services invokes the RACROUTE service using the RACF RACINIT form to verify the authorization ID and password, if supplied, associated with the requester. If the RACF return code indicates that the site's security exit routine failed to verify the requester, the connection request is terminated with this reason code.

This reason code is issued by the following CSECT: DSN3AUCN

00F30088

Explanation: The requester's authorization ID was revoked. This condition might indicate a security violation.

System Action: The connection request is not processed.

User Response: Verify that you specified the correct RACF authorization ID and password. If necessary, request authorization to the DB2 subsystem from your security administrator.

System Programmer Response: Examine the console/SYSLOG output for RACF messages issued when a request is denied. If this error occurred during a remote connection request, examine the communications database to determine the security controls in effect for a remote connection request. Refer to Section 3 (Volume 1) of *Administration Guide* for examples of how to set up the security controls for remote connection requests in the communications database.

Problem Determination: During remote connection processing, Authorization Services invokes the RACROUTE service using the RACF RACINIT form to verify the authorization ID and password, if supplied, associated with the requester. If the RACF return code indicates that the requester's authorization ID was revoked, the connection request is terminated with this reason code.

This reason code is issued by the following CSECT: DSN3AUCN

00F30089

Explanation: The requester's authorization ID is not defined to RACF. This condition might indicate a security violation.

System Action: The connection request is not processed.

User Response: Verify that you specified the correct RACF authorization ID and password. If necessary, request authorization to the DB2 subsystem from your security administrator.

System Programmer Response: Examine the console/SYSLOG output for RACF messages issued when a request is denied. If this error occurred during a remote connection request, examine the communications database to determine the security controls in effect for a remote connection request. Refer to Section 3 (Volume 1) of *Administration Guide* for examples of how to set up the security controls for remote connection requests in the communications database.

Problem Determination: During remote connection processing, Authorization Services invokes the RACROUTE service using the RACF RACINIT form to verify the authorization ID and password, if supplied, associated with the requester. If the RACF return code indicates that the requester's authorization ID is not defined, the connection request is terminated with this reason code.

This reason code is issued by the following CSECT: DSN3AUCN

00F30090

Explanation: The application program issued an RRSAF SIGNON or AUTH SIGNON function request, but the application either has OPEN CURSORS or SPECIAL REGISTERS that are not in their initial state and the reuse=INITIAL rule is in effect.

System Action: The SIGNON or AUTH SIGNON request is not processed.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued by the following CSECT: DSN3SI30

00F30091

Explanation: The application program issued an RRSAF IDENTIFY function request, but RRS/MVS is not available.

System Action: The IDENTIFY request is not processed.

User Response: Retry the IDENTIFY request after RRS/MVS has been started.

Problem Determination: This reason code is issued by the following CSECT: DSN3ID30

00F30092

Explanation: The application program issued an RRSAF SIGNON or AUTH SIGNON function request, but the application has issued an SQL request since the last invocation of SRRCMIT or SRRBACK and therefore is not at a point of consistency.

System Action: The SIGNON or AUTH SIGNON request is not processed.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued by the following CSECT: DSN3SI30

00F30093

Explanation: The application program issued an RRSAF TERMINATE THREAD or TERMINATE IDENTIFY function request, but the application has issued an SQL request since the last invocation of SRRCMIT or SRRBACK and therefore is not at a point of consistency.

System Action: The function request is not processed.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued by the following CSECT: DSN3CT80 DSN3ID80

00F30094

Explanation: During remote connection processing, Authorization Services invokes the RACROUTE service using the RACF RACINIT form to verify the authorization ID and password associated with the requester, and changes the password to a new password (if supplied). If the RACF return code indicates that the requester's new password is invalid, the connection request is terminated with this reason code.

System Action: The connection request is not processed.

User Response: Verify that your new password value meets the installation's requirements for new passwords.

System Programmer Response: Examine the console/SYSLOG output for RACF messages issued when the request was denied.

This reason code is issued by the following CSECT: DSN3AUCN

00F30095

Explanation: An internal error was detected in either DB2 or OS/390 RRS.

System Action: The application is abended. This error may, in many cases, eventually abend the DB2 subsystem.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably either an error in DB2 or in OS/390 RRS. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: DB2 records on the SYS1.LOGREC data set and requests an SVC dump. The error indicates that there may be a problem with DB2 or with OS/390 RRS.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

This abend reason code is issued by the following CSECTs: DSN3SQLF, DSN3CMIT, DSN3CT30, DSN3SPIN, DSN3SPTN, DSN3BABR, DSN3CMT2, DSN3CTXS, DSN3RRSX

00F30096

Explanation: An internal error was detected in either DB2 or OS/390 RRS Context Services.

System Action: The application is abended. This error can, in many cases, eventually abend the DB2 subsystem.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably either an error in DB2 or in OS/390 RRS. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: DB2 records on the SYS1.LOGREC data set and requests an SVC dump. The error indicates that there can be a problem with DB2 or with OS/390 RRS Context Services.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

This abend reason code is issued by the following CSECTs: DSN3ID30, DSN3ID80, DSN3SPIN, DSN3SPTN

00F30097

Explanation: The context_key supplied via the CONTEXT SIGNON function of RRSAF is not associated with the current context.

System Action: CONTEXT SIGNON is not performed.

User Response: Use CTXSDTA to store the primary authid in the context data associated with the current context before invoking CONTEXT SIGNON. The context_key used to store the data must be the context_key that is passed as input to CONTEXT SIGNON.

This reason code is issued by the following CSECTs: DSN3SI30

00F30098

Explanation: The CONTEXT SIGNON function of RRSAF requires OS/390 R5 or later.

System Action: CONTEXT SIGNON is not performed.

User Response: Check the release level of OS/390 that you are running.

This reason code is issued by the following CSECTs: DSN3SI30

00F30099

Explanation: The data retrieved using the context_key passed via the CONTEXT SIGNON function of RRSAF is a version not supported by DB2.

System Action: CONTEXT SIGNON is not performed.

User Response: Determine the version number supported by the DB2 release you are running. This is described in the description of CONTEXT SIGNON in *Application Programming and SQL Guide* . Use CTXSDTA to store the correct version of the context data associated with the current context before invoking CONTEXT SIGNON.

This reason code is issued by the following CSECTs: DSN3SI30

00F3009A

Explanation: An attempt to was made to invoke the DB2 API for an agent that was currently performing syncpoint processing. This could occur if an RRSAF attached application invoked DB2 after another control task had already initiated RRS syncpoint processing for the same DB2 agent.

After syncpoint processing has been initiated on behalf of an agent that is connected by RRSAF to DB2, the DB2 API may not be used to access DB2 until the syncpoint processing completes.

System Action: The API request is rejected.

User Response: Serialize the initiation of RRS syncpoint processing with the use of the DB2 API.

Problem Determination: This reason code is issued by the following CSECT: DSNAPRHX

00F3009B

Explanation: The RRSAF prepare exit was invoked for a DB2 agent that is currently executing in DB2.

This could occur if a control task initiated RRS syncpoint processing for a DB2 agent while an application task was accessing DB2 data using the same DB2 agent.

Once a DB2 agent is active in DB2, another task may not initiate RRS syncpoint processing for the same agent.

System Action: DB2 returns ATRABACK to the prepare request. The DB2 agent is abended with reason 00E50013.

User Response: Serialize the initiation of RRS syncpoint processing with accessing DB2 data.

Problem Determination: An entry recording this condition is written in SYS1.LOGREC.

This abend reason code is issued by the following CSECTs: DSN3RRSM, DSN3RRSX

00F3009C

Explanation: An RRS syncpoint exit was invoked for a DB2 agent by a task different than the task currently associated with the DB2 agent and the DB2 early code module installed on the system does not support this function.

System Action: The RRS syncpoint request is abended. This will result in DB2 losing it's connection with RRS. The DB2 subsystem must be stopped and then started again in order to establish a new connection with RRS.

Operator Response: Notify the system programmer.

System Programmer Response: The version of the DB2 early code that was loaded from the LINKLIST library does not support RRS syncpoints initiated from a task that is not connected to the DB2 agent associated with the RRS unit of recovery for which syncpoint processing is being initiated. The DB2 early code must either be the DB2 V4 or V5 early code with APAR PQ16273 applied or the DB2 V6 early code. Make sure a compatible version of the DB2 early code will be loaded and then re-ipl the system.

Problem Determination: An entry recording this condition is written in SYS1.LOGREC.

This abend reason code is issued by the following CSECT: DSN3RRSX

00F3009D

Explanation: An abend occurred during an attempt to access the caller-provided user ID while executing in the key of the caller. This is probably the result of a logic error in the requesting program.

This abend reason code is issued by the following CSECT: DSN3SI30

System Action: The SIGNON request is not processed.

User Response: You may retry from your recovery routine (ESTAE) and continue execution with the same level of capability you had before the request was abnormally terminated.

Problem Determination: The reason code is placed in register 15 prior to any access to caller-provided information.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F3009E

Explanation: An abend occurred during an attempt to access the caller-provided application name while executing in the key of the caller. This is probably the result of a logic error in the requesting program.

This abend reason code is issued by the following CSECT: DSN3SI30

System Action: The SIGNON request is not processed.

User Response: You may retry from your recovery routine (ESTAE) and continue execution with the same level of capability you had before the request was abnormally terminated.

Problem Determination: The reason code is placed in register 15 prior to any access to caller-provided information.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F3009F

Explanation: An abend occurred during an attempt to access the caller-provided workstation name while executing in the key of the caller. This is probably the result of a logic error in the requesting program.

This abend reason code is issued by the following CSECT: DSN3SI30

System Action: The SIGNON request is not processed.

User Response: You may retry from your recovery routine (ESTAE) and continue execution with the same level of capability you had before the request was abnormally terminated.

Problem Determination: The reason code is placed in register 15 prior to any access to caller-provided information.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F30101

Explanation: The parameter contained in the IEFSSNxx member used to initialize DB2 (and other subsystems) is in error. Refer to message DSN3101I for details.

The abend reason code is issued by the following CSECT: DSN3UR00

System Programmer Response: See message DSN3101I.

Problem Determination: Collect the following diagnostic

items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F30102

Explanation: The parameter contained in the IEFSSNxx member used to initialize DB2 (and other subsystems) is in error. The DB2 subsystem recognition character must be not be blank. For details, see message DSN3102I.

This abend code is issued by the following CSECT: DSN3UR00

System Programmer Response: See message DSN3102I.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F30103

Explanation: The parameter contained in the IEFSSNxx member used to initialize DB2 (and other subsystems) is in error and/or the named module is not resident in a library available during IPL. Refer to message DSN3103I for details.

This abend code is issued by the following CSECT: DSN3UR00

System Programmer Response: See message DSN3103I.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F30104

Explanation: Module DSN3UR00 was unable to obtain the DB2 subsystem affinity table index for the named subsystem. MVS did not recognize the named subsystem. Refer to message DSN3109I for details.

This abend code is issued by the following CSECT: DSN3UR00

System Programmer Response: See message DSN3109I.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F30105

Explanation: Module DSN3UR00 was unable to load Early module 'DSN3EPX'. Either there was an I/O error, or the named module is not resident in a library available during IPL. Refer to message DSN3105I for details.

This abend reason code is issued by the following CSECT: DSN3UR00

System Programmer Response: See message DSN3105I. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5.

00F30111

Explanation: The DB2 program which establishes DB2 as an MVS subsystem during Master Scheduler initialization has determined that either its own load module or a load module loaded by it does not have the attributes AMODE(31) and RMODE(ANY). Message DSN3111I was issued just prior to the abend. This message contains the name of the load module in error.

This abend reason code is issued by the following CSECT: DSN3UR00

System Action: DB2 subsystem initialization is terminated.

System Programmer Response: See message DSN3111I.

00F30112

Explanation: DB2 is unable to register the installation-specified command prefix with MVS. The command prefix is specified in the subsystem definition parameter. The subsystem specified by *ssnm* in message DSN3112I is not available.

This abend reason code is issued by following CSECT: DSN3UR00

System Programmer Response: See message DSN3112I.

00F30113

Explanation: DB2 detected an error in the subsystem definition parameter, which is obtained from the IEFSSNxx member of SYS1.PARMLIB. The subsystem specified by *ssnm* in message DSN3113I is not available. This abend reason code is issued by following CSECT: DSN3UR00

System Programmer Response: See message DSN3113I.

00F30114

Explanation: DB2 group attach is not supported on this release of MVS. DB2 found an installation-specified group attach name specified in the subsystem definition parameter, IEFSSNxx, but DB2 group attach is not supported on this release of MVS. DB2's group attach feature requires MVS/ESA SP4.2.2 or higher.

This abend reason code is issued by the following CSECT: DSN3UR00

System Action: The DB2 subsystem is not available.

Operator Response: Notify the system programmer.

System Programmer Response: Correct the subsystem definition parameter to not specify a group attach name and re-IPL.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested.

Collect the following diagnostic items: CONSOLE LOG, SVCDUMP, and LOGREC.

00F30115

Explanation: DB2 received a nonzero return code from the MVS Name/Token service IEANTCR when DB2 attempted to register the group attach name. The group attach name is specified in the subsystem definition parameter, IEFSSNxx. The DB2 subsystem is unavailable.

This abend reason code is issued by following CSECT: DSN3UR00

System Action: The DB2 subsystem is not available.

Operator Response: Notify the system programmer.

System Programmer Response: Contact the IBM Support Center.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 3 contains the return code, in hexadecimal, that was returned to DB2 from MVS IEANTCR Name/Token services.

Collect the following diagnostic items: CONSOLE, SVCDUMP, LOGREC.

00F30116

Explanation: The version of the DB2 early code module that you are attempting to use is not compatible with this version of MVS. This version of DB2 requires MVS/ESA.

System Action: The DB2 subsystem is not available.

Operator Response: Notify the system programmer.

System Programmer Response: The version of the DB2 early code that was loaded from the LINKLIST library is not compatible with the release of MVS that you are using. Change the concatenation order of the LINKLIST library so that a compatible release of DB2 early code is used.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC and a DB2 dump is requested.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 3, 5.

This abend reason code is issued by following CSECT: DSN3UR00

00F30203

Explanation: This reason code is returned when a DB2 program attempts to either activate an already active SSI function code or deactivate an already inactive SSI function code.

This reason code is not normally visible to users or operators, but may appear in DB2 traces.

This DB2 reason code is issued by the following CSECT: DSN3AC0X

System Action: None.

00F30210

Explanation: One of these conditions exists:

- Module DSN3RS0X received a nonzero return code from ENQ (exclusive).
- Module DSN3ENQ0 received a nonzero return code from ENQ (shared) and the indication was other than 'the task already has the resource enqueued'.

This is a serious error.

This abend reason code is issued by the following CSECTs: DSN3ENQ0, DSN3RS0X.

System Action: The caller is abended.

Operator Response: Notify the system programmer.

System Programmer Response: To determine the error return from the ENQ SVC, examine the SVC dump.

Problem Determination: An SVC dump and associated SYS1.LOGREC entries are produced. Register 2 at the time of the abend contains the value passed back by ENQ in register 15. This can be used to locate the response area.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F30211

Explanation: One of the following conditions exists:

- Module DSN3DEQ0 wanted to release the resource unconditionally but did not have it to release.
- Module DSN3RS0X received a nonzero return code from DEQ and the indication was other than 'the task had not been assigned control'.

This is a serious error.

This abend reason code is issued by the following CSECTs: DSN3DEQ0, DSN3RS0X.

System Action: The caller is abended. The current request has probably been processed completely. However, processing serialization may not have been maintained.

Operator Response: Notify the system programmer.

System Programmer Response: To determine the error returned from the DEQ SVC, examine the SVC dump.

Problem Determination: An SVC dump and associated SYS1.LOGREC entries are produced. Register 2 at the time of the abend contains the value passed back by DEQ in register 15. This can be used to locate the response area.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F30212

Explanation: A function that is allowed only for DB2 key callers was invoked by a supervisor state caller in another key. (Problem state callers receive system X'0C2' abend completion codes instead.)

This abend reason code is issued by the following CSECT: DSN3AC0X

System Action: The caller is abended.

Operator Response: Notify the system programmer.

System Programmer Response: To determine the DB2 service module running in the wrong PSW key, examine the SVC dump.

Problem Determination: If the invoker is a DB2 service module, an SVC dump and associated SYS1.LOGREC entries are produced. The invoker should have been in DB2 KEY during the invocation.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F30213

Explanation: The invoker of module DSN3AC0X passed an invalid action code. The only valid codes are 0 (deactivate) and 1 (activate).

This abend reason code is issued by the following CSECT: DSN3AC0X

System Action: The caller is abended.

Operator Response: Notify the system programmer.

System Programmer Response: To determine the caller of the activate and deactivate service module, examine the SVC dump.

Problem Determination: An SVC dump and associated SYS1.LOGREC entries are produced by a DB2 service module. The save area chain should indicate the invoker of this service module.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F30214

Explanation: The invoker of module DSN3AC0X passed an invalid SSOB function code. The valid codes range from 1 to 255.

This abend reason code is issued by the following CSECT: DSN3AC0X

System Action: The caller is abended.

Operator Response: Notify the system programmer.

System Programmer Response: To determine the caller of the activate and deactivate service module, examine the SVC dump.

Problem Determination: An SVC dump and associated SYS1.LOGREC entries are produced by a DB2 service module. The save area chain should indicate the invoker of this service module.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F30215

Explanation: The invoker of module DSN3AC0X passed an invalid 'QUEUE' parameter. The storage provided could not be modified in the DB2 PSW key.

This abend reason code is issued by the following CSECT: DSN3AC0X

System Action: The caller is abended with system completion code of X'0C4'.

Operator Response: Notify the system programmer.

System Programmer Response: To determine the caller of the activate and deactivate service module, examine the SVC dump.

Problem Determination: An SVC dump and associated SYS1.LOGREC entries are produced by a DB2 service module. The save area chain should indicate the invoker of this service module. The invoker should have set a correct parameter value before invoking module DSN3AC0X.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F30216

Explanation: The ASCB for the newly created DB2 subsystem services address space could not be located. The presumption is that the DB2 subsystem has not been started successfully. Further entry of commands to the DB2 subsystem results in attempts to start DB2.

This abend reason code is issued by the following CSECT: DSN3EC0X

System Action: The current -START command processing is terminated. Subsequent commands are processed as though this command had not been processed.

Operator Response: Retry the command. If the command fails again, notify the system programmer.

System Programmer Response: If the command fails again, request an IPL of MVS, as the failure may be the result of an MVS internal problem.

Problem Determination: An SVC dump and associated SYS1.LOGREC entries are produced. The ASID passed back by the MVS command scheduler for the -START command is not valid.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F30217

Explanation: The console ID for the MVS console that entered the current command is not found in the MVS unit control module (UCM) structure. This is a serious error. An internal MVS START command may have been incorrectly issued by an application program that provided invalid input parameters.

This abend reason code is issued by the following CSECT: DSN3EC0X

System Action: The caller is abended.

Operator Response: Retry the -START DB2 command. If the command fails again, notify the system programmer.

System Programmer Response: If the command fails again, request a stand-alone dump and an IPL of MVS, as this may be due to an MVS internal problem.

Problem Determination: The SSOB command extension mapped by IEFSSCM contains the invalid console ID.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F30218

Explanation: The ERLY block for this DB2 subsystem is in error. The control word that manages command processing is in an undefined state. This is a serious error.

This abend reason code is issued by the following CSECT: DSN3EC0X

System Action: The current TCB is abended. Two possible reasons are:

- There is no DB2 subsystem services address space. Therefore, the initial command state can safely be set in the control word, and the current command can be treated as a 'first' (-START) command. Processing of the command continues.
- The system services address space ASID is known, but the state of the DB2 subsystem is uncertain. In this case,

the command facility is considered disabled, and message DSN3108I is returned to the issuer of the command.

Operator Response: Notify the system programmer.

System Programmer Response: Examine the ERLY block field ERLYCMST. If the value of ERLYCMST is greater than 2, the field is in error.

Problem Determination: The calling TCB may have requested an SVC dump or created associated SYS1.LOGREC entries.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F30219

Explanation: The ERLY block for this DB2 subsystem is in error. The control word that manages EOM broadcast processing is in an undefined state. This is a serious error.

This abend reason code is issued by the following CSECT: DSN3EC0X

System Action: The calling TCB is abended.

Operator Response: Cancel DB2. (End of task processing may still work, and it does a more complete clean-up than end-of-memory processing does.) If this does not work, issue the MVS FORCE command for the DB2 address spaces. If the problem is still unresolved, request a stand-alone dump and re-IPL MVS.

System Programmer Response: Examine the ERLY block field ERLYEMST. If the value of ERLYEMST is greater than 2, it is in error.

Problem Determination: The calling TCB may have requested an SVC dump or created associated SYS1.LOGREC entries.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F3021A

Explanation: The ERLY block for this DB2 subsystem is in error. The control word that manages identify processing is in an undefined state. This is a serious error.

This abend reason code is issued by the following CSECT: DSN3CL0X

System Action: The calling TCB is abended.

Operator Response: Stop the DB2 subsystem and reissue the -START DB2 command.

System Programmer Response: Examine the ERLY block field ERLYIDST. If the value of ERLYIDST is greater than 2, it is in error.

Problem Determination: An SVC dump and associated SYS1.LOGREC entries are produced.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5.

00F3021B

Explanation: A return code other than 0, 4, or 8 was received from the MVS internal START command processor. The presumption is that the DB2 subsystem has not been started successfully. Further entry of commands to the DB2 subsystem results in further attempts to start DB2.

This abend reason code is issued by the following CSECT: DSN3EC0X

System Action: The current -START command processing is abended. Subsequent commands are processed as though this command had not been processed.

Operator Response: Retry the command. If the command fails again, request a stand-alone dump and re-IPL MVS.

System Programmer Response: Examine the SVC dump, LOGREC entries, and the console log for indications of an MVS failure.

Problem Determination: An SVC dump and associated SYS1.LOGREC entries are produced.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F3021C

Explanation: Module DSN3EC0X could not establish an ESTAE during the processing of the first (presumed to be the -START command) command. The caller is abended. This can occur if the MVS system address space that is broadcasting the command has insufficient storage. Further entry of commands to the DB2 subsystem may result in a successful start of DB2.

This abend reason code is issued by the following CSECT: DSN3EC0X

System Action: The caller is abended (without ABDUMP). The current -START command processing is terminated. Subsequent commands are processed as though this command had not been processed.

Operator Response: Retry the command. If the command fails again, request a stand-alone dump and re-IPL MVS.

System Programmer Response: Examine the stand-alone dump, LOGREC entries, and the console log for indications of an MVS failure.

Problem Determination: A stand-alone dump is necessary.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 51.

00F3021D

Explanation: Module DSN3RS0X could not establish an ESTAE during either the initialization or termination of the online DB2 subsystem. The caller is abended.

This can occur during initialization if the MVS system address space that is broadcasting the first command (presumed to be the -START command) has insufficient storage. In this case, further entry of commands to the DB2 subsystem may result in a successful start of DB2.

This can occur during termination if the current address space (usually system services, in case of EOM broadcast, an MVS system address space) has insufficient storage. In this case, after the DB2 subsystem has shut down, further entry of com-

mands to the DB2 subsystem may result in a successful start of DB2.

This abend reason code is issued by the following CSECT: DSN3RS0X

System Action: The caller is abended (without ABDUMP). The initialization is aborted, but termination proceeds.

Operator Response: Retry the command. If the failure persists, a re-IPL of MVS is necessary and the system programmer should be notified. A stand-alone dump should be requested first.

System Programmer Response: Examine the stand-alone dump, LOGREC entries, and the console log for indications of an MVS failure.

Problem Determination: A stand-alone dump is necessary.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5, 51.

00F3021E

Explanation: Module DSN3RTR0 could not establish an ESTAE while in the process of routing control to the actual ESTAE routine. The caller (RTM) is abended. This causes the original error to percolate to a higher-level recovery routine and causes this abend to be shown in an RTM recovery environment.

This can occur if the current address space (usually an allied address space) has insufficient storage.

This abend reason code is issued by the following CSECT: DSN3RTR0

System Action: The caller is abended (without ABDUMP).

Operator Response: Notify the system programmer.

System Programmer Response: Examine the usage and free areas in the LSQA portion of the current address space private area. If necessary, have the size of the private area expanded.

Problem Determination: A SYSUDUMP is requested.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 4, 5.

00F3021F

Explanation: Module DSN3RS0X discovered that the SSVT was not set to its initial state at DB2 subsystem initialization or termination time. An abend is issued in order to record SYS1.LOGREC data and request an SVC dump.

This abend reason code is issued by the following CSECT: DSN3RS0X

System Action: The caller is not abended. The SSVT is reset to its initial state. Subsystem initialization or termination continues.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The SVC dump contains an image of the SSCVT and the SSVT.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F30220

Explanation: Module DSN3RS0X discovered that the PRHB was not set to its initial state at DB2 subsystem initialization or termination time. An abend is issued in order to record SYS1.LOGREC data and request an SVC dump.

This abend reason code is issued by the following CSECT: DSN3RS0X

System Action: The caller is not abended. The PRHB is reset to its initial state. Subsystem initialization or termination continues.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The associated SYS1.LOGREC entries and SVC dump contain the relevant information.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F30230

Explanation: The module DSN3SSLM discovered that a user exit still exists for an allied address space that is being disconnected from DB2. This is an internal error.

This abend reason code is issued by the following CSECT: DSN3SSLM

System Action: The connection between the allied address space and the DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A previous part of the disconnection process between DB2 and an allied address space has either not completed or terminated in error. The SVC dump and associated SYS1.LOGREC entries contain the relevant material for problem analysis.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 5.

00F30310

Explanation: A nonzero return code was received from the recovery manager. It is issued by module DSN3RIA0 (application resolve-indoubt-UR) and by module DSN3RIM0 (resource manager resolve-indoubt-UR).

This abend reason code is issued by the following CSECTs: DSN3RIA0, DSN3RIM0

System Action: This is a DB2 error. The invoker is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Collect the related materials. Determine the called recovery manager module and the module that issued the abend.

Problem Determination: The associated SYS1.LOGREC entry indicates which module issued the abend. Check the recovery manager resolve-indoubt exit trace for the return code.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F30311

Explanation: Module DSN3RIM0 could not establish an ESTAE during the processing of a resolve-indoubt (RMRQ) request. This can occur if the current address space has insufficient storage. This probably leads to an abnormal termination of the DB2 subsystem.

This abend reason code is issued by the following CSECT: DSN3RIM0

System Action: The caller is abended (without ABDUMP).

Operator Response: Notify the system programmer, and restart DB2 if necessary.

System Programmer Response: Examine the usage and free areas in the local system queue area (LSQA) portion of the current address space private area. If necessary, have the size of the private area expanded.

Problem Determination: The caller should produce a SYS1.LOGREC entry and an SVC dump, so that the system programmer can examine the LSQA area.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F30312

Explanation: Module DSN3RIA0 could not establish an ESTAE during the processing of a resolve-indoubt-UR (RARQ) request. This can occur if the current address space has insufficient storage.

This abend reason code is issued by the following CSECT: DSN3RIA0

System Action: The caller is abended (without ABDUMP).

Operator Response: Notify the system programmer.

System Programmer Response: Examine the usage and free areas in the local system queue area (LSQA) portion of the current address space private area. If necessary, have the size of the private area expanded.

Problem Determination: The caller should produce a SYS1.LOGREC entry and an SVC dump.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F30313

Explanation: A CCB could not be allocated. This could occur when the storage pool has no more free space available.

This abend reason code is issued by the following CSECT: DSN3RIB2

System Action: The request to obtain a CCB is not processed. The application program is abended with code X'04E' and this reason code.

User Response: A dump should be taken for problem analysis.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is usually caused by a previous error that has recorded data on the SYS1.LOGREC data set and requested an SVC dump. The SYS1.LOGREC entries and SVC dump(s) should be examined to determine the actual cause of the error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2.

00F30400

Explanation: This reason code is returned when a DB2 program makes a duplicate request to be called when a specific SSI function code is encountered on the SSI.

This reason code is not normally visible to users or operators, but might appear in DB2 traces.

This DB2 reason code is issued by the following CSECT: DSN3SSCN

System Action: None by DSN3SSCN. The DB2 program that made the failing request probably produces diagnostics to report the failure.

System Programmer Response: Collect the diagnostics produced by the application program reporting the failure, if any.

Problem Determination: Follow the instructions indicated by the diagnostics.

00F30401

Explanation: This reason code is returned when a DB2 program makes a request to no longer be called when a specific SSI function code is encountered on the SSI, but the control block representing the original request to be called is busy and cannot be deleted now. The request is processed when the control block is no longer busy.

This reason code is not normally visible to users or operators, but might appear in DB2 traces.

This DB2 reason code is issued by the following CSECT: DSN3SSDI

System Action: None by DSN3SSDI. The DB2 program that made the failing request might produce diagnostics to report the failure.

System Programmer Response: Collect the diagnostics produced by the application program reporting the failure, if any.

Problem Determination: Follow the instructions indicated by the diagnostics.

00F30402

Explanation: This reason code is returned when a DB2 program makes a request to no longer be called when a specific SSI function code is encountered on the SSI, but the control block representing the original request to be called cannot be found.

This reason code is not normally visible to users or operators, but might appear in DB2 traces.

This DB2 reason code is issued by the following CSECT: DSN3SSDI

System Action: None by DSN3SSDI. The DB2 program that made the failing request might produce diagnostics to report the failure.

System Programmer Response: Collect the diagnostics produced by the application program reporting the failure, if any.

Problem Determination: Follow the instructions indicated by the diagnostics.

00F30405

Explanation: The DB2 subsystem was abended by module DSN3SSI1 because the system services address space's jobstep task terminated.

This abend reason code is issued by the following CSECT: DSN3SSI1

System Action: The DB2 subsystem is terminated with an SVC dump.

Operator Response: You can start DB2 again after it terminates.

System Programmer Response: At least one SVC dump and associated SYS1.LOGREC entries should be available. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is usually caused by a previous error which should have recorded an entry in SYS1.LOGREC data set and requested an SVC dump. Examine the SYS1.LOGREC entries and SVC dumps to determine the actual cause of the error. Refer to "DB2 Abend Completion Codes (X'04E' and X'04F)" on page 1-6 for information on X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2.

00F30406

Explanation: The DB2 subsystem was abended by module DSN3SSI1 because the system services address space was forced to an end-of-memory condition.

This abend reason code is issued by the following CSECT: DSN3SSI1

System Action: The DB2 subsystem is terminated with an SVC dump.

Operator Response: You can start DB2 again after it terminates.

System Programmer Response: At least one SVC dump and associated SYS1.LOGREC entries should be available. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is usually caused by a previous error that has recorded data on the SYS1.LOGREC data sets and requested an SVC dump. Examine the SYS1.LOGREC entries and SVC dumps to determine the actual cause of the error. Refer to "DB2 Abend Completion Codes (X'04E' and X'04F)" on page 1-6 for information on X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2.

00F30407

Explanation: The DB2 subsystem was abended by module DSN3SSI1, because the jobstep task in a resource manager address space terminated.

This abend reason code is issued by the following CSECT: DSN3SSI1

System Action: The DB2 subsystem is terminated with an SVC dump.

Operator Response: You can start DB2 again after it terminates.

System Programmer Response: At least one SVC dump and associated SYS1.LOGREC entries should be available. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is usually caused by a previous error that has recorded data on the SYS1.LOGREC data set and requested an SVC dump. Examine the SYS1.LOGREC entries and SVC dumps to determine the actual cause of the error. Refer to "DB2 Abend Completion Codes (X'04E' and X'04F)" on page 1-6 for information on X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2.

00F30408

Explanation: The DB2 subsystem was terminated because a DB2 resource manager address space is in end-of-memory processing.

This abend reason code is issued by the following CSECT: DSN3SSI1

System Action: The DB2 subsystem is terminated with an SVC dump.

Operator Response: DB2 can be started again after it terminates.

System Programmer Response: At least one SVC dump and associated SYS1.LOGREC entries should be available. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is usually caused by a previous error that recorded data on the SYS1.LOGREC data set and requested an SVC dump. The SYS1.LOGREC entries and SVC dumps should be examined to determine the actual cause of the error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 3, 5.

00F30409

Explanation: The DB2 subsystem was abended by module DSN3SSES, because an allied task going through either end-of-task or one of its terminating ancestor tasks was in a DB2 must-complete function or was still holding DB2 latches.

This abend reason code is issued by the following CSECT: DSN3SSES

System Action: The DB2 subsystem is terminated with an SVC dump.

Operator Response: DB2 may be started again after it terminates.

System Programmer Response: At least one SVC dump and associated SYS1.LOGREC entries should be available. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is usually caused by a previous error that has recorded data on the SYS1.LOGREC data set and requested an SVC dump. The SYS1.LOGREC entries and SVC dump(s) should be examined to determine the actual cause of the error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2.

00F3040A

Explanation: The DB2 subsystem was abended by module DSN3SSI1, because an allied address space going through end-of-memory had one or more agents that either were in a DB2 must-complete function or were still holding DB2 latches.

This abend reason code is issued by the following CSECT: DSN3SSI1

System Action: The DB2 subsystem is terminated with an SVC dump.

Operator Response: DB2 may be started again after it terminates.

System Programmer Response: At least one SVC dump and associated SYS1.LOGREC entries should be available. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is usually caused by a previous error that has recorded data on the SYS1.LOGREC data set and requested an SVC dump. The SYS1.LOGREC entries and SVC dump(s) should be examined to determine the actual cause of the error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2.

00F3040B

Explanation: See message DSN3001I.

This abend reason code is issued by the following CSECT: DSN3SSTM

System Programmer Response: See message DSN3001I.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F3040C

Explanation: The DB2 subsystem was abended because the SSSS IEFSSREQ service agent (EB) was in a DB2 must-complete function upon return from the agent services create allied agent function.

This abend reason code is issued by the following CSECT: DSN3SSI2

System Action: The DB2 subsystem is terminated with an SVC dump.

Operator Response: DB2 may be started again after it terminates.

System Programmer Response: At least one SVC dump and associated SYS1.LOGREC entries should be available. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is usually caused by a previous error that has recorded data on the SYS1.LOGREC data set and requested an SVC dump. The SYS1.LOGREC entries and SVC dump(s) should be examined to determine the actual cause of the error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2.

00F3040D

Explanation: The DB2 subsystem was abended because the SSSS IEFSSREQ service agent (EB) was in a DB2 must-complete function upon return from the agent services terminate allied agent function.

This abend reason code is issued by the following CSECTs:

DSN3ID80 DSN3SSI2 DSN3SSES

System Action: The DB2 subsystem is terminated with an SVC dump.

Operator Response: DB2 may be started again after it terminates.

System Programmer Response: At least one SVC dump and associated SYS1.LOGREC entries should be available. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is usually caused by a previous error that has recorded data on the SYS1.LOGREC data set and requested an SVC dump. The SYS1.LOGREC entries and SVC dump(s) should be examined to determine the actual cause of the error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2.

00F3040E

Explanation: The DB2 subsystem was abended after a failure during processing of an IDENTIFY, COMMAND, or MVS HELP subsystem interface broadcast. The recovery routine DSN3SSES attempted to clean up processing and pass the error to the caller, but was unable to do so.

This abend reason code is issued by the following CSECT: DSN3SSES

System Action: The DB2 subsystem is terminated.

Operator Response: The DB2 subsystem should be restarted.

