

CICS for MVS/ESA



CICS-Supplied Transactions

Version 4 Release 1

CICS for MVS/ESA



CICS-Supplied Transactions

Version 4 Release 1

Note!

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

Second edition (April 1997)

This edition applies to Version 4 Release 1 of the IBM licensed program Customer Information Control System/Enterprise Systems Architecture (CICS/ESA), program number 5655-018, and to all subsequent versions, releases, and modifications until otherwise indicated in new editions. Consult the latest edition of the applicable IBM system bibliography for current information on this product.

This is the second edition of the CICS-Supplied Transactions for CICS/ESA 4.1. It is based on the first edition, SC33-1168-00, which is now obsolete. Changes from the first edition are marked by the '+' sign to the left of the changes. The vertical lines in the left-hand margins indicate changes made between the CICS/ESA 3.3 edition and the CICS/ESA 4.1 first edition.

The CICS/ESA 3.3 edition remains applicable and current for users of CICS/ESA 3.3.

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Preface

What this book is about

This book tells you how to start the transactions supplied with CICS. It tells you how to control the CICS system, how to send messages, how to collect statistics, and how to get terminal error information. It is also useful if you are responsible for preparing procedures for people who operate such terminals.

The book also describes how you can use the operating system console as a CICS terminal.

Who should read this book

This book is intended for CICS terminal operators and persons responsible for preparing terminal operating procedures. It is also useful for both system and application programmers.

What you need to know to understand this book

A knowledge of the concepts and terminology introduced in the *CICS/ESA 3.3 Facilities and Planning Guide* is required.

How to use this book

This book is mainly for reference. After a short introduction, the rest of the book is arranged in alphabetic order of the transaction identifier. An index is provided to pinpoint individual transactions and keywords.

| Some CICS transactions are described in greater detail in | other CICS books. These include:

| CDBC—*CICS/ESA CICS-IMS Database Control Guide*
| CDBI—*CICS/ESA CICS-IMS Database Control Guide*
| CEBR—*CICS/ESA Application Programming Guide*
| CECI—*CICS/ESA Application Programming Guide*
| CECS—*CICS/ESA Application Programming Guide*
| CEDA—*CICS/ESA Resource Definition Guide*
| CEDF—*CICS/ESA Application Programming Guide*
| CETR—*CICS/ESA Problem Determination Guide*
| CRTE—*CICS/ESA CICS-RACF Security Guide*
| CSFE—*CICS/ESA Problem Determination Guide*

| In these cases, this book contains a brief description of the | transaction and indicates where further information is to be | found.

Front end programming interface: Information about the Front End Programming Interface feature (FEPI) is not given in this book. See the *CICS/ESA Front End Programming Interface User's Guide* for relevant information.

Notes on terminology

- **VTAM** refers to ACF/VTAM
- **IMS** refers to IMS/ESA
- **TCAM** refers to the DCB interface of ACF/TCAM.

Determining if a publication is current

IBM regularly updates its publications with new and changed information. When first published, both hardcopy and BookManager softcopy versions of a publication are in step, but subsequent updates will probably be available in softcopy before they are available in hardcopy.

For CICS books, these softcopy updates appear regularly on the *Transaction Processing and Data Collection Kit* CD-ROM, SK2T-0730-xx. Each reissue of the collection kit is indicated by an updated order number suffix (the -xx part). For example, collection kit SK2T-0730-06 is more up-to-date than SK2T-0730-05. The collection kit is also clearly dated on the cover.

Here's how to determine if you are looking at the most current copy of a publication:

- A publication with a higher suffix number is more recent than one with a lower suffix number. For example, the publication with order number SC33-0667-02 is more recent than the publication with order number SC33-0667-01. (Note that suffix numbers are updated as a product moves from release to release, as well as for hardcopy updates within a given release.)
- When the softcopy version of a publication is updated for a new collection kit the order number it shares with the hardcopy version does not change. Also, the date in the edition notice remains that of the original publication. To compare softcopy with hardcopy, and softcopy with softcopy (on two editions of the collection kit, for example), check the last two characters of the publication's filename. The higher the number, the more recent the publication. For example, DFHPF104 is more recent than DFHPF103. Next to the publication titles in the CD-ROM booklet and the readme files, asterisks indicate publications that are new or changed.
- Updates to the softcopy are clearly marked by revision codes (usually a “#” character) to the left of the changes.