System Programmer Response: Scan the SYS1.LOGREC entries for the initial error and subsequent abends encountered by module DSN3SSES. The ESTAE DSN3SSES is established at least three times. Repetitive errors within the ESTAE module ultimately result in a subsystem termination with this reason code.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F3040F

Explanation: The DB2 subsystem was abended because a DB2 latch, critical to the deferred end of task (EOT) termination process, was held by an MVS dispatchable unit, normally in an allied address space, which was no longer being dispatched and was, therefore, unable to release the latch.

This DB2 termination reason code is issued by the following CSECTs:

DSN3SSES DSN3SSI1 DSN3SSI2

System Action: The DB2 subsystem is terminated with an SVC dump.

Operator Response: DB2 may be started again after it terminates. The system programmer should be notified.

System Programmer Response: At least one SVC dump and associated SYS1.LOGREC entries should be available. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is usually caused by a previous error associated with an allied address space and especially in the case where the allied address space has been forced to an end-of-memory condition.

The console output should be examined for errors associated with allied address spaces.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F30410

Explanation: The DB2 subsystem was abended, because the end-of-task listening module failed during a must-complete window. End-of-task processing is considered to be in a must-complete state until an ESTAE has been established. The 'user' of this ESTAE routine was the allied end-of-task listening module DSN3EOT0.

This abend reason code is issued by the following CSECT: DSN3AAES

System Action: The DB2 subsystem is terminated.

Operator Response: DB2 may be started again after it terminates.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The recovery routine DSN3AAES has recorded data on the SYS1.LOGREC data set and requested an SVC dump. The SYS1.LOGREC entries and SVC dump(s) should be examined to determine the cause of the error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2.

00F30411

Explanation: The DB2 subsystem was abended because the abnormal termination of an agent failed during end-of-memory (EOM) processing for an allied address space. The 'user' of this ESTAE routine was the allied EOM routine DSN3EOM0.

This abend reason code is issued by the following CSECT: DSN3AAES

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer. DB2 may be started again after it terminates.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The recovery routine DSN3AAES has recorded data on the SYS1.LOGREC data set and requested an SVC dump. The SYS1.LOGREC entries and SVC dump(s) should be examined to determine the cause of the error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2.

00F30412

Explanation: The DB2 subsystem was abended because the abnormal termination of an agent failed during resolve-indoubt processing for an allied agent. The 'user' of this ESTAE routine was the resolve-indoubt-UR RMRQ routine DSN3RIM0.

This abend reason code is issued by the following CSECT: DSN3AAES

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer. DB2 may be started again after it terminates.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The recovery routine DSN3AAES has recorded data on the SYS1.LOGREC data set and requested an SVC dump. The SYS1.LOGREC entries and SVC dump(s) should be examined to determine the cause of the error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2.

00F30413

Explanation: The DB2 subsystem was abended, because the abnormal termination of an agent failed. However, this recovery routine was unable to determine who its caller was. It should be one of the following: DSN3EOT0, DSN3EOM0, or DSN3RIM0.

This abend reason code is issued by the following CSECT: DSN3AAES

System Action: The DB2 subsystem is terminated.

Operator Response: DB2 may be started again after it terminates.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The recovery routine DSN3AAES has recorded data on the SYS1.LOGREC data set and has requested an SVC dump. The SYS1.LOGREC entries and SVC dump(s) should be examined to determine the cause of the error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2.

00F30414

Explanation: The DB2 subsystem was abended, because module DSN3SSI1 (or its caller, DSN3CL0X) was unable to establish the ESTAEs during the processing of a command SSI call. This is probably an MVS problem, because these modules are executing in the MVS CONSOLE address space.

This abend reason code is issued by the following CSECT: DSN3SSI1

System Action: The DB2 subsystem is terminated.

Operator Response: DB2 may be started again after it terminates. If the failure persists, request a stand-alone dump, and re-IPL MVS.

System Programmer Response: This can occur if the MVS system address space that is broadcasting the command has insufficient storage. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: DB2 is unable to write a SYS1.LOGREC record or request a dump. The MVS CONSOLE function should have produced these diagnostic aids. Examine the dump to determine whether the problem is in MVS or DB2. Other unrelated failures in the MVS CONSOLE address space would indicate an MVS problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3.

00F30415

Explanation: The DB2 subsystem was abended because module DSN3SSI1 (or its caller, DSN3CL0X) was unable to establish the ESTAEs during the processing of an EOM SSI broadcast. This is probably an MVS problem, because these modules are executing in the MVS master scheduler address space.

This abend reason code is issued by the following CSECT: DSN3SSI1

System Action: The DB2 subsystem is terminated.

Operator Response: DB2 may be started again after it terminates. If the failure persists, request a stand-alone dump and re-IPL MVS.

System Programmer Response: This can occur if the MVS master scheduler address space has insufficient free virtual storage. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: DB2 is unable to write a SYS1.LOGREC record or request a dump. The MVS master scheduler should have produced these diagnostic aids. Examine the dump to determine whether the problem is in MVS or DB2. Other unrelated failures in the MVS Master Scheduler address space would indicate an MVS problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3.

00F30416

Explanation: The DB2 subsystem was abended, because module DSN3EOM0 was unable to establish the ESTAE during the processing of an EOM for an allied address space.

This abend reason code is issued by the following CSECT: DSN3EOM0

System Action: The DB2 subsystem is terminated.

Operator Response: DB2 may be started again after it terminates. If the failure persists, request a stand-alone dump and re-IPL MVS.

System Programmer Response: This can occur if the MVS master scheduler address space that is broadcasting the EOM has insufficient free virtual storage. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: DB2 is unable to write a SYS1.LOGREC record or request a dump. The MVS master scheduler should have produced these diagnostic aids. Examine the dump to determine whether the problem is in MVS or DB2. Other unrelated failures in the MVS Master Scheduler address space would indicate an MVS problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 3.

00F30417

Explanation: The DB2 subsystem was abended because of a failure in the first end of task (FEOT) processing for a task that had established subsystem affinity to DB2.

This abend reason code is issued by the following CSECT: DSN3SSES

System Action: The DB2 subsystem is terminated.

Operator Response: DB2 can be started again after it terminates.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The recovery routine DSN3SSES has recorded data on the SYS1.LOGREC data set and requested an SVC dump. The SYS1.LOGREC entries and SVC dump(s) should be examined to determine the cause of the error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2.

00F30418

Explanation: The DB2 subsystem was abended because of a failure in the end-of-memory (EOM) processing for an address space that had established subsystem affinity to DB2.

This abend reason code is issued by the following CSECT: DSN3SSES

System Action: The DB2 subsystem is terminated.

Operator Response: DB2 may be started again after it terminates.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The recovery routine DSN3SSES has recorded data on the SYS1.LOGREC data set and requested an SVC dump. The SYS1.LOGREC entries and SVC dump(s) should be examined to determine the cause of the error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2.

00F30419

Explanation: The DB2 subsystem was abended because a DB2 latch, critical to the Deferred End of Task (EOT) Termination process, was held by an MVS dispatchable unit, normally in an allied address space, which was no longer being dispatched and was, therefore, unable to release the latch.

This abend reason code is issued by the following CSECTs:

DSN3SSES DSN3SSI1 DSN3SSI2

System Action: The DB2 subsystem is terminated with an SVC dump.

Operator Response: DB2 may be started again after it terminates. The system programmer should be notified.

System Programmer Response: At least one SVC dump and associated SYS1.LOGREC entries should be available.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is usually caused by a previous error associated with an allied address space and especially in the case where the allied address space has been forced to an end-of-memory condition.

The console output should be examined for errors associated with allied address spaces.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F3041A

Explanation: An ESTAE could not be established by the deferred end-of-task (EOT) processor. This error could occur only during DB2 subsystem startup. Probably, an ESTAE could not be established because of a shortage of LSQA space.

This abend reason code is issued by the following CSECT: DSN3EOTS

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If the failure persists, increase the size of the system services address space private area.

Problem Determination: An SVC dump and associated SYS1.LOGREC entry should be available.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F3041B

Explanation: The deferred end-of-task (EOT) processor could not locate an AGNT block for the ACE of the agent in abnormal termination. This is a system error.

This abend reason code is issued by the following CSECT: DSN3EOTS

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A SYS1.LOGREC entry and associated SVC dump were requested. Register 8 at the time of the abend contains the ACE pointer. The AGNT block whose AGNTEB field points to the EB contained within the ACE could not be located.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2.

00F3041C

Explanation: The DB2 subsystem was abended because of a failure of a MEMTERM request for an allied address space.

This abend reason code is issued by the following CSECTs: DSN3SSI1, DSN3SSES

System Action: The DB2 subsystem is terminated.

User Response: Notify the system programmer.

Operator Response: DB2 can be started again after it terminates.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The recovery routine DSN3SSES recorded data on the SYS1.LOGREC data set and requested an SVC sump. The SYS1.LOGREC entries and the SVC dumps should be examined to determine the cause of the error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2.

00F30420

Explanation: A failure occurred during deferred end-of-task (EOT) processing for an agent.

This abend reason code is issued by the following CSECT: DSN3EOTS

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: Determine the module that failed and the registers at the time of the error. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A SYS1.LOGREC entry and associated SVC dump were requested.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2.

00F30429

Explanation: A DB2 subsystem task (normally a service task) going through end-of-task (EOT), or one of its terminating ancestor tasks, was a DB2 must-complete function or was still holding one or more DB2 latches.

This abend reason code is issued by the following CSECT: DSN3SSI1

System Action: The DB2 subsystem is terminated with an SVC dump.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: At least one SVC dump and associated SYS1.LOGREC record(s) are available. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is usually caused by a previous error that has recorded data in SYS1.LOGREC and requested an SVC dump. The SYS1.LOGREC record(s) and SVC dump should be examined to determine the actual cause of the error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2.

00F30450

Explanation: CSECT DSN3CL0X could not establish an ESTAE during the processing of an identify SSI call. This can occur if the current address space has insufficient storage.

This abend reason code is issued by the following CSECT: DSN3CL0X

System Action: The allied address space is abended (without ABDUMP).

Operator Response: Notify the system programmer.

System Programmer Response: The user may retry the identify request. If a dump is available, review the virtual storage manager's control blocks to determine if all of the private area has been allocated. If necessary, increase the private area size of the allied address space.

Problem Determination: A dump should be produced by the allied task.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F30451

Explanation: CSECT DSN3SSI1 could not establish its ESTAEs during the processing of an identify SSI call. This can occur if the current address space has insufficient storage.

This abend reason code is issued by the following CSECT: DSN3SSI1

System Action: The allied task is abended (without ABDUMP).

Operator Response: Notify the system programmer.

System Programmer Response: The user may retry the identify request. If a dump is available, review the virtual storage manager's control blocks to determine if all of the private area has been allocated. If necessary, increase the private area size of the allied address space.

Problem Determination: A dump should be produced by the allied task.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F30452

Explanation: CSECT DSN3ID30 could not establish an ESTAE during the processing of an identify SSI call. This can occur if the current address space has insufficient storage.

This abend reason code is issued by the following CSECTs: DSN3ID30, DSN3SI30

System Action: The allied task is abended (without ABDUMP).

Operator Response: Notify the system programmer.

System Programmer Response: The user may retry the identify request. If a dump is available, review the virtual storage manager's control blocks to determine if all of the private area has been allocated. If necessary, increase the private area size of the allied address space.

Problem Determination: A dump should be produced by the allied task.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F30453

Explanation: CSECT DSN3SSI1 could not establish its ESTAEs during the processing of an SSI call other than FEOT, EOM, HELP, COMMAND, and IDENTIFY. This can occur if the current address space has insufficient storage.

This abend reason code is issued by the following CSECT: DSN3SSI1

System Action: The allied task is abended (without ABDUMP).

Operator Response: Notify the system programmer.

System Programmer Response: The user may retry the request. If a dump is available, review the virtual storage manager's control blocks to determine if all of the private area has been allocated. If necessary, increase the private area size of the allied address space.

Problem Determination: A dump should be produced by the allied task.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F30454

Explanation: After discovering an error during the processing of an SSI call, module DSN3SSI1's retry routine found an unknown retry point when it was attempting to retry into the mainline code. This is a DB2 subsystem error.

This abend reason code is issued by the following CSECT: DSN3SSI1

System Action: The allied task is abended.

Operator Response: Notify the system programmer.

System Programmer Response: The user may retry the relevant SSI call. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The recovery routine DSN3SSES has recorded data on the SYS1.LOGREC data set and requested an SVC dump. The SYS1.LOGREC entries and SVC dump(s) should be examined to determine the cause of the error.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F30455

Explanation: CSECT DSN3ID80 could not establish its ESTAE during the processing of the identify termination request. This can occur if the current address space has insufficient storage.

This abend reason code is issued by the following CSECT: DSN3ID80

System Action: The allied task is abended (without ABDUMP).

Operator Response: Notify the system programmer.

System Programmer Response: The user may retry the request. If a dump is available, review the virtual storage manager's control blocks to determine if all of the private area has been allocated. If necessary, increase the private area size of the allied address space.

Problem Determination: A dump should be produced by the allied task.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F30456

Explanation: CSECT DSN3TM00 could not identify its caller. The only callers supported are: EOT, EOM, RIUR, and CNCL.

This abend reason code is issued by the following CSECT: DSN3TM00

System Action: The calling task is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The caller's recovery routine may record on the SYS1.LOGREC data set and request an SVC dump. Module DSN3TM00 caller's parameter list, recorded in the trace entry, should be examined to determine the cause of the error, and new caller support should be added to DSN3TM00, if necessary.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F30457

Explanation: CSECT DSN3TM00 found that the agent termination did not take place after an extra termination request (DSNARARQ).

This abend reason code is issued by the following CSECT: DSN3TM00

System Action: The caller is abended. The caller may, in many cases, eventually abend the DB2 subsystem.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The caller's recovery routine records on the SYS1.LOGREC data set and requests an SVC dump. The error indicates that there may be a problem with the subsystem support subcomponent termination routines (namely DSN3ID80, DSN3SI80, and/or DSN3CT80).

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F30458

Explanation: The DB2 subsystem is abended because a user-exit module, either DSN3@ATH or DSN3@SGN, is not link-edited with the AMODE (31) attribute.

This abend reason code is issued by the following CSECT: DSN3AMI1

System Action: Subsystem start-up is terminated.

Operator Response: DB2 may be restarted after the link-edit attributes of DSN3@ATH and/or DSN3@SGN have been changed to AMODE (31) RMODE (ANY).

System Programmer Response: Link-edit the user-exit module, specifying the attributes AMODE (31) RMODE (ANY).

Problem Determination: Refer to the JCL specifying link-edit attributes for the user exit module.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 4.

00F30459

Explanation: The DB2 connection associated with an allied TCB could not be terminated. A RARQ request to terminate the connection could not be issued because either:

- The Resource Access List (RAL) address was zero in field ACERAL, or
- The SSAM Function Vector List (FVL) address in the RAL was zero.

This abend reason code is issued by the following CSECT: DSN3TM00

System Action: The DB2 subsystem is terminated with a reason code of X'00F30420'.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is a DB2 internal error. Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F30460

Explanation: The application is running in a WLM-established stored procedure address space and is attempting to connect to DB2 using a type of DB2 Attach other than RRSAF.

System Action: The application is abended.

Operator Response: Notify the system programmer.

Programmer Response: Modify, relink and rerun the application.

System Programmer Response: Use the MVS VARY WLM,APPLENV=name,REFRESH command to refresh the load module in storage.

Problem Determination: The problem may be that the Stored Procedure is link edited with or has loaded the DB2 call attachment facility language interface module DSNALI. Stored procedures that run in WLM-established address spaces must be link edited with or must load the RRS attachment facility language interface module DSNRLI.

This abend reason code is issued by the following CSECTs: DSN3ID30

00F30461

Explanation: DB2 was unable to successfully restart with OS/390 RRS because of an internal error in either DB2 or OS/390 RRS.

System Action: DB2 is not connected to RRS and all services dependent on that connection are unavailable. This means that applications may not connect to DB2 using RRSAF and that WLM-established address spaces may not be used for DB2 stored procedures until DB2 successfuly restarts with OS/390 RRS.

Operator Response: Notify the system programmer.

System Programmer Response: Stop and then start OS/390 RRS. Stop and then start DB2. If the problem persists, perform an OS/390 RRS cold start. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination:

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

This abend reason code is issued by the following CSECTs: DSN3RRSR, DSN3RRRS.

00F30501

Explanation: A nonzero return code has been received from the system parameter manager (SPM) subcomponent of DB2 when attempting to read a descriptor from the DSN3DIR1 directory. This descriptor is required in order to complete processing of the active sign-on or create thread. This is a serious error.

This abend reason code is issued by the following CSECTs: DSN3CT30, DSN3SI30

System Action: The requester is abended, and the request is not processed.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: An SVC dump should be available. Either the module issuing the abend has made an error in compounding the descriptor name (it is a concatenation of connection type and indicators representing the request type) or the descriptor, or information in the DSN3DIR1 directory is incorrect.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F30502

Explanation: A nonzero return code was received from agent service’s create allied agent function during an identify or sign-on request. This indicates an allocation error that should not occur for these levels of capability.

This abend reason code is issued by the following CSECTs: DSN3ID50, DSN3SI30

System Action: The requester is abended, and the request is not processed.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: An SVC dump and associated SYS1.LOGREC entries should be available. Examine the DB2 trace table to determine which resource manager triggered the error indication. Also, the DSN3DIR1 entry for the appropriate protocol should be checked to ensure that only SSAM is specified to participate in allocation.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F30503

Explanation: The member DSN6SYSP is missing from DSNZPARM.

This abend reason code is issued by the following CSECT: DSN3AMI1

System Action: DB2 start-up is terminated.

System Programmer Response: Refer to the coding procedure for DSNZPARM in Section 2 of *Installation Guide* .

Problem Determination: DSN6SYSP CSECT is missing from the DSNZPARM load module.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F30571

Explanation: This reason code is returned when a DB2 program attempts to UNSPECIFY an already inactive Program Request Handler (PRH). The indicated PRH is inactive. This reason code merely provides extra information.

This reason code is not normally visible to users or operators, but may appear in DB2 traces.

This DB2 reason code is issued by the following CSECT: DSN3SPRX

System Action: None. The requested condition already existed.

00F30572

Explanation: This reason code is returned when a DB2 program attempts to SPECIFY a Program Request Handler (PRH) and there was one already active. The new specification overlays the older specification.

This reason code is not normally visible to users or operators, but may appear in DB2 traces.

This DB2 reason code is issued by the following CSECT: DSN3SPRX

System Action: The new specification replaces the old one.

00F30573

Explanation: The invoker of DSN3SPRH specified an invalid value for a resource access list entry (RALE). The RALE is outside the limits of those supported by the application program support CALL routine. (The application program support CALL routine routes control to the program request handlers.)

This abend reason code is issued by the following CSECT: DSN3SPRX

System Action: The requester is abended, and the request is not processed.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: An SVC dump and associated SYS1.LOGREC entries are produced by a DB2 service. Register 2 at the entry to the abend contains the resource access list element (RALE) value passed.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F30574

Explanation: The invoker of DSN3SPRH specified an invalid request qualifier (QUAL) value. The QUAL is outside the limits of those supported by the application program support call routine that routes control to the program request handlers (PRHs).

This abend reason code is issued by the following CSECT: DSN3SPRX

System Action: The requester is abended, and the request is not processed.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: An SVC dump and SYS1.LOGREC entry are produced by a DB2 resource manager. Register 2 at the entry to the abend contains the QUAL value passed.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F30580

Explanation: The DSN3CONN request for the EOM, first EOT or identify SSI call during the 'release-work' notification has resulted in a nonzero return code (see message DSN3580I).

This abend reason code is issued by the following CSECT: DSN3AMI2

System Action: The requester is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The original return and reason code appear in the DSN3580I message issued by DSN3AMI2. An SVC dump and associated SYS1.LOGREC entries are produced by some DB2 resource manager.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F30581

Explanation: CSECT DSN3AMI2 found an unknown type of notify message in a message buffer. This is a DB2 subsystem error.

This abend reason code is issued by the following CSECT: DSN3AMI2

System Action: An abend is issued, and the startup/shutdown ESTAE creates a SYS1.LOGREC entry and take an SVC dump.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: Examine the SYS1.LOGREC entries and SVC dumps. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The SVC dump that is produced contains the relevant material for problem analysis. These buffers are set up by DSN3CL0X.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F30597

Explanation: A protocol violation has been detected for an identify request. A noncoordinator identify request has been requested from a task that is not a subtask of the active coordinator. This occurs for protocols only where TCB hierarchy must be observed (SASS) and only when a coordinator has already identified itself to DB2.

This abend reason code is issued by the following CSECT: DSN3ID30

System Action: The allied task is abended, and the request is not processed.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: An SVC dump may be produced by the allied address space.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F30598

Explanation: A protocol violation has been detected for an identify request. A noncoordinator identify request has been requested in a PSW key different from KEY of the active coordinator at its identify. This occurs only when a coordinator has already identified itself to DB2.

This abend reason code is issued by the following CSECT: DSN3ID30

System Action: The allied task is abended, and the request is not processed.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: An SVC dump may be produced by the allied address space.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F30599

Explanation: The allied memory function of the subsystem support subcomponent (SSAM) has attempted to remove an AGNT block (representing a connected allied coordinator task) from the chain of active AGNT blocks before all the dependent AGNT blocks have been removed. This AGNT block would normally be removed only during SSAM terminate processing or during EOT processing for the coordinator task. However, in these cases, dependents are terminated bottom up, and this situation, if it occurs, is a serious one. This message probably represents a logic error in the subsystem support subcomponent’s allied memory function (SSAM).

This abend reason code is issued by the following CSECT: DSN3UNCH

System Action: The requesting SSAM module is abended. The connection name associated with the error is probably unable to continue communication with DB2 until DB2 is terminated and restarted.

Operator Response: Notify the system programmer. If necessary, stop and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is usually caused by a previous error that has created SYS1.LOGREC entries and requested an SVC dump. The SYS1.LOGREC entries and SVC dumps should be examined to determine the actual cause of the error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F30601

Explanation: Asynchronous events occurred which caused the premature termination of the thread. The thread could not be recovered.

There may be other abends or messages concerning this allied user indicating what the asynchronous events were.

This abend reason code is issued by the following CSECTs:

DSN3ID30 DSN3RIA0 DSN3RIM0

System Action: The allied user is abended with code X'04E' and this reason code.

Operator Response: The system programmer should be notified.

System Programmer Response: An SVC dump associated SYS1.LOGREC entries and SYSLOG should be available. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F30610

Explanation: CSECT DSN3AMT3 could not establish an ESTAE during the processing of an 'end stop-work force' notification. This can occur if the current address space (usually system services) has insufficient storage. This may lead to abnormal termination of DB2.

This abend reason code is issued by the following CSECT: DSN3AMT3

System Action: The caller is abended (without ABDUMP).

Operator Response: Notify the system programmer and, if necessary, restart DB2.

System Programmer Response: If necessary, increase the private area size of the failing address space.

Problem Determination: An SVC dump and related SYS1.LOGREC entry are requested by the initialization procedures (IP) subcomponent job-step task.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F30801

Explanation: The DB2 subsystem was abended by module DSNAPRHX. DSNAPRHX was called and the request was passed on to the DB2 subsystem. However, upon return, it was discovered that the requesting (calling) TCB was in a DB2 must-complete function or was still holding DB2 latches.

This abend reason code is issued by the following CSECT: DSNAPRHX

System Action: The DB2 subsystem is terminated. An MVS SVC dump is requested.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is usually caused by a previous error that has created SYS1.LOGREC entries and requested an SVC dump. The SYS1.LOGREC entries and SVC dumps should be examined to determine the actual cause of the error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F30802

Explanation: CSECT DSNAPRHX, on the return path (normal nonerror path) from the requested function, found that the FRBUDATA flag was on. This is a DB2 subsystem error.

This abend reason code is issued by the following CSECT: DSNAPRHX

System Action: The requesting task gets the FRB return and reason codes as set by the requested function. The task is not abended.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The SYS1.LOGREC entries and SVC dump should be examined to determine the actual cause of the error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F30803

Explanation: CSECT DSNAPRHX could not establish its ESTAE during the processing of an application program support call. This can occur if the current address space has insufficient storage.

This abend reason code is issued by the following CSECT: DSNAPRHX

System Action: The allied task is abended (without ABDUMP).

Operator Response: Notify the system programmer.

System Programmer Response: The user may retry the request. If necessary, increase the private area size of the application address space.

Problem Determination: The allied task may have requested an SVC dump.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F30805

Explanation: The caller’s connection with DB2 has been terminated, because the DB2 subsystem has terminated or is in the process of terminating abnormally.

This abend reason code is issued by the following CSECT: DSNAPRHX

System Action: The request may have been processed or aborted.

User Response: The requester may identify to DB2 when it becomes operational again.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5.

00F30901

Explanation: DB2 has lost its cross-memory authority to an allied address space because the ally has released its authorization index.

This reason code is issued by the following CSECT: DSN3SSES

System Action: The allied address space is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5

00F30902

Explanation: DB2 has detected a recursive abend condition while processing end-of-task for a task in an allied address space.

This reason code is issued by the following CSECT: DSN3SSES

System Action: The allied address space is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5

00F30903

Explanation: An abend has occurred while processing End-of-Task for the control address space or a resource manager address space.

This reason code is issued by the following CSECT: DSN3SSES

System Action: The address space is forced to end-of-memory with this reason code.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5

00F30904

Explanation: End-of-Task occurred for the control address space or a resource manager address space and DB2 could not establish an ESTAE to protect its processing. Insufficient storage may be the reason the ESTAE could not be established.

This reason code is issued by the following CSECT: DSN3SSI1

System Action: The address space is forced to end-of-memory with this reason code.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 5

Problem Determination: Attempt to determine if one or more DB2 address spaces is storage-constrained. Examination of the console output for the time period preceding this condition may reveal other messages or indications that the terminating address space was storage-constrained.

00F30905

Explanation: End-of-Task occurred for the job step task in an allied address space. DB2 would normally attempt to terminate the address space's connection to DB2 but was unable to protect its processing by establishing an ESTAE. Insufficient storage may be the reason the ESTAE could not be established.

This reason code is issued by the following CSECT: DSN3SSI1

System Action: The address space is forced to end-of-memory with this reason code.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 5

Problem Determination: Attempt to determine if one or more allied address spaces is storage-constrained. Examination of the console output for the time period preceding this condition may reveal other messages or indications that the terminating allied address space was storage-constrained.

00F33100

Explanation: The DB2 thread is 'read-only'.

This reason code is issued by the following CSECT: DSN3PR00

System Action: A prepare issued by the application program was processed through Phase 1. DB2 discovered there were no resources modified and no need for commit or abort to be subsequently issued.

User Response: May effect a path length savings by not issuing the subsequent commit or abort which normally follows prepare. No further action is required to complete the unit of recovery; the unit of recovery is complete.

00F3AFFF

Explanation: An unrecoverable error return code was received from the RACROUTE REQUEST=VERIFY macro service. The return code was other than 0, 4, or 8.

This abend reason code is issued by the following CSECT: DSN3@SGN

System Action: The SIGNON request is abended. An SVC dump is requested by DB2 functional recovery.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The abend with this reason code is issued by the sample SIGNON exit after the implementation in the user's installation. It indicates that an unrecoverable error occurred with the RACROUTE REQUEST=VERIFY macro service.

GPR 2 at the time of abend will contain the original RACROUTE return code from GPR 15. GPR 3 at the time of abend will contain the reason code returned by the RACROUTE macro service in GPR 0, if any.

Refer to *Recource Access Control Facility (RACF) System Programmer's Guide* for descriptions of the RACROUTE return and reason codes.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

X'F7.....' Codes

00F70001

Explanation: DB2 could not find the system parameters CSECT DSN6GRP.

System Action: The DB2 subsystem terminates.

Operator Response: Restart DB2 with the correct system parameters load module. If the problem reoccurs, notify the system programmer.

System Programmer Response: Investigate the system parameters load module.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This code is issued by the following CSECT: DSN7SINI

00F70002

Explanation: DB2 data sharing was requested, but MVS was not at the required level. You must use MVS Version 5 Release 1.0 or a later release.

System Action: The DB2 subsystem terminates.

Operator Response: Restart DB2 on a system with MVS Version 5 Release 1.0 or a later release.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This code is issued by the following CSECT: DSN7SINI

00F70003

Explanation: The DB2 subsystem parameters specified that data sharing should be active. DB2 startup checking failed for either of two reasons:

- The group and member names contained in the subsystem parameters are not equal to the group and member names contained in the DB2 *ssnm*MSTR JCL start procedure, or
- The DB2 member is already active on another MVS system.

System Action: DB2 terminates.

Operator Response: Make sure the correct subsystem parameter load module name was specified for the DB2 that failed to start. Restart DB2 with the correct subsystem parameter name.

System Programmer Response: Make sure the subsystem parameter name specified is the correct one for the DB2 subsystem and is not for a different member or group. You cannot share subsystem parameters among the members of a data sharing group. Make sure the group and member names specified in the subsystem parameters are equal to the group and member names contained in the DB2 *ssnm*MSTR JCL start procedure.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This code is issued by the following CSECT: DSN7SINI

00F70401

Explanation: DB2 could not find the system parameters CSECT DSN6GRP.

System Action: The DB2 subsystem terminates.

Operator Response: Restart DB2 with the correct system parameters load module. If the problem reoccurs, notify the system programmer.

System Programmer Response: Investigate the system parameters load module.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This code is issued by the following CSECT: DSN7GINI

00F70402

Explanation: DB2 could not create a service task for the group basic services function.

System Action: The DB2 subsystem terminates.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This code is issued by the following CSECT: DSN7GCTK

00F70403

Explanation: DB2 could not find the system parameters CSECT DSN6SPRM.

System Action: The DB2 subsystem terminates.

Operator Response: Restart DB2 with the correct system parameters load module. If the problem reoccurs, notify the system programmer.

System Programmer Response: Investigate the system parameters load module.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This code is issued by the following CSECT: DSN7GCHK

00F70404

Explanation: DB2 could not open the SCA member information record.

System Action: DB2 terminates.

Operator Response: Check if the CF SCA structure is allocated. Restart DB2. If the problem occurs again, notify the system programmer.

System Programmer Response: Check if correct policy is active.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This code is issued by the following CSECT: DSN7GCHK

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00F70405

Explanation: DB2 encountered an unexpected error while trying to read from or write to the shared communications area (SCA).

System Action: The requesting execution unit abends. A SYS1.LOGREC entry is written and an SVC dump is requested.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECTs: DSN7GJON, DSN7GRMA.

00F70406

Explanation: DB2 issued an XCF macro IXCQUERY, but it failed. (XCF is the cross-system coupling facility component of MVS.)

System Action: The DB2 subsystem terminates.

Operator Response: Check the MVS console for XCF-related error messages. Issue an MVS DISPLAY XCF,GROUP command to ensure that XCF is functional. Then try to restart the DB2 subsystem. If the problem reoccurs, notify the system programmer.

System Programmer Response: Investigate the reason for this unexpected error. Refer to *MVS/ESA Programming: Sysplex Services Reference* for information about XCF return and reason codes.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This code is issued by the following CSECT: DSN7GJON

00F70407

Explanation: This is a DB2 internal error. The member name and member ID do not match in the BSDS, the XCF function data set or the SCA structure.

System Action: The DB2 subsystem terminates.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This code is issued by the following CSECT: DSN7GJON

00F70408

Explanation: DB2 issued an MVS XCF IXCJOIN request, but it failed. (XCF is the cross-system coupling facility component of MVS.)

System Action: The DB2 subsystem terminates.

Operator Response: Check the MVS console for XCF-related error messages. Issue an MVS DISPLAY XCF,GROUP command to ensure that XCF is functional. Then try to restart the DB2 subsystem. If the problem reoccurs, notify the system programmer.

System Programmer Response: Investigate the reason for this unexpected error. Refer to *MVS/ESA Programming: Sysplex Services Reference* for information about XCF return and reason codes.

Problem Determination: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This code is issued by the following CSECT: DSN7GJON

00F70409

Explanation: DB2 encountered an unexpected error while trying to read from or write to the local bootstrap data set (BSDS).

System Action: The requesting execution unit abends. A SYS1.LOGREC entry is written and an SVC dump is requested.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSN7GJON

00F7040A

Explanation: DB2 detected an unexpected error during deletion of a DB2 service task.

System Action: DB2 terminates.

System Programmer Response: Investigate the problem and call the IBM support center.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSN7GTRM

00F70410

Explanation: DB2 detected an unexpected error during IRLM locking.

System Action: DB2 terminates.

System Programmer Response: Investigate the problem.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSN7GJON

00F70600

Explanation: The connection to the shared communications area (SCA) was lost.

System Action: DB2 terminates because DB2 data sharing cannot function without the SCA.

User Response: Notify the system programmer.

System Programmer Response: Figure out why the SCA link to this central processor complex (CPC) is lost and correct the problem. Then restart DB2.

Problem Determination: If there is an active SFM policy which specifies that a rebuild of the SCA should occur, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This code is issued by the following CSECT: DSN7LST3

00F70601

Explanation: The shared communications area (SCA) structure failed. DB2 initiated dynamic rebuild of the structure. However, the rebuild process failed and DB2 cannot continue without the SCA.

System Action: DB2 terminates.

User Response: Notify the system programmer.

System Programmer Response: Correct the SCA structure and restart DB2. If all DB2s in the group terminate with this code, the next DB2 restart might do a group restart.

Problem Determination: This code is issued by the following CSECTs: DSN7LST2, DSN7LST3.

00F70602

Explanation: DB2 cannot connect to the shared communications area (SCA) coupling facility structure.

System Action: Because DB2 data sharing cannot function without the SCA, DB2 terminates.

User Response: Notify the system programmer.

System Programmer Response: Refer to message DSN7506I for more information

Problem Determination: This abend reason code is issued by the following CSECTs: DSN7LSTK, DSN7LST2.

00F70603

Explanation: DB2 encountered an error in accessing the shared communications area (SCA) coupling facility structure.

System Action: Since DB2 data sharing cannot function without the SCA, DB2 terminates.

User Response: Notify the system programmer.

System Programmer Response: Refer to message DSN7508I for more information.

Problem Determination: This code is issued by the following CSECTs:

DSN7LRE1 DSN7LRO1 DSN7LWR1 DSN7LDE1

00F70604

Explanation: DB2 cannot rebuild the shared communications area (SCA) coupling facility structure.

System Action: Because DB2 data sharing cannot function without the SCA, DB2 terminates.

User Response: Notify the system programmer.

System Programmer Response: Refer to messages DSN7506A and DSN7508I for more information

Problem Determination: This abend reason code is issued by the following CSECT: DSN7LSTK

00F70605

Explanation: DB2 cannot create a needed service task. This is a DB2 internal error.

System Action: DB2 terminates.

User Response: Notify the system programmer.

System Programmer Response: Investigate the problem.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSN7LCTK

00F70606

Explanation: DB2 detected an unexpected error. This is a DB2 internal error.

System Action: DB2 terminates.

User Response: Notify the system programmer.

System Programmer Response: Investigate the problem.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem. This abend reason code is issued by the following CSECTs: DSN7LSUS, DSN7LEST.

00F70607

Explanation: DB2 detected that the shared communications area (SCA) coupling facility structure reached the directory entry limit of 200.

System Action: DB2 terminates because DB2 data sharing cannot function without the SCA.

User Response: Notify the system programmer.