Bibliography

CICS/ESA 4.1 library

Evaluation and planning		
<i>Release Guide</i>	GC33-1161	April 1997
<i>Migration Guide</i>	GC33-1162	April 1997
General		
<i>CICS Family: Library Guide</i>	GC33-1226	April 1995
<i>Master Index</i>	SC33-1187	October 1994
<i>User's Handbook</i>	SX33-1188	April 1997
<i>Glossary (softcopy only)</i>	GC33-1189	n/a
Administration		
<i>Installation Guide</i>	GC33-1163	April 1997
<i>System Definition Guide</i>	SC33-1164	April 1997
<i>Customization Guide</i>	SC33-1165	April 1997
<i>Resource Definition Guide</i>	SC33-1166	April 1997
<i>Operations and Utilities Guide</i>	SC33-1167	April 1997
<i>CICS-Supplied Transactions</i>	SC33-1168	April 1997
Programming		
<i>Application Programming Guide</i>	SC33-1169	October 1994
<i>Application Programming Reference</i>	SC33-1170	April 1997
<i>System Programming Reference</i>	SC33-1171	April 1997
<i>Sample Applications Guide</i>	SC33-1173	October 1994
<i>Distributed Transaction Programming Guide</i>	SC33-1174	October 1994
<i>Front End Programming Interface User's Guide</i>	SC33-1175	October 1994
Diagnosis		
<i>Problem Determination Guide</i>	SC33-1176	October 1994
<i>Messages and Codes</i>	GC33-1177	April 1997
<i>Diagnosis Handbook</i>	LX33-6093	October 1994
<i>Diagnosis Reference</i>	LY33-6082	April 1997
<i>Data Areas</i>	LY33-6083	April 1997
<i>Supplementary Data Areas</i>	LY33-6081	October 1994
<i>Closely-Connected Program Interface</i>	LY33-6084	November 1996
Communication		
<i>Intercommunication Guide</i>	SC33-1181	April 1997
<i>Server Support for CICS Clients</i>	SC33-1591	February 1996
<i>CICS Family: Inter-product Communication</i>	SC33-0824	October 1996
<i>CICS Family: Communicating from CICS on System/390</i>	SC33-1697	October 1996
Special topics		
<i>Recovery and Restart Guide</i>	SC33-1182	October 1994
<i>Performance Guide</i>	SC33-1183	October 1994
<i>CICS-IMS Database Control Guide</i>	SC33-1184	October 1994
<i>CICS-RACF Security Guide</i>	SC33-1185	October 1994
<i>Shared Data Tables Guide</i>	SC33-1186	October 1994
<i>External CICS Interface</i>	SC33-1390	April 1997
<i>CICS ONC RPC Feature for MVS/ESA Guide</i>	SC33-1119	February 1996
<i>CICS Web Interface Guide</i>	SC33-1892	November 1996

The book that you are reading was republished in hardcopy format in April 1997 to incorporate updated information previously available only in softcopy. The right-hand column in the above table indicates the latest hardcopy editions of the CICS/ESA books available in April 1997. A book with a date earlier than April 1997 remains the current edition for CICS/ESA 4.1. Note that it is possible that other books in the library will be updated after April 1997.

When a new order is placed for the CICS/ESA 4.1 product, the books shipped with that order will be the latest hardcopy editions.

The style of IBM covers changes periodically. Books in this library have more than one style of cover.

For information about the softcopy books, see “Determining if a publication is current” on page ix. The softcopy books are regularly updated to include the latest information.

Other CICS books

- *CICS Application Migration Aid Guide*, SC33-0768
- *CICS Application Programming Primer (VS COBOL II)*, SC33-0674
- *CICS/ESA Facilities and Planning Guide for CICS/ESA Version 3 Release 3*, SC33-0654
- *CICS/ESA XRF Guide for CICS/ESA Version 3 Release 3*, SC33-0661
- *CICS Family: API Structure*, SC33-1007
- *CICS Family: General Information*, GC33-0155
- *IBM CICS Transaction Affinities Utility MVS/ESA*, SC33-1159

CICS Clients

- *CICS Clients: Administration*, SC33-1436
- *CICS Family: Client/Server Programming*, SC33-1435

Books from related libraries

The reader of this book may also want to refer to the following IBM publications:

- *MVS/ESA Operations: System Commands*, GC28-1826
- *Resource Access Control Facility (RACF): Security Administrator's Guide*, SC28-1340
- *IMS Utilities Reference manual*, SC26-4284
- *IMS Messages and Codes manual*, SC26-4290
- *IMS System Administration Guide*, SC26-4278
- *IMS Operations Guide*, SC26-4287
- *An Introduction to the IBM 3270 Information Display System*, GA27-2739
- *Systems Network Architecture—LU6.2 Reference: Peer Protocols*, SC31-6808
- *MVS/DFP 3.2 System Programming Reference*, SC26-4567
- *MVS ESA Planning: Problem Determination and Recovery*, GC28-1629

#

Summary of changes

+ Changes for this second edition of the CICS/ESA 4.1 book.

+ This book is the second edition of the *CICS/ESA CICS-Supplied Transactions Manual* for CICS/ESA 4.1.

+ Changes that were made for the first edition are still indicated by vertical bars to the left of the changes. Changes made for this second edition are indicated by the '+' symbol to the left of the changes. Users of the first edition can therefore see what has changed since that first edition was published. Softcopy versions of this book use both these revision indicators and use the '#' symbol to show further changes since this second hardcopy edition of the book was published.

+ For this edition several changes resulting from APARs and Readers Comments have been made.

| Changes for the first edition of the CICS/ESA 4.1 book.

| This edition is based on the CICS/ESA 3.3 *CICS-Supplied Transactions* manual (SC33-0669-02).

| Changes for this edition of the manual are marked by vertical bars to the left of the text.

| For CICS/ESA 4.1, the following changes have been made:

- | • CEMT INQUIRE CONNECTION has been enhanced to display more information.
- | • CEMT INQUIRE|SET DSAS has been added.
- | • CEMT INQUIRE|PERFORM|SET DELETSHIPED has been added.
- | • RELATED and LOCAL options have been added to the CEMT INQUIRE SYDUMPCODE and TRDUMPCODE commands and to the CEMT SET SYDUMPCODE and TRDUMPCODE commands.
- | • CEMT, CEDA, and CETR now show the SYSID alongside the APPLID.

- | • CEDA now shows the resource type and resource name in all the View, Alter, and Define panels.
- | • In CEMT INQ|SET SYSTEM, the CSCS, ECSCS, ERSCS, EUSCS, and USCS operands have been removed, and the DSALIMIT, EDSALIMIT, ESDASIZE, RDSASIZE, SDSASIZE, and TRANISOLATE operands have been added. In addition, the definitions have been changed for the CDSASIZE, ECDSASIZE, ERDSASIZE, and EUDSASIZE operands. The DTRTRANSID, PROGAUTOCTLG, PROGAUTOEXIT, and PROGAUTOINST operands have also been added. FEPI and PROGAUTO options are added to the CEMT PERFORM STATISTICS command.

| In addition, many editorial changes have been made to clarify the information in this manual.

Changes for the CICS/ESA 3.3 edition

The CICS/ESA 3.3 edition was based on the 3.2.1 edition of the *CICS-Supplied Transactions* manual.

The CEMT master terminal transaction was extended for this release. The following were the CEMT commands and their new options:

- CEMT INQUIRE FILE had MAXNUMRECS, CICSTABLE|NOTTABLE|USERTABLE
- CEMT SET FILE had MAXNUMRECS, CICSTABLE|NOTTABLE|USERTABLE
- CEMT INQUIRE PROGRAM had ANY|BELOW, CEXECKEY|UEXECKEY, DPLSUBSET|FULLAPI, REMOTESYSTEM
- CEMT SET PROGRAM had DPLSUBSET|FULLAPI
- CEMT INQUIRE SYSTEM had CDSASIZE, CSCS, DTRPROGRAM, ECDSASIZE, ECSCS, ERDSASIZE, ERSCS, EUDSASIZE, EUSCS, STOREPROTECT, UDSASIZE, USCS
- CEMT SET SYSTEM had CSCS, ECSCS, ERSCS, EUSCS, USCS
- CEMT INQUIRE TRANSACTION had ANY|BELOW, CDATEKEY|UDATAKEY

Transactions supplied by CICS

CICS provides operations, usually initiated from terminals, called *transactions*, each of which involves the use of CICS tables, programs, and internal services. This book deals with those transactions that are supplied by CICS and which, in addition, have an operator interface.

CICS transactions have identification codes that start with "C" and are 4 characters long; for example, CEMT.