System Programmer Response: Investigate the problem.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSN7LOP1

00F70608

Explanation: DB2 detected an unexpected error. This is a DB2 internal error.

System Action: DB2 terminates.

User Response: Notify the system programmer.

System Programmer Response: Investigate the problem.

Problem Determination: Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem. This abend reason code is issued by the following CSECTs: DSN7LOP1, DSN7LUTL.

00F70609

Explanation: The SCA structure is full.

System Action: The DB2 that was writing an entry in the SCA terminates since the critical function cannot go on without the SCA entry written.

System Programmer Response: Refer to *Data Sharing: Planning and Administration* for a full description of actions in the SCA full scenario section.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5:

This abend reason code is issued by the following CSECT: DSN7LWRI

X'F9.....' Codes

An entry in the SYS1.LOGREC data set is requested for all of the following abnormal termination conditions. The SDWA variable recording area (VRA) contains the information provided by the DSNWRCRD function. When VRA space permits, the recordable section of the diagnostic data table (DDT control block) is also placed in the VRA. If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

All general command processor modules use register 10 as a base register. This may be helpful when attempting to match a register value to a module map.

00F90000

Explanation: A command processor has been invoked via the application program support function while the local lock of the caller's address space was held. CSECT DSN9SCNF tried to obtain the lock in order to obtain a response message buffer, but it was unable to do so. This represents a logic error in the function that submitted the command to the application program support function.

This abend reason code is issued by the following CSECT: DSN9SCNF

System Action: Command execution was abended. If the command was properly entered, it may have been partially or completely executed.

Operator Response: Print the contents of the SYS1.LOGREC data set. If a dump was produced, have it printed. It may be necessary to restart the attachment (IMS or CICS).

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The diagnostic data table (DDT control block) appears in the SDWA variable recording area (VRA). For additional diagnostic information, see "X'F9.....' Codes."

00F90001

Explanation: A command processor has been invoked via the application program support function. CSECT DSN9SCNF obtained the LOCAL lock of the caller's address space prior to obtaining a response message buffer, but was then unable to release the lock. This condition, if it occurs, is a serious one.

This abend reason code is issued by the following CSECT: DSN9SCNF

System Action: Command execution was abended. If the command was properly entered, it may have been partially or completely executed.

Operator Response: Print the contents of the SYS1.LOGREC data set. If a dump was produced, have it printed. It may be necessary to restart the attachment (IMS or CICS).

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The diagnostic data table (DDT control block) appears in the SDWA variable recording area (VRA). For additional diagnostic information, see "X'F9.....' Codes."

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F90002

Explanation: The routines of the multiple console support (MCS) service of MVS were unable to initialize. CSECT DSN9SCNM attempted to create the console task controller service task, but the task was not successfully created. This condition may indicate a problem in the address space. If it occurs, this is a serious error.

This abend reason code is issued by the following CSECT: DSN9SCNM

System Action: Subsystem initialization is aborted, causing the DB2 subsystem to terminate.

Operator Response: Print the contents of the SYS1.LOGREC data set. If a dump was produced, have it printed. Restart the DB2 subsystem.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The diagnostic data table (DDT control block) appears in the SDWA variable recording area (VRA). For additional diagnostic information, see "X'F9.....' Codes."

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F90003

Explanation: The routines of the multiple console support (MCS) service of MVS were unable to initialize. CSECT DSN9SCNM or DSN9SCN6 attempted to create a console service task but the task was not successfully created. This condition, if it occurs, is a serious one.

This abend reason code is issued by the following CSECTs: DSN9SCN6, DSN9SCNM

System Action: If the abend was issued by CSECT DSN9SCNM, DB2 subsystem initialization is aborted, causing the DB2 subsystem to terminate. If the abend was issued by CSECT DSN9SCN6, the command from the associated console is executed under a different service task and should proceed normally.

Operator Response: Print the contents of the SYS1.LOGREC data set. If a dump was produced, have it printed.

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System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The diagnostic data table (DDT control block) appears in the SDWA variable recording area (VRA). For additional diagnostic information, see "X'F9.....' Codes" on page 4-419.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F90004

Explanation: The routines of the multiple console support (MCS) service of MVS detected a logic error. CSECT DSN9SCN7 received a return code from the command pre-processor (the DSN9CMD service) that indicated an intolerable condition. A return code of X'04' is issued if the DSN9CMD calling parameters are invalid (the command text length is not a positive number or the PHB address is zero).

A return code of X'24' is provided if storage for a tokenized command statement (TCS) cannot be obtained from the global storage pool obtained by CSECT DSN9SCNP. The TCS storage request is the first storage request made using this pool. This is not a user error.

This abend reason code is issued by the following CSECT: DSN9SCN7

System Action: The command was not executed.

Operator Response: Print the contents of the SYS1.LOGREC data set. If a dump was produced, have it printed.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The diagnostic data table (DDT control block) appears in the SDWA variable recording area (VRA). For additional diagnostic information, see "X'F9.....' Codes" on page 4-419.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F90005

Explanation: A routine of the multiple console support (MCS) service of MVS was not able to create an ESTAE recovery environment. This condition is detected when the ESTAE service of MVS returns a nonzero return code. The command from the associated MCS console is not executed. Refer to the appropriate MVS publication for an explanation of ESTAE return codes.

This abend reason code is issued by the following CSECTs:

DSN9SCN5 DSN9SCN6 DSN9SCN7

System Action: Command processing is terminated.

Operator Response: Print the contents of the SYS1.LOGREC data set. If a dump was produced, have it printed.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: If available, the diagnostic data table (DDT control block) will appear in the SDWA variable recording area (VRA). For additional diagnostic information, see "X'F9.....' Codes" on page 4-419.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F90006

Explanation: The agent allocation routine was not able to allocate command processing capability to an agent. This failure occurs, because there is a damaged control block in global storage (CSA). The control block is the command global data area (CGDA). The address of the CGDA is in the general command processor RMFTRUSE field. This is not a user error.

This abend reason code is issued by the following CSECT: DSN9SCNB

System Action: Agent allocation is terminated.

Operator Response: Print the contents of the SYS1.LOGREC data set. If a dump was produced, have it printed. It may be necessary to restart the attachment (IMS or CICS) or the DB2 subsystem.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The diagnostic data table (DDT control block) appears in the SDWA variable recording area (VRA). For additional diagnostic information, see "X'F9.....' Codes" on page 4-419.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F90007

Explanation: The command parsing routines have attempted to update one of the command statistical counters that are kept in local storage. However, the counter control block validation field is wrong, indicating a damaged control block. The counter control block is located via the 'CGDASTA' address in the command global data area (CGDA) control block. The CGDA address is in the general command processor RMFTRUSE field. This is not a user error.

This abend reason code is issued by the following CSECT: DSN9SCN2

System Action: The statistical update is not completed. The statistics block address is cleared from the CGDA to prevent future failures. No further command statistical counts are maintained. Processing for the command is retried and should complete normally.

Operator Response: Print the contents of the SYS1.LOGREC data set. If a dump was produced, have it printed.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The diagnostic data table (DDT control block) appears in the SDWA variable recording area (VRA). For additional diagnostic information, see "X'F9.....' Codes" on page 4-419.

Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 2, 5.

00F90008

Explanation: The recovery manager control routine has been called, but register 6 did not contain the address of an execution block (EB) on entry to DSN9SCN9. Because recovery logic requires the address of the EB, CSECT DSN9SCN9 cannot proceed. The EB hexadecimal control block identifier and the block length are compared to known values in order to validate the EB address. This is not a user error.

This abend reason code is issued by the following CSECT: DSN9SCN9

System Action: The function requesting the recovery management service is abended.

Operator Response: Print the contents of the SYS1.LOGREC data set. If a dump was produced, have it printed. It may be necessary to restart the attachment (IMS or CICS) or the DB2 subsystem.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The diagnostic data table (DDT control block) appears in the SDWA variable recording area (VRA). For additional diagnostic information, see “X'F9.....' Codes” on page 4-419.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F90009

Explanation: This reason code is used to document that CSECT DSN9SCN9 has added information to the SDWA variable recording area (VRA) following the data provided by the DSNWRCRD service. If DSN9SCN9 records a failure in SYS1.LOGREC and the reason code in the VRA is not of the form X'00F9xxxx', the reason code is changed to X'00F90009'. This is done so that anyone examining a SYS1.LOGREC entry can determine, from the reason code, what additional data has been placed in the VRA. The reason code is the first data item in the VRA, as mapped by macro IHAVRA.

This abend reason code is issued by the following CSECT: DSN9SCN9

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The diagnostic data table (DDT control block) appears in the SDWA variable recording area (VRA). For additional diagnostic information, see “X'F9.....' Codes” on page 4-419.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F9000A

Explanation: The command parsing routines attempted to obtain a descriptor using the DSNZGDE service of the system parameter manager but the expected descriptor was not found (the DSNZGDE return code was X'04'). All descriptors used by the parser are contained in CSECT DSN9SCNA. This failure probably indicates incorrect data in CSECT DSN9SCNA.

This abend reason code is issued by the following CSECTs:

DSN9SCN4 DSN9SCN2 DSN9SCN1

System Action: Command execution was abended. The command was not executed.

Operator Response: Print the contents of the SYS1.LOGREC data set. If a dump was produced, have it printed. It may be necessary to restart the attachment (IMS or CICS) or the DB2 subsystem.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The diagnostic data table (DDT control block) appears in the SDWA variable recording area (VRA). For additional diagnostic information, see “X'F9.....' Codes” on page 4-419.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F9000B

Explanation: The command parsing routines attempted to obtain storage from the storage pool (PHB) provided on a DSN9SCAN service request. Normally, this is CSA storage in the pool built by CSECT DSN9SCNP. The storage request could not be satisfied, either because no CSA storage was available or because an unreasonably large amount of storage was requested. The amount of storage requested is determined by the length of the command being parsed. Normally, it is several hundred bytes.

This abend reason code is issued by the following CSECT: DSN9SCN0

System Action: Command execution is abended.

Operator Response: Print the contents of the SYS1.LOGREC data set. If a dump was produced, have it printed. It may be necessary to restart the attachment facility (IMS or CICS) or the DB2 subsystem.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The diagnostic data table (DDT control block) appears in the subsystem diagnostic work area (SDWA) variable recording area (VRA). Register 8 contains the address of the tokenized command statement (TCS) control block, and register 9 contains the requested storage length. The TCS is the DB2 internal representation of the command text. For additional diagnostic information, see “X'F9.....' Codes” on page 4-419.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F9000C

Explanation: The command preprocessor (GCPC) mainline routine (DSN9SCNP) encountered a validation error when examining the message chains returned from the command processor.

The command processor invoked attempted to return a message formatted for inclusion in an MVS Multiple Line WTO.

This abend reason code is issued by the following CSECT: DSN9SCNP

System Action: Command execution is abended.

Operator Response: Notify the system programmer.

System Programmer Response: This error reflects a failure identified during DB2 internal protocol verification. The command in error is identified by message DSN9017I. Register 8 points to the start of the response message chain returned by the command processor. Register 9 points to the message within the message chain that was found to be in error.

System Programmer Response: If you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The GCPC Diagnostic Data Table (DSNDDDT Control Block) is recorded in the Variable Recording Area of the SDWA associated with the error.

Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 2, 5.

00F9000D

Explanation: The command preprocessor (GCPC) start-up routine (DSN9SCNE) discovered that the ERLY block is out-of-date. This error indicates that the current early code is not yet compatible with this version of DB2; a required early code PTF is missing.

This abend reason code is issued by the following CSECT: DSN9SCNE

System Action: The DB2 subsystem start-up is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Check the Program Directory, apply the required early code PTF and re-IPL MVS.

Section 5. IRLM Messages and Codes

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IRLM Messages and Codes

This section describes all messages, error return and reason codes, and abend reason codes issued by the internal resource lock manager (IRLM). The database management system (DBMS) referred to throughout the messages and codes is either DB2 or IMS. Some messages and codes do not apply to DB2 operations.

IRLM Messages

This section describes messages for the resource lock manager (IRLM) subcomponent.

The messages have the form of DXRxxxa and are listed in numeric order.

DXR The prefix for IRLM messages.

xxx The numeric part of the message.

a An alphabetic suffix, as follows:

- I The message is for information only.
- E The message reports an error condition which might require action.
- A Action is required of the user before processing can continue.

All messages contain the issuing IRLM subsystem name, *irlmnm*. Where required to identify a connected IRLM, *irlmx* is used. It is the concatenation of the IRLMNM and IRLMID specified as EXEC parameters when that IRLM was started, as shown below.

Figure 8. Format of irlmx

```
If IRLMNM='KRLM' and IRLMID='12' then irlmx='KRLM12'
If IRLMNM='LRLM'  and IRLMID='0' then irlmx='LRLM0'
```

DXR100I *irlmn* **STORAGE IRLMID =** *pi*

Explanation: This message is issued in response to the following command:

```
# F irlmproc,STATUS,STOR
```

A brief summary of selected storage usage is displayed where:

PC: the parameter as specified in the *irlmproc*. Its value is either YES or NO.

MAXCSA: the value displayed when the PC parameter is NO. This represents the value of MAXCSA that is specified in the *irlmproc* as *xxxM* for megabytes.

ACNT: is the current CSA + ECSA usage for lock control structures. This storage is called "accountable" because it is accountable against the MAXCSA value. Its value is specified as either*xxxK* for kilobytes or *xxxM* for megabytes. When PC=YES, this value will be OK.

AHWM: is the High Water Mark or greatest amount of CSA + ECSA allocated by IRLM during this initialization period for lock control structures. Its value is specified as either*xxxK* for kilobytes or *xxxM* for megabytes.

CUR: is the current CSA + ECSA usage. Its value is specified as either*xxxK* for kilobytes or *xxxM* for megabytes.

HWM: is the High Water Mark or greatest amount of CSA + ECSA allocated by IRLM during this initialization period. Its value is specified as either*xxxK* for kilobytes or *xxxM* for megabytes.

ABOVE 16M: the number of IRLM control block segments above 16M and the storage allocated to those segments. The first value displayed is the number of control block segments; the second value is the storage allocation specified as either *xxxK* for kilobytes or *xxxM* for megabytes.

BELOW 16M: the number of IRLM control block segments below 16M and the storage allocated to those segments. The first value displayed is the number of control block segments; the second value is the storage allocation specified as either *xxxK* for kilobytes or *xxxM* for megabytes.

CLASS: ACCNT the storage allocated to IRLM lock control blocks where T-1 is storage for resource block structures; T-2 is storage for resource request structures, and T-3 is storage for requestor structures. This storage is allocated from ECSA when PC=NO or IRLM private storage when PC=YES.

CLASS: PROC the storage allocated to IRLM structures used for IRLM processing (including requests). This storage includes CSA, ECSA, and IRLM private storage.

CLASS: MISC the storage allocated for the rest of IRLM's needs. This includes trace buffers and other diagnostic structures. This storage includes CSA, ECSA, and IRLM private storage.

TYPE specifies the sub-category for CLASS. For example, SRB is the pool of SRB storage type in the PROC class.

SEGS: the number of storage segments allocated

MEM: the storage specified as either *xxxK* for kilobytes or *xxxM* for megabytes.

N/A the value displayed when the PC parameter is YES.

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The following is sample output when the parameter PC = NO:

```
# DXR100I IR21 STOR STATS ID=193
#         PC: NO    MAXCSA:    6M
# CSA USE: ACNT:    132K  AHWM:      132K  CUR:   4048K  HWM:   4086K
#         ABOVE 16M:     72  4033K       BELOW 16M:      6      15K
# CLASS   TYPE  SEGS     MEM   TYPE    SEGS     MEM   TYPE  SEGS     MEM
# ACCNT   T-1      1     64K   T-2        1     64K   T-3      1      4K
# PROC    WRK     11     58K   SRB        3      3K   OTH      2      2K
# MISC    VAR     60    4081K  N-V        6     22K   FIX      1     24K
```

The following is sample output when the parameter PC = YES:

```
# DXR100I JR21 STOR STATS ID=002 879
#         PC: YES   MAXCSA: N/A
# CSA USE: ACNT:      0K  AHWM:        0K  CUR:   4362K  HWM:   5830K
#         ABOVE 16M:     78  4308K       BELOW 16M:      44     53K
# CLASS   TYPE  SEGS     MEM   TYPE    SEGS     MEM   TYPE  SEGS     MEM
# ACCNT   T-1      1     64K   T-2        1     64K   T-3      1      4K
# PROC    WRK     11     58K   SRB       41     41K   OTH      2      2K
# MISC    VAR     68   4497K   N-V        6     22K   FIX      1     24K
```

System Action: Processing continues normally.

DXR101I *irlmnm* **STATUS SCOPE=***nnnnnn* **SUBSYSTEMS IDENTIFIED**
PT*m*

NAME	STATUS	UNITS	HELD	WAITING	RET_LKS
ssname	*zzz*	*wun*	*reh*	*rew*	*rtlks*

Explanation: This message is issued in response to the following command:

```
F irlmproc,STATUS
```

A list of DBMSs identified to the IRLM is displayed. Work unit and lock information is displayed for each DBMS.

The message variables are:

nnnnnn One of the following:

- LOCAL — SCOPE=LOCAL was specified as an EXEC parameter when the IRLM was started.
- GLOBAL — SCOPE=GLOBAL was specified in the IRLMPROC and the IRLM is connected to a data sharing group.
- DISCON — SCOPE=GLOBAL was specified in the IRLMPROC and the IRLM is not connected to a data sharing group.
- GINIT — SCOPE=GLOBAL was specified in the IRLMPROC and the IRLM is joining a data sharing group.
- GTERM — SCOPE=GLOBAL was specified in the IRLMPROC and the IRLM is terminating from a data sharing group.

m A decimal number such as 1, 2, and so on.

When more than 10 lines are required in response to a status command, multiple messages are issued with *m* incremented by one in each successive message.

ssname An eight-character DBMS name.

zzz One of the following:

- UP — The DBMS is active.
- DOWN — The DBMS failed.
- UP-RO — The DBMS subsystem is active and is currently identified to the IRLM as a 'read-only' subsystem.
- UP-NS — The DBMS subsystem is active and is currently identified to the IRLM as a 'no-share' subsystem.
- CLEANUP — The IRLM drove the DBMS STATUS exit, indicating a failure condition, and is waiting for that DBMS to respond with a PURGE, indicating cleanup is complete.
- SYSFAIL — The IRLM to which the DBMS is identified disconnected from the data sharing group. The modify locks for all the subsystems on that IRLM were retained by IRLM. All DBMSs that are identified to IRLMs disconnected from a data sharing group are listed as SYSFAIL by the surviving IRLMs.

wun The number of work units under the DBMS that are holding or waiting for a lock. No work units exist for a failed DBMS. The field is set to '...' for a failed DBMS.

reh The number of resources locked by the DBMS.

rew The number of waiting lock requests. No waiting requests are permitted for a failed DBMS. The field is set to '...' for a failed DBMS.

rtlks The number of retained locks held by a subsystem that failed or was running on an IRLM that failed. In most cases, retained locks are purged when a DBMS reidentifies to IRLM; therefore the number is zero for active DBMSs. However, it is possible for a DBMS to hold both active and retained locks if it is recovering from a previous failure.

If no DBMSs are identified to this IRLM, the line beginning with *ssname* is replaced with NO INFORMATION AVAILABLE.

System Action: Processing continues normally.

DXR102I *irlmnm* **STATUS IRLMID=***pi* **SUBSYSTEMS IDENTIFIED**
PT*m*

XNAME	STATUS	XRET-LKS	IRLMID	IRLM_NAME'
ssname	*zzz*	*rtlks*	*id*	*iname*

Explanation: This message is issued in response to the following commands:

```
F irlmproc,STATUS,ALLD
F irlmproc,STATUS,irlmx
```

where *irlmx* specifies the IRLM whose status is requested.

A list of DBMSs identified to the IRLMs in the data sharing group is displayed.

The message variables are:

pi The ID of the IRLM processing the request.

m A decimal number such as 1, 2, and so on.

When more than 10 lines are required in response to a status command, multiple messages are issued with *m* incremented by one in each successive message.

ssname An 8-character DBMS name.

zzz One of the following:

UP	The DBMS is active.
DOWN	The DBMS failed.
UP-RO	The DBMS subsystem is active and is currently identified to the IRLM as a 'read-only' subsystem.
UP-NS	The DBMS subsystem is active and is currently identified to the IRLM as a 'no-share' subsystem.
CLEANUP	The IRLM drove the DBMS STATUS exit, indicating a failure condition, and is waiting for that DBMS to respond with a PURGE, indicating cleanup is complete.
SYSFAIL	The IRLM to which the DBMS is identified was disconnected from the data sharing group. The modify locks for all the DBMS subsystems on that IRLM were retained by IRLM. All DBMSs that are identified to IRLMs disconnected from a data sharing group are listed as SYSFAIL by the surviving IRLMs..

rtlks The number of retained locks held by a subsystem that failed or was running on an IRLM that failed. In most cases, retained locks are purged when a DBMS reidentifies to IRLM; therefore, the number is zero for active DBMSs. However, it is possible for a DBMS to hold both active and retained locks if it is recovering from a previous failure.

id The ID of the IRLM to which the DBMS is identified.

iname The name of the IRLM to which the DBMS is identified.

If no DBMSs are identified to any IRLM or to the IRLM specified, or the IRLM specified is not known, the line beginning with *ssname* is replaced with NO INFORMATION AVAILABLE.

System Action: Processing continues normally.

DXR103I *irlmnm* **STATUS IRLMID=***pi* **IRLMS PARTICIPATING IN DATA SHARING PT***m*

IRLM-NAME	IRLMID	STATUS
iname	*id*	*zzz*

Explanation: This message displays the active IRLMs in response to the following command:

```
F irlmproc,STATUS,ALLI
```

A list of IRLMs in the group that are actively data sharing is displayed.

pi The ID of the IRLM processing the request.

m A decimal number such as 1, 2, and so on.

When more than 10 lines are required in response to a status command, multiple messages are issued with *m* incremented by one in each successive message.

iname A 4-character IRLM name.

id The ID of the IRLM.

zzz One of the following:

UP	The IRLM is active.
DOWN	The IRLM failed.

If no DBMSs are identified to any IRLM, the line beginning with *iname* is replaced with NO INFORMATION AVAILABLE.

System Action: Processing continues normally.

DXR105E *irlmnm* **STOP COMMAND REJECTED. AN IDENTIFIED SUBSYSTEM IS STILL ACTIVE**

Explanation: A `STOP irlmproc` command was entered, but the IRLM still has active DBMSs identified.

System Action: The command is not processed, but IRLM processing continues normally.

Operator Response: Reenter the STOP command after all active DBMSs have terminated, or terminate the IRLM abnormally with the `F irlmproc,ABEND` command.

DXR106E *irlmnm* **INVALID MODIFY COMMAND PARAMETER SPECIFIED**

Explanation: A MODIFY command specified the procedure name of this IRLM, but the command either contained parameter values not supported by the IRLM or did not contain a required parameter.

System Action: The command is not processed, but IRLM processing continues normally.

Operator Response: Reenter the MODIFY command with the correct parameters.

DXR107E *irlmnm* **STORAGE NOT AVAILABLE TO PROCESS THIS COMMAND**

Explanation: The IRLM cannot obtain sufficient internal working storage to process the command.

System Action: The command is not processed, but IRLM processing continues normally.

Operator Response: Inform the system programmer. Reenter the command after storage is available to process the command.

System Programmer Response: Increase the region size specified on the IRLM startup procedure.

DXR108I *irlmnm* **PURGE,** *nnnnnnnn* **COMMAND FAILED** *yyyyyyyy*

Explanation: A PURGE command specified either a name of an active DBMS or a name that is not known to this IRLM.

nnnnnnnn The *dbmsname* specified on the `PURGE,dbmsname` command.

yyyyyyyy The reason the purge command failed:

PURGE IN PROGRESS:
Either another PURGE command is being processed, or the IRLM is in the process of cleaning up from the disconnection of another group member.

NAME NOT FOUND OR ACTIVE:
The DBMS name specified cannot be found, or that DBMS is identified as an active subsystem and cannot be purged by the PURGE command.

System Action: The command failed, but IRLM processing continues normally.

Operator Response: Reenter the PURGE command with the correct parameters.

DXR109I *irlmnm* **PURGE COMMAND COMPLETED FOR** *nnnnnnnn*

Explanation: A PURGE command completed successfully.

nnnnnnnn The DBMS name specified on the `PURGE,dbmsname.` command

System Action: Processing continues normally.

Operator Response: None is required.

DXR110I *irlmnm* **STOP COMMAND ACCEPTED**

Explanation: The IRLM accepted the STOP command and is beginning the normal shutdown process.

System Action: The IRLM is performing shutdown processing. The IRLM subtasks are being quiesced and detached. If the IRLM is actively part of a data sharing group, then the other IRLMs are informed when this IRLM leaves the data sharing group.

Operator Response: None is required.

DXR116E *irlmnm* **INITIALIZATION FAILED, CODE=***xx* **DETECTED BY** *zzzzzzzz*

Explanation: The IRLM was unable to complete initialization because of error code *xx*. The name of the module that detected the failure is *zzzzzzzz*.

The values of *xx* are:

01 Unable to allocate global storage.

02 Unable to allocate local storage.

03 The IRLMID was missing or invalid. IRLMID must be specified as a 1 to 3-digit number from 0 through 255. The IRLMID must be unique among all IRLMs belonging to the same data sharing group (having the same GROUP parameter). This code can also be returned if you are using a printable character (such as 'D') for the IRLM identifier. Because of the way MVS interprets quotes, a printable character must be surrounded by enough single quotes for IRLM to determine that this is a printable character. For the IRLMID parameter in the startup procedure, there must be seven quotes on either side of the character (`'''''''D'''''''`). If you are specifying the IRLMID on the EXEC statement, there must be three quotes on either side (`'''D'''`).

05 The DEADLOK parameter was missing or invalid. This parameter must be specified as *iiii,kkkk*, where *iiii* and *kkkk* are 1 to 4-digit numbers from 1 through 9999.

06 An MVS subsystem SSCVT containing the name specified by the IRLMNM parameter does not exist. IRLM was not properly registered with MVS to use the subsystem interface.

07 Error in module zzzzzzzz initialization.

08 Error loading IRLM modules.

09 IRLM was already started.

10 The SCOPE parameter was missing or invalid. Either LOCAL or GLOBAL must be specified.

11 The MAXCSA parameter was missing or invalid. This parameter must be specified as a 1 or 2-digit number from 1 to 99.

12 The IRLMNM parameter was missing or a length greater than 4 was specified.

13 The SETDIE for the initial deadlock time interval failed.

14 The PC parameter was specified incorrectly. Either YES or NO must be specified.

15 The operating system on which IRLM is attempting to start is not MVS/XA or higher.

16 The MAXUSERS parameter was invalid.

17 Invalid group name. A 1 to 8 character group name must be specified if running SCOPE=GLOBAL.

18 Invalid lock table name. The lock table name must be the same as the one defined in the MVS locking policy, or it must not be specified.

19 The CTRACE DELETE HEAD-level trace failed.

20 The CTRACE DEFINE HEAD-level trace failed.

21 The CTRACE DEFINE SUB trace failed.

22 More than one displayable character was specified for the IRLMID parameter.

23 An invalid value for the TRACE parameter is specified. The only valid values are YES and NO.

System Action: IRLM user abend 2018 is issued.

Operator Response: Notify the system programmer.

System Programmer Response: Take the following action based on the code:

01 Make global storage available to IRLM. Analyze the dump for more information.

02 Increase the region size on the IRLM startup procedure. Analyze the dump for more information.

03 Correct the IRLMID parameter on the IRLM startup procedure.

05 Correct the DEADLOK parameter on the IRLM startup procedure.

06 Verify that the IRLM startup procedure specifies the desired IRLM name. If IRLMNM specifies the desired name, verify that an MVS subsystem with that name is defined.

07 Analyze the dump to determine the problem.

08 Analyze the dump to determine the problem.

09 Verify that the IRLM startup procedure specifies the desired IRLM name.

10 Correct the SCOPE parameter on the IRLM startup procedure.

11 Correct the MAXCSA parameter on the IRLM startup procedure.

12 Correct the IRLMNM parameter on the IRLM startup procedure.

13 Analyze the dump to determine the problem.

14 Correct the IRLM PC parameter.

15 IRLM must be run on an MVS/XA or higher system.

16 Correct the MAXUSERS parameter.

17 Correct the XCF group name parameter in the IRLM startup procedure.

18 Correct the lock table name parameter in the IRLM startup procedure.

19 Analyze the dump to see what is wrong with CTRACE.

20 Analyze the dump to see what is wrong with CTRACE.

21 Analyze the dump to see what is wrong with CTRACE.

22 Correct the value for the IRLMID parameter.

23 Correct the value for the TRACE parameter.

For codes 1, 2, 6, 7, 8, 13, 18, 19, and 20, an SDUMP is also taken. The IRLM discontinued its initialization processing.

DXR117I *irlmnm* **INITIALIZATION COMPLETE**

Explanation: The IRLM successfully completed initialization and is available for use. If SCOPE=GLOBAL is specified, message DXR132I is issued when the IRLM connects to the global environment and is capable of inter-system data sharing.

System Action: The IRLM is processing normally.

DXR121I *irlmnm* **END-OF-TASK CLEANUP SUCCESSFUL — HI-CSA** *xxxK* **or** *xxxM* **- HI-ACCT-CSA**

Explanation: The IRLM end-of-task routine released all of the MVS common storage that was in use by the terminating IRLM. The HI-CSA is the highest amount of CSA + ECSA allocated to the IRLM during this initialization. The HI-ACCT-CSA is the highest amount of CSA +ECSA allocaed to the IRLM for lock control blocks (MAXCSA applies only to this value). The value for HI-CSA or HI-ACCT-CSA is displayed as either *xxxK* for kilobytes or *xxxM* for megabytes.

System Action: The IRLM terminated processing.

Operator Response: None is required. Enter the `S irlmproc` command to restart the IRLM.

DXR122E *irlmnm* **ABEND UNDER IRLM TCB/SRB IN MODULE** *xxxxxxxx* **ABEND CODE** *zzzz*

Explanation: The IRLM experienced an unrecoverable programming error while processing under an IRLM execution unit. Global sharing with the IRLM issuing the message is inhibited.

xxxxxxxx The name of the module that detected the failure.

zzzz The abend code associated with the failure.

System Action: The IRLM is performing abnormal termination processing. An MVS SYS1.LOGREC entry and an SDUMP were requested. An abend is issued to terminate the IRLM job-step task.

Operator Response: Notify the system programmer. Ensure that the SYS1.DUMPxx data set containing the SDUMP is not overwritten before the dump is printed. Follow IRLM restart procedures.

System Programmer Response: Use the IPCS service aid to analyze the dump to determine the cause of the failure.

DXR123E *irlmnm* **ABEND UNDER DBMS TCB/SRB IN MODULE** *xxxxxxxx* **ABEND CODE=***zzzz* **ERROR ID=***wwww*

Explanation: The IRLM experienced an unrecoverable programming error while processing a request executing under a DBMS execution unit. Global sharing with the IRLM issuing the message is inhibited. An MVS SYS1.LOGREC entry and an SDUMP were requested.

xxxxxxxx The name of the module that detected the failure

zzzz The abend code associated with the failure

wwww The error ID or dump sequence number for the associated LOGREC entry.

System Action: The IRLM is performing abnormal termination processing.

Operator Response: Notify the system programmer. Ensure the SYS1.DUMPxx data set containing the SDUMP is not overwritten before the dump is printed. Follow IRLM restart procedures.

System Programmer Response: Use the IPCS service aid to analyze the dump to determine the cause of the failure.

DXR124E *irlmnm* **ABENDED VIA MODIFY COMMAND**

Explanation: The IRLM terminated as a result of receiving an `F irlmproc,ABEND` command. Global sharing with the IRLM issuing the message is inhibited. An MVS SYS1.LOGREC entry was requested. If the NODUMP parameter was omitted from the MODIFY command, an SDUMP was requested.

System Action: The IRLM is performing abnormal termination processing.

Operator Response: If an SDUMP was taken, ensure that the SYS1.DUMPxx data set containing the SDUMP is not overwritten before the dump is printed. Notify the system programmer.

System Programmer Response: Use the IPCS service aid to analyze the dump to determine the cause of the failure.

DXR131I *irlmnm* **OUT OF** *xxxx* **STORAGE DETECTED DURING DEADLOCK. DEADLOCK PROCESS DELAYED.**

Explanation: IRLM detected an out-of-storage condition during deadlock detection of resolution processing. Rather than abending the IRLM, the deadlock process for this deadlock detection interval was ended before completely detecting or resolving deadlocks. If this condition is permitted to persist, undetected deadlocks might occur.

xxxx The type of storage IRLM was attempting to get when the out-of-storage condition was detected. It is either ECSA for extended CSA, or PRIVATE for IRLM private storage.

System Action: The IRLM cleans up deadlock data structures before completing deadlock detection or resolution. Deadlock detection or resolution is attempted in one local deadlock cycle as specified on the IRLM startup procedure parameter.

Operator Response: Stop and restart the IRLM specifying a larger region size on the IRLM startup procedure. IRLM need not be stopped immediately and can remain up indefinitely if the volume of requests to the IRLM is reduced by limiting DBMS activity.

DXR132I *irlmnm* **SUCCESSFULLY JOINED THE DATA SHARING GROUP. GLOBAL INITIALIZATION IS COMPLETE**

Explanation: The IRLM successfully connected to the data sharing group. This includes a successful join to the XCF group and a successful connection to the lock structure. (XCF is the cross-system coupling facility of MVS.) The IRLM can now participate in inter-system data sharing.

System Action: The IRLM continues operation.

Operator Response: None is required.

DXR133I *irlmnm* **TIMEOUT DURING GLOBAL INITIALIZATION**

Explanation: A timeout occurred while the IRLM was attempting global initialization. This problem usually occurs because incorrect lock structure or XCF group names were specified on the LOCKTABL and GROUP parameters. (XCF is the cross-system coupling facility component of MVS.) However, anything that delays global initialization for at least 30 seconds causes this message to be issued.

System Action: IRLM continues to issue this message until one of the following occurs:

- Global initialization completes.
- The system programmer takes some action to abend the IRLM.
- IRLM abends with U2025 after an internal limit of timeout messages is reached.

Operator Response: Notify the system programmer

System Programmer Response: Investigate what is delaying initialization. Check the lock structure and XCF group names to ensure that the names specified for this IRLM match the names for all other group members. You can use XCF commands to display the current members in the XCF group to see if this IRLM joined successfully. If necessary, take a dump to assist in failure analysis.

DXR134E *irlmnm* **JOIN XCF GROUP** *wwwwwwww* **FAILED FOR GLOBAL INITIALIZATION, RETURN=***xx***, REASON=***yyyy*

Explanation: The IRLM cannot successfully join the XCF group. (XCF is the cross-system coupling facility component of MVS.)

wwwwwwww The GROUP name specified on the IRLM startup procedure

System Action: IRLM does not connect to the data sharing group. The identify request for the DBMS attempting to identify is rejected.

Operator Response: Notify the system programmer

System Programmer Response: Try to determine why the IRLM cannot join. See the IXCJOIN section of *MVS/ESA Programming: Sysplex Services Reference* for an explanation of the return and reason codes. If the reason for the connection failure was corrected, restart the IRLM and reidentify the DBMS to it.