The following table shows the transactions that are described in this book. For a more complete list of CICS transactions, including those that do not have an operator interface, see the Appendix, "List of CICS transactions" on page 219.

Function	Name	Page
Command-level interpreter	CECI, CECS	37
Database control inquiry	CDBI	19
Database control interface	CDBM	21
Database control menu	CDBC	17
Database recovery control	CBRC	13
Execution diagnostic facility	CEDF	47
Master terminal	CEMT	49
Master terminal (alternate CICS)	CEBT	25
Messages and codes display	CMAC	187
Message switching	CMSG	189
Page retrieval	CSPG	211
Remote transactions	CRTE	205
Resource definition online (RDO)	CEDA, CEDB, CEDC	39
Sign off	CESF	159
Sign on	CESN	161
Supervisory terminal	CEST	165
Temporary-storage browse	CEBR	23
Terminal status	CEOT	157
Trace control	CETR	181
Terminal and system test	CSFE	207
Write to console operator	CWTO	217

In general, you start a CICS transaction by entering its transaction identifier (for example, CEMT). The transaction identifier is used by CICS to identify the programs that handle the specified transactions, and to establish a task to process them.

If you use an IBM 3270 system display or similar display device that has the appropriate features installed, you can also start a transaction by a program function (PF) key or program attention (PA) key, by an operator identification card reader, by a magnetic slot reader, or by a light pen. For other types of terminals or subsystems, see the appropriate CICS/OS/VS subsystem guide.

Upgrading CICS transactions

You may wish to apply a CICS-supplied upgrade, but are using modified versions of one or more CICS-supplied transactions or of the CICS-supplied calling programs that handle CICS-supplied transactions. After you have first copied them to differently named groups, you must replace these private versions from the upgraded CICS-supplied version and modify them afresh to ensure that the necessary upgrade changes are carried out. Failure to do this can lead to unpredictable results.

How to start or stop a transaction

You start a CICS transaction by pressing the CLEAR key to clear the screen, and entering the transaction identifier, either by itself or followed by data, on the command line of the screen. The command line is a single line, usually at the top of the screen.

You can type the transaction identifier by itself and follow the prompts until a complete transaction command is built up, or you can type the complete transaction command on the command line. If you do not enter enough information, or if the information you enter is wrong, you are prompted to complete or correct your input.

For example, in the following transaction, CEMT is the transaction identifier and the additional data is INQUIRE PROGRAM(PROG1).

```
CEMT INQUIRE PROGRAM(PROG1)
```

When the transaction starts, it processes the additional data. At the completion of this transaction, you get the following message:

```
STATUS: SESSION ENDED
```

After a transaction has completed, press the CLEAR key to clear the screen in readiness for the next transaction. You can cancel any request by typing CANCEL on the command line.

CICS syntax notation and conventions used in this book

In the CICS books, CICS commands are presented in a standard way.

Each command has a syntax box to show you what options there are.

You interpret the syntax diagram by following the arrows from left to right. The conventions are:

Symbol	Action
	A set of alternatives—one of which you must code.
	A set of alternatives—one of which you may code more than one of them, in any sequence.
	A set of alternatives—one of which you may code.
	A set of alternatives — any number (including none) of which you may code once, in any sequence.
	Alternatives where A is the default.
	Use with the named section in place of its name.
Punctuation and uppercase characters	Code exactly as shown.
Lowercase characters	Code your own text, as appropriate (for example, name).

Minimum abbreviation of keywords: In general, the CICS transactions accept as few characters of a keyword as needed to identify it within the request. For example, in a CEMT INQUIRE TASK command, you could use TASK, TAS, or TA to uniquely identify TASK. T alone, however, could be confused with TCLASS, TERMINAL, TRACE, or TRANSACTION.

In the syntax displays on your screen (unless your terminal is uppercase only), and in most cases in this book, the minimum permitted abbreviation is given in uppercase characters, the remainder in lowercase.

Uppercase input to transactions: In general, most CICS-supplied transactions accept only uppercase input. If UCTRAN=YES has been specified in the terminal definition, all lowercase characters, even those enclosed within single quotation marks, are translated to uppercase.

If you have to specify UCTRAN=NO for your terminal, you have to ensure that the group specified for your terminal refers to a profile that will carry out uppercase translation.

CICS provides a PROFILE definition, DFHCICSP, in the DFHSTAND group in the CICS system definition (CSD) file. This profile is identical to DFHCICST except that it specifies UCTRAN(YES) instead of UCTRAN(NO).

The new profile is used by the CICS-supplied page retrieval transaction, CSPG. The new profile, together with changes in the task-attach routine and the page retrieval program, enables CICS to perform uppercase translation at the transaction level for BMS paging.

This allows users of terminals that are defined with uppercase translation switched off to use the page retrieval function without having to enter paging commands in upper case. Assigning a new profile for CSPG means that all data entered on the retrieval command (defined by the PGRET system initialization parameter) and the purge command (defined by the PGPURGE system initialization parameter) is translated to uppercase.

If a user's terminal is defined with UCTRAN(YES), the new profile has no effect because all terminal input is translated to uppercase anyway.

Terminal operators

A CICS system makes provision for the following classes of operators:

- A *terminal operator* who can use a terminal to perform routine transactions that cause application programs to be processed. You can use a small selection of CICS transactions. For example, you can inquire about, or change, the status of your own terminal.
- A *supervisory terminal operator* who can perform all the duties of a terminal operator, in addition to supervising other operators within a functional group. Your operator security code gives you access to the supervisory terminal transaction, CEST, with which you can monitor and control some of the system resources used by your group.
- A *master terminal operator* who can monitor and control resources in a CICS system. Your operator security code gives you access to the master terminal transaction, CEMT, with which you monitor and control the system resources. Internal security checking may limit the range of resources under your control.

\$ (the dollar symbol) In the character sets given in this # book, the dollar symbol (\$) is used as a national currency # symbol and is assumed to be assigned the EBCDIC code # point X'5B'. In some countries a different currency symbol, # for example the pound symbol (£), or the yen symbol (¥), is # assigned the same EBCDIC code point. In these countries, # the appropriate currency symbol should be used instead of # the dollar symbol.

Operator security

The transactions you can initiate are defined by your profile in the external security manager (ESM) database, which is normally provided when you sign on using the CESN transaction.

Generally, the master terminal operator has access to all CICS-supplied transactions, the supervisory terminal operator has access to a subset, and the terminal operator has access to very few transactions.

The system programmer is responsible for allocating operator security codes to restrict the use of particular transactions. For more information, see the relevant system administration guide for the ESM you are using. For example, if you are using RACF, see the *Resource Access Control Facility (RACF): Security Administrator's Guide*.

Terminal operator

To operate the system, you normally first sign on to the system and, as a minimum, enter your user ID and your password.

During signon, the information you enter is used by CICS to establish priorities and your ESM profile for the transactions that you may want to use later. When you have signed on, you have access to those transactions defined in your ESM profile.

After you have signed on, you can enter only specific transaction identifiers. Be aware of error messages that might be generated by the transactions you start, and the corrective action that you must take. In addition to error messages, be aware of other messages that CICS might transmit to your terminal.

You need to know the terminal identifiers of other terminals with which you want to communicate.

Supervisory terminal operator

A supervisory terminal operator is the supervisor of any part of the system for which group control is desired. You are responsible for supervising, and keeping operational, groups of terminals defined in one or more terminal list tables (TLTs). You do this using the supervisory terminal transaction, CEST.

Your responsibilities can be thought of as a subset of those of the master terminal operator, and you should be aware of those functions that are not available to the terminals under your supervision. You also should be aware of, and understand, the procedure for changing the status of each terminal.

You should know the identifiers of all terminals and operators under your supervision. The terminal identifiers are defined in one or more CICS terminal list tables (TLTs). Individual TLTs can be identified by a 1-or 2-character suffix you enter as the SUPRID and CLASS(value) keywords of the CEST transaction.

When you use the CEST command for *all* terminals defined in a TLT, you have to specify the SUPRID keyword followed by the 2-character identifier of that TLT.

A subset of those terminals can be grouped together as a *class*, and can be defined as such in a different TLT. (For information about defining the TLT itself, see the *CICS/ESA Resource Definition Guide*.) You can specify that class by means of the CLASS(value) keyword of the CEST SET TERMINAL command, where 'value' is the suffix that identifies the TLT in which the class of terminals has been defined.

Alternatively, you can name one or more terminals in the CEST SET TERMINAL(value) command itself.

If you frequently want to restrict a CEST command to a subset of your terminals, and have defined another TLT identifying that subset, you then have to use the CEST SET TERMINAL SUPRID(value) keyword to refer to the "main" TLT, followed by the CLASS(value) keyword to refer to the specific TLT containing the subset.