DXR135E *irlmnm* **CONNECT TO LOCK TABLE** *wwwwwwww* **FAILED FOR GLOBAL INITIALIZATION, RETURN=***xx***, REASON=***yyyy*

Explanation: The IRLM cannot successfully connect to the lock table.

wwwwwwww The lock table name passed at identify time or the LOCKTABL name specified on the IRLM startup procedure

System Action: IRLM does not connect to the data sharing group. The identify request for the DBMS attempting to identify is rejected.

Operator Response: Notify the system programmer

System Programmer Response: Try to determine why the IRLM cannot connect. See the IXLCONN section of *MVS/ESA Programming: Sysplex Services Reference* for an explanation of the return and reason codes. If the reason for the connection failure was corrected, restart the IRLM and reidentify the DBMS to it.

DXR136I *irlmnm* **HAS DISCONNECTED FROM THE DATA SHARING GROUP**

Explanation: The IRLM left the data sharing group by disconnecting from both the XCF group and the lock structure. (XCF is the cross-system coupling facility component of MVS.) IRLM takes this action when all identified DBMSs have issued a QUIT request to the IRLM to terminate their active data sharing activity.

System Action: This IRLM disconnected from the data sharing group.

Operator Response: None is required.

DXR137I *irlmnm* **GROUP STATUS CHANGED.** *irlmx* **HAS BEEN DISCONNECTED FROM THE DATA SHARING GROUP**

Explanation: IRLM *irlmx* lost connectivity to the data sharing group.

irlmx The ID of the disconnected IRLM as explained in Figure 8 on page 5-3.

All surviving IRLMs issue this message. The disconnected IRLM might issue the DXR136I message.

System Action: IRLM *irlmx* was disconnected from the data sharing group.

Operator Response: None is required on this MVS system. See the DXR136I message for the proper operator response on the disconnected system.

DXR138E *irlmnm* **QUERY STRUCTURE FOR LOCK TABLE** *wwwwwwww* **FAILED FOR GLOBAL INITIALIZATION, RETURN=***xx***, REASON=***yyyy*

Explanation: This message is issued when IRLM gets a nonzero return code from a QUERY to XCF for the lock structure size.

wwwwwwww The lock table name passed at identify time or the LOCKTABL name specified on the IRLM startup procedure

IRLM is unable to connect to the data sharing group if it does not have a valid structure size.

System Action: IRLM does not connect to the data sharing group. The identify request for the DBMS attempting to identify is rejected.

Operator Response: Try to determine from the return and reason codes specified in the message what the problem is with XCF. See the IXCQUERY section of *MVS/ESA Programming: Sysplex Services Reference* for an explanation of the return and reason codes. Restart the DBMS when the problem is fixed.

System Programmer Response: If the operator is unable to find the problem, determine why the XCF QUERY request failed.

DXR139E *irlmnm zzzzzzzz* **REQUEST FAILED, RETURN=***xx***, REASON=***yyyy*

Explanation: An IRLM request to MVS failed with an unexpected return and reason code. The request type is *zzzzzzzz*.

System Action: IRLM terminates with abend U2025.

Operator Response: Notify the system programmer

System Programmer Response: Use the request type, reason and return codes to find out what caused the failure. See request type 'zzzzzzzz' of *MVS/ESA Programming: Sysplex Services Reference* for an explanation of the return and reason codes. Save the IRLM dump for analysis by IBM service.

DXR140E *irlmnm* **IRLMID=***zzz* **IS NOT UNIQUE FOR THE DATA SHARING GROUP IT ATTEMPTED TO JOIN**

Explanation: An IRLM attempted to join a data sharing group, but IRLMID *zzz* that was specified in the IRLM startup procedure was already in use by another IRLM in the group.

System Action: IRLM terminates with abend U2025.

Operator Response: Notify the system programmer

System Programmer Response: Change the IRLMID in the startup procedure to a number from 1 through 255 that is not already in use by another IRLM in the data sharing group.

DXR141I *irlmnm* **THE LOCK TABLE** *wwwwwwww* **WAS ALLOCATED IN A** *zzzzzzzz* **FACILITY**

Explanation: The MVS coupling facility containing the lock table being used by IRLM is executing in *zzzzzzzz* state.

zzzzzzzz Volatile or Nonvolatile

The volatile state indicates that there is no battery backup for the facility if a power failure occurs.

wwwwwwww The lock table name passed at identify time or the LOCKTABL name specified on the IRLM startup procedure.

System Action: Data sharing continues normally.

Operator Response: Notify the system programmer

System Programmer Response: Take some action to move to a nonvolatile structure if that is desired for better availability.

DXR142E *irlmnm* **THE LOCK STRUCTURE** *wwwwwwww* **IS** *zzz***% IN USE**

Explanation: This message shows what percent of the available capacity of the lock structure is being used by the group and can indicate that some action is needed to relieve the storage.

wwwwwwww The lock table name currently in use by the IRLM.

zzz One of the following values: 80, 90, 100.

System Action: This message stays on the console until the storage falls below 70% or until the operator removes the message. Data sharing continues, possibly with restrictions, depending on how full the lock structure is.

- At 80% full, data sharing continues with no restrictions, but storage is reaching a critical threshold.
- At 90% full, data sharing continues with restrictions. Only 'must-complete' type of requests that require lock structure storage are processed. All others that require lock structure storage are denied with an 'out lock structure storage' reason code.
- At 100% full, data sharing continues with more restrictions. Any request that requires lock structure storage is denied with an 'out lock structure storage' reason code.

Operator Response: Notify the system programmer if there is a concern about running out of space in the lock structure.

System Programmer Response: Take some action to increase the size of the lock structure if more space is needed. Force to completion update-type transactions to free modify locks which will in turn free some lock structure storage.

See *Data Sharing: Planning and Administration* for actions you can take in a DB2 environment to alleviate the storage shortage in the lock structure.

DXR143I *irlmnm* **REBUILDING LOCK STRUCTURE BECAUSE IT HAS FAILED OR AN IRLM LOST CONNECTION TO IT**

Explanation: The lock structure failed or one or more IRLMs lost connections to it. The IRLM attempts to rebuild all the current information into the new lock structure without modifying any of the attributes.

System Action: Data sharing is stopped while rebuild is in

progress. After rebuild completes successfully, data sharing continues normally. If rebuild does not succeed, IRLM disconnects from the data sharing group.

Operator Response: Notify the system programmer to repair the failed structure or connections to it.

System Programmer Response: Determine the reason for the structure or connection failure and take actions to recover the failed structure.

DXR144I *irlmnm* **REBUILDING LOCK STRUCTURE BECAUSE ALL CONNECTIONS TO IT ARE IN USE**

Explanation: The last available connection to the lock structure was allocated. IRLM attempts to rebuild into another structure and modify the lock structure attributes to allow more connections.

System Action: Data sharing is stopped while rebuild is in progress. After rebuild completes successfully, data sharing continues normally with more connections available for the group. If rebuild does not succeed, data sharing continues but new members are not able to join the group.

Operator Response: Determine whether the group needs to be able to handle more members or whether failed members connections can be freed. Use MVS SETXCF commands to clean up any failed-persistent connections that are no longer needed. Make sure the failed members do not own any retained locks. Contact the system programmer to increase the size of the group if the rebuild failed.

System Programmer Response: Determine the reason why rebuild failed. Take actions to make a bigger structure available to handle the bigger group.

DXR145I *irlmnm* **REBUILDING LOCK STRUCTURE AT OPERATORS REQUEST**

Explanation: The operator started rebuild with an MVS SETXCF command. IRLM attempts to rebuild into another structure without modifying any of the lock structure attributes.

System Action: Data sharing is stopped while rebuild is in progress. After rebuild completes successfully, data sharing continues normally. If rebuild failed, data sharing still continues normally.

Operator Response: Ensure that rebuild completes successfully. Notify the system programmer if any problem occurs during rebuild. If rebuild failed, contact the system programmer to determine why.

System Programmer Response: Determine the reason why rebuild failed. Take actions to make the desired structure available.

DXR146I *irlmnm* **REBUILD OF THE LOCK STRUCTURE COMPLETED SUCCESSFULLY**

Explanation: The lock structure was successfully moved to another coupling facility structure.

System Action: Data sharing continues normally.

DXR147I *irlmnm* **REBUILD OF THE LOCK STRUCTURE WAS STOPPED**

Explanation: The lock structure could not be moved to another coupling facility structure. Rebuild process was terminated.

System Action: Data sharing continues normally if the old lock structure is still available. If the lock structure failed, IRLM disconnects from the group.

Operator Response: Contact the system programmer to determine why rebuild was stopped.

System Programmer Response: Determine why rebuild was stopped. Take actions to make a suitable coupling facility structure available for rebuild.

DXR148I *irlmnm* **REBUILD OF LOCK STRUCTURE WAS STOPPED BY THE OPERATOR**

Explanation: The operator issued a console command to stop the rebuild.

System Action: The REBUILD is stopped and IRLM will either DISCONNECT from the group or continue to process under the old structure, depending on the reason rebuild was initiated.

Operator Response: If IRLM DISCONNECT from the group, follow local recovery procedures.

System Programmer Response: Determine why the rebuild was stopped and take appropriate action to restore rebuild capability.

DXR149I *irlmnm* **REBUILD OF LOCK STRUCTURE WAS STOPPED DUE TO FAILURE OF A REQUIRED IRLM IN THE GROUP**

Explanation: Rebuild was stopped because one of the IRLMs involved in the rebuild has failed.

System Action: The REBUILD is stopped and IRLM will either DISCONNECT from the group or continue to process under the old structure, depending on the reason rebuild was initiated.

Operator Response: If IRLM DISCONNECT from the group, follow local recovery procedures.

System Programmer Response: Determine why the IRLM failed and take appropriate action to restore rebuild capability.

DXR150I *irlmnm* **REBUILD OF LOCK STRUCTURE WAS STOPPED DUE TO FAILURE OF THE NEW STRUCTURE**

Explanation: Rebuild was stopped because the NEW STRUCTURE failed.

Operator Response: If IRLM DISCONNECT from the group, follow local recovery procedures.

System Action: The REBUILD is stopped and IRLM will either DISCONNECT from the group or continue to process under the old structure, depending on the reason rebuild was initiated.

System Programmer Response: Determine what failure occurred on the new structure and take appropriate action to restore rebuild capability.

DXR151I *irlmnm* **REBUILD OF LOCK STRUCTURE WAS STOPPED DUE TO FAILURE ON QUERY OR CONNECT OF THE NEW STRUCTURE**

Explanation: Rebuild was stopped because IRLM received a bad return code on the IXCQUERY or IXLCONN request to XCF for the new structure.

System Action: The REBUILD is stopped and IRLM will either DISCONNECT from the group or continue to process under the old structure, depending on the reason rebuild was initiated.

Operator Response: If IRLM DISCONNECT from the group, follow local recovery procedures.

System Programmer Response: Determine why the bad return code was received and take appropriate action to restore rebuild capability.

DXR152I *irlmnm* **REBUILD OF LOCK STRUCTURE WAS STOPPED DUE TO AN OUT OF SPACE CONDITION ON THE NEW STRUCTURE**

Explanation: Rebuild was stopped because the new structure contains insufficient space to hold all of the data from the old structure or from the RESTART.

System Action: The REBUILD is stopped and IRLM will either DISCONNECT from the group or continue to process under the old structure, depending on the reason rebuild was initiated.

Operator Response: If IRLM DISCONNECT from the group, follow local recovery procedures.

System Programmer Response: Determine why the new structure was not large enough to contain all of the data from the old structure or restart. Take appropriate action to restore rebuild capability.

DXR153I *irlmnm* **REBUILD OF LOCK STRUCTURE WAS STOPPED DUE TO AN UNEXPECTED RETURN CODE FROM XES SERVICES**

Explanation: Rebuild was stopped because IRLM received a bad return code on a request to SLM.

System Action: The REBUILD is stopped and IRLM will either DISCONNECT from the group or continue to process under the old structure, depending on the reason rebuild was initiated.

Operator Response: If IRLM DISCONNECT from the group, follow local recovery procedures.

System Programmer Response: Determine why the return code was received from SLM and take appropriate action to restore rebuild capability.

DXR154I *irlmnm* **REBUILD OF LOCK STRUCTURE WAS STOPPED DUE TO SUCCESSFUL COMPLETION OF GROUP FUNCTION LEVEL CHANGE**

Explanation: IRLM started a REBUILD to establish a new group function level because a new member with a different service level is joining the group. The IRLM rebuild process then checks to see if a complete rebuild is needed to complete the group function level change. This message is issued when a complete rebuild is not needed for a successful group function level change.

System Action: The REBUILD is stopped and the new IRLM member joins the group.

Operator Response: None needed.

System Programmer Response: None needed.

DXR155I *irlmnm* **REBUILD OF LOCK STRUCTURE WAS STOPPED DUE TO UNSUCCESSFUL COMPLETION OF GROUP FUNCTION LEVEL CHANGE**

Explanation: IRLM started a REBUILD to establish a new group function level because a new member with a different service level is joining the group. The IRLM rebuild process then checks to see if a complete rebuild is needed to complete the group function level change. This message is issued from the existing members when a joining member can not coexist with one or more of the existing members of the group.

System Action: The REBUILD is stopped and the new IRLM member does not join the group. The DBMS that was identifying itself to the new IRLM member is notified that the IDENTIFY failed. Message DXR157I is issued by the member that was trying to join the group or message DXR158I is issued by other members in the joining member's behalf.

Operator Response: None needed.

System Programmer Response: Compare the service level of the IRLM member that failed to join the group with the service level of the other IRLM members in the group. The pertinent service levels can be found in the respective copies of load module DXRRLM00 csect DXRRL010.

DXR156I *irlmnm* **REBUILDING LOCK STRUCTURE TO CHANGE THE GROUP FUNCTION LEVEL**

Explanation: This message is issued when IRLM starts a REBUILD to establish a new group function level when a new member with a different service level is joining the group. Later messages describe further actions IRLM takes during the process of changing the group function level.

System Action: The REBUILD is started. This allows IRLM to process a group function level change.

Operator Response: None needed.

System Programmer Response: None needed.

DXR157I *irlmnm* **FAILED TO JOIN THE DATA SHARING GROUP BECAUSE IT CANNOT COEXIST WITH AT LEAST ONE OF THE EXISTING MEMBERS**

Explanation: The IRLM member, *irlmnm*, could not coexist with one or more existing members of the group because of differences in service levels.

System Action: The REBUILD is stopped and the new IRLM member does not join the group. The DBMS that was identifying itself to the new IRLM member is notified that the IDENTIFY failed.

Operator Response: None needed.

System Programmer Response: Compare the service level of the IRLM member that failed to join the group with the service level of the other IRLM members in the group. The pertinent service levels can be found in the respective copies of load module DXRRLM00 csect DXRRL010.

DXR158I *irlmnm* **CANNOT COEXIST WITH AT LEAST ONE EXISTING MEMBER. ALL DBMS IDENTIFY REQUESTS TO THAT IRLM WILL BE DENIED.**

Explanation: The IRLM member, *irlmnm*, could not coexist with one or more existing members of the group because it does not have the service level that includes coexistance support.

System Action: The REBUILD is stopped and the new IRLM member is not allowed to join the group. The DBMS that was identifying itself to the new IRLM member is notified that the IDENTIFY failed.

Operator Response: None needed.

System Programmer Response: Compare the service level of the IRLM member that failed to join the group with the service level of the other IRLM members in the group. The pertinent service levels can be found in the respective copies of load module DXRRLM00 csect DXRRL010.

DXR164E *irlmnm* **CANNOT RECOVER FOR A FAILED MEMBER DUE TO LOSS OF CONNECTIVITY TO THE LOCK STRUCTURE**

Explanation: IRLM detects loss of connectivity to the lock structure during member recovery or global initialization. IRLM is longer able to support data sharing without the retained lock information.

System Action: Disconnect from the data sharing group.

User Response: Notify the system programmer to correct the problem with the coupling facility.

Problem Determination: See IXC messages to determine the root cause of the failure and the appropriate corrective action.

DXR165I *irlmnm* **TERMINATED VIA IRLM MODIFY COMMAND**

Explanation: An operator issued a MODIFY IRLM,ABEND command.

System Action: IRLM shuts down.

Operator Response: None needed.

System Programmer Response: None needed.

DXR166E *irlmnm* **CONNECT TO LOCK STRUCTURE FAILED FOR GLOBAL INITIALIZATION**

Explanation: IRLM detects loss of connectivity to the lock structure during member recovery or global initialization. IRLM is longer able to support data sharing without the retained lock information.

System Action: Disconnect from the data sharing group.

User Response: Notify the system programmer to correct the problem with the coupling facility.

Problem Determination: See IXC messages to determine the root cause of the failure and the appropriate corrective action.

DXR167E *irlmnm* **IRLM IS UNABLE TO PERFORM SOME CRITICAL INTERNAL PROCESSES.**

Explanation: IRLM is attempting to perform a process but cannot get a necessary resource to do so.

irlmnm The IRLM subsystem name.

System Action: The IRLM continues operation. This message stays on the console until IRLM is able to perform the internal operation. Because some internal processes are unable to run, the following symptoms might occur:

- A transaction hangs.
- Other processes contending with the hung process might also hang, potentially causing a chain reaction.
- The system hangs.
- If running in a data sharing environment:
  - The whole group might hang.
  - New members might not be able to join. They will time out during global initialization and eventually terminate abnormally.
  - Failed members might not get properly partitioned from the group because recovery actions for them cannot run.

Operator Response: Notify the system programmer.

System Programmer Response: Determine what is preventing IRLM internal processes from running. The most likely reason is an incorrect dispatching priority. Possible mistakes are:

- IRLM is running with a lower dispatching priority than the DBMS or the application jobs.
- A job with a low dispatching priority is interrupted while holding IRLM resources and is unable to get dispatched.

If the condition is from an operational error that can be corrected without shutting down IRLM, correct the condition as soon as possible. Otherwise, shut down and then restart IRLM.

DXR168I *irlmnm* **CRITICAL INTERNAL PROCESSES ARE NOW RUNNING.**

Explanation: This message appears if a situation reported in a previous DXR167E message has been resolved.

irlmnm The IRLM subsystemname.

System Action: The IRLM continues operation.

Operator Response: Notify the system programmer.

System Programmer Response: Try to determine what might have caused the temporary problem as reported in a previous DXR167E message. The most likely reason is an incorrect dispatching priority. Possible mistakes are:

- IRLM is running with a lower dispatching priority than the DBMS or the application jobs.
- A job with a low dispatching priority is interrupted while holding IRLM resources and is unable to get dispatched.

If possible, correct the problem without shutting down IRLM. Otherwise, fix the problem and restart IRLM at a convenient time.

If you cannot identify an operational error as the cause of the problem, and if DXR167E appears again, collect dumps of IRLM and the DBMS that is identified to it and call IBM Service.

DXR169I *irlmnm* **THE STORAGE SHORTAGE FOR LOCK STRUCTURE** *wwwwwwww* **HAS BEEN RELIEVED.**

Explanation: This message indicates that the storage shortage indicated by a previously reported DXR142E message is relieved. The amount of the lock structure in use has dropped below 70%.

wwwwwwww The lock table name currently in use by the IRLM.

System Action: IRLM resumes normal data saring with no restrictions.

Operator Response: None.

System Programmer Response: None.

DXR170I *irlmnm* **THE LOCK STRUCTURE** *wwwwwwww* **IS** *zz***% IN USE**

Explanation: This message shows what percent of the available capacity of the lock structure is being used by the group. The values are 50%, 60% and 70%. This message is issued only once at each of the three levels of usage and gives an indication of peak usage during the execution of an IRLM subsystem.

wwwwwwww The lock table name currently in use by the IRLM.

zz One of the following values: 50, 60, 70.

System Action: The IRLM continues operation.

Operator Response: Notify the system programmer.

System Programmer Response: This message is a warning that there is a potential to overcommit the storage for the lock structure named in the message. Track the occurrences of this message to determine a growth trend. If a growth pattern is detected, increase the storage size specifications for the lock structure in the coupling facility policy and activate the revised policy.

DXR171I *irlmnm xxxxxxxx* **ARM REGISTRATION FAILED, MVS ARM RETURN CODE =** *yyyyyyyy***, MVS ARM REASON CODE =** *xxxxxxxx*

Explanation: IRLM encountered an error using the specified MVS automatic restart manager (ARM) function. The *xxxxxxxx* is the IRLM ARM element name. For data sharing enironments, it is a concatenation of the IRLM group name, the IRLM subsystem name and the IRLM ID. For non-datasharing environments, it is the IRLM subsystem name and the IRLM ID.

System Action: IRLM continues. However, if IRLM abnormally terminates, the MVS ARM cannot automatically restart IRLM.

System Programmer Response: Refer to the OS/390 MVS Programming: Sysplex Services Reference for the function, return code, and reason code from the IXCARM request.

DXR172I *irlmnm xxxxxxxx* **ARM READY COMPLETED. MVS ARM RETURN CODE =** *yyyyyyyy***, MVS ARM REASON CODE =** *xxxxxxxx*

Explanation: IRLM initialization has gone far enough to allow ARM to continue restart of dependent element types (SYSDB2, SYSIMS). *xxxxxxxx* is the IRLM ARM element name. For data sharing environments, it is a concatenation of the IRLM group name, the IRLM subsystem name and the IRLM ID. For non-data sharing environments, it is the IRLM subsystem name and the IRLM ID. If the return and reason codes are not zero, IRLM encountered an error using the specified MVS automatic restart manager (ARM) function.

System Action: IRLM continues. However, if the return and reason codes are not zero, and IRLM abnormally terminates, the MVS ARM cannot automatically restart IRLM.

System Programmer Response: Refer to OS/390 MVS Programming: Sysplex Services Reference for the function, return code, and reason code from the IXCARM request.

DXR173I *irlmnm xxxxxxxx* **ARM DEREGISTRATION FAILED. MVS ARM RETURN CODE =** *yyyyyyyy***, MVS ARM REASON CODE =** *xxxxxxxx*

Explanation: IRLM encountered an error using the specified MVS automatic restart manager (ARM) function. The *xxxxxxxx* is the IRLM ARM element name. For data sharing enironments, it is a concatenation of the IRLM group name, the IRLM subsystem name and the IRLM ID. For non-data sharing environments, it is the IRLM subsystem name and the IRLM ID.

System Action: IRLM continues. However, if IRLM terminates normally or abnormally, the MVS ARM automatically restarts IRLM.

System Programmer Response: Refer to OS/390 MVS Programming: Sysplex Services Reference for the function, return code, and reason code from the IXCARM request.

DXR174E *xxxxxxxx csect-name***ARM EVENT EXIT FAILED.**

Explanation: IRLM ARM event exit encountered an error while attempting to define the IRLM subsystem to MVS.

System Action: The automatic restart of the IRLM subsystem stops.

System Programmer Response: Refer to OS/390 MVS Programming: Assembler Services Reference for return and reason codes from the IEFSSI request. You can manually start IRLM by using the *S* irlmproc command on any system where the IRLM subsystem is defined. If you are using DB2 and have AUTO START = *yes* for IRLM defined in DSNZPARM, then when DB2 starts it tries to start IRLM if IRLM is not already up.

DXR175E *irlmnm* **IRLM IS UNABLE TO OBTAIN STORAGE -** *storage_type*

Explanation: IRLM is attempting to acquire storage from CSA or ECSA when either the MAXCSA value specified on IRLM startup has been exceeded or the storage type needed is exhausted.

The value in field *storage_type* specifies the cause of the error:

- *MCSA* means MAXCSA has been exceeded.

  This can be caused by:

too low a value for the IRLM startup parameter, or

an unexpected peak of IRLM work load.

- *CSA* means system CSA has been exhausted.

  This can be caused by:

  too little CSA generated into the system, or

  an unexpected peak of demand for CSA storage by the jobs and tasks running in the MVS system.

- *ECSA* means system ECSA has been exhausted.

  This can be caused by:

  too little ECSA generated into the system, or

  an unexpected peak of demand for ECSA storage by the jobs and tasks running in the MVS system.

System Action: The IRLM continues operating as best it can. This message stays on the console until IRLM is able to acquire the needed storage. Some DBMS requests might be processed successfully, some might be rejected with out of storage return and reason codes, and some might hang. When the out of storage condition is relieved, normal IRLM operation resumes. Because storage is unavailable, the following symptoms might occur:

- transactions might abend with out of storage indications
- message DXR167E might be issued
- transactions might hang
- other processes contending with a hung process will also hang, potentially causing a chain reaction
- the system hangs
- if in a data sharing environment:

  the whole group might hang

  new members might not be able to join. They will time out during global initialization and eventually terminate abnormally.

  failed members might not get properly partitioned from the group because recovery actions for them cannot run.

Operator Response: Notify the system programmer. Try to reduce the work load on the system or the number of transactions running in the DBMS.

System Programmer Response: Determine what is preventing IRLM from obtaining storage. If MAXCSA is too low, specify a larger value, or change the PC parameter to YES. If CSA or ECSA was exhausted, generate more CSA or ECSA into the system or reduce the number of running tasks that are dependent on CSA or ECSA. If the condition is from an operational error that can be corrected without shutting down IRLM, correct it as soon as possible. Otherwise, shut down IRLM and restart it.

DXR176I *irlmnm* **IRLM STORAGE SHORTAGE RELIEVED**

Explanation: This message appears if a situation reported in a previous DXR175E message has been resolved.

System Action: The IRLM continues operation.

Operator Response: Notify the system programmer.

System Programmer Response: Try to determine what might have caused the temporary problem as reported in a previous DXR175E message. The most likely reasons are too small a value for the IRLM startup parameter MAXCSA or insufficient CSA or ECSA for the combined tasks running in MVS. If possible, correct the problem without shutting down IRLM.

DXR180I *irlmnm+id* **AUTOMATIC RESTART MANAGER IS NOT ENABLED**

Explanation: IRLM attempts to utilize the MVS Automatic Restart Manager (ARM) function, but either the system does not have access to an ARM couple data set or the ARM is not set up in the user's environment. The IRLM subsystem name and the IRLM ID are concatenated and displayed above *irlmnmid*.

System Action: IRLM continues; however, if IRLM abnormally terminates, the MVS ARM cannot automatically restart IRLM.

Operator Response: Notify the system programmer.

System Programmer Response: Determine why the system does not have access to an automatic restart manager couple data set. If there is no automatic restart manager couple data set defined, determine if the ARM should be set up so that IRLM can take advantage of the MVS ARM function. The purpose of using the ARM is to reduce the time IRLM is down. When IRLM stops abnormally, the MVS ARM will restart it automatically.

IRLM Error Return and Reason Codes

The IRLM error return and reason codes are listed below. Some return and reason codes do not apply to DB2 operation.

The values in the 'return code' column show the request completion status:

00 The request completed successfully.

04 The request completed successfully, but the state of lock remained unchanged.

08 The request completed unsuccessfully because of a system error or condition, not a problem in the request.

12 The request completed unsuccessfully because of a logic error in the request.

16 The request completed unsuccessfully because of an invalid request specification.

20 The request completed unsuccessfully because IRLM resources are not available.

CHANGE Request

Return Code	Reason Code Byte 1	Reason Code Byte 2	Description
04	X'80'		Ownership and/or duration was specified, but no locks were changed for one of these reasons: • The 'set of locks' specified included no held locks. • All specified locks had a duration value greater than or equal to the specified duration. • PSTATE=TSTATE was specified.
	X'20'		Other holders of the lock exist.
	X'10'		From-duration was specified on a CHANGE ALL request, but the from-duration did not match the held-duration for at least one lock. The mismatched lock is not altered, but other locks might have been altered.
	X'08'		This lock was involved in a deadlock condition, but was not selected as the victim.
	X'02'		The CHANGE STATE request specified a 'tstate' value less restrictive than the current held state of the lock.
		X'04'	At least one other work unit holds the lock with the repeatable read (RR) attribute.
		X'02'	The work unit that submitted this lock request holds the lock with the repeatable read (RR) attribute.
08	X'80'		A nonrecoverable system error occurred while processing this request.
	X'40'		The lock is not available in the requested state. MODE=COND was specified.

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Return Code	Reason Code Byte 1	Reason Code Byte 2	Description
	X'20'		The request was rejected because of a deadlock.
	X'10'		The lock request cannot be granted because of the failure of another DBMS that holds a retained lock in a state incompatible with the requested state of this request. This subcode is also issued when the lock cannot be granted because of an incompatibility with a lock in NOWAIT status. A lock is placed in this status when a QUIT,HELD=WORKUNIT is issued to the IRLM.
	X'08'		The DBMS is operating in CLEANUP mode because a system failure occurred or because retained locks were deleted without a guarantee that database recovery was done. The DBMS must issue a PURGE request before any global lock request is allowed to wait.
	X'01'		There is insufficient storage for the IRLM to process the CHANGE request. After all other subsystems identified to the IRLM have quit, terminate the IRLM and increase the storage available to the IRLM before restarting it.
		X'80'	This request was involved in lock negotiation with other DBMSs and was denied.
		X'40'	This request is involved in lock negotiation with other DBMSs. A DBMS downgraded its held state to a still incompatible state or a reason code to deny the conflicting request was not provided.
		X'20'	The request specified the repeatable read (RR) attribute, but not a resource name (RNA) or token.
		X'10'	No more record list entries are available.
		X'08'	An environmental error occurred in the System Lock Manager(SLM) component of MVS.
		X'04'	At least one other work unit holds the lock with the repeatable read (RR) attribute.
		X'02'	The work unit that submitted this lock request holds the lock with the repeatable read (RR) attribute.
12	X'40'		The work unit does not hold the lock.
	X'20'		No lock exists for the specified resource hash and name values.
	X'10'		From-duration was specified on a change single request, but the from-duration did not match the held-duration for that lock. The lock is not altered.

Return Code	Reason Code Byte 1	Reason Code Byte 2	Description
	X'08'		The lock is not held in the state specified by 'fstate'.
	X'04'		The resource is not locked by the work unit in the specified class.
	X'02'		A suspended LOCK or CHANGE request exists against the lock. If ownership/duration change of a group of locks was requested, some locks might have changed before this condition was detected.
	X'01'		The target work unit (TWU) already holds a lock or is waiting for a lock on a resource for which this request is attempting to transfer lock ownership. Ownership/duration change of other locks specified by this request might have occurred before this condition was detected.
16	X'80'		An invalid 'tstate' was specified. The value is greater than 11.
	X'40'		The CLASS is invalid. The value is greater than 31.
	X'20'		The count-by-state lock has a valid 'tstate', but the 'fstate' is zero.
	X'10'		Both STATE and TWU were specified.
	X'08'		STATE was specified, but TOKEN and RNA were omitted.
	X'04'		The TOKEN is invalid. It cannot be resolved to a lock held by the specified owning work unit.
	X'02'		The resource name length is invalid. The length is less than 2 or greater than 32 bytes.
	X'01'		The 'fstate' is invalid for a count-by-state lock. The value is greater than 11.
20	N/A		IRLM services are not available.

IDENT Request

Return Code	Reason Code	Description
04	X'10'	Locks are held from the previous IDENT request. Locks held by the identifying DBMS from a previous failure are still in protected status.
08	X'80'	A nonrecoverable system error occurred while processing this request.

Return Code	Reason Code	Description
	X'40'	An MVS subsystem interface (SSI) error occurred during identification. Ensure that the 4-character IRLM name used by the subsystem to identify to the IRLM was defined as an MVS subsystem, and that the IRLM subsystem with the same name was started.
	X'04'	Identify for recovery (SSTYPE=RECON) was requested, but this IRLM has no retained information about this DBMS.
	X'01'	There is insufficient storage for the IRLM to process the IDENT request. After all other subsystems identified to the IRLM have quit, terminate the IRLM and increase the storage available to the IRLM before restarting it.
16	X'80'	The lock table name is invalid. It probably contains blanks.
	X'40'	The SSNAME is invalid. An active DBMS in the data sharing group is already using this name.
	X'20'	A required exit is missing. If a TIMEOUT exit is specified, TIMEV must be greater than 0. TIMEOUT is a DB2-only exit. TIMEV is specified in the installation process.
	X'10'	A read-only request is not allowed. Locks are retained for this DBMS.
	X'08'	This request violates the single DB2/IRLM rule.
	X'04'	The address of the BACKUP subsystem name pointed to inaccessible storage.
	X'02'	This IRLM does not support the requested function level. A probable cause is the version/release of this IRLM does not support this version/release of DB2. IRLM is back-level.
	X'01'	The IRLM failed to connect to the data sharing group and abended. After fixing the connection error, reconnect the IRLM to the data sharing group.
20	N/A	IRLM services are not available.

LOCK Request

Return Code	Reason Code Byte 1	Reason Code Byte 2	Description
04	X'80'		A restart lock successfully reaquired a retained lock.
	X'20'		Other lock holders exist.
	X'10'		The lock is already held.
	X'08'		This lock was involved in a deadlock, but was not selected as a victim.
	X'04'		Another work unit holds the lock private.
		X'04'	At least one other work unit holds the lock with the repeatable read (RR) attribute.
		X'02'	The work unit that submitted this lock request holds the lock with the repeatable read (RR) attribute.
08	X'80'		A nonrecoverable system error occurred while processing this request.

Return Code	Reason Code Byte 1	Reason Code Byte 2	Description
	X'40'		The lock is not available in the requested state. MODE=COND was specified.
	X'20'		The request was rejected because of a deadlock or timeout.
	X'10'		The lock request cannot be granted because of the failure of another DBMS that holds a retained lock in a state incompatible with the requested state of this request. This subcode is also issued when the lock cannot be granted because of an incompatibility with a lock in NOWAIT status. A lock is placed in this status when a QUIT,HELD=WORKUNIT is issued to the IRLM.
	X'08'		The DBMS is operating in CLEANUP mode because a system failure occurred or because retained locks were deleted without a guarantee that database recovery was done. The DBMS must issue a PURGE request before any global lock request is allowed to wait. The same reason code is presented if the LOCK request is canceled by a SYNC request.
	X'04'		Another holder holds the restart lock in an incompatible state.
	X'02'		The maximum number of locks that can be held by this work unit was exceeded. The LOCKMAX parameter specifies the maximum.
	X'01'		There is insufficient storage for the IRLM to process the LOCK request. After all other subsystems identified to the IRLM have quit, terminate the IRLM and increase the storage available to the IRLM before restarting it.
		X'80'	This request was involved in lock negotiation with other DBMSs and was denied.
		X'40'	This request was involved in lock negotiation with other DBMSs. Either a DBMS downgraded its held state to a still incompatible state, or a reason code to deny the conflicting request was not provided.
		X'20'	Two different work units executing on the same IRLM tried to get the same P-lock. Only one work unit is allowed for each resource name on an IRLM.
		X'10'	No more record list entries are available.
		X'08'	An environmental error occurred in the System Lock Manager (SLM) component of MVS.
		X'04'	The lock is held by at least one other work unit with the repeatable read (RR) attribute.
		X'02'	The lock is held with the repeatable read (RR) attribute by the work unit that submitted this request.
12	X'01'		This IRLM already has a modify lock.
		X'80'	A work unit within this IRLM already holds the P-lock. Only one owning work unit is allowed to hold interest in a P-lock within an IRLM.

Return Code	Reason Code Byte 1	Reason Code Byte 2	Description
16	X'40'		The CLASS is invalid. The value is greater than 31.
	X'20'		The STATE is invalid. The value is 0 or greater than 11.
	X'08'		The SCOPE is invalid. A previous request defined a different SCOPE for the resource.
	X'04'		The TOKEN or PARENT TOKEN is invalid.
	X'02'		The resource name (RNA) length is invalid. The length specified is less than 2 or greater than 32 bytes.
	X'01'		An invalid retained state was specified. The retained state is greater than the requested state. If the lock was granted and then retained, it could exist in an incompatible state with other holders.
20	N/A		IRLM services are not available.