So, for example, if you have defined terminals S202, S203, S204, and S205 in DFHTLTAB and you want to issue a CEST command that sets *all* those terminals out of service, you issue the following command:

```
CEST SET TERMINAL SUPRID(AB) OUTSERVICE
```

If, on the other hand, you want to restrict your command(s) to terminals S202 and S204, for example, you could define these two terminals in another TLT—DFHTLTCD, say—and issue the following command:

```
CEST SET TERMINAL SUPRID(AB) CLASS(CD) OUTSERVICE
```

Alternatively, of course, you could issue the following command:

```
CEST SET TERMINAL(S202,S204) SUPRID(AB) OUTSERVICE
```

Unless otherwise stated, the information in this book about the supervisory terminal and the CEST transaction applies only to a single CICS system, regardless of whether it is connected to another CICS system through ISC or MRO.

Master terminal operator

The master terminal operator controls system components using the master terminal transaction, CEMT. With this transaction, the master terminal operator can dynamically change the system control parameters.

Although the transaction can be started at any valid IBM 3270 family display device or equivalent terminal, or from the operating system console, its use is intended to be limited to a person known as the *master terminal operator*. Starting a transaction from the operating system console is described in “The system console as a CICS terminal” on page 7.

The control permitted through CEMT allows you, the master terminal operator, to improve performance by changing the system control parameters in the day-to-day operation of the system. In addition to system control, you have prime responsibility for administering the terminal facilities of the system.

By using the routing transaction (CRTE), you can also be a master terminal operator for multiple connected CICS systems.

As the master terminal operator, you can access all terminal and supervisory terminal transactions. In addition, however, you must be familiar with all the procedures associated exclusively with the master terminal. You must be aware of which terminals and operators can access CICS at any given time, and of the identifiers by which they are known to CICS.

For example, when inquiring about terminals, you can specify a class of terminals or a list of terminals. A class of terminals is specified by the CLASS(value) keyword, where ‘value’ is the 1-or 2-character suffix of the related terminal list table (DFHLLTxx). A list of terminals is specified by a series of terminal identifiers following the CEMT SET TERMINAL(t1,t2,...) command, where t1, t2, are terminal identifiers. See “List of resource identifiers” on page 51 for more information.

For MRO and LUTYPE6.1 connections, you must know the identifier of each parallel session, and specify this identifier when operating on the session.

For LUTYPE6.2 (APPC) connections, you must know the modename of each set of parallel sessions, and specify this modename when operating on the modegroup.

Your use of the master terminal transaction is restricted by entries in the signon table and in the installed transaction definitions. These entries are the responsibility of the system programmer.

During long periods of continuous operation, you can, at intervals, read out and reset the statistics counters. The volume of activity in your system determines how often you should do this.

When the system has satisfactorily completed its response to a command, the time and date are printed or displayed at your terminal, as follows:

```
TIME=hh.mm.ss DATE=mm.dd.yy
```

where time is in hours, minutes, and seconds, and date is in months, days, and years, or in the form specified by the DATFORM system initialization parameter. For brevity this final message has been deleted from all examples in the remainder of the book.

Unless otherwise stated, the information about the master terminal and its transactions given in this book applies only to a single CICS system, regardless of whether it is connected to another CICS system through ISC or MRO.

MRO and ISC support

Multiregion operation (MRO) and intersystem communication (ISC) allow the sharing of resources between more than one CICS region. Thus a user at a terminal assigned to one CICS region can run transactions in connected regions, and can access resources—files, for example—in other regions.

It is also possible for a transaction running in one region to communicate with a transaction running in another region, thus sharing the processing workload.

Except for experiencing longer response times, you should not be aware that MRO or ISC processes are being used.

BMS partitions

When you use display devices that support BMS partitions, make sure that you understand:

- How to use the SCROLL, PARTITION JUMP, CLEAR, and CLEAR PARTITION keys
- The concept of the active partition
- The meanings of the partition-related indicator symbols that can appear on a display screen.

For information about BMS partitions, see the *CICS/ESA Application Programming Guide*.

CLEAR key: The CLEAR key clears all partitions from the display, and sets the terminal to ‘base’ state. The next BMS output request recreates the partitions (but does not restore their contents), using the application partition set.

The CLEAR and CLEAR PARTITION keys cannot be used interchangeably when an existing CICS transaction is run in a single explicit partition.