NOTIFY Request

Return Code	Reason Code	Description
04	X'80'	An asynchronous request was accepted.
	X'40'	The receiver returned additional return code information to the requester.
	X'20'	A selective notify request was made, but there were no DBMSs with the right qualifications to receive this request.
	X'02'	One or more DBMSs holding locks failed and could not be notified.
08	X'80'	A nonrecoverable system error occurred while processing this request.
	X'01'	There is insufficient storage for the IRLM to process the NOTIFY request. After all other subsystems identified to the IRLM have quit, terminate the IRLM and increase the storage available to the IRLM before restarting it.
	X'08'	NOTIFY request is purged by sync.
12	X'40'	The lock is not held by the specified owning work unit.
	X'20'	No lock exists for the specified resource hash and name values.
16	X'80'	The message area address is invalid.
	X'08'	The message length is zero.
	X'04'	The TOKEN is invalid.
	X'02'	An invalid resource name was specified. The length is less than 2 or greater than 32 bytes.
20	N/A	IRLM services are not available.

PLEXIT Request

Return Code	Reason Code	Description
4	X'80'	The P-lock exit was already enabled.
	X'40'	The P-lock exit was already disabled.
8	X'80'	A nonrecoverable system error occurred while processing this request.
	X'01'	There is insufficient storage for the IRLM to process the PLEXIT request. After all other subsystems identified to the IRLM have quit, terminate the IRLM and increase the storage available to the IRLM before restarting it.
12	X'80'	The P-lock exit was not defined at IDENTIFY time.
20	N/A	IRLM services are not available.

PURGE Request

Return Code	Reason Code	Description
04	X'10'	The locks are already released.
	X'08'	The PURGE-required count was decremented.
08	X'80'	A nonrecoverable system error occurred while processing this request.
	X'01'	There is insufficient storage for the IRLM to process the PURGE request. After all other subsystems identified to the IRLM have quit, terminate the IRLM and increase the storage available to the IRLM before restarting it.
12	X'80'	A PURGE TYPE=TAKEOVER was issued, but the requester did not issue a corresponding TAKEOVER request.
	X'40'	A PURGE TYPE=SFAIL was issued, but this IRLM is still part of the data sharing group. An IRLM cannot be in system failed state while it is part of a data sharing group. This code indicates that IMS has invalid information about its status in the group.
20	N/A	IRLM services are not available.

QUERY Request

Return Code	Reason Code	Description
04	X'80'	There is no information meeting the criteria of the specified parameters.
	X'01'	The QUERY request did not specify an area large enough to contain all the data requested.
08	X'80'	A nonrecoverable system error occurred while processing this request.

Return Code	Reason Code	Description
	X'01'	There is insufficient storage for the IRLM to process the QUERY request. After all other subsystems identified to the IRLM have quit, terminate the IRLM and increase the storage available to the IRLM before restarting it.
16	X'80'	The AREA address is invalid or zero.
	X'40'	An invalid continuation token was specified.
	X'08'	The AREA length is invalid. The AREA length is less than 4.
	X'04'	The TOKEN is invalid. The TOKEN value does not correspond to an existing lock, or the lock is not held by the designated work unit.
	X'02'	The resource name length is invalid. The length specified is less than 2 or greater than 32 bytes.
	X'01'	The DATA=RETAIN parameter is invalid. SCOPE=WU, OWU, or TOKEN was specified.
20	N/A	IRLM services are not available.

QUIT Request

Return Code	Reason Code	Description
04	X'10'	Modify locks are retained.
08	X'80'	A nonrecoverable system error occurred while processing this request.
	X'01'	There is insufficient storage for the IRLM to process the QUIT request. After all other subsystems identified to the IRLM have quit, terminate the IRLM and increase the storage available to the IRLM before restarting it.
12	X'80'	The owing work unit (OWU) specified on a HELD=WORKUNIT request was not found.
	X'40'	The owning work unit (OWU) parameter was not specified on a HELD=WORKUNIT request.
	X'20'	A QUIT HELD=RETAIN request was already processed.
	X'10'	This IRLM has no knowledge of this DBMS. Either a QUIT HELD=RELEASE was already processed or the DBMS was never identified to this IRLM.
	X'01'	Locks are held, but the HELD parameter was omitted.
20	N/A	IRLM services are not available.

RETLOCK Request

Return Code	Reason Code	Description
04	X'80'	A retained lock already exists for this resource by this DBMS.
16	X'80'	DBMS name specified on the request is either zero or blank, or A retained lock already exists for this resource by this DBMS and the REQUESTED retained state is not equal to the current retained state.

STAT Request

Return Code	Reason Code	Description
8	X'80'	A nonrecoverable system error occurred while processing this request.
	X'01'	There is insufficient storage for the IRLM to process the STAT request. After all other subsystems identified to the IRLM have quit, terminate the IRLM and increase the storage available to the IRLM before restarting it.
12	X'80'	The SSNAME specified a subsystem not identified to this IRLM.
16	X'80'	The AREA address is invalid or zero.
	X'08'	The AREA length is invalid.
20	N/A	IRLM services are not available.

SYNC Request

Return Code	Reason Code	Description
8	X'80'	A nonrecoverable system error occurred while processing this request.
	X'01'	There is insufficient storage for the IRLM to process the SYNC request. After all other subsystems identified to the IRLM have quit, terminate the IRLM and increase the storage available to the IRLM before restarting it.
12	X'40'	CANCEL=YES was specified, but the work unit held no locks.
14	X'10'	The work unit was not found.
20	N/A	IRLM services are not available.

TAKEOVER Request

Return Code	Reason Code	Description
00	N/A	Takeover completed successfully for a DBMS that was identified either to this IRLM or to the IRLM in PTB communication with this IRLM. Restart locks might be requested.
04	X'80'	Takeover completed successfully for a DBMS that was not known to this IRLM.
	X'20'	Takeover completed successfully for a DBMS that was not known to this IRLM.
08	X'80'	A nonrecoverable system error occurred while processing this request.
	X'01'	There is insufficient storage for the IRLM to process the TAKEOVER request. After all other subsystems identified to the IRLM have quit, terminate the IRLM and increase the storage available to the IRLM before restarting it.
12	X'80'	The DBMS that issued the request was not identified as an alternate DBMS.
	X'40'	The DBMS being taken over identified itself as an alternate DBMS, or another DBMS already issued a takeover request.
	X'20'	The DBMS being taken over was not identified to either this IRLM or to any other IRLM that is participating in data sharing.
20	N/A	IRLM services are not available.

UNLOCK Request

Return Code	Reason Code	Description
04	X'80'	One or more locks are held. Some locks did not satisfy the generic resource specification.
	X'20'	Additional locks are held in other states. This applies only to count-by-state locks.
	X'10'	The IRLM cannot release one or more parent locks because child locks exist.
	X'08'	The lock was not fully released.
	X'04'	The work unit holds locks in other classes.
	X'02'	Locks could not be released because the duration specified on the request was lower than the duration previously set.
08	X'80'	A nonrecoverable system error occurred while processing this request.

Return Code	Reason Code	Description
	X'01'	There is insufficient storage for the IRLM to process the UNLOCK request. After all other subsystems identified to the IRLM have quit, terminate the IRLM and increase the storage available to the IRLM before restarting it.
12	X'40'	The work unit does not hold the lock.
	X'20'	No lock exists for the specified resource hash and name values.
	X'10'	The IRLM cannot release the parent lock because child locks exist.
	X'08'	The lock is not held in the specified STATE.
	X'04'	The lock is not held in the specified class.
16	X'40'	The CLASS is invalid. The value is greater than 31.
	X'20'	The STATE is invalid. The value is greater than 11.
	X'10'	The owning work unit (OWU) parameter is not specified.
	X'04'	The TOKEN is invalid.
	X'02'	The resource name (RNA) length is invalid. The length specified is less than 2 or greater than 32 bytes.
	X'01'	TYPE=GENERIC was specified, but no resource name (RNA) was specified.
20	N/A	IRLM services are not available.

VERIFY Request

Return Code	Reason Code	Description
00	X'80'	At least one entry in the VERIFY list was not known to IRLM.
	X'40'	IRLM recognized at least one entry in the VERIFY list, but the entry did not have matching DBRC RECON status.
08	X'80'	A nonrecoverable system error occurred while processing this request.
	X'01'	There is insufficient storage for the IRLM to process the VERIFY request. After all other subsystems identified to the IRLM have quit, terminate the IRLM and increase the storage available to the IRLM before restarting it.
16	X'80'	The VERIFY SSNAREA area address is invalid.
20	N/A	IRLM services are not available.

IRLM Abend Reason Codes

2017

Explanation: This is an internal error. IRLM processing of a request from a database management system (DBMS) failed. The IRLM issues console message DXR123E containing the error ID.

System Action: The IRLM terminates abnormally. An SDUMP of the IRLM address space is requested.

System Programmer Response: Obtain the SDUMP and check the error ID in the message. Contact the IBM Support Center for help in determining the problem.

Problem Determination: The problem is usually is a program check within the IRLM code. The dump title includes a module name and an offset into the module where the ABEND was issued.

2018

Explanation: An unrecoverable error occurred during IRLM initialization. The IRLM issues console message DXR116E containing an error code.

System Action: The IRLM terminates abnormally. An SDUMP of the IRLM address space is requested.

System Programmer Response: Analyze the error code in message DXR116E to determine the reason for this failure. If you are unable to resolve the problem, contact the IBM Support Center.

2019

Explanation: This is an internal error. The IRLM detected either a destroyed storage pool or an invalid request. The IRLM issues message DXR122E to the console.

System Action: The IRLM terminates abnormally. An SDUMP of the IRLM address space is requested.

System Programmer Response: Obtain the SDUMP and contact the IBM Support Center for help in determining the problem.

Problem Determination: The dump title includes a module name and an offset into the module where the ABEND was issued.

2020

Explanation: The MVS operator requested an abnormal termination of the IRLM. The IRLM issues message DXR124E to the console.

System Action: The IRLM is terminated abnormally. If the NODUMP parameter was omitted from the command, an SDUMP is requested.

System Programmer Response: The SDUMP shows the status of the IRLM.

2022

Explanation: This is an internal error. IRLM issues this abend because one of its subtasks abended. The IRLM issues message DXR122E to the console.

System Action: The IRLM terminates abnormally. An SDUMP of the IRLM address space is requested.

System Programmer Response: Obtain the SDUMP and contact the IBM Support Center for help in determining the problem.

Problem Determination: The dump title includes a module name and an offset into the module where the ABEND was issued.

2023

Explanation: The IRLM encountered a logic error or received an error from an MVS service that must be performed for the IRLM to continue processing. The IRLM issues message DXR122E to the console.

System Action: The IRLM terminates abnormally. An SDUMP of the IRLM address space is requested.

System Programmer Response: Obtain the SDUMP and contact the IBM Support Center for help in determining the problem.

Problem Determination: The dump title includes a module name and an offset into the module where the ABEND was issued.

2024

Explanation: This is an internal error. The database management system (DBMS) parameter list is invalid.

System Action: The requesting DBMS is abended with user abend 2024. The IRLM continues processing.

System Programmer Response: Obtain the dump of the requesting DBMS and contact the IBM Support Center for assistance.

2025

Explanation: This is an internal error. An IRLM request to MVS failed with an unexpected reason code. The IRLM issues message DXR139E to the console with the failing return and reason codes. Message DXR122I is also issued.

System Action: The IRLM terminates abnormally. An SDUMP of the IRLM address space is requested.

System Programmer Response: Obtain the SDUMP and contact the IBM Support Center for help in determining the problem.

Problem Determination: The dump title includes a module name and an offset into the module where the ABEND was issued.

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2027

Explanation: This is an internal error. The IRLM detected a logical inconsistency in either its processing or the local lock structure. IRLM issues message DXR122E to the console.

System Action: The IRLM terminates abnormally. An SDUMP of the IRLM address space is requested.

System Programmer Response: Obtain the SDUMP and contact the IBM Support Center for help in determining the problem.

Problem Determination: The dump title includes a module name and an offset into the module where the ABEND was issued.

2031

Explanation: This is an internal error. The IRLM requested that MVS terminate the IRLM address space because of a previous error. The IRLM issues message DXR122E to the console.

System Action: The IRLM terminates abnormally. An SDUMP of the IRLM address space is requested.

System Programmer Response: Obtain the SDUMP and contact the IBM Support Center for help in determining the problem.

Problem Determination: The dump title includes a module name and an offset into the module where the ABEND was issued.

Section 6. SNA Codes

This section describes the SNA sense codes issued by the DB2 product when an error is detected on an LU6.2 conversation. We have also included some SNA sense codes which DB2 does not issue but users often have trouble diagnosing.

There are many SNA sense codes that are not described in this book. For information concerning the SNA sense codes that are not included, refer to *SNA Formats*.

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SNA Sense Codes

080F6051

Explanation: An attempt to allocate a VTAM LU6.2 conversation failed because the remote site did not accept the security information contained in the SNA FMH5.

This abend reason code is issued by the following CSECTs:

DSNLAGNT DSNLTACC DSNLTEXC DSNLVPF5

System Action: The attempt to access the remote database resource fails, and the failure is reported to the application.

A DSNL032I message might have been written to the console. Refer to the description of this message for further information.

User Response: Notify the communications database administrator.

System Programmer Response: If the remote site is a DB2 subsystem, refer to the DSNL030I message at the remote site for the cause of the security failure. Additionally, an ALERT is recorded in NetView (if the NetView product is available) to describe the security failure.

If the remote site is not a DB2 subsystem, obtain any diagnostic information about the security failure at the remote site.

Verify each of the following:

- The USERNAMES column of the SYSIBM.LUNAMES table at the local DB2 system must specify either 'O' or 'B', if you intend authorization IDs and PASSWORDs to be sent on LU6.2 ALLOCATE requests to the remote site.
- The authorization ID and PASSWORD sent on the LU6.2 ALLOCATE request are specified correctly in the SYSIBM.USERNAMES table.
- If you intend to translate the authorization IDs, insure the NEWAUTHID column of the SYSIBM.USERNAMES table is the authorization ID to be used at the remote site.
- If password encryption is used (ENCRYPTPSWDS='Y' in the SYSIBM.LUNAMES table), the remote site must be a DB2 subsystem.

  The ENCRYPTPSWDS column of the SYSIBM.LUNAMES table must be correctly set at both the local and remote DB2 subsystems.
- The correct password is set to the remote site.

  1. For encrypted passwords, the password sent to the remote DB2 subsystem is obtained by extracting the password from the local security subsystem of the authorization ID in the NEWAUTHID column of the SYSIBM.USERNAMES.
  2. If password encryption is not used, the password is taken from the PASSWORD column of the SYSIBM.USERNAMES table.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 58, 59, 83.

080F6052

Explanation: An attempt to allocate a VTAM LU6.2 conversation failed because the security subfields in the FMH5 were not formated as required by the LU6.2 architecture.

This abend reason code is issued by the following CSECTs: DSNLAGNT, DSNLVPF5.

System Action: The attempt to access the remote database resource fails, and the failure is reported to the SQL application.

Programmer Response: Contact the administrator for the client system. The client system might have a software defect.

080FFF00

Explanation: An attempt to allocate a VTAM LU6.2 conversation failed because the password supplied to the server has expired.

This abend reason code is issued by the following CSECTs: DSNLAGNT, DSNLVPF5.

System Action: The attempt to access the remote database resource fails, and the failure is reported to the SQL application.

Programmer Response: Change the password at the remote database server, so that the password is no longer expired.

Problem Determination: If updating the password does not correct the problem, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 58, 59, 83.

080FFF01

Explanation: An attempt to allocate a VTAM LU6.2 conversation failed because the password supplied to the server was incorrect.

This abend reason code is issued by the following CSECTs: DSNLAGNT, DSNLVPF5.

System Action: The attempt to access the remote database resource fails, and the failure is reported to the SQL application.

User Response: Supply the correct password on the connection request.

Problem Determination: If supplying the correct password does not fix the problem, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 58, 59, 83.

080FFF02

Explanation: An attempt to allocate a VTAM LU6.2 conversation failed because the userid specified on the request was revoked at the server system.

This abend reason code is issued by the following CSECTs: DSNLAGNT, DSNLVPF5.

System Action: The attempt to access the remote database resource fails, and the failure is reported to the SQL application.

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User Response: Contact the security administrator at the server to have your userid re-activated.

Problem Determination: If reactivating the userid does not correct the problem, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 58, 59, 83.

080FFF03

Explanation: An attempt to allocate a VTAM LU6.2 conversation failed because the userid supplied to the server was invalid.

This abend reason code is issued by the following CSECTs: DSNLAGNT, DSNLVPF5.

System Action: The attempt to access the remote database resource fails, and the failure is reported to the SQL application.

User Response: Supply a valid userid on your connection request.

Problem Determination: If the problem cannot be correct by changing the userid, collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 58, 59, 83.

080FFF04

Explanation: An attempt to allocate a VTAM LU6.2 conversation failed because no userid was present in the connection request.

This abend reason code is issued by the following CSECTs: DSNLAGNT, DSNLVPF5.

System Action: The attempt to access the remote database resource fails, and the failure is reported to the SQL application.

Programmer Response: Contact the administrator of the client system. The client must be configured to include a userid on connection requests.

080FFF05

Explanation: An attempt to allocate a VTAM LU6.2 conversation failed because a password was not supplied in the connection request.

This abend reason code is issued by the following CSECTs: DSNLAGNT, DSNLVPF5.

System Action: The attempt to access the remote database resource fails, and the failure is reported to the SQL application.

Programmer Response: Contact the administrator of the client system. The client must be configured to transmit a password in the connection request.

This is known in LU6.2 as SECURITY=PGM on the ALLOCATE verb.

08120000

Explanation: A VTAM LU6.2 conversation was terminated due to a resource shortage.

This abend reason code is issued by the following CSECTs:

DSNLAGNT DSNLTACC DSNLTEXC

System Action: The LU6.2 conversation is terminated.

User Response: Notify the systems programmer.

System Programmer Response: If the site issuing this sense code is a DB2 subsystem, refer to the DSNL030I message at the DB2 site for the cause of the failure.

If the remote site is not a DB2 subsystem, obtain any diagnostic information about the resource shortage at the remote site.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1.

084B0000

Explanation: A VTAM LU6.2 conversation was terminated due to a resource shortage.

This abend reason code is issued by the following CSECT: DSNLVRPL

System Action: The LU6.2 conversation is terminated.

User Response: Notify the systems programmer.

System Programmer Response: If the site issuing this sense code is a DB2 system, refer to the DSNL500I message at the DB2 site for the cause of the failure.

If the remote site is not a DB2 subsystem, obtain any diagnostic information about the resource shortage at the remote site.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1.

084B6031

Explanation: A VTAM LU6.2 conversation was terminated due to a resource shortage.

This abend reason code is issued by the following CSECTs:

DSNLAGNT DSNLTACC DSNLTEXC

System Action: The LU6.2 conversation is terminated.

User Response: Notify the systems programmer.

System Programmer Response: If the server site issuing this sense code is a DB2 system, refer to the DSNL030I message at the DB2 site for the cause of the failure.

If the remote site is not a DB2 subsystem, obtain any diagnostic information about the resource shortage at the remote site.

Problem Determination: Collect the following diagnostic item listed in “Appendix B. Problem Determination” on page X-5: 1.

08570008

Explanation: A VTAM LU6.2 conversation is not allowed because the LU session required for the processing of the request is not active.

This sense code is issued by the following CSECTs: DSNLVRPL.

System Action: The LU6.2 conversation is terminated.

User Response: Notify the system programmer about the network failure.

System Programmer Response: If the server site issuing this sense code is a DB2 subsystem, make sure DDF is started.

If the remote site is not a DB2 subsystem, obtain any diagnostic information about the inactive LU at the remote site.

Problem Determination: Collect the following diagnostic item listed in "Appendix B. Problem Determination" on page X-5: 1.

08640000

Explanation: A DEALLOCATE TYPE(ABEND_PROG) verb was issued to terminate the LU6.2 conversation. This occurs when an unrecoverable error was detected during distributed database processing.

This abend reason code is issued by the following CSECTs:

DSNLAGNT	DSNLCDCN	DSNLCRTD	DSNLCSIM
DSNLCTRC	DSNLTACC	DSNLTEXC	DSNLVPF5

System Action: An error was encountered which required the LU6.2 conversation to be terminated abnormally. The conversation is terminated using DEALLOCATE TYPE(ABEND_PROG), which is detected as a communication error at the remote site.

User Response: Notify the systems programmer.

System Programmer Response: Look for messages or SVC dumps at the site which issued the DEALLOCATE TYPE(ABEND_PROG).

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1.

08640001

Explanation: A DEALLOCATE TYPE(ABEND_SVC) verb was issued to terminate the LU6.2 conversation. This occurs when a remote system encounters an unrecoverable error in attempting to satisfy a distributed database request.

This abend reason code is issued by the following CSECTs:

DSNLVRQX	DSNLVRWX	DSNLVXAN

System Action: An error was encountered which required the LU6.2 conversation to be terminated abnormally. The conversation is terminated using DEALLOCATE TYPE(ABEND_SVC), which is detected as a communication error at the remote site.

User Response: If the site issuing the DEALLOCATE TYPE(ABEND_SVC) is a DB2 subsystem, that DB2 site is in the process of stopping the distributed data facility (DDF). You must retry your request once DDF is restarted at that site.

System Programmer Response: If the site issuing DEALLOCATE TYPE(ABEND_SVC) was not coming down, look for messages or SVC dumps at that site that would cause the conversation to be terminated.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1.

08640002

Explanation: An SNA conversation was terminated with an SNA ABEND_TIMER indication.

This abend reason code is issued by the following CSECT: DSNLVDDC

System Action: When communication with the coordinator of a unit of work fails and the commit/abort decision has not yet been received, DB2 uses the X'08640002' SNA sense code to terminate conversations with all other LUs involved in the unit of work. This informs the other LUs in the unit of work that a 2-phase commit communication outage occurred. All LUs involved in the unit of work are still able to determine the outcome of the unit of work, because either DB2 or the remote system performs the SNA resynchronization protocol to determine the coordinator's decision (commit or abort) for the unit of work.

System Programmer Response: No action is required.

10086011

Explanation: An invalid LUWID value was detected in the data received from a remote site. When a remote site sends a request using application-directed access, the first portion of the data contains an SNA FMH5 header. This header contains the invalid LUWID.

This abend reason code is issued by the following CSECT: DSNLVPF5

System Action: The attempt to allocate an APPC conversation is rejected.

A DSNL032I message might have been written to the console. Refer to the description of this message for further information.

User Response: Notify the systems programmer.

System Programmer Response: The remote site is required to send a valid LUWID value when using application-directed access.

Verify that the remote site issuing this request is indeed attempting to start a conversation using application-directed access. It is possible that the remote site mistakenly attempted to start a conversation with DB2, using the transaction program name (TPN).

If the remote site is attempting to start a conversation using application-directed access, contact the support group for the remote site to determine why an invalid LUWID is being transmitted.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 58, 59, 83.

10086021

Explanation: A remote site sent a request that specifies an unknown transaction program name (TPN). The first message in the request contains an SNA FMH5 header, which specifies the TPN to be used.

This abend reason code is issued by the following CSECT: DSNLVPF5

System Action: The attempt to allocate an APPC conversation is rejected.

A DSNL032I message might have been written to the console. Refer to the description of this message for further information.

User Response: Notify the systems programmer.

System Programmer Response: This error is usually caused by one of these errors:

- DB2 returns this sense code to an application at a remote site when the application mistakenly routes an LU6.2 ALLOCATE request to DB2. In most cases, the remote site selected the wrong partner LU name (DB2's LU name) on the LU6.2 ALLOCATE verb.
- A DB2 server received an invalid Transaction Program Name (TPN) from a DRDA requester. The only DRDA TPN that DB2 considers valid is X'07F6C4C2'.
- If DB2 receives this sense code from a remote site, one of the following can potentially be the cause:
  1. If you are using application-directed access, the remote site does not support application-directed access. This can occur if the remote site is a DB2 Version 2 Release 2 system, which does not support application-directed access.
  2. If you are using system-directed access, the remote site issues this sense code if it is not another DB2 site. System-directed access is only supported between DB2 subsystems. Other systems do not support this function.
  3. The SYSIBM.LOCATIONS table does not specify the correct LUNAME value for your intended destination. This causes VTAM to route your request to the wrong site, which probably does not support distributed database functions.
  4. The remote site does not support distributed two-phase commit protocols, but the VTAM APPL definition for the remote LU specifies that two-phase commit protocols are supported. This can occur if the remote site is a DB2 Version 2 system which has SYNCLVL=SYNCPOINT specified in its VTAM APPL definition. For DB2 Version 2 systems, the VTAM APPL definition statement should specify SYNCLVL=CONFIRM (the default), since DB2 Version 2 systems do not support distributed two-phase commit protocols.

If none of the above explains the failure, you must contact the support group for the remote site to determine why an invalid TPN is being transmitted.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 58, 59, 83.

10086031

Explanation: A remote site rejected a request using system-directed access because it contained program initialization parameters (PIP) in the SNA FMH-5 header. This error indicates the remote site is not another DB2 subsystem.

This abend reason code is issued by the following CSECT: None

System Action: The attempt to allocate an APPC conversation is rejected.

User Response: The failing SQL statement specified an SQL object that was either:

An ALIAS for a remote object
Or a three-part name identifying a remote object.

This access method can only be used when the remote object resides on another DB2 subsystem.

If the remote object resides on a different relation database system, you must use application-directed access to access the remote object.

System Programmer Response: If DB2 receives this sense code when attempting to start a conversation, the SYSIBM.LOCATIONS table probably has an incorrect LUNAME value for the failing site. If the wrong LUNAME is provided, VTAM routes the request to the wrong network destination.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 58, 59.

10086034

Explanation: An SNA FMH5 was received that requested an APPC conversation type (MAPPED or BASIC), which was not consistent with the transaction program name (TPN) specified.

This abend reason code is issued by the following CSECT: DSNLVPF5

System Action: The attempt to allocate an APPC conversation is rejected.

A DSNL032I message might have been written to the console. Refer to the description of this message for further information.

User Response: Notify the systems programmer.

System Programmer Response: The conversation type must be BASIC.

If DB2 sends this sense code to a remote site, an APPC application probably mistakenly routed an APPC ALLOCATE request to DB2.

If DB2 receives this sense code from a remote site, the DB2 SYSTEM.SYSLOCATIONS table might have an incorrect LUNAME value for the failing LOCATION. This causes VTAM route the request to the wrong destination, which can potentially be flagged in this manner.

If none of the above explains the failure, contact the support group for the remote site to determine why the conversation type is being sent incorrectly.

Problem Determination: Collect the following diagnostic items listed in "Appendix B. Problem Determination" on page X-5: 1, 58, 59, 83.

10086041

Explanation: An SNA FMH5 was received that requested a SYNC_LEVEL that was not consistent with the transaction program name (TPN) specified.

This abend reason code is issued by the following CSECT: DSNLVPF5

System Action: The attempt to allocate an APPC conversation is rejected.

A DSNL032I message might have been written to the console. Refer to the description of this message for further information.

User Response: Notify the systems programmer.

System Programmer Response: The SYNC_LEVEL must be NONE.

When DB2 sends this sense code, it is usually caused by an APPC application that mistakenly routed an APPC ALLOCATE request to DB2.

If DB2 receives this sense code, the DB2 SYSIBM.LOCATIONS table probably has an incorrect LUNAME value for the failing LOCATION. This causes VTAM to route the request to the wrong destination, which can potentially be flagged in this manner.

If none of the above explains the failure, you must contact the support group for the remote site to determine why the SYNC_LEVEL is being sent incorrectly.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 58, 59, 83.

800A0000

Explanation: A distributed database message was truncated during transmission through the network. When the data is being transmitted, the data is broken up into smaller pieces, based on the SNA RU size specified by your Communications Administrator. This error indicates that one or more device in your network could not accept messages of the size specified in the chosen RU size.

This abend reason code is issued by the following CSECT: None

System Action: The conversation is terminated.

User Response: Notify the systems programmer.

System Programmer Response: The data flowing to the failing destination specified an RU size that was too large for the network connections used to route the data. One of two actions must be taken:

1. The network connections along the path must be changed to support the largest PIU being transmitted (a PIU is 29 bytes longer than the RU size you specify).

   For VTAM channel-to-channel connections, the MAXBFRU parameter on the VTAM LINE statement is used to control this function. MAXBFRU specifies the number of 4KB buffers used to pass data over the channel. Since a PIU includes a 29 byte header, MAXBFRU must be at least 2 in order to support an RU size of 4096.

   For connections to NCP, the MAXDATA parameter on the PCCU macro must be large enough to hold an entire PIU.

2. If you would rather not change the MAXBFRU and MAXDATA values, a smaller RU size must be specified. This can be accomplished by reducing the RUSIZES parameter for each MODEENT macro used by DB2 in your LOGMODE table.

Problem Determination: Collect the following diagnostic items listed in “Appendix B. Problem Determination” on page X-5: 1, 58.

Appendixes

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Appendix A. CICS Transaction Abend/Dump Code

DSNC

Explanation: The CICS attachment facility has detected an error. This is the 4-character code that identifies the ABEND/DUMP as a CICS attachment facility request for the CICS transaction associated with the error. This ABEND/DUMP is usually associated with one of the other CICS attachment facility X'04E' abends.

This code is issued by the following CSECTs: DSNCEXT1, DSNCSTOP

System Action: The CICS attachment facility processing proceeds as defined for the X'04E' system abend associated with the dump. If diagnostic information is required and the CICS attachment facility determines that the transaction should also be abended, EXEC CICS ABEND is issued using DSNC as the abend code. Otherwise dump continue, EXEC CICS DUMP, is issued with DSNC as the dump code, and a return code is placed in the application's SQLCA.

User Response: Notify the system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: The Problem Determination section of this message provides information in addition to the information that is related to the associated CICS attachment facility abend. Use it to assist you in determining the cause of the error.

Problem Determination: The reason for the error can be determined by the codes in the CLOTCFLG field of the CLOT control block, included in the dump. Explanations of codes in this field are as follows:

00 Normal, no error.

04 RCT entry has been corrupted or overlaid. See message DSNC044.

08 Attach Installation error.

0C Shutdown is in progress.

10 Abend because of 'no threads available'.

14 Serious error (system abend X'04E', reason code '00C30001').

18 The thread subtask has abended; see subtask dump.

1C Sign-on failed.

20 Resource is unavailable.

24 Create thread failed for a reason other than resource contention.

28 Unknown CICS call type.

2C Indoubt condition lost to CICS cold start.

30 Unit of recovery (UR) token for resolve indoubt is not in the indoubt list.

34 DB2 UR indoubt is inconsistent—CICS indicates that it should not be indoubt.

38 UR resolution is inconsistent—CICS indicates abort, but DB2 indicates commit.

3C DB2 resolve indoubt failed.

40 Deadlock; roll back the transaction.

44 Unknown CICS resource manager call.

48 TWA size too small for CICS attachment facility command processor program (DSNCCOM1). See message DSNC047.

4C Unable to interpret SQL call.

50 Shutdown during commit or abort

54 Abort is the only valid request.

58 Wrong language interface used with instrumentation facility interface application

5C Cannot link to dynamic plan exit.

60 Single phase commit failed.

64 Task was purged under CICS.

If the thread subtask has abended, a reason code has been put into the CLOTWRK1 field and the abend code put into the CLOTWRK2 field. The reason code can also be found in the CICS trace table, at TRACE ID X'C0', FIELD B.

Collect the subtask SNAP dump and refer to the reason code found in "Section 4. DB2 Codes" on page 4-1. The Problem Determination section of some reason codes refers to register contents at the time of the abend. The register contents can be found in the SNAP dump under RTM2WA SUMMARY. Register contents can also be found in the SYS1.LOGREC record.

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Appendix B. Problem Determination

Diagnostic Items

1. Console output from the system on which the job was run, and a listing of the SYSLOG data set for the period of time spanning the failure.
2. Dynamic dump, taken to SYS1.DUMPxx data set, by DB2 (04E/04F abends).
3. SVC dump (or system dump), taken to SYS1.DUMPxx data set, as result of an operator initiated dump command or SLIP trap exit.
4. SYSABEND, SYSUDUMP, or SYSMDUMP output.
5. Listing of SYS1.LOGREC data set, obtained by executing IFCEREP1.
6. Listing of DB2 log output.
7. Link pack area map (LPAMAP) and nucleus load module map, obtained by executing AMBLIST.
8. Listing of the procs used to initialize DB2 address spaces.
9. Listing of DSNZPARM module used.
10. IDCAMS LISTCAT output for the ICF (VSAM) catalog containing the DB2 subsystem catalog that defined the failing index or table.
11. IDCAMS LISTCAT output showing the attributes of all of the active log data sets for the member of the DB2 member that failed.
12. VTOC listing of the DASD volume on which the failing operation occurred.
13. Dump of the index or table space that failed.
14. Listing of the results produced by the SQL statements.
15. Listing of DB2 catalog tables.
16. Contents of the BSDS (both copies if dual BSDS in use) obtained by using the DB2 print log map (DSNJU004) utility.
17. Source listing of the failing application program.
18. IRLM trace output.
19. Output of the GTF trace (if requested by IBM).
20. Listing of the DSNTRACE data set for the DSN (TSO attachment facility) session involved in the problem.
21. Listing of the ISPF log for the session involved in the problem.
22. CICS trace listing.
23. CICS attach MVS SNAP dump.
24. CICS transaction dump.
25. IMS trace output.
26. IMS dependent region and/or control region dump.
27. IMS/VS Version 1 system log information, for the period of time spanning the failure.
28. VVDS dump of the volumes containing the data set.
29. DB2 Repair dump of the requested page.
30. DSN1LOGP detail report containing log records associated with the damaged page.
31. Detailed description of events immediately prior to and during the abend.
32. SYSPRINT output, including JCL, for the application program or batch job and system messages that were issued. Make sure that MSGLEVEL=(1,1) on the JOB statement so that all diagnostic information is sent to SYSPRINT.
33. DB2 log output, including any DB2 Recovery Log Archive Tapes.
34. DB2 dump of the requested page.
35. Definitions of views and tables involved in the error.
36. Listing of the IRLM procedure.
37. Definitions of table spaces, tables, and indexes involved in the error.
38. Results from SELECT * from SYSIBM.SYSDATABASE.
39. Use IDCAMS to print from BSDS the record with key of X'16000001'.
40. DB2 Repair dump of the pages identified in DSNI014I messages.
41. CHECK utility output.
42. DB2 Repair dump of the pages identified in DSNI013I messages.
43. A copy via (DSN1COPY) of the index space or table space identified in the DSNI013I messages on tape.
44. DB2 Repair dump of the header page (page 0) for each index identified in the DSNI013I messages.
45. IMS console log.
46. UTPRINT output produced by utility invocation of SORT.
47. Repair dump of all SYSUTIL pages.
48. Dump of page set from DUMP option of REPAIR.
49. All dumps taken by the attachment facility or requesting application.