Partitions and the execution diagnostic facility:

The execution diagnostic facility (EDF), invoked by CEDF, is not available in single-screen mode on a terminal in partitioned state. EDF must be used in dual-screen mode for debugging application programs that use partitions.

Partitions and the command interpreter: The CICS command interpreter, invoked by CECI or CECS, cannot be used to process commands that refer to partitions. This is because the command interpreter display cannot be restored after the screen has been partitioned.

PA1 print key: The PA1 print key is not supported from a terminal in partitioned state.

Routing and multiple partitions: Routed messages can be directed to a terminal, including the transaction terminal, which supports partitions. However, such messages reset the terminal to 'base' state.

Terminal paging: When a BMS logical message is saved in CICS temporary storage, CICS also saves the application partition set. This partition set is loaded onto the target terminal before any pages are delivered. CICS builds a separate page for each partition, and overflow occurs on a partition basis.

Page retrieval: Terminal-operator page-retrieval commands operate on a partition basis. When a page-retrieval or page-copy command is entered in a partition, it implicitly refers to pages in that partition. If single-keystroke retrieval is used, the retrieval command applies to the partition containing the cursor when the PF key is pressed. The first page for a partition is displayed initially in the viewport.

Message chaining: CICS retains a current partition for each level of page chaining. This is initially the default partition for that partition set. Page-retrieval commands entered on a cleared screen, or page-retrieval commands for a chaining level other than the one being displayed, refer to the current partition for the target chaining level. The current partition is reset to the partition in which the last terminal-operator command was entered.

CICS retains the current page for each partition in the partition set. This is initially the first page. The current page is redisplayed in each partition in the following circumstances:

- For the initial display when the BMS paging program is first invoked
- Following erasure of the terminal partition set caused by pressing the CLEAR key
- Following page retrieval for a different page-chaining level
- Following page purge for a different page-chaining level.

Copying pages: BMS page copy operates on a partition basis (not a screen or partition set basis). BMS page copy copies a page from a partition to any terminal in 'base' state. You cannot copy a page from a partition to another partition on the same or another terminal.

Message termination: When you terminate a message, the entire logical message (that is, all pages in all partitions) is purged, irrespective of the partition in which you entered the purge command.

The response to a page query request is displayed on a cleared, unpartitioned screen.

Error messages: Most error messages relating to invalid paging commands are displayed with an erase or write in the partition in which you entered the command. Other error messages unrelated to any particular partition (such as those relating to invalid message identifiers) are displayed on a cleared unpartitioned screen.

The system console as a CICS terminal

Console support makes it possible for a terminal to be both an operating system console and a CICS master terminal.

If multiple console support (MCS) is in use, you can define each console to CICS as a separate terminal, and all consoles can communicate with CICS simultaneously.

You can use any operating system console as a CICS terminal if it has been specified as such on the CONSOLE keyword of the CEDD DEFINE TERMINAL command. If this has not been done, you get the following message when you try to use the console:

```
DFHAC2015 This console has not been defined to CICS.  
and your input is ignored.
```

All consoles that have been defined as CICS terminals can use automatic transaction initiation (ATI), and can receive messages from other terminals and consoles, as well as from CICS transactions.

In a system that has consoles and VTAM terminals, a console can remain active when CICS and VTAM are disconnected from each other. You can use the console to make or break the CICS-VTAM connection without CICS being terminated.

Use the MODIFY and REPLY commands to start the CICS-supplied transactions from an operating system console.

In addition to the MODIFY and REPLY commands, the system programmer should consider use of the CONTROL, DISPLAY, START, and VARY commands when preparing console operator procedures. For information on these commands and other system details, see the *MVS/ESA Operations: System Commands* manual.

Rules for console entry: Commands typed at a console are translated to uppercase, except for characters enclosed within single quotation marks (' '), which remain unchanged. The occurrence of a literal single quotation mark must be indicated by a pair of single quotation marks (''), for example:

```
'Please phone Mr O''Neill'.
```

If UCTRAN=YES has been specified in the terminal definition, all lowercase characters, even those enclosed within single quotation marks, are translated to uppercase.

MODIFY command: You start a CICS transaction from a console by using the MODIFY command, as follows:

```
MODIFY ident,datastring
```

You can abbreviate the MODIFY command to F.

ident can be any of the following:

- The name of the job used to start CICS, when it is started by a job stream.
- The name of the procedure used to start CICS, when it is started by an MVS START command, for example:
START procedure_name
where "procedure_name" is the ident value.
- The task identifier that was used to qualify the procedure name, for example:
START procedure_name.taskid
where "taskid" is the ident value. This is likely to be used where the same procedure is started more than once.

datastring is a string of data, starting with a CICS transaction identifier.