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50. Console output from the system on which the job was run, and a listing of the MVS SYSLOG data set for the period from the last IPL to the time of the failure.
51. An MVS stand-alone dump.
52. Precompiler listing of failing application program with SOURCE(YES) and XREF(YES) specified.
53. Listing of SYSIBM.SYSLGRNX and/or SYSLGRNG, and SYSIBM.SYSCOPY.
54. A copy of the DDITV02 SYSIN data set.
55. A copy of the DDOTV02 output data set.
56. The console output and the listing of the SYSLOG data set from each connected site for the period of time spanning the failure.
57. The listings of the SYS1.LOGREC data set, obtained by executing IFCEREP1 at each connected site.
58. A listing of the contents of the SYSIBM.LUNAMES table at the local DB2 system and the remote DB2 system.
59. A listing of the contents of the SYSIBM.USERNAMES table at the local DB2 system and the remote DB2 system.
60. Dynamic dump, taken to SYS1.DUMPxx data set, by DB2 (04E/04F abends). Availability of this dump is dependent upon the failing environment.
61. SYSABEND, SYSUDUMP, or SYSMDUMP output. Availability of these dumps is dependent upon the failing environment.
62. A copy (via DSN1COPY) on tape of the page set containing the DB2 Directory. Alternatively, request a dump (produced by the REPAIR Utility, DSN1COPY or DSN1PRNT) of the DBD for each database identified in the DSNI013I messages.
63. Listing of SYS1.LOGREC data set, obtained by executing IFCEREP1 and ISDASDA0.
64. A copy of the table and index taken via DSN1COPY before any recover is performed.
65. Detailed description of events prior to the abend such as recovery or other activity affecting DSNDB06.SYSDBASE, DSNDB01.DSD01, or the subject table spaces.
66. Definitions of table spaces, tables, and indexes involved in the error. The record identifiers (OBIDs) identified with each table in the table space with the error can be obtained from SYSIBM.SYSTABLES.
67. Listing of the entire table space.
68. Listing of the DBD, obtained by executing UTILITY DIAGNOSE OBD.
69. Unformatted DSN1PRNT output of the DSNDB01.DBD01 page set. Use the method described in Section 6 of *Diagnosis Guide and Reference* to locate the inconsistent DBD in the DSNDB01.DBD01 page set.
70. The results of the following SQL:
    - SELECT * FROM SYSIBM.SYSINDEXES WHERE DBID=dbid ORDER BY OBID; Where dbid is the DBID of the damaged DBD.
    - SELECT * FROM SYSIBM.SYSINDEXES WHERE DBID=dbid ORDER BY ISOBID;
    - SELECT * FROM SYSIBM.SYSLINKS WHERE DBID=dbid ORDER BY OBID;
    - SELECT * FROM SYSIBM.SYSTABLES WHERE DBID=dbid ORDER BY OBID;
    - SELECT * FROM SYSIBM.SYSTABLESPACE WHERE DBID=dbid ORDER BY OBID;
    - SELECT * FROM SYSIBM.SYSTABLESPACE WHERE DBID=dbid ORDER BY PSID.

    Use the results to compare the information in the DB2 Catalog with the DBD. Determine which OBDs are inconsistent with the DB2 Catalog. Use Section 6 of *Diagnosis Guide and Reference* to analyze the DBD.
71. DSN1LOGP output with DBID (1) OBID (1F) covering the period of time in which the DBD inconsistency may have occurred. This period of time is roughly from the time of the ABEND back to the time when the DB2 Catalog and DBD were believed to be consistent.
72. A copy of the log for this period so that additional DSN1LOGP reports can be produced for problem determination.
73. The location used in the alias entry in SYSIBM.SYSTABLES.
74. The contents of the SYSIBM.LOCATIONS table.
75. The AUTHORIZATION ID, PLANNAME, and LUNAME of the thread used to select the MODENAME in the SYSIBM.MODESELECT table.
76. The contents of the SYSIBM.LOCATIONS table and the SYSIBM.MODESELECT.
77. Listing of the contents of SYSIBM.LUMODES in the communications database.
78. System log printout (obtained via MVS WRITELOG operator command) showing related VSAM/media manager messages that may appear there (usually needed only if you

have a message or reason code that indicates a media manager services problem occurred).
79. A hexadecimal print of the first record of the failing DBRM.
80. The listing from the precompile job that generated the DBRM.
81. Output from the BIND attempt.
82. IMS or CICS trace and any dumps.
83. Statistics Class 4 trace record for the LUWID associated with the failing request.
84. All dumps created by this failure.
85. Job output

Resource Types

Table 3 (Page 1 of 2). Resource Types

TYPE Code	Type of Resource	Name, Content, Format
00000100	Database	DB
00000200	Table space	DB.SP
00000201	Index space	DB.SP
00000202	Table space	RD.DB.TS
00000205	Compression Dictionary	DB.SP
00000210	Partition	DB.SP.PT
00000220	Data set	DSN
00000230	Temporary file	SZ
00000240	Database procedure	DBP
00000300	Page	DB.SP.PG
00000301	Index minipage	DB.SP.PG.MP
00000302	Table space page	DB.SP.PG
00000303	Index space page	DB.SP.PG
00000304	Table space RID	DB.SP.RID
00000305	Index access/table space RID	DB.SP.RID
00000306	Index access/table space page	DB.SP.PG
00000307	Index space EOF	DB.SP.01
00000400	ICF catalog	IC
00000500	Storage group	SG
00000600	EDM pool space	
00000700	Buffer pool space	BP
00000701	Group buffer pool	GBP
00000800	Plan	PL
00000801	Package	COLLECTION. PACKAGE. CONTOKEN
00000802	BINDLOCK	BINDLOCK
00000900	32KB data area	
00000901	Sort storage	
00000903	Hash anchor	DB.SP.PG.AI
00000904	RIDLIST storage	
00000905	IRLM storage	
00000906	DB2	MEMBER
00000A00	Table	RD.CR.TB
00000A10	Alias	RELDEP. OWNER. ALIAS
00000B00	View	RD.CR.VW
00000C00	Index	RD.CR.IX
00000D00	DBID/OBID	RD.DI.OI
00000D01	DBID/OBID	DI.OI
00000D02	OBID	OI
00000E00	SU limit exceeded	CN
00001000	DDF	LOCATION
00001001	System conversation	LU.MODE. RTNCD. FDBK2. RCPRI. RCSEC. SENSE
00001002	Agent conversation	LU.MODE. RTNCD. FDBK2. RCPRI. RCSEC. SENSE
00001003	CNOS processing	LU. MODE. RTNCD. FDBK2. RCPRI. RCSEC. SENSE
00001004	CDB (Communication database)	LOCATION. AUTHORI-ZATION ID.PL
00001005	DB access agent	LOCATION
00001007	TCP/IP domain name	LINKNAME.DOMAIN.ERRNO
00001008	TCP/IP service name	LOCATION.SERVICE.ERRNO
00001102	Bootstrap data set (BSDS)	MEMBER

Table 3 (Page 2 of 2). Resource Types

TYPE Code	Type of Resource	Name, Content, Format
00002000	Table space CS-claim class	DB.SP
00002001	Table space RR-claim class	DB.SP
00002002	Table space write-claim class	DB.SP
00002003	Index space CS-claim class	DB.SP
00002004	Index space RR-claim class	DB.SP
00002005	Index space write-claim class	DB.SP
00002006	Table space partition CS-claim class	DB.SP.PT
00002007	Table space partition RR-claim class	DB.SP.PT
00002008	Table space partition write-claim class	DB.SP.PT
00002009	Index space partition CS-claim class	DB.SP.PT
00002010	Index space partition RR-claim class	DB.SP.PT
00002011	Index space partition Write-claim class	DB.SP.PT
00002100	Table space DBET entry	DB.SP
00002101	Index space DBET entry	DB.SP
00002102	Table space partition DBET entry	DB.SP.PT
00002103	Index space partition DBET entry	DB.SP.PT
00002104	Logical partition DBET entry	DB.SP.PT
A10X	Alias	RD.CR.AL

Where	Stands for	Where	Stands for
AI	Hash anchor ID	OI	OBID in decimal of resource
ALIAS	Alias owner	OWNER	Alias owner
AUTHORIZATION ID	DB2 authorization identifier	PACKAGE	Package identifier
BP	Buffer pool identifier	PG	Hexadecimal page number
CN	Column name	PL	Plan identifier
COLLECTION	Collection-ID of the package	PT	Decimal partition number
CONTOKEN	Consistency token of the package	RCPRI	APPC primary return code
CR	Creator of the object	RCSEC	APPC secondary return code
DB	Database name	RD	DB2 release dependency mark
DBP	Database procedure name	RELDEP	DB2 release dependency mark
DI	DBID in decimal of resource	RID	Record Identifier
DSN	Data set name	RTNCD	VTAM primary return code
FDBK2	VTAM secondary return code	MEMBER	Group member name
GBP	Group buffer pool name	SENSE	SNA sense codename
IC	ICF catalog alias name	SG	Storage group name
IX	Index name	SP	Space name
LOCATION	Location in which the specified resource is not available	SZ	Temporary file page size
LU	Logical unit name	TB	Table name
MODE	Logical unit mode name	TS	Table space name
MP	Hexadecimal mini-page number	VW	View name

ABEND Codes Associated with DSN1COPY Misuse

The following table represents the possible combinations of ABEND reason codes, CSECT-names, and ERQUAL's that can result from the improper use of DSN1COPY. An improper use includes, but is not limited to:

- Specifying the wrong OBIDXLAT values
- Not restoring all the datasets of the table space or index space to the same level
- Restoring datasets to a level that does not match the definition in the catalog and directory
- Restoring one table space type to a different type (e.g. segmented to simple).

This table is not meant to be exhaustive, but contains the more common codes, or those that are likely to have been caused by DSN1COPY misuse. However, this does not eliminate the possibility that the occurrence of these ABEND codes can be caused by other errors, such as an inconsistent DBD, or a DB2 internal error. The numbers under 'Explanation' refer to the notes following the table.

Table 4 (Page 1 of 2). ABEND Reason Codes Associated with DSN1COPY Use

ABEND Reason Code	CSECT-name: ERQUAL	Explanation
00C90101	DSNICKEY:5005	8
	DSNICKEY:5006	8
	DSNICSEL:5003	1
	DSNICSEL:5008	3
	DSNICUMW:5004	4
	DSNICUMW:5005	2
	DSNIDEFR:5005	13
	DSNIDLOD:501B	6
	DSNIIMSI:5006	3
	DSNIIMSI:5008	3
	DSNIIMSI:500A	3
	DSNIISF:5001	3
	DSNILPG:5013	6
	DSNIMOFR:500B	1
	DSNIMOFR:500C	1
	DSNIMRST:5001	1
	DSNIMRST:5002	1
	DSNIMRST:5003	1
	DSNIMSMS:5004	2
	DSNINXTP:5008	6
	DSNIOSEL:5002	2
	DSNIOSEL:5003	2
	DSNIOSEL:53DD	3

Table 4 (Page 1 of 2). ABEND Reason Codes Associated with DSN1COPY Use

ABEND Reason Code	CSECT-name: ERQUAL	Explanation
	DSNIOSEL:53DE	3
	DSNIPOCR:5005	2
	DSNIPOCR:5007	2
	DSNIPOCR:5009	2
	DSNIPOCR:500B	2
	DSNIPOCR:500D	2
	DSNIPOCR:500F	2
	DSNIPTYM:5006	6
	DSNIRECU:5002	2
	DSNIREDR:5007	1
	DSNIREDR:5008	1
	DSNIREDR:5009	1
	DSNIRELF:5011	2
	DSNIRELK:5001	1
	DSNIRLPG:500B	2
	DSNIRLPG:500C	1
	DSNIRLPG:5011	2
	DSNIRNXT:53D3	3
	DSNIRNXT:53DD	3
	DSNIRNXT:53DE	3
	DSNISEGD:5002	2
	DSNISEGD:5005	6
	DSNISEGF:5002	2
	DSNISEGR:500A	6
	DSNISEGR:500C	2
	DSNISEL:5006	1
	DSNISEL:5007	1
	DSNISEL:500A	3
	DSNISEL:500D	3
	DSNISESE:5001	1
	DSNISESE:5002	1
	DSNISESE:5003	1
	DSNISESR:5001	2
	DSNISESR:5002	1
	DSNISESR:5004	1
	DSNISESR:5005	1
	DSNISFS:53DD	3
	DSNISFS:53DE	3
	DSNISFX:5008	2
	DSNISGNS:5003	2
	DSNISGNS:5004	2
	DSNISGSS:5001	1
	DSNISMRS:5001	1
	DSNISRID:53DD	3
	DSNISRID:53DE	3
	DSNISRTI:5004	1
	DSNIWLPG:5003	6
	DSNKCKIS:5003	11
	DSNKFIND:5001	11
	DSNKFPNT:5003	12
	DSNKLVLN:5006	11
	DSNKLVLN:5007	11
	DSNKMDLE:5005	10
	DSNKMDLE:5007	10

Table 4 (Page 2 of 2). ABEND Reason Codes Associated with DSN1COPY Use

ABEND Reason Code	CSECT-name: ERQUAL	Explanation
	DSNKNEXT:5001 DSNKNEXT:5004 DSNKPOCI:5004	11 11 11
00C90105	DSNIBROK:0CA4	6
00C90206	DSNIIDIS:5002	4
00C90210	DSNKFIND:5002 DSNKFIND:5005 DSNKFIND:500B	11 11 11
00C90212	DSNKDNEX:5005	11
00C90213	DSNIRSET:500C	2
00C90214	DSNKISRT:5005 DSNKISRT:5006 DSNKLOD:500F DSNKLOD:5011	8 11 8 11
00C90215	DSNKFIND:5006 DSNKFIND:5007	9 9
00C90216	DSNIRFNX:5008	1
00C90218	DSNIDLOD:5014 DSNISEGD:5007 DSNISGSC:5001 DSNISNPG:5004	6 6 6 6
00C90219	DSNIDLOD:5015 DSNISEGD:5008 DSNISGSC:5002 DSNISNPG:5005	2 2 2 2
00C9021A	DSNIRFNX:500A DSNIRFNX:500B DSNISFS:5007 DSNISFS:5008	2 2 2 2
00C90221 00C9021C	DSNISGAU:5007 DSNIRFNX:5006 DSNISNPG:5007	6 6 6

Explanations

The following explanations are groups of inconsistencies that relate to the ABEND codes, separated by user table spaces and user index spaces. Within each group are examples of specific inconsistencies representing each group.

User Table Spaces

1. Record or field length in the data does not match the length in the OBD
   - Either the fixed lengths do not match, or the variable length of the record is greater than the maximum allowed in the OBD
2. Record OBID in the data does not agree with the OBD
   - OBD corresponding to the OBID from the data cannot be found in the DBD, or the OBD in the DBD is of a different type.
3. Number of columns in the data row does not match the OBD definition
   - An ALTER ADD COLUMN was performed, but the copy of the data is downlevel with respect to the ALTER ADD DBD.
4. Index does not match the data
   - Either the index entry does not exist for the data record, or the index entry points to a missing or bad data record.
5. Data in one table space is inconsistent with related data in another table space
   - Referential integrity; parent and dependent are in different table spaces.
6. Table space definition in the OBD is inconsistent with the data
   - SEGSIZEs do not match
   - Table space type is different (simple restored into segmented)
   - Segment anchor in the OBD points to an invalid first segment (segment not allocated).
7. Table space is inconsistent within itself
   - Not all datasets are restored to the same level
   - Broken segment chains
   - Base and overflow records are not consistent.

User Index Spaces

1. Total key length in the index page or entry does not match the key length in the OBD
   - Index data restored with the wrong index or downlevel index.
2. Key length derived from data passed into the Index Manager does not match the length in the index page or entry
   - Data or index restored to inconsistent states.

3. Index OBID in the index does not agree with the OBD
    - OBD corresponding to the OBID from the index cannot be found in the DBD, or the OBD in the DBD is of a different type.
4. Index space definition in the OBD is inconsistent with the index data
    - Inconsistent subpage directory
    - Cannot find the key in the partition high-key directory
    - Keys not found.
5. Index space is inconsistent within itself
    - Not all datasets are restored to the same level
    - Index entry not connected to the root page.
6. Log RBA is unavailable for the associated table space or index space.

Appendix C. SQLSTATE Values—Common Error Codes

The information in this appendix is General-use Programming Interface and Associated Guidance Information, as defined in “Notices” on page vii.

This appendix contains a summary of the SQLSTATE values that are produced by DB2 as an application server or requester. The SQLSTATE values are based on the SQLSTATE specifications contained in the standards: *ISO/IEC 9075:1992, Database Language SQL* and *ANSI X3.135-1992 Database Language SQL*.

Using SQLSTATE Values

SQLSTATE values are returned to the application in the last five bytes of the SQLCA. Each five-character value is a return code that indicates the outcome of the most recently executed SQL statement.

SQLSTATE values are designed so that application programs can test for specific errors or classes of errors. The first character of an SQLSTATE value indicates whether the SQL statement was executed successfully or unsuccessfully (equal to or not equal to zero, respectively).

SQLSTATE values are comprised of a two-character class code value, followed by a three-character subclass code value. Class code values represent classes of successful and unsuccessful execution conditions. An application might define classes beginning with the characters `'7'` through `'9'` or `'I'` through `'Z'` and subclasses for any class beginning with the characters `'I'` through `'Z'`.

Table 5 identifies the SQLSTATE class codes.

Table 5 (Page 1 of 2). SQLSTATE Class Codes

Class Code	Meaning	For subcodes, refer to...
00	Unqualified Successful Completion	Table 6 on page X-14
01	Warning	Table 7 on page X-14
02	No Data	Table 8 on page X-15
07	Dynamic SQL Error	Table 9 on page X-15
08	Connection Exception	Table 10 on page X-15
0A	Feature Not Supported	Table 11 on page X-15
0F	Invalid Token	Table 12 on page X-16
21	Cardinality Violation	Table 13 on page X-16
22	Data Exception	Table 14 on page X-16
23	Constraint Violation	Table 15 on page X-16
24	Invalid Cursor State	Table 16 on page X-17
25	Invalid Transaction State	Table 17 on page X-17
26	Invalid SQL Statement Identifier	Table 18 on page X-17
2D	Invalid Transaction Termination	Table 19 on page X-17
34	Invalid Cursor Name	Table 20 on page X-17
39	External Function Call Exception	Table 21 on page X-17
40	Transaction Rollback	Table 22 on page X-17
42	Syntax Error or Access Rule Violation	Table 23 on page X-17
44	WITH CHECK OPTION Violation	Table 24 on page X-20
51	Invalid Application State	Table 25 on page X-20
53	Invalid Operand or Inconsistent Specification	Table 26 on page X-20
54	SQL or Product Limit Exceeded	Table 27 on page X-21

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Table 5 (Page 2 of 2). SQLSTATE Class Codes

Class Code	Meaning	For subcodes, refer to...
55	Object Not in Prerequisite State	Table 28 on page X-21
56	Miscellaneous SQL or Product Error	Table 29 on page X-21
57	Resource Not Available or Operator Intervention	Table 30 on page X-22
58	System Error	Table 31 on page X-23

Tables of SQLSTATE Values

Table 6. Class Code 00: Unqualified Successful Completion

SQLSTATE Value	Meaning
00000	Execution of the SQL statement was successful and did not result in any type of warning or exception condition.

Table 7 (Page 1 of 2). Class Code 01: Warning

SQLSTATE Value	Meaning
01003	Null values were eliminated from the argument of a column function.
01004	The value of a string was truncated when assigned to a host variable.
01503	The number of result columns is larger than the number of host variables provided.
01504	The UPDATE or DELETE statement does not include a WHERE clause.
01505	The statement was not executed because it is unacceptable in this environment.
01506	An adjustment was made to a DATE or TIMESTAMP value to correct an invalid date resulting from an arithmetic operation.
01507	One or more non-zero digits were eliminated from the fractional part of a number used as the operand of a multiply or divide operation.
01514	The tablespace has been placed in the check-pending state.

Table 7 (Page 1 of 2). Class Code 01: Warning

SQLSTATE Value	Meaning
01515	The null value has been assigned to a host variable, because the non-null value of the column is not within the range of the host variable.
01516	An inapplicable WITH GRANT OPTION has been ignored.
01517	A character that could not be converted was replaced with a substitute character.
01518	The definition of the table has been changed to incomplete.
01519	The null value has been assigned to a host variable, because a numeric value is out of range.
01520	The null value has been assigned to a host variable, because the characters cannot be converted.
01521	A specified server-name is undefined but is not needed until the statement is executed or the alias is used.
01522	The local table or view name used in the CREATE ALIAS statement is undefined.
01523	ALL was interpreted to exclude ALTER and INDEX, because these privileges cannot be granted to a remote user.
01524	The result of a column function does not include the null values that were caused by evaluating the arithmetic expression implied by the column of the view.
01525	The number of INSERT values is not the same as the number of columns.
01528	WHERE NOT NULL is ignored, because the index key cannot contain null values.
01529	As a result of the DROP INDEX, the UNIQUE constraint is no longer enforced.
01530	Definition change may require a corresponding change on the read-only systems.
01532	An undefined object name was detected.
01533	An undefined column name was detected.
01537	An SQL statement cannot be EXPLAINed, because it references a remote object.
01538	The table cannot be subsequently defined as a dependent, because it has the maximum number of columns.
01539	Connection is successful but only SBCS characters should be used.
01540	A limit key has been truncated to 40 bytes.

Table 7 (Page 2 of 2). Class Code 01: Warning

SQLSTATE Value	Meaning
01542	Authorization ID does not have the privilege to perform the operation as specified.
01543	A duplicate constraint has been ignored.
01545	An unqualified column name has been interpreted as a correlated reference.
01546	A column of the explanation table is improperly defined.
01548	The authorization ID does not have the privilege to perform the specified operation on the identified object.
01551	A table in a partitioned tablespace is not available, because its partitioned index has not been created.
01552	An ambiguous qualified column name was resolved to the first of the duplicate names in the FROM clause.
01553	Isolation level RR conflicts with a tablespace locksize of page.
01554	Decimal multiplication may cause overflow.
01558	A distribution protocol has been violated.
01560	A redundant GRANT has been ignored.
01561	An update to a data capture table was not signaled to the originating subsystem.
01566	The index has been placed in a recover-pending state.
01568	The dynamic SQL statement ends with a semicolon.
01569	The statement will be executed at a DB2 system that does not support character conversion.
01590	Type 2 indexes do not have subpages.
01591	The result of the positioned UPDATE or DELETE may depend on the order of the rows.
01609	The procedure generated more than the maximum allowed number of result sets. Only the first *integer* result sets have been returned to the caller.
01610	One or more ad hoc result sets were returned from the procedure.
01612	The part clause of a LOCK TABLE statement is not valid.
01614	There are fewer locators than the number of result sets.

Table 8. Class Code 02: No Data

SQLSTATE Value	Meaning
02000	One of the following exceptions occurred: • The result of the SELECT INTO statement or the subselect of the INSERT statement was an empty table. • The number of rows identified in the searched UPDATE or DELETE statement was zero. • The position of the cursor referenced in the FETCH statement was after the last row of the result table.

Table 9. Class Code 07: Dynamic SQL Error

SQLSTATE Value	Meaning
07001	The number of host variables is not the same as the number of parameter markers.
07002	The call parameter list or control block is invalid.
07003	The statement identified in the EXECUTE statement is a select-statement, or is not in a prepared state.
07005	The statement name of the cursor identifies a prepared statement that cannot be associated with a cursor.

Table 10. Class Code 08: Connection Exception

SQLSTATE Value	Meaning
08001	The application requester is unable to establish the connection.
08002	The connection already exists.
08003	The connection does not exist.
08004	The application server rejected establishment of the connection.

Table 11. Class Code 0A: Feature Not Supported

SQLSTATE Value	Meaning
0A001	The CONNECT statement is invalid, because the process is not in the connectable state.

Table 12. Class Code 0F: Invalid Token

SQLSTATE Value	Meaning
0F001	The locator value does not currently represent any value.

Table 13. Class Code 21: Cardinality Violation

SQLSTATE Value	Meaning
21000	The result of a SELECT INTO is a result table of more than one row, or the result of the subquery of a basic predicate is more than one value.
21501	A multiple-row INSERT into a self-referencing table is invalid.
21502	A multiple-row UPDATE of a primary key is invalid.

Table 14. Class Code 22: Data Exception

SQLSTATE Value	Meaning
22001	Character data, right truncation occurred; for example, an update or insert value is a string that is too long for the column, or a datetime value cannot be assigned to a host variable, because it is too small.
22002	A null value, or the absence of an indicator parameter was detected; for example, the null value cannot be assigned to a host variable, because no indicator variable is specified.
22003	A numeric value is out of range.
22007	An invalid datetime format was detected; that is, an invalid string representation or value was specified.
22008	Datetime field overflow occurred; for example, an arithmetic operation on a date or timestamp has a result that is not within the valid range of dates.
22011	A substring error occurred; for example, an argument of SUBSTR is out of range.
22012	Division by zero is invalid.
22018	The character value for the CAST, DECIMAL, FLOAT, or INTEGER scalar function is invalid.
22019	The LIKE predicate has an invalid escape character.
22021	A character is not in the coded character set.
22023	A parameter or host variable value is invalid.

Table 14. Class Code 22: Data Exception

SQLSTATE Value	Meaning
22024	A NUL-terminated input host variable or parameter did not contain a NUL.
22025	The LIKE predicate string pattern contains an invalid occurrence of an escape character.
22501	The length control field of a variable length string is negative or greater than the maximum.
22503	The string representation of a name is invalid.
22504	A mixed data value is invalid.
22505	The local date or time length has been increased, but the executing program relies on the old length.
22506	A reference to a datetime special register is invalid, because the TOD clock is malfunctioning or the operating system timezone parameter is out of range.
22508	CURRENT PACKAGESET is blank.
22512	A host variable in a predicate is invalid, because its indicator variable is negative.
22522	A CCSID value is not valid at all, not valid for the data type or subtype, or not valid for the encoding scheme.
22525	Partitioning key value is not valid.

Table 15 (Page 1 of 2). Class Code 23: Constraint Violation

SQLSTATE Value	Meaning
23502	An insert or update value is null, but the column cannot contain null values.
23503	The insert or update value of a foreign key is invalid.
23504	The update or delete of a parent key is prevented by a NO ACTION update or delete rule.
23505	A violation of the constraint imposed by a unique index or a unique constraint occurred.
23506	A violation of a constraint imposed by an edit or validation procedure occurred.
23507	A violation of a constraint imposed by a field procedure occurred.
23508	A violation of a constraint imposed by the DDL Registration Facility occurred.

Table 15 (Page 2 of 2). Class Code 23: Constraint Violation

SQLSTATE Value	Meaning
23509	The owner of the package has constrained its use to environments which do not include that of the application process.
23510	A violation of a constraint on the use of the command imposed by the RLST table occurred.
23511	A parent row cannot be deleted, because the check constraint restricts the deletion.
23512	The check constraint cannot be added, because the table contains rows that do not satisfy the constraint definition.
23513	The resulting row of the INSERT or UPDATE does not conform to the check constraint definition.
23515	The unique index could not be created or unique constraint added, because the table contains duplicate values of the specified key.

Table 16. Class Code 24: Invalid Cursor State

SQLSTATE Value	Meaning
24501	The identified cursor is not open.
24502	The cursor identified in an OPEN statement is already open.
24504	The cursor identified in the UPDATE, DELETE, SET, or GET statement is not positioned on a row.
24506	The statement identified in the PREPARE is the statement of an open cursor.
24516	A cursor has already been assigned to a result set.

Table 17. Class Code 25: Invalid Transaction State

SQLSTATE Value	Meaning
25000	An update operation is invalid for the application execution environment.

Table 18. Class Code 26: Invalid SQL Statement Identifier

SQLSTATE Value	Meaning
26501	The statement identified does not exist.

Table 19. Class Code 2D: Invalid Transaction Termination

SQLSTATE Value	Meaning
2D521	SQL COMMIT or ROLLBACK are invalid in the current operating environment.
2D528	Dynamic COMMIT is invalid for the application execution environment.
2D529	Dynamic ROLLBACK is invalid for the application execution environment.

Table 20. Class Code 34: Invalid Cursor Name

SQLSTATE Value	Meaning
34000	Cursor name is invalid.

Table 21. Class Code 39: External Function Call Exception

SQLSTATE Value	Meaning
39002	A null value is not allowed for an IN or INOUT argument when using the SIMPLE CALL calling convention.
39501	An output argument value returned from a function or a procedure was too long.

Table 22. Class Code 40: Transaction Rollback

SQLSTATE Value	Meaning
40001	Deadlock or timeout with automatic rollback occurred.

Table 23 (Page 1 of 4). Class Code 42: Syntax Error or Access Rule Violation

SQLSTATE Value	Meaning
42501	The authorization ID does not have the privilege to perform the specified operation on the identified object.
42502	The authorization ID does not have the privilege to perform the operation as specified.
42503	The authorization ID specified in SET CURRENT SQLID is not one of the authorization IDs of the application process.
42504	A specified privilege cannot be revoked from a specified authorization-name.
42505	Connection authorization failure occurred.

Table 23 (Page 2 of 4). Class Code 42: Syntax Error or Access Rule Violation

SQLSTATE Value	Meaning
42506	Owner authorization failure occurred.
42509	SQL statement is not authorized, because of the STATICRULES option.
42601	A character, token, or clause is invalid or missing.
42602	A character that is invalid in a name has been detected.
42603	An unterminated string constant has been detected.
42604	An invalid numeric or string constant has been detected.
42605	The number of arguments specified for a scalar function is invalid.
42606	An invalid hexadecimal constant has been detected.
42607	An operand of a column function is invalid.
42609	All operands of an operator or predicate are parameter markers.
42610	A parameter marker is not allowed.
42611	The column or argument definition is invalid.
42612	The statement string is an SQL statement that is not acceptable in the context in which it is presented.
42613	Clauses are mutually exclusive.
42614	A duplicate keyword is invalid.
42615	An invalid alternative was detected.
42617	The statement string is blank or empty.
42618	A host variable is not allowed.
42621	The check constraint is invalid.
42622	A name or label is too long.
42625	A CASE expression is invalid.
42701	A duplicate column name in an INSERT or UPDATE statement was detected.
42702	A column reference is ambiguous, because of duplicate names.
42703	An undefined column or parameter name was detected.
42704	An undefined object or constraint name was detected.
42705	An undefined server-name was detected.
42707	A column name in ORDER BY does not identify a column of the result table.

Table 23 (Page 2 of 4). Class Code 42: Syntax Error or Access Rule Violation

SQLSTATE Value	Meaning
42709	A duplicate column name in a PRIMARY, UNIQUE, or FOREIGN KEY clause was detected.
42710	A duplicate object or constraint name was detected.
42711	A duplicate column name was detected in the object definition or ALTER TABLE statement.
42714	A host variable can be defined only once.
42718	The local server name is not defined.
42724	Unable to access an external program used for a user-defined function or a procedure.
42801	Isolation level UR is invalid, because the result table is not read-only.
42802	The number of insert or update values is not the same as the number of columns.
42803	A column reference in the SELECT or HAVING clause is invalid, because it is not a grouping column; or a column reference in the GROUP BY clause is invalid.
42804	The result expressions in a CASE expression are not compatible.
42805	An integer in the ORDER BY clause does not identify a column of the result table.
42806	A value cannot be assigned to a host variable, because the data types are not compatible.
42807	The INSERT, UPDATE, or DELETE is not permitted on this object.
42808	A column identified in the INSERT or UPDATE statement is not updateable.
42809	The identified object is not the type of object to which the statement applies.
42810	A view is identified in a FOREIGN KEY clause.
42811	The number of columns specified is not the same as the number of columns in the SELECT clause.
42813	WITH CHECK OPTION cannot be used for the specified view.
42815	The data type, length, scale, value, or CCSID is invalid.
42816	A datetime value or duration in an expression is invalid.

Table 23 (Page 3 of 4). Class Code 42: Syntax Error or Access Rule Violation

SQLSTATE Value	Meaning
42818	The operands of an operator or function are not compatible.
42819	An operand of an arithmetic operation or an operand of a function that requires a number is not a number.
42820	A numeric constant is too long, or it has a value that is not within the range of its data type.
42821	An update or insert value is not compatible with the column.
42823	The SELECT clause of a subquery specifies multiple columns.
42824	An operand of LIKE is not a string, or the first operand is not a column.
42825	The rows of UNION, INTERSECT, EXCEPT, or VALUES do not have compatible columns.
42826	The rows of UNION, INTERSECT, EXCEPT, or VALUES do not have the same number of columns.
42827	The table identified in the UPDATE or DELETE is not the same table designated by the cursor.
42828	The table designated by the cursor of the UPDATE or DELETE statement cannot be modified, or the cursor is read-only.
42829	FOR UPDATE OF is invalid, because the result table designated by the cursor cannot be modified.
42830	The foreign key does not conform to the description of the parent key.
42831	A column of a primary or unique key cannot allow null values.
42832	The operation is not allowed on system objects.
42834	SET NULL cannot be specified, because the foreign key does not allow null values.
42842	A column definition is invalid, because a specified option is inconsistent with the column description.
42852	The privileges specified in GRANT or REVOKE are invalid or inconsistent. (For example, GRANT ALTER on a view.)
42877	The column name cannot be qualified.
42884	No function or procedure was found with the specified name and compatible arguments.

Table 23 (Page 3 of 4). Class Code 42: Syntax Error or Access Rule Violation

SQLSTATE Value	Meaning
42886	The IN, OUT, or INOUT parameter attributes do not match.
42888	The table does not have a primary key.
42889	The table already has a primary key.
42890	A column list was specified in the references clause, but the identified parent table does not have a unique constraint with the specified column names.
42893	The object or constraint cannot be dropped, because other objects are dependent on it.
42894	The DEFAULT value is invalid.
42895	For static SQL, an input host variable cannot be used, because its data type is not compatible with the parameter of a procedure or user-defined function.
428B4	The part clause of a LOCK TABLE statement is not valid.
42901	A column function does not include a column name.
42902	The object of the INSERT, UPDATE, or DELETE is also identified (possibly implicitly through a view) in a FROM clause.
42903	A WHERE clause or SET clause includes an invalid reference, such as a column function.
42905	DISTINCT is specified more than once in a subselect.
42906	A column function in a subquery of a HAVING clause includes an expression that applies an operator to a correlated reference.
42907	The string is too long.
42908	The statement does not include a required column list.
42909	CREATE VIEW includes an operator or operand that is not valid for views. For example, UNION or UNION ALL.
42911	A decimal divide operation is invalid, because the result would have a negative scale.
42912	A column cannot be updated, because it is not identified in the UPDATE clause of the select-statement of the cursor.
42914	The DELETE is invalid, because a table referenced in a subquery can be affected by the operation.
42915	An invalid referential constraint has been detected.

Table 23 (Page 4 of 4). Class Code 42: Syntax Error or Access Rule Violation

SQLSTATE Value	Meaning
42917	The object cannot be explicitly dropped.
42920	A GROUP BY or HAVING clause is implicitly or explicitly specified in a SELECT INTO or a subquery of a basic predicate.
42924	An alias resolved to another alias rather than a table or view at the remote location.
42932	The program preparation assumptions are incorrect.
42961	The server name specified does not match the current server.
42969	The package was not created and the current unit of work was rolled back, because of internal limitations or an invalid section number.
42972	An expression in a join-condition references columns in more than one of the operand tables.
42986	The source table in a RENAME TABLE statement is referenced in a view, trigger, or constraint.
42987	The statement is not allowed in a function or procedure.
42988	The operation is not allowed with mixed ASCII data.
42995	The requested function does not apply to global temporary tables.

Table 24. Class Code 44: WITH CHECK OPTION Violation

SQLSTATE Value	Meaning
44000	The INSERT or UPDATE is not allowed, because a resulting row does not satisfy the view definition.

Table 25. Class Code 51: Invalid Application State

SQLSTATE Value	Meaning
51002	The package corresponding to an SQL statement execution request was not found.
51003	Consistency tokens do not match.
51004	An address in the SQLDA is invalid.
51005	The previous system error has disabled this function.

Table 25. Class Code 51: Invalid Application State

SQLSTATE Value	Meaning
51006	A valid connection has not been established.
51015	An attempt was made to execute a section that was found to be in error at bind time.
51021	SQL statements cannot be executed until the application process executes a rollback operation.
51030	The procedure referenced in a DESCRIBE PROCEDURE statement or an ALLOCATE CURSOR statement has not yet been called within the application process.
51032	A valid ASCII CCSID has not yet been specified for this DB2 for MVS/ESA subsystem.
51033	The operation is not allowed because it operates on a result set that was not created by the current server.

Table 26 (Page 1 of 2). Class Code 53: Invalid Operand or Inconsistent Specification

SQLSTATE Value	Meaning
53001	A clause is invalid, because the tablespace is a workfile.
53004	DSNDB07 is the implicit workfile database.
53014	The specified OBID is invalid.
53035	Key limits must be specified in the CREATE INDEX statement.
53036	The number of PART specifications is not the same as the number of partitions.
53037	A partitioned index cannot be created on a table in a non-partitioned tablespace.
53038	The number of key limit values is zero or greater than the number of columns in the key.
53039	The PART clause of the ALTER statement is omitted or invalid.
53040	The bufferpool cannot be changed to BP32K.
53041	BP32K cannot be used for an index.
53043	Columns with different field procedures cannot be compared.
53044	The columns have a field procedure, but the field types are not compatible.
53045	The data type of the key limit constant is not the same as the data type of the column.

Table 26 (Page 2 of 2). Class Code 53: Invalid Operand or Inconsistent Specification

SQLSTATE Value	Meaning
53088	LOCKMAX is inconsistent with the specified LOCKSIZE.
53089	The number of host variable parameters for a stored procedure is not equal to the number of expected host variable parameters.
53090	Both ASCII and EBCDIC data cannot be referenced in the same SQL statement.
53091	The encoding scheme specified is not the same as the encoding scheme currently in use for the containing tablespace.
53092	Type 1 index cannot be created for a table using the ASCII encoding scheme.
53093	The FOR ASCII clause is not supported for this database or tablespace.
53094	The PLAN_TABLE cannot be created with the FOR ASCII clause.
53095	A system tablespace cannot be created with an explicit ASCII or EBCDIC clause.

Table 27. Class Code 54: SQL or Product Limit Exceeded

SQLSTATE Value	Meaning
54001	The statement is too long or too complex.
54002	A string constant is too long.
54004	The statement has too many table names or too many items in a SELECT or INSERT list.
54005	The sort key is too long, or has too many columns.
54006	The result of concatenation is too long.
54008	The key is too long, or has too many columns.
54010	The record length of the table is too long.
54011	Too many columns were specified for a table or view.
54012	The FIELDPROC literal list is too long.
54021	Too many constraints, or the size of the constraint is too large.
54024	The check constraint is too long.
54025	The table description exceeds the maximum size of the object descriptor.
54027	The catalog has the maximum number of user-defined indexes.

Table 27. Class Code 54: SQL or Product Limit Exceeded

SQLSTATE Value	Meaning
54041	Only 32767 OBIDs are allowed.

Table 28. Class Code 55: Object Not in Prerequisite State

SQLSTATE Value	Meaning
55002	The explanation table is not defined properly.
55003	The DDL registration table is not defined properly.
55004	The database cannot be accessed, because it is no longer a shared database.
55006	The object cannot be dropped, because it is currently in use by the same application process.
55011	The operation is disallowed, because the workfile database is not in the stopped state.
55012	A clustering index already exists on the table.
55014	The table does not have an index to enforce the uniqueness of the primary key.
55015	The ALTER statement cannot be executed, because the pageset is not in the stopped state.
55016	The ALTER statement is invalid, because the pageset has user-managed data sets.
55017	The table cannot be created in the tablespace, because it already contains a table.
55020	A work file database is already defined for the member.
55023	An error occurred calling a procedure.
55030	A package specified in a remote BIND REPLACE operation must not have a system list.
55035	The table cannot be dropped, because it is protected.

Table 29 (Page 1 of 2). Class Code 56: Miscellaneous SQL or Product Error

SQLSTATE Value	Meaning
56010	The subtype of a string variable is not the same as the subtype at bind time, and the difference cannot be resolved by character conversion.

Table 29 (Page 2 of 2). Class Code 56: Miscellaneous SQL or Product Error

SQLSTATE Value	Meaning
56016	The partitioning keys are not specified in ascending or descending order.
56018	A column cannot be added to the table, because it has an edit procedure.
56023	An invalid reference to a remote object has been detected.
56025	An invalid use of AT ALL LOCATIONS in GRANT or REVOKE has been detected.
56027	A nullable column of a foreign key with a delete rule of SET NULL cannot be part of the key of a partitioned index.
56031	The clause or scalar function is invalid, because mixed and DBCS data are not supported on this system.
56036	Specific and non-specific volume IDs are not allowed in a storage group.
56038	The requested feature is not supported in this environment.
56040	CURRENT SQLID cannot be used in a statement that references remote objects.
56045	The application must issue a rollback operation to back out the change that was made at the read-only application server.
56053	The parent of a table in a read-only shared database must also be a table in a read-only shared database.
56054	User-defined datasets for objects in a shared database must be defined with SHAREOPTIONS(1,3).
56055	The database is defined as SHARE READ, but the tablespace or indexspace has not been defined on the owning system.
56056	The description of an object in a SHARE READ database must be consistent with its description in the OWNER system.
56057	A database cannot be altered from SHARE READ to SHARE OWNER.
56062	A distributed operation is invalid, because the unit of work was started before DDF.
56064	The bind operation is disallowed, because the program depends on functions of a release from which fallback has occurred.
56065	The bind operation is disallowed, because the DBRM has been modified or was created for a different release.

Table 29 (Page 2 of 2). Class Code 56: Miscellaneous SQL or Product Error

SQLSTATE Value	Meaning
56066	The rebind operation is disallowed, because the plan or package depends on functions of a release from which fallback has occurred.
56067	The rebind operation is disallowed, because the value of SYSPACKAGE.IBMREQD is invalid.
56082	The statement cannot be executed, because it identifies a DB2 system that does not support character conversion.
56084	LOB data is not supported in DRDA.
56089	Specified option requires type 2 indexes.
56090	The type of the index cannot be changed.
56094	SUBPAGES greater than one are not supported for Type 1 indexes in a data sharing environment.
56095	A bind option is invalid.
56096	Bind options are incompatible.

Table 30 (Page 1 of 2). Class Code 57: Resource Not Available or Operator Intervention

SQLSTATE Value	Meaning
57001	The table is unavailable, because it does not have a primary index.
57002	GRANT and REVOKE are invalid, because authorization has been disabled.
57003	The specified bufferpool has not been activated.
57004	The table is unavailable, because it lacks a partitioned index.
57005	The statement cannot be executed, because a utility or a governor time limit was exceeded.
57006	The object cannot be created, because a DROP or CREATE is pending.
57007	The object cannot be used, because a DROP or ALTER is pending.
57008	The date or time local format exit has not been installed.
57010	A field procedure could not be loaded.
57011	Virtual storage or database resource is not available.

Table 30 (Page 2 of 2). Class Code 57: Resource Not Available or Operator Intervention

SQLSTATE Value	Meaning
57012	A non-database resource is not available. This will not affect the successful execution of subsequent statements.
57013	A non-database resource is not available. This will affect the successful execution of subsequent statements.
57014	Processing was canceled as requested.
57015	Connection to the local DB2 not established.
57017	Character conversion is not defined.
57018	A DDL registration table or its unique index does not exist.
57023	The DDL statement cannot be executed, because a DROP is pending of a DDL registration table.
57033	Deadlock or timeout occurred without automatic rollback.

Table 31. Class Code 58: System Error

SQLSTATE Value	Meaning
58001	The database cannot be created, because the assigned DBID is a duplicate.
58002	An exit has returned an error or invalid data.
58003	An invalid section number was detected.
58004	A system error (that does not necessarily preclude the successful execution of subsequent SQL statements) occurred.
58005	A system error (that prevents the successful execution of subsequent SQL statements) occurred.
58006	A system error occurred during connection.
58008	Execution failed due to a distribution protocol error that will not affect the successful execution of subsequent DDM commands or SQL statements.
58009	Execution failed due to a distribution protocol error that caused deallocation of the conversation.
58010	Execution failed due to a distribution protocol error that will affect the successful execution of subsequent DDM commands or SQL statements.
58011	The DDM command is invalid while the bind process in progress.

Table 31. Class Code 58: System Error

SQLSTATE Value	Meaning
58012	The bind process with the specified package name and consistency token is not active.
58013	The SQLCODE is inconsistent with the reply message.
58014	The DDM command is not supported.
58015	The DDM object is not supported.
58016	The DDM parameter is not supported.
58017	The DDM parameter value is not supported.
58018	The DDM reply message is not supported.
58026	The number of host variables in the statement is not equal to the number of host variables in SQLSTTVRB.

Appendix D. New, Changed, and Deleted Messages and Codes

This appendix lists new, changed, and deleted messages and codes to support DB2 Version 5, as follows:

- "New Messages and Codes" on page X-26 lists new SQL return codes, messages, and reason codes.
- "Changed Messages and Codes" on page X-28 lists changed SQL return codes, messages, reason codes, and SNA codes.
- "Changed SQLSTATEs" on page X-29 lists changed SQLSTATE values.
- "Deleted Messages and Codes" on page X-29 lists deleted SQL return codes and messages.

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New Messages and Codes

Table 32 (Page 1 of 2).

+464	DSNB309I	DSNJ992I	DSNL521I
+466	DSNB311I	DSNJ993I	DSNP026I
+494	DSNB312I	DSNJ994I	DSNP027I
+2000	DSNB319I	DSNJ995I	DSNR032E
-240	DSNB325I	DSNJ996I	DSNR033E
-327	DSNB327I	DSNJ997I	DSNR034E
-351	DSNB330E	DSNJ998I	DSN035I
		DSNJ438I	DSNJ340I
-413	DSNB331I	DSNL050E	DSNR036I
-423	DSNB332I	DSNL051E	DSNR037I
-480	DSNB333I	DSNL052E	DSNR038I
-482	DSNB335I	DSNL053I	DSNR039I
-496	DSNB338I	DSNL054I	DSNT304I
-497	DSNB339I	DSNL055I	DSNT350I
-499	DSNB340E	DSNL056E	DSNT304I
-526	DSNB350I	DSNL057I	DSNT359I
-573	DSNB351I	DSNL058I	DSNT378I
-574	DSNB352I	DSNL059I	DSNT510I
-580	DSNB752I	DSNL060I	DSNT522I
-581	DSNB753I	DSNL061I	DSNT580I
-582	DSNB796I	DSNL062I	DSNV443I
-750	DSNB797I	DSNL063I	DSNU001I
-804	DSNB798I	DSNl064E	DSNU002I
-872	DSNB352I	DSNL417E	DSNU292I
-873	DSNB353I	DSNL418I	DSNU293I
-874	DSNB354I	DSNL453I	DSNU294I
-875	DSNH520I	DSNL454I	DSNU295I
-876	DSNH521I	DSNL455I	DSNU296I
-877	DSNH522I	DSNL511I	DSNU298I
-878	DSNH582I	DSNL512I	DSNU299I
-879	DSNH583I	DSNL513I	DSNU347I
-981	DSNH520I	DSNL514I	DSNU359I
-991	DSNH521I	DSNL515I	DSNU360I
-30081	DSNH522I	DSNL516I	DSNU362I
-30082	DSNJ078I	DSNL517I	DSNU365I
-30104	DNJ079I	DSNL518I	DSNU366I
-30105	DSNJ245I	DSNL519I	DSNU368I
DSNB306I	DSNJ991I	DSNL520I	DSNU371I
DSNU372I	00C12001	00D31057	00D35E27
DSNU373I	00C12002	00D31058	00D35E28
DSNU374I	00C12003	00D35030	00D35E29
DSNU377I	00C12004	00D3511A	00D35E2A
DSNU378I	00C12005	00D3511B	00D35E2B
DSNU379I	00C12006	00D3511C	00D35E2C
DSNU382I	00C12007	00D3511D	00D35E2D
DSNU383I	00C12008	00D3520E	00D35E2E
DSNU384I	00C12009	00D35918	00D35E2F
DSNU385I	00C12010	00D35919	00D35E30
DSNU386I	00C12011	00D3591A	00D35E31
DSNU387I	00C12012	00D3591B	00D35E32
DSNU388I	00C12013	00D3591C	00D35E33
DSNU389I	00C12014	00D3591D	00D35E34
DSNU440I	00C12015	00D3591D	00D35E35
DSNU441I	00C12016	00D35D18	00D35E36

Table 32 (Page 2 of 2).

DSNU443I	00C12201	00D35E00	00D35E37
DSNU444I	00C12202	00D35E01	00D35E38
DSNU445I	00C12203	00D35E02	00D35E39
DSNU446I	00C12204	00D35E03	00D35E3A
DSNU783I	00C12206	00D35E04	00D35E3B
DSNV443I	00C12207	00D35E05	00D35E3C
DSNV469I	00C12208	00D35E06	00D35E3D
DSNV470I	00C12209	00D35E07	00D35E3E
DSNX911E	00C12212	00D35E08	00D35E3F
DSNX912E	00C12214	00D35E09	00D35E40
DSNX922I	00C12216	00D35E0A	00D35E41
DSNX923I	00C12217	00D35E0B	00D35E42
DSNX954I	00C12218	00D35E0C	00D35E43
DSNX967I	00C12219	00D35E0D	00D35E44
DSNX968I	00C12822	00D35E0E	00D35E45
DSNX982I	00C12823	00D35E0F	00D35E46
DSNX983I	00C12824	00D35E10	00D35E47
DSN3010I	00C12825	00D35E11	00D35E48
DSN3011I	00C12831	00D35E12	00D35E49
DSN3012I	00C200ED	00D35E13	00D70040
DSN3013I	00C20208	00D35E14	00D70041
DSN3014I	00C20211	00D35E15	00D70042
DSN3015I	00C2025A	00D35E16	00D900FA
DSN3016I	00C2025B	00D35E17	00E30096
DSN3017I	00C2025C	00D35E18	00E30100
DSN3018I	00C20264	00D35E19	00E40000
DSN3019I	00C2026A	00D35E1A	00E4030E
DSN3020I	00C202C0	00D35E1B	00E4030F
DSN3021I	00C202C1	00D35E1C	00E4031A
DSN3022I	00C202C2	00D35E1D	00E4031B
DSN3023I	00C202C3	00D35E1D	00E4031C
DSN3024I	00C202C4	00D35E1F	00E40435
DSN3025I	00C90304	00D35E20	00E40436
DSN3026I	00D3010C	00D35E21	00E70081
DSN3027I	00D3010E	00D35E22	00E79007
DSN7120I	00D3010F	00D35E23	00E7900B
DSN7121I	00D31051	00D35E24	00E7900C
DSN7122I	00D31055	00D35E25	00E79101
DSN7123I	00D31056	00D35E26	00F30090
00E70120	00E60889	00E70115	DXR167E
DXR154I	DXR155I	DXR156I	DXR157I
DXR158I	DXR165I	DXR168I	DXR169I
DXR170I	DSNH028I	00D3111C	00C900AC
00D80013	DSNR040I	DSNU019I	DSNU161I
00DSNU184I	00C900C6	00C12018	00C12019
00C12020	00F3009D	00F3009E	00F3009F
00E50098	DSNX992E	DSNX991I	DSNX990E
-20104	00D3102B	DSNU776I	DSNU777I
DSNU778I	00E70014	-N497	DSNU253I
# DSNU297I	00D35E5A	DSNU935I	

Changed Messages and Codes

These messages and codes were updated:

This list does not include messages or codes with the following types of changes:

- Book references
- Editorial

Table 33 (Page 1 of 2).

+806	DSNB335I	DSNL420I	DSNU066I
-084	DSNB338I	DSNL423I	DSNU180I
-101	DSNB339I	DSNL424I	DSNU781I
-108	DSNB450I	DSNL425I	DSNU100I
-109	DSNB451I	DSNL438I	DSNU103I
-114	DSNB756I	DSNL439I	DSNU104I
-148	DSNB758I	DSNL440I	DSNU105I
-180	DSNB767I	DSNL446I	DSNU109I
-189	DSNB773I	DSNL447I	DSNU110I
-426	DSNB774I	DSNL448I	DSNU112I
-302	DSNB775I	DSNL451I	DSNU231I
-413	DSNB778I	DSNL514I	DSNU234I
-471	DSNB779I	DSNL517I	DSNU241I
-504	DSNB789I	DSNL518I	DSNU244I
-516	DSNE133E	DSNL700I	DSNU251I
-530	DSNH109I	DSNP004I	DSNU252I
-531	DSNH628I	DSNP006I	DSNU254I
-532	DSNJ003I	DSNP008I	DSNU255I
-534	DSNJ702E	DSNP020I	DSNU295I
-538	DSNJ707E	DSNT248I	DSNU296I
-574	DSNL004I	DSNT248I	DSNU302I
-551	DSNL016I	DSNT249I	DSNU304I
-607	DSNL017I	DSNT307I	DSNU313I
-612	DSNL028I	DSNT314I	DSNU334I
-617	DSNL031I	DSNT315I	DSNU337I
-618	DSNL032I	DSNT358I	DSNU344I
-625	DSNL201I	DSNT360I	DSNU345I
-628	DSNL202I	DSNT379I	DSNU348I
-633	DSNL203I	DSNT396I	DSNU349I
-636	DSNL204I	DSNT397I	DSNU353I
-650	DSNL400E	DSNT431I	DSNU354I
-925	DSNL401E	DSNT513I	DSNU360I
-30073	DSNL402I	DSNT518I	DSNU361I
-30082	DSNL403I	DSNT510I	DSNU362I
DSNB260I	DSNL405I	DSNT813I	DSNU367I
DSNB350E	DSNL406I	DSNU013I	DSNU384I
DSNB322I	DSNL407I	DSNU014I	DSNU400I
DSNB232I	DSNL408I	DSNU018I	DSNU406I
DSNB331I	DSNL409I	DSNU042I	DSNU407I
DSNB332I	DSNL411E	DSNU049I	DSNU416I
DSNB333I	DSNL415I	DSNU056I	DSNU417I
DSNU504I	DSNV448I	DSN7105I	00E40313
DSNU527I	DSNV449I	00C10831	00E40317
DSNU528I	DSNV452I	00C20069	00E4031A
DSNU555I	DSNV453I	00C200EA	00E4031B
DSNU557I	DSNV462I	00C20204	00E4031C
DSNU559I	DSNX103I	00C202A5	00E40410
DSNU583I	DSNX105I	00C202C1	00E40705

Table 33 (Page 2 of 2).

DSNU584I	DSNX200I	00C9008E	00E79001
DSNU586I	DSNX204	00C90092	00E79002
DSNU614I	DSNX905I	00C90094	00E79004
DSNU615I	DSNX906I	00C90096	00E79006
DSNU616I	DSNX908I	00C90304	00F30063
DSNU617I	DSNX944I	00D35D12	00F30064
DSNU618I	DSNX952I	00D70002	00F30094
DSNU626I	DSNX953E	00D70003	00F30095
DSNU701I	DSNX949E	00D70006	00F30461
DSNU717I	DSNX960E	00D70007	00F70609
DSNU719I	DSNX962I	00D70013	080F6052
DSNU741I	DSNX964I	00D70051	080FFF00
DSNV404I	DSNX965I	00E30081	080FFF01
DSNV406I	DSNX966I	00E40009	080FFF02
DSNV407I	DSNX981E	00E40085	080FFF03
DSNV408I	DSN1940I	00E40105	080FFF04
DSNV429I	DSN2016I	00E40107	080FFF05
# DSNV445I	DSN7101I	00E4010A	DSNX204I
DSNV446I	DSN7103I	00E4010C	DSNW133I
DSN1995I	DSN7104I	00E4011C	00D31038
00C2010D	DSNT375I	DSNL512I	DXR142E
DSNT814I	DSNJ070I	DSNJ110E	DSNX903E
DXR100I	DXR121I	DSNU0296I	DSNU360I
00C12205	00F30097	00C200BA	00C20103
DSNU539I	00C8901X	DSNL044I	00D35E00
DSNT482I	DSNH312I	DSNH292I	-102
-416	-574	-631	-684
DSNH684I	-143	-614	DSNH102I
-542	DSNL004I	00D31055	00D300F8
DSNU251I	DSNU252I	DSNT482I	

Changed SQLSTATEs

The following SQLSTATEs are changed:

22025 For SQLCODE -130: instances of *invalid escape pattern* will be reported with SQLSTATE '22025'.

22003 For SQLCODE -302, instances of *number too large for target* will be reported with SQLSTATE '22003'.

22003 For SQLCODE -413, cases shown in these examples:

```
EXEC SQL INSERT INTO HU.P1
  VALUES (100000) END-EXEC
EXEC SQL INSERT INTO HU.P1
  VALUES (-1000000) END-EXEC
```

are reported with SQLSTATE '22003'.

Deleted Messages and Codes

These messages and codes were deleted:

Table 34.

-2000'	DSNU779E
00C10823	00C900C2
DSNV469I	DSNV470I

Glossary and Bibliography

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Glossary

The following terms and abbreviations are defined as they are used in the DB2 library. If you do not find the term you are looking for, refer to the index or to *Dictionary of Computing*.

A

abend. Abnormal end of task.

abend reason code. A 4-byte hexadecimal code that uniquely identifies a problem with DB2. A complete list of DB2 abend reason codes and their explanations is contained in *Messages and Codes*.

abnormal end of task (abend). Termination of a task, a job, or a subsystem because of an error condition that cannot be resolved during execution by recovery facilities.

access method services. A utility program that defines and manages VSAM data sets (or files).

access path. The path used to get to data specified in SQL statements. An access path can involve an index or a sequential search.

active log. The portion of the DB2 log to which log records are written as they are generated. The active log always contains the most recent log records, whereas the archive log holds those records that are older and no longer will fit on the active log.

active member state. A state of a member of a data sharing group. An active member is identified with a group by XCF, which associates the member with a particular task, address space, and MVS system. A member that is not active is failed or quiesced.

address space. A range of virtual storage pages identified by a number (ASID) and a collection of segment and page tables which map the virtual pages to real pages of the computer's memory.

address space connection. The result of connecting an allied address space to DB2. Each address space containing a task connected to DB2 has exactly one address space connection, even though more than one task control block (TCB) can be present. See *allied address space* and *task control block*.

alias. An alternate name that can be used in SQL statements to refer to a table or view in the same or a remote DB2 subsystem.

allied address space. An area of storage external to DB2 that is connected to DB2 and is therefore capable of requesting DB2 services.

allied thread. A thread originating at the local DB2 subsystem that may access data at a remote DB2 subsystem.

American National Standards Institute (ANSI). An organization consisting of producers, consumers, and general interest groups, that establishes the procedures by which accredited organizations create and maintain voluntary industry standards in the United States.

ANSI. American National Standards Institute.

APAR. Authorized program analysis report.

APAR fix corrective service. A temporary correction of a DB2 defect. The correction is temporary because it is usually replaced at a later date by a more permanent correction such as a program temporary fix (PTF).

APF. Authorized program facility.

APPL. A VTAM network definition statement used to define DB2 to VTAM as an application program using SNA LU 6.2 protocols.

application plan. The control structure produced during the bind process and used by DB2 to process SQL statements encountered during statement execution.

application process. The unit to which resources and locks are allocated. An application process involves the execution of one or more programs.

application requester (AR). See *requester*.

application server. See *server*.

AR. application requester. See *requester*.

archive log. The portion of the DB2 log that contains log records that have been copied from the active log.

AS. Application server. See *server*.

ASCII. An encoding scheme used to represent strings in many environments, typically on PCs and workstations. Contrast with *EBCDIC*.

attachment facility. An interface between DB2 and TSO, IMS, CICS, or batch address spaces. An attachment facility allows application programs to access DB2.

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attribute. A characteristic of an entity. For example, in database design, the phone number of an employee is one of that employee's attributes.

authorization ID. A string that can be verified for connection to DB2 and to which a set of privileges are allowed. It can represent an individual, an organizational group, or a function, but DB2 does not determine this representation.

authorized program analysis report (APAR). A report of a problem caused by a suspected defect in a current release of a program.

authorized program facility (APF). A facility that permits the identification of programs that are authorized to use restricted functions.

B

backward log recovery. The fourth and final phase of restart processing during which DB2 scans the log in a backward direction to apply UNDO log records for all aborted changes.

base table. A table created by the SQL CREATE TABLE statement that is used to hold persistent data. Contrast with *result table* and *temporary table*.

basic sequential access method (BSAM). An access method for storing or retrieving data blocks in a continuous sequence, using either a sequential access or a direct access device.

bind. The process by which the output from the DB2 precompiler is converted to a usable control structure called a package or an application plan. During the process, access paths to the data are selected and some authorization checking is performed.

> **automatic bind**. (More correctly *automatic rebind*). A process by which SQL statements are bound automatically (without a user issuing a BIND command) when an application process begins execution and the bound application plan or package it requires is not valid.
> **dynamic bind**. A process by which SQL statements are bound as they are entered.
> **incremental bind**. A process by which SQL statements are bound during the execution of an application process, because they could not be bound during the bind process, and VALIDATE(RUN) was specified.
> **static bind**. A process by which SQL statements are bound after they have been precompiled. All static SQL statements are prepared for execution at the same time. Contrast with *dynamic bind*.

BMP. Batch Message Processing (IMS).

bootstrap data set (BSDS). A VSAM data set that contains name and status information for DB2, as well as RBA range specifications, for all active and archive log data sets. It also contains passwords for the DB2 directory and catalog, and lists of conditional restart and checkpoint records.

BSAM. Basic sequential access method.

BSDS. Bootstrap data set.

buffer pool. Main storage reserved to satisfy the buffering requirements for one or more table spaces or indexes.

built-in function. Scalar function or column function.

C

cache structure. A coupling facilitystructure that stores data that can be available to all members of a Sysplex. A DB2 data sharing group uses cache structures as group buffer pools.

CAF. Call attachment facility.

call attachment facility (CAF). A DB2 attachment facility for application programs running in TSO or MVS batch. The CAF is an alternative to the DSN command processor and allows greater control over the execution environment.

cascade delete. The enforcement of referential constraints by DB2 when it deletes all descendent rows of a deleted parent row.

castout. The DB2 process of writing changed pages from a group buffer pool to DASD.

catalog. In DB2, a collection of tables that contains descriptions of objects such as tables, views, and indexes.

catalog table. Any table in the DB2 catalog.

CCSID. Coded character set identifier.

CDB. See *communications database*.

CEC. See *central processor complex*.

central electronic complex (CEC). See *central processor complex*.

central processor complex (CPC). A physical collection of hardware (such as an ES/3090) that consists of main storage, one or more central processors, timers, and channels.

central processor (CP). The part of the computer that contains the sequencing and processing facilities for instruction execution, initial program load, and other machine operations.

CFRM policy. A declaration by an MVS administrator regarding the allocation rules for a coupling facility structure.

check clause. An extension to the SQL CREATE TABLE and SQL ALTER TABLE statements that specifies a table check constraint.

check constraint. See *table check constraint*.

check integrity. The condition that exists when each row in a table conforms to the table check constraints defined on that table. Maintaining check integrity requires enforcing table check constraints on operations that add or change data.

check pending. A state of a table space or partition that prevents its use by some utilities and some SQL statements, because it can contain rows that violate referential constraints, table check constraints, or both.

checkpoint. A point at which DB2 records internal status information on the DB2 log that would be used in the recovery process if DB2 should abend.

CI. Control interval.

CICS. Represents (in this publication) CICS/MVS and CICS/ESA.

> **CICS/MVS**: Customer Information Control System/Multiple Virtual Storage.
> **CICS/ESA**: Customer Information Control System/Enterprise Systems Architecture.

CICS attachment facility. A DB2 subcomponent that uses the MVS Subsystem Interface (SSI) and cross storage linkage to process requests from CICS to DB2 and to coordinate resource commitment.

CIDF. Control interval definition field.

claim. To register to DB2 that an object is being accessed. This registration is also called a claim. A claim is used to ensure that an object cannot be drained until a commit is reached. Contrast with *drain*.

claim class. A specific type of object access which can be one of the following:

> cursor stability (CS)
> repeatable read (RR)
> write

claim count. A count of the number of agents that are accessing an object.

class of service. A VTAM term for a list of routes through a network, arranged in an order of preference for their use.

clause. In SQL, a distinct part of a statement, such as a SELECT clause or a WHERE clause.

client. See *requester*.

CLIST. Command list. A language for performing TSO tasks.

closed application. An application that requires exclusive use of certain statements on certain DB2 objects, so that the objects are managed solely through the application's external interface.

clustering index. An index that determines how rows are physically ordered in a table space.

coded character set. A set of unambiguous rules that establish a character set and the one-to-one relationships between the characters of the set and their coded representations.

coded character set identifier (CCSID). A 16-bit number that uniquely identifies a coded representation of graphic characters. It designates an encoding scheme identifier and one or more pairs consisting of a character set identifier and an associated code page identifier.

code page. A set of assignments of characters to code points.

code point. In CDRA, a unique bit pattern that represents a character in a code page.

cold start. A process by which DB2 restarts without processing any log records. Contrast with *warm start*.

collection. A group of packages that have the same qualifier.

column. The vertical component of a table. A column has a name and a particular data type (for example, character, decimal, or integer).

column function. An SQL operation that derives its result from a collection of values across one or more rows. Contrast with *scalar function*.

command. A DB2 operator command or a DSN subcommand. Distinct from an SQL statement.

command prefix. A one- to eight-character command identifier. The command prefix distinguishes the command as belonging to an application or subsystem rather than MVS.

command recognition character (CRC). A character that permits an MVS console operator or an IMS subsystem user to route DB2 commands to specific DB2 subsystems.

command scope. The scope of command operation in a data sharing group. If a command has *member scope*, the command displays information from the one member only or affects only non-shared resources owned locally by that member. If a command has *group scope*, the command displays information from all members, affects non-shared resources owned locally by all members, displays information on sharable resources, or affects sharable resources.

commit. The operation that ends a unit of work by releasing locks so that the database changes made by that unit of work can be perceived by other processes.

commit point. A point in time when data is considered consistent.

common service area (CSA). In MVS, a part of the common area that contains data areas addressable by all address spaces.

communications database (CDB). A set of tables in the DB2 catalog that are used to establish conversations with remote database management systems.

comparison operator. A token (such as =, >, <) used to specify a relationship between two values.

compression dictionary. The dictionary that controls the process of compression and decompression. This dictionary is created from the data in the table space or table space partition.

concurrency. The shared use of resources by more than one application process at the same time.

conditional restart. A DB2 restart that is directed by a user-defined conditional restart control record (CRCR).

connection. The existence of a communication path between two partner LUs that allows information to be exchanged (for example, two DB2s connected and communicating by way of a conversation).

connection ID. An identifier supplied by the attachment facility that is associated with a specific address space connection.

consistency token. A timestamp used to generate the version identifier for an application. See also *version*.

constant. A language element that specifies an unchanging value. Constants are classified as string constants or numeric constants. Contrast with *variable*.

constraint. A rule that limits the values that can be inserted, deleted, or updated in a table. See *referential constraint*, *uniqueness constraint*, and *table check constraint*.

control interval (CI). A fixed-length area or direct access storage in which VSAM stores records and creates distributed free space. Also, in a key-sequenced data set or file, the set of records pointed to by an entry in the sequence-set index record. The control interval is the unit of information that VSAM transmits to or from direct access storage. A control interval always includes an integral number of physical records.

control interval definition field (CIDF). In VSAM, a field located in the four bytes at the end of each control interval; it describes the free space, if any, in the control interval.

conversation. (1) A VTAM term for a dialog between two application processes, on different DB2 subsystems, that is specified by a particular *session name*, *mode name*, and *LU name*. (2) An LU 6.2 security option which allows DB2 to require the user's authorization ID and password when allocating a conversation to a partner DB2. The user is validated by the partner DB2.

coordinator. The system component that coordinates the commit or rollback of a unit of work that includes work done on one or more other systems.

correlated subquery. A subquery (part of a WHERE or HAVING clause) applied to a row or group of rows of a table or view named in an outer sub-SELECT statement.

correlation ID. An identifier associated with a specific thread. In TSO, it is either an authorization ID or the job name.

correlation name. An identifier that designates a table, a view, or individual rows of a table or view within a single SQL statement. It can be defined in any FROM clause or in the first clause of an UPDATE or DELETE statement.

coupling facility. A special PR/SM LPAR logical partition that runs the coupling facility control program and provides high-speed caching, list processing, and locking functions in a Sysplex.

CP. See *central processor (CP)*.

CPC. See *central processor complex*.

CRC. Command recognition character.

CRCR. Conditional restart control record.

cross-system coupling facility (XCF). A component of MVS that provides functions to support cooperation between authorized programs running within a Sysplex.

cross-system extended services (XES). A set of MVS services that allow multiple instances of an application or subsystem, running on different systems in a Sysplex, to implement high-performance, high-availability data sharing by using a coupling facility.

CSA. Common service area.

current data. Data within a host structure that is current with (identical to) the data within the base table.

cursor. A named control structure used by an application program to point to a row of interest within some set of rows, and to retrieve rows from the set, possibly making updates or deletions.

cursor stability (CS). The isolation level that provides maximum concurrency without the ability to read uncommitted data. With cursor stability, a unit of work holds locks only on its uncommitted changes and on the current row of each of its cursors.

D

DASD. Direct access storage device.

database. A collection of tables, or a collection of table spaces and index spaces.

database access thread. A thread accessing data at the local subsystem on behalf of a remote subsystem.

database administrator (DBA). An individual responsible for the design, development, operation, safeguarding, maintenance, and use of a database.

database descriptor (DBD). An internal representation of DB2 database definition which reflects the data definition found in the DB2 catalog. The objects defined in a database descriptor are table spaces, tables, indexes, index spaces, and relationships.

database exception status. An indication that something is wrong with a database. The exceptional status of databases must be known and shared by all members of a data sharing group.

database management system (DBMS). A software system that controls the creation, organization, and modification of a database and access to the data stored within it.

database request module (DBRM). A data set member created by the DB2 precompiler that contains information about SQL statements. DBRMs are used in the bind process.

DATABASE 2 Interactive (DB2I). The DB2 facility that provides for the execution of SQL statements, DB2 (operator) commands, programmer commands, and utility invocation.

data currency. The state in which data retrieved into a host variable in your program is a copy of data in the base table.

data definition name (DD name). The name of a data definition (DD) statement that corresponds to a data control block containing the same name.

Data Language/I (DL/I). The IMS data manipulation language; a common high-level interface between a user application and IMS.

data partition. A VSAM data set that is contained within a partitioned table space.

data sharing. The ability of two or more DB2 subsystems to directly access and change a single set of data.

data sharing group. A collection of one or more DB2 subsystems that directly access and change the same data while maintaining data integrity.

data sharing member. A DB2 subsystem assigned by XCF services to a data sharing group.

data type. An attribute of columns, literals, host variables, special registers, and the results of functions and expressions.

date. A three-part value that designates a day, month, and year.

date duration. A decimal integer that represents a number of years, months, and days.

datetime value. A value of the data type DATE, TIME, or TIMESTAMP.

DBA. Database administrator.

DBD. Database descriptor.

DBID. Database identifier.

DBMS. Database management system.

DBRM. Database request module.

DB2 catalog. Tables maintained by DB2 that contain descriptions of DB2 objects such as tables, views, and indexes.

DB2 command. An instruction to the DB2 subsystem allowing a user to start or stop DB2, to display information on current users, to start or stop databases, to

display information on the status of databases, and so on.

DB2I. DATABASE 2 Interactive.

DB2 private protocol access. A method of accessing distributed data by which you can direct a query to another DB2 system by using an alias or a three-part name to identify the DB2 subsystems at which the statements are executed. Contrast with *DRDA access*.

DB2 private protocol connection. A DB2 private connection of the application process. See also *private connection*.

DCLGEN. Declarations generator.

DDF. Distributed data facility.

DD name. Data definition name.

deadlock. Unresolvable contention for the use of a resource such as a table or an index.

declarations generator (DCLGEN). A subcomponent of DB2 that generates SQL table declarations and COBOL, C, or PL/I data structure declarations that conform to the table. The declarations are generated from DB2 system catalog information. DCLGEN is also a DSN subcommand.

default value. A predetermined value, attribute, or option that is assumed when no other is explicitly specified.

degree of parallelism. The number of concurrently executed operations that are initiated to process a query.

DFHSM. Data Facility Hierarchical Storage Manager.

DFP. Data Facility Product (MVS).

direct access storage device (DASD). A device in which access time is independent of the location of the data.

distributed data facility (DDF). A set of DB2 components through which DB2 communicates with another RDBMS.

distributed relational database architecture (DRDA). A connection protocol for distributed relational database processing that is used by IBM's relational database products. DRDA includes protocols for communication between an application and a remote relational database management system, and for communication between relational database management systems.

DL/I. Data Language/I. The IMS data manipulation language; a common high-level interface between a user application and IMS.

drain. To acquire a locked resource by quiescing access to that object.

drain lock. A lock on a claim class which prevents a claim from occurring.

DRDA. Distributed relational database architecture.

DRDA access. A method of accessing distributed data by which you can explicitly connect to another location, using an SQL statement, to execute packages that have been previously bound at that location. The SQL CONNECT statement is used to identify application servers, and SQL statements are executed using packages that were previously bound at those servers. Contrast with *DB2 private protocol access*.

DSN. (1) The default DB2 subsystem name. (2) The name of the TSO command processor of DB2. (3) The first three characters of DB2 module and macro names.

duration. A number that represents an interval of time. See *date duration*, *labeled duration*, and *time duration*.

dynamic dump. A dump that is issued during the execution of a program, usually under the control of that program.

dynamic SQL. SQL statements that are prepared and executed within an application program while the program is executing. In dynamic SQL, the SQL source is contained in host language variables rather than being coded into the application program. The SQL statement can change several times during the application program's execution.

E

EBCDIC. Extended binary coded decimal interchange code. An encoding scheme used to represent character data in the MVS, VM, VSE, and OS/400 environments. Contrast with *ASCII*.

EDM pool. A pool of main storage used for database descriptors and application plans.

EID. Event identifier.

embedded SQL. SQL statements coded within an application program. See *static SQL*.

EOM. End of memory.

EOT. End of task.

error page range. Range of pages considered to be physically damaged. DB2 will not allow a user to access any pages that fall within this range.

equi-join. A join operation in which the join-condition has the form *expression* = *expression*.

escape character. The symbol used to enclose an SQL delimited identifier. The escape character is the quotation mark ("), except in COBOL applications, where the symbol (either a quotation mark or an apostrophe) can be assigned by the user.

ESDS. Entry sequenced data set.

ESMT. External subsystem module table (IMS).

EUR. IBM European Standards.

exception table. A table that holds rows that violate referential constraints or table check constraints found by the CHECK DATA utility.

exclusive lock. A lock that prevents concurrently executing application processes from reading or changing data. Contrast with *shared lock*.

exit routine. A user-written (or IBM-provided default) program that receives control from DB2 to perform specific functions. Exit routines run as extensions of DB2.

explicit hierarchical locking. Locking used to make the parent/child relationship between resources known to IRLM. This is done to avoid global locking overhead when no inter-DB2 interest exists on a resource.

expression. An operand or a collection of operators and operands that yields a single value.

F

failed member state. A state of a member of a data sharing group. A failed member has permanent status recording with XCF, and its task, address space, or MVS system has terminated before the state changed from active to quiesced.

fallback. The process of returning to a previous release of DB2 after attempting or completing migration to a current release.

false global lock contention. A contention indication from the coupling facility when multiple lock names are hashed to the same indicator and when there is no real contention.

field procedure. A user-written exit routine designed to receive a single value and transform (encode or decode) it in any way the user can specify.

forget. In a two-phase commit operation, (1) the vote sent to the prepare phase when the participant has not modified any data. The forget vote allows a participant to release locks and forget about the logical unit of work. This is also referred to as the read-only vote. (2) The response to the *committed* request in the second phase of the operation.

forward log recovery. The third phase of restart processing during which DB2 processes the log in a forward direction to apply all REDO log records.

free space. The total unused space in a page, that is, the space not used to store records or control information.

full outer join. The result of a join operation that includes the matched rows of both tables being joined and preserves the unmatched rows of both tables. See also *join*.

function. A scalar function or column function. Same as *built-in function*.

G

GB. Gigabyte (1,073,741,824 bytes).

GBP-dependent. A page set or page set partition status when it is dependent upon the group bufferpool. There is either inter-DB2 read/write interest active for this page set or the page set has changed pages in the group buffer pool that have not yet been castout to DASD.

generalized trace facility (GTF). An MVS service program that records significant system events such as I/O interrupts, SVC interrupts, program interrupts, or external interrupts.

generic resource name. A name used by VTAM that represents several application programs that provide the same function in order to handle session distribution and balancing in a Sysplex.

getpage. An operation in which DB2 accesses a data page.

global lock. A lock that provides both intra-DB2 concurrency control and inter-DB2 concurrency control, that is, the scope of the lock is across all the DB2s of a data sharing group.

global lock contention. Conflicts on locking requests between different DB2 members of a data sharing group regarding attempts to serialize shared resources.

gross lock. The *shared*, *update*, or *exclusive* mode locks on a table, partition, or table space.

group buffer pool. A coupling facility cache structure used by a data sharing group to cache data and to ensure that the data is consistent for all members.

group buffer pool duplexing. The ability to write data to two instances of a group buffer pool structure; a *primary group buffer pool* and a *secondary group buffer pool*. OS/390 publications refer to these instances as the 'old' (for primary) and 'new' (for secondary) structures.

group name. The MVS XCF identifier for a data sharing group.

group restart. A restart of at least one member of a data sharing group after either locks or the shared communications area have been lost.

GTF. Generalized trace facility.

H

heuristic damage. The inconsistency in data between one or more participants that is implied when a heuristic decision to resolve an indoubt LUW at one or more participants is different from the decision recorded at the coordinator.

heuristic decision. A decision that forces indoubt resolution at a participant by means other than automatic resynchronization between coordinator and participant.

host program. An application program written in a host language that contains embedded SQL statements.

host structure. In an application program, a structure referenced by embedded SQL statements.

host variable. In an application program, an application variable referenced by embedded SQL statements.

HSM. Hierarchical storage manager.

I

ICF. Integrated catalog facility.

IDCAMS. An IBM program used to process access method services (AMS) commands. It can be invoked as a job or jobstep, from a TSO terminal, or from within a user's application program.

IDCAMS LISTCAT. A facility for obtaining information contained in the access method services catalog.

identify. A request that an attachment service program in an address space separate from DB2 issues via the MVS subsystem interface to inform DB2 of its existence and initiate the process of becoming connected to DB2.

IFCID. Instrumentation facility component identifier.

IFI. Instrumentation facility interface.

IFI call. An invocation of the instrumentation facility interface (IFI) by means of one of its defined functions.

image copy. An exact reproduction of all or part of a table space. DB2 provides utility programs to make full image copies (to copy the entire table space) or incremental image copies (to copy only those pages that have been modified since the last image copy).

implied forget. In the presumed-abort protocol, an implied response of *forget* to the second phase *committed* request from the coordinator. The response is implied when the participant responds to any subsequent request from the coordinator.

IMS. Information Management System.

IMS attachment facility. A DB2 subcomponent that uses MVS Subsystem Interface (SSI) protocols and cross-memory linkage to process requests from IMS to DB2 and to coordinate resource commitment.

IMS DB. Information Management System Database.

IMS TM. Information Management System Transaction Manager.

in-abort. A status of a unit of recovery. If DB2 fails after a unit of recovery begins to be rolled back, but before the process is completed, DB2 will continue to back out the changes during restart.

in-commit. A status of a unit of recovery. If DB2 fails after beginning its phase 2 commit processing, it “knows,” when restarted, that changes made to data are consistent. Such units of recovery are termed *in-commit*.

index. A set of pointers that are logically ordered by the values of a key. Indexes can provide faster access to data and can enforce uniqueness on the rows in a table.

index key. The set of columns in a table used to determine the order of index entries.

index partition. A VSAM data set that is contained within a partitioned index space.

index space. A page set used to store the entries of one index.

indicator variable. A variable used to represent the null value in an application program. If the value for the

selected column is null, a negative value is placed in the indicator variable.

indoubt. A status of a unit of recovery. If DB2 fails after it has finished its phase 1 commit processing and before it has started phase 2, only the commit coordinator knows if this unit of recovery is to be committed or rolled back. At emergency restart, if DB2 does not have the information needed to make this decision, its unit of recovery is *indoubt* until DB2 obtains this information from the coordinator.

indoubt resolution. The process of resolving the status of an indoubt logical unit of work to either the committed or the rollback state.

inflight. A status of a unit of recovery. If DB2 fails before its unit of recovery completes phase 1 of the commit process, it merely backs out the updates of its unit of recovery when it is restarted. These units of recovery are termed *inflight*.

inner join. The result of a join operation that includes only the matched rows of both tables being joined. See also *join*.

install. The process of preparing a DB2 subsystem to operate as an MVS subsystem.

instrumentation facility component identifier (IFCID). Names a traceable event and identifies the trace record of that event. As a parameter on the -START TRACE and -MODIFY TRACE commands, it specifies tracing the corresponding event.

Interactive System Productivity Facility (ISPF). An IBM licensed program that provides interactive dialog services.

internal resource lock manager (IRLM). An MVS subsystem used by DB2 to control communication and database locking.

inter-DB2 R/W interest. A property of data in a table space, index, or partition that has been opened by more than one member of a data sharing group and that has been opened for writing by at least one of those members.

IRLM. internal resource lock manager.

ISO. International Standards Organization.

isolation level. The degree to which a unit of work is isolated from the updating operations of other units of work. See also *cursor stability*, *repeatable read*, *uncommitted read*, and *read stability*.

ISPF. Interactive System Productivity Facility.

ISPF/PDF. Interactive System Productivity Facility/Program Development Facility.

J

JCL. Job control language.

JES. MVS Job Entry Subsystem.

JIS. Japanese Industrial Standard.

join. A relational operation that allows retrieval of data from two or more tables based on matching column values. See also *full outer join, inner join, left outer join, outer join, right outer join, equi-join*.

K

KB. Kilobyte (1024 bytes).

key. A column or an ordered collection of columns identified in the description of a table, index, or referential constraint.

KSDS. Key sequenced data set.

L

labeled duration. A number that represents a duration of years, months, days, hours, minutes, seconds, or microseconds.

latch. A DB2 internal mechanism for controlling concurrent events or the use of system resources.

LCID. Log control interval definition.

left outer join. The result of a join operation that includes the matched rows of both tables being joined, and preserves the unmatched rows of the first table. See also *join*.

list structure. A coupling facility structure allowing data to be shared and manipulated as elements of a queue.

L-lock. See *logical lock*.

local. Refers to any object maintained by the local DB2 subsystem. A *local table*, for example, is a table maintained by the local DB2 subsystem. Contrast with *remote*.

local lock. A lock that provides intra-DB2 concurrency control, but does not provide inter-DB2 concurrency control; that is, its scope is a single DB2.

local subsystem. The unique RDBMS to which the user or application program is directly connected (in the case of DB2, by one of the DB2 attachment facilities).

location name. The name by which DB2 refers to a particular DB2 subsystem in a network of subsystems. Contrast with *LU name*.

lock. A means of controlling concurrent events or access to data. DB2 locking is performed by the IRLM.

lock duration. The interval over which a DB2 lock is held.

lock escalation. The promotion of a lock from a row or page lock to a table space lock because the number of page locks concurrently held on a given resource exceeds a preset limit.

locking. The process by which the integrity of data is ensured. Locking prevents concurrent users from accessing inconsistent data.

lock mode. A representation for the type of access concurrently running programs can have to a resource held by a DB2 lock.

lock object. The resource that is controlled by a DB2 lock.

lock parent. For explicit hierarchical locking, a lock held on a resource that has child locks that are lower in the hierarchy; usually the table space or partition intent locks are the parent locks.

lock promotion. The process of changing the size or mode of a DB2 lock to a higher level.

lock size. The amount of data controlled by a DB2 lock on table data; the value can be a row, a page, a table, or a table space.

lock structure. A coupling facility data structure composed of a series of lock entries to support shared and exclusive locking for logical resources.

log. A collection of records that describe the events that occur during DB2 execution and their sequence. The information thus recorded is used for recovery in the event of a failure during DB2 execution.

logical claim. A claim on a logical partition of a nonpartitioned index.

logical drain. A drain on a logical partition of a nonpartitioned index.

logical index partition. The set of all keys that reference the same data partition.

logical lock. The lock type used by transactions to control intra- and inter-DB2 data concurrency between transactions.

logically complete. The concurrent copy process is finished with the initialization of the target objects being copied. The target objects are available for update.

logical page list (LPL). A list of pages in error that cannot be referenced by applications until the pages are recovered. The page is in 'logical error' because there may be nothing wrong with the media (coupling facility or DASD) itself. Usually a connection to the media has been lost.

logical partition. A set of key/RID pairs in a nonpartitioned index that are associated with a particular partition.

logical unit. An access point through which an application program accesses the SNA network in order to communicate with another application program.

logical unit of work (LUW). In IMS, the processing that program performs between synchronization points.

logical unit of work identifier (LUWID). A name that uniquely identifies a thread within a network. This name consists of a fully-qualified LU network name, an LUW instance number, and an LUW sequence number.

log initialization. The first phase of restart processing during which DB2 attempts to locate the current end of the log.

log record sequence number (LRSN). A number DB2 generates and associates with each log record. DB2 also uses the LRSN for page versioning. The LRSNs generated by a given DB2 data sharing group form a strictly increasing sequence for each DB2 log and a strictly increasing sequence for each page across the DB2 group.

log truncation. A process by which an explicit starting RBA is established. This RBA is the point at which the next byte of log data will be written.

LPL. See *logical page list*.

LRH. Log record header.

LRSN. See *log record sequence number*.

LU name. From *logical unit name*, the name by which VTAM refers to a node in a network. Contrast with *location name*.

LUW. Logical unit of work.

LUWID. Logical unit of work identifier.

M

MB. Megabyte (1,048,576 bytes).

member name. The MVS XCF identifier for a particular DB2 subsystem in a data sharing group.

migration. The process of converting a DB2 subsystem with a previous release of DB2 to an updated or current release. In this process, you can acquire the functions of the updated or current release without losing the data you created on the previous release.

modify locks. An L-lock or P-lock that has been specifically requested as having the MODIFY attribute. A list of these active locks are kept at all times in the coupling facilitylock structure. If the requesting DB2 fails, that DB2's modify locks are converted to *retained locks*.

MPP. Message processing program (IMS).

multi-site update. Distributed relational database processing in which data is updated in more than one location within a single unit of work.

must-complete. A state during DB2 processing in which the entire operation must be completed to maintain data integrity.

MVS. Multiple Virtual Storage.

MVS/ESA. Multiple Virtual Storage/Enterprise Systems Architecture.

MVS/XA. Multiple Virtual Storage/Extended Architecture.

N

negotiable lock. A lock whose mode can be downgraded, by agreement among contending users, to be compatible to all. A physical lock is an example of a negotiable lock.

NID (network identifier). The network ID assigned by IMS or CICS, or if the connection type is RRSAF, the OS/390 RRS Unit of Recovery ID (URID).

nonpartitioned index. Any index that is not the partitioned index of a partitioned table space.

NRE. Network recovery element.

NUL. In C, a single character that denotes the end of the string.

null. A special value that indicates the absence of information.

NUL-terminated host variable. A varying-length host variable in which the end of the data is indicated by the presence of a NUL terminator.

NUL terminator. In C, the value that indicates the end of a string. For character strings, the NUL terminator is `X'00'`.

O

OBID. Data object identifier.

outer join. The result of a join operation that includes the matched rows of both tables being joined and preserves some or all of the unmatched rows of the tables being joined. See also *join*.

P

package. Also *application package*. An object containing a set of SQL statements that have been bound statically and that are available for processing.

package list. An ordered list of package names that may be used to extend an application plan.

package name. The name given an object created by a BIND PACKAGE or REBIND PACKAGE command. The object is a bound version of a database request module (DBRM). The name consists of a location name, a collection ID, a package ID, and a version ID.

page. A unit of storage within a table space (4KB or 32KB) or index space (4KB). In a table space, a page contains one or more rows of a table.

page set. A table space or index space consisting of pages that are either 4KB or 32KB in size. Each page set is made from a collection of VSAM data sets.

page set recovery pending (PSRCP). A restrictive state of an index space in which the page set is in a recovery pending state. In this case, the entire page set must be recovered. Recovery of a logical part is prohibited.

page version number. A 6-byte field in a page header that is strictly increasing.

parallel I/O processing. A form of I/O processing in which DB2 initiates multiple concurrent requests for a single user query and performs I/O processing concurrently (in *parallel*), on multiple data partitions.

parallel task. The execution unit that is dynamically created to process a query in parallel. It is implemented by an MVS service request block.

participant. An entity other than the commit coordinator that takes part in the commit process. Synonymous with *agent* in SNA.

partition. A portion of a page set. Each partition corresponds to a single, independently extendable data set. Partitions can be extended to a maximum size of 1, 2, or 4 gigabytes, depending upon the number of partitions in the partitioned page set. All partitions of a given page set have the same maximum size.

partitioned data set (PDS). A data set in direct access storage that is divided into partitions, called members, each of which can contain a program, part of a program, or data. Synonymous with program library.

partitioned page set. A partitioned table space or an index space. Header pages, space map pages, data pages, and index pages reference data only within the scope of the partition.

partitioned table space. A table space subdivided into parts (based upon index key range), each of which may be processed by utilities independently.

PCT. Program control table (CICS).

PDS. Partitioned data set.

piece. A data set of a nonpartitioned page set.

physical claim. A claim on an entire nonpartitioned index.

physical consistency. The state of a page that is not in a partially changed state.

physical drain. A drain on an entire nonpartitioned index.

physical lock contention. Conflicting states of the requesters for a physical lock. See *negotiable lock*.

physical lock (P-lock). A lock type used only by data sharing that is acquired by DB2 to provide consistency of data cached in different DB2 subsystems.

physically complete. The concurrent copy process is completed and the output data set has been created.

plan. See *application plan*.

plan allocation. The process of allocating DB2 resources to a plan in preparation to execute it.

plan name. The name of an application plan.

P-lock. See *physical lock*.

point of consistency. A time when all recoverable data an application accesses is consistent with other data. Synonymous with *sync point* or *commit point*.

policy. See *CFRM policy*.

PPT. (1) Processing program table (CICS). (2) Program properties table (MVS).

precompilation. A processing of application programs containing SQL statements that takes place before compilation. SQL statements are replaced with statements that are recognized by the host language compiler. Output from this precompilation includes source code that can be submitted to the compiler and the database request module (DBRM) that is input to the bind process.

predicate. An element of a search condition that expresses or implies a comparison operation.

prefix. A code at the beginning of a message or record.

preformat. The process of preparing a VSAM ESDS for DB2 use, by writing specific data patterns.

prepare. The first phase of a two-phase commit process in which all participants are requested to prepare for commit.

presumed abort. An optimization of the presumed nothing two-phase commit protocol that reduces the number of recovery log records, the duration of state maintenance, the number of messages between coordinator and participant, and modifies the indoubt resolution responsibility.

presumed nothing. The standard two-phase commit protocol that defines coordinator and participant responsibilities relative to logical unit of work states, recovery logging, and indoubt resolution.

primary authorization ID. The authorization ID used to identify the application process to DB2.

primary group buffer pool. For a duplexed group buffer pool, the structure used to maintain the coherency of cached data; that is, the structure used for page registration and cross-invalidation. The OS/390 equivalent is 'old' structure. Compare with *secondary group buffer pool*.

private connection. A communications connection that is specific to DB2.

privilege. The capability of performing a specific function, sometimes on a specific object. The term includes:

explicit privileges, which have names and are held as the result of SQL GRANT and REVOKE statements. For example, the SELECT privilege.
implicit privileges, which accompany the ownership of an object, such as the privilege to drop a synonym one owns, or the holding of an authority, such as the privilege of SYSADM authority to terminate any utility job.

protected conversation. A VTAM conversation that supports two-phase commit flows.

PSRCP. Page set recovery pending.

Q

QMF. Query Management Facility.

query CP parallelism. Parallel execution of a single query accomplished by using multiple tasks. See also *Sysplex query parallelism*.

query I/O parallelism. Parallel access of data accomplished by triggering multiple I/O requests within a single query.

quiesced member state. A state of a member of a data sharing group. An active member becomes quiesced when a STOP DB2 command takes effect without a failure. If the member's task, address space, or MVS system fails before the command takes effect, the member state is failed.

R

RACF. OS/VS2 MVS Resource Access Control Facility.

RBA. Relative byte address.

RCT. Resource control table (CICS attachment facility).

RDB. See *relational database*.

RDBMS. Relational database management system.

RDBNAM. See *relational database name*.

RDF. Record definition field.

read stability (RS). An isolation level that is similar to repeatable read but does not completely isolate an application process from all other concurrently executing application processes. Under level RS, an application that issues the same query more than once might read additional rows, known as *phantom rows*, that were inserted and committed by a concurrently executing application process.

rebind. To create a new application plan for an application program that has been bound previously. If, for example, you have added an index for a table accessed by your application, you must rebind the application in order to take advantage of that index.

recovery. The process of rebuilding databases after a system failure.

recovery log. A collection of records that describes the events that occur during DB2 execution and their sequence. The information recorded is used for recovery in the event of a failure during DB2 execution.

recovery pending (RECP). This condition prevents SQL access to a table space or index space that may need to be recovered.

recovery token. An identifier for an element used in recovery. For example, *NID* or *URID*.

RECP. Recovery pending.

redo. A state of a unit of recovery which indicates that changes made are to be reapplied to the DASD media to ensure data integrity.

referential constraint. The requirement that nonnull values of a designated foreign key are valid only if they equal values of the primary key of a designated table.

relational database. A database that can be perceived as a set of tables and manipulated in accordance with the relational model of data.

relational database management system (RDBMS). A relational database manager that operates consistently across supported IBM systems.

relational database name (RDBNAM). A unique identifier for an RDBMS within a network. In DB2, this must be the value in the LOCATION column of table SYSIBM.LOCATIONS in the CDB. DB2 publications refer to the name of another RDBMS as a LOCATION value or a location name.

relative byte address (RBA). The offset of a data record or control interval from the beginning of the storage space allocated to the data set or file to which it belongs.

remigration. The process of returning to a current release of DB2 following a fallback to a previous release. This procedure constitutes another migration process.

remote. Refers to any object maintained by a remote DB2 subsystem; that is, by a DB2 subsystem other than the local one. A *remote view*, for instance, is a view maintained by a remote DB2 subsystem. Contrast with *local*.

repeatable read (RR). The isolation level that provides maximum protection from other executing application programs. When an application program executes with repeatable read protection, rows referenced by the program cannot be changed by other programs until the program reaches a commit point.

requester. Also *application requester (AR)*. The source of a request to a remote RDBMS, the system that requests the data.

resource. The object of a lock or claim, which could be a table space, an index space, a data partition, an index partition, or a logical partition.

resource allocation. The part of plan allocation that deals specifically with the database resources.

resource control table (RCT). A construct of the CICS attachment facility, created by site-provided macro parameters, that defines authorization and access attributes for transactions or transaction groups.

resource limit facility (RLF). A portion of DB2 code that prevents dynamic manipulative SQL statements from exceeding specified time limits.

resource limit specification table. A site-defined table that specifies the limits to be enforced by the resource limit facility.

result table. The set of rows specified by a SELECT statement.

retained lock. A MODIFY lock that was held by a DB2 when that DB2 failed. The lock is retained in the coupling facility lock structure across a DB2 failure.

right outer join. The result of a join operation that includes the matched rows of both tables being joined and preserves the unmatched rows of the second join operand. See also *join*.

RLF. Resource limit facility.

RMID. Resource manager identifier.

RO. Read-only access.

rollback. The process of restoring data changed by SQL statements to the state at its last commit point. All locks are freed. Contrast with *commit*.

row. The horizontal component of a table. A row consists of a sequence of values, one for each column of the table.

row lock. A lock on a single row of data.

RTT. Resource translation table.

S

SCA. See *shared communications area*.

scalar function. An SQL operation that produces a single value from another value and is expressed as a function name followed by a list of arguments enclosed in parentheses. See also *column function*.

search condition. A criterion for selecting rows from a table. A search condition consists of one or more predicates.

secondary group buffer pool. For a duplexed group buffer pool, the structure used to back up changed pages that are written to the primary group buffer pool. No page registration or cross-invalidation occurs using the secondary group buffer pool. The OS/390 equivalent is 'new' structure.

section. The segment of a plan or package that contains the executable structures for a single SQL statement. For most SQL statements, there is one section in the plan for each SQL statement in the source program. However, for cursor-related statements, the DECLARE, OPEN, FETCH, and CLOSE reference the same section because they each refer to the SELECT statement named in the DECLARE CURSOR statement. SQL statements such as COMMIT, ROLLBACK, and some SET statements do not use a section.

segmented table space. A table space that is divided into equal-sized groups of pages called segments. Segments are assigned to tables so that rows of different tables are never stored in the same segment.

sequential data set. A non-DB2 data set whose records are organized on the basis of their successive physical positions, such as on magnetic tape. Several of the DB2 database utilities require sequential data sets.

sequential prefetch. A mechanism that triggers consecutive asynchronous I/O operations. Pages are fetched before they are required, and several pages are read with a single I/O operation.

server. Also *application server (AS)*. The target for a request from a remote RDBMS, the RDBMS that provides the data.

service request block. A unit of work that is scheduled to execute in another address space.

shared communications area (SCA). A coupling facility list structure used by a DB2 data sharing group for inter-DB2 communication.

shared lock. A lock that prevents concurrently executing application processes from changing data, but not from reading data.

sign-on. A request made on behalf of an individual CICS or IMS application process by an attach facility to enable DB2 to verify that it is authorized to use DB2 resources.

simple page set. A nonpartitioned page set. A simple page set initially consists of a single data set (page set piece). If and when that data set is extended to 2 gigabytes, another data set is created, and so on up to a total of 32 data sets. The data sets are considered by DB2 to be a single contiguous linear address space containing a maximum of 64 gigabytes. Data is stored in the next available location within this address space without regard to any partitioning scheme.

simple table space. A table space that is neither partitioned nor segmented.

SMF. System management facility.

SMP/E. System Modification Program/Extended.

SNA. Systems Network Architecture.

SNA network. The part of a network that conforms to the formats and protocols of Systems Network Architecture (SNA).

SPUFI. SQL Processor Using File Input. A facility of the TSO attachment subcomponent that enables the DB2I user to execute SQL statements without embedding them in an application program.

SQL. Structured Query Language.

SQL Communication Area (SQLCA). A structure used to provide an application program with information about the execution of its SQL statements.

SQL Descriptor Area (SQLDA). A structure that describes input variables, output variables, or the columns of a result table.

SQL escape character. The symbol used to enclose an SQL delimited identifier. This symbol is the quotation mark ("). See *escape character*.

SQL return code. Either SQLCODE or SQLSTATE.

SQLCA. SQL communication area.

SQLDA. SQL descriptor area.

SQL/DS. SQL/Data System. Also known as *DB2/VSE & VM*.

SRB. See *service request block*.

SSI. MVS subsystem interface.

SSM. Subsystem member.

stand-alone. An attribute of a program that means it is capable of executing separately from DB2, without using DB2 services.

static SQL. SQL statements, embedded within a program, that are prepared during the program preparation process (before the program is executed). After being prepared, the SQL statement does not change (although values of host variables specified by the statement might change).

storage group. A named set of DASD volumes on which DB2 data can be stored.

stored procedure. A user-written application program, that can be invoked through the use of the SQL CALL statement.

structure. A construct used by MVS to map and manage storage on a coupling facility. See *cache structure*, *list structure*, or *lock structure*.

Structured Query Language (SQL). A standardized language for defining and manipulating data in a relational database.

subcomponent. A group of closely related DB2 modules that work together to provide a general function.

subpage. The unit into which a physical index page can be divided.

subquery. A SELECT statement within the WHERE or HAVING clause of another SQL statement; a nested SQL statement.

subselect. That form of a query that does not include ORDER BY clause, UPDATE clause, or UNION operators.

SVC dump. A dump that is issued when an MVS or a DB2 functional recovery routine detects an error.

sync point. See *commit point*.

synonym. In SQL, an alternative name for a table or view. Synonyms can only be used to refer to objects at the subsystem in which the synonym is defined.

Sysplex. A set of MVS systems that communicate and cooperate with each other through certain multisystem hardware components and software services to process customer workloads.

Sysplex query parallelism. Parallel execution of a single query accomplished by using multiple tasks on more than one DB2. See also *query CP parallelism*.

system administrator. The person having the second highest level of authority within DB2. System adminis-

trators make decisions about how DB2 is to be used and implement those decisions by choosing system parameters. They monitor the system and change its characteristics to meet changing requirements and new data processing goals.

system agent. A work request that DB2 creates internally.

system conversation. The conversation that two DB2s must establish to process system messages before any distributed processing can begin.

system diagnostic work area (SDWA). The data that is recorded in a SYS1.LOGREC entry that describes a program or hardware error.

System Modification Program/Extended (SMP/E). A tool for making software changes in programming systems (such as DB2 or MVS), and for controlling those changes.

Systems Network Architecture (SNA). The description of the logical structure, formats, protocols, and operational sequences for transmitting information through and controlling the configuration and operation of networks.

SYS1.DUMPxx data set. A data set that contains a system dump.

SYS1.LOGREC. A service aid that contains important information about program and hardware errors.

T

table. A named data object consisting of a specific number of columns and some number of unordered rows. Synonymous with *base table* or *temporary table*.

table check constraint. A user-defined constraint that specifies the values that specific columns of a base table can contain.

table space. A page set used to store the records in one or more tables.

table space set. A set of table spaces and partitions that should be recovered together because each of them contains a table that is a parent or descendent of a table in one of the others.

task control block (TCB). A control block used to communicate information about tasks within an address space that are connected to DB2. An address space can support many task connections (as many as one per task), but only one address space connection. See *address space connection*.

TCB. MVS task control block.

temporary table. A table created by the SQL CREATE GLOBAL TEMPORARY TABLE statement that is used to hold temporary data. Contrast with *result table* and *temporary table*.

thread. The DB2 structure that describes an application's connection, traces its progress, processes resource functions, and delimits its accessibility to DB2 resources and services. Most DB2 functions execute under a thread structure. See also *allied thread* and *database access thread*.

three-part name. The full name of a table, view, or alias. It consists of a location name, authorization ID, and an object name separated by a period.

time. A three-part value that designates a time of day in hours, minutes, and seconds.

time duration. A decimal integer that represents a number of hours, minutes, and seconds.

time-sharing option (TSO). Provides interactive time sharing from remote terminals.

timestamp. A seven-part value that consists of a date and time expressed in years, months, days, hours, minutes, seconds, and microseconds.

to-do. A state of a unit of recovery that indicates that the unit of recovery's changes to recoverable DB2 resources are indoubt and must either be applied to the DASD media or backed out, as determined by the commit coordinator.

trace. A DB2 facility that provides the ability to monitor and collect DB2 monitoring, auditing, performance, accounting, statistics, and serviceability (global) data.

transaction lock. A lock used to control concurrent execution of SQL statements.

TSO. Time-sharing option.

TSO attachment facility. A DB2 facility consisting of the DSN command processor and DB2I. Applications that are not written for the CICS or IMSenvironments can run under the TSO attachment facility.

type 1 indexes. Indexes that were created by a release of DB2 before DB2 Version 4 or that are specified as type 1 indexes in Version 4. Contrast with *type 2 indexes*.

type 2 indexes. A new type of indexes available in Version 4. They differ from *type 1 indexes* in several respects; for example, they are the only indexes allowed on a table space that uses *row locks*.

U

undo. A state of a unit of recovery that indicates that the changes made by the unit of recovery to recoverable DB2 resources must be backed out.

UNION. An SQL operation that combines the results of two select statements. UNION is often used to merge lists of values obtained from several tables.

unique index. An index which ensures that no identical key values are stored in a table.

uniqueness constraint. The rule that no two values in a primary key or key of a unique index can be the same.

unit of recovery. A recoverable sequence of operations within a single resource manager, such as an instance of DB2. Contrast with *unit of work*.

unit of work. A recoverable sequence of operations within an application process. At any time, an application process is a single unit of work, but the life of an application process can involve many units of work as a result of commit or rollback operations. In a *multi-site update* operation, a single unit of work can include several *units of recovery*.

unlock. To release an object or system resource that was previously locked and return it to general availability within DB2.

URE. Unit of recovery element.

URID (unit of recovery ID). The LOGRBA of the first log record for a unit of recovery. The URID also appears in all subsequent log records for that unit of recovery.

UT. Utility-only access.

V

value. The smallest unit of data manipulated in SQL.

variable. A data element that specifies a value that can be changed. A COBOL elementary data item is an example of a variable. Contrast with *constant*.

version. A member of a set of similar programs, DBRMs, or packages.

A version of a program is the source code produced by precompiling the program. The program version is identified by the program name and a timestamp (consistency token).
A version of a DBRM is the DBRM produced by precompiling a program. The DBRM version is identified by the same program name and timestamp as a corresponding program version.
A version of a package is the result of binding a DBRM within a particular database system. The package version is identified by the same program name and consistency token as the DBRM.

view. An alternative representation of data from one or more tables. A view can include all or some of the columns contained in tables on which it is defined.

Virtual Telecommunications Access Method (VTAM). An IBM licensed program that controls communication and the flow of data in an SNA network.

VSAM. Virtual storage access method.

VTAM. MVS Virtual telecommunication access method.

W

warm start. The normal DB2 restart process which involves reading and processing log records so that data under the control of DB2 is consistent. Contrast with *cold start*.

WTO. Write to operator.

WTOR. Write to operator with reply.

X

XCF. See *cross-system coupling facility*.

XES. See *cross-system extended services*.

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