For example, to start transaction CEBT on the CICS system from the console, type:

```
MODIFY CICS,CEBT PERFORM TAKEOVER
```

You can type more than one MODIFY command at a console; each is processed in order of entry.

A CICS transaction can issue terminal control READ, WRITE, or CONVERSE commands to communicate with a console operator. WRITE and CONVERSE transmit application program messages, but READ simply produces a prompt, incorporating message 'DFH4200A', as follows:

```
@nn DFH4200A jjjjjjjj tttt
```

where:

- nn** is the number (generated by the operating system) that you must use in your reply to the prompt. Messages from a transaction that uses CONVERSE commands also contain this number.
- jjjjjjj** is the jobname of CICS in the operating system.
- tttt** is the transaction identifier of the CICS transaction that has issued the READ command.

REPLY command: You (the console operator) must respond to each prompt by using the REPLY command, which you can type at either the prompted console or the master console:

```
R[EPLY] nn,datastring
```

where nn is the number of the prompt to which you are replying, and datastring is your reply.

If a transaction is purged while it is awaiting a reply from the operator, the reply is canceled.

You should note that messages to the console can become interspersed with messages from the operating system and from other regions, making them difficult to read. In extreme cases, parts of lengthy messages can 'scroll off' the console screen before they have been read.

Example of a conversation using CONVERSE

modify job002,serv **1**

@17 FAULT TYPE? **2**

r 17,elec **3**

MESSAGE HAS BEEN SENT

1 MODIFY command specifying that transaction "serv" is to be started; this transaction sends messages to service groups supporting the installation.

2 The transaction response produced by a CONVERSE command and relayed by the operating system.

3 Your reply that the fault is an electrical one.

Example of a conversation using WRITE/READ

modify job002,usid **1**

USER SIGNON ID=? **2**

@25 DFH4200A JOB002 USID **3**

r 25,accts1 **4**

USER'S NAME: J. SMITH **5**

USER'S TEL. NO.: 88999 **6**

1 MODIFY command specifying that transaction "usid" is to be started. This transaction provides information about the user identified by "usid".

2 Application-program message produced by a WRITE command.

3 System message produced by a READ command.

4 Your reply.

5 Transaction message, produced by a WRITE command, giving the requested information. No reply is needed.

6 Another transaction message, produced by a WRITE command, giving more requested information. Again, no reply is needed.

Time sharing option (TSO) consoles

A TSO session can be used to input CICS commands. This has several advantages:

- It removes the MVS limitation of 99 consoles.
- It supports additional device types, such as the IBM 3290.
- It supports remote operation.

The console ID is 4 bytes, only one of which is used for locally connected consoles. TSO and JES3 consoles use all 4 bytes. In addition, each console in a sysplex has an 8-byte name.

Part 2. Transactions

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CBRC—database recovery control

Use CBRC to issue commands to the IMS database recovery control component, DBRC. CBRC is applicable only to CICS systems that use IMS DBRC to provide recovery control for DL/I databases. Note that CBRC applies only to DL/I databases not controlled by DBCTL.

For guidance on using IMS DBRC with databases controlled by DBCTL, see the *CICS/ESA CICS-IMS Database Control Guide*.

You can start CBRC from 3270 (and 3270-like) terminals, from sequential devices, and from the operating system console.

There are two ways of commencing this transaction:

- Type the identifier, CBRC, on the command line of your display, and press the ENTER key. You get a display that lists the following CBRC keywords:

```

Change
Delete
Genjcl
Init
List
Notify

SPECIFY ONE OF THE ABOVE                                APPLID=IYAHZCCV
PF: 1 HELP      3 END

```

Figure 1. CBRC transaction: keywords

The format of each of the keywords, and any modifiers that you can use with them, is given in the *CICS/ESA CICS-IMS Database Control Guide* and the *IMS/ESA Operator's Reference* manual.

- Type the identifier, CBRC, on the command line of your display, followed by keywords and modifiers on the same line, separated by commas or blanks, to form a complete request.

You do not have to worry about the line length restriction that normally applies to DBRC commands. You can type the commands as a single string, and the cursor

moves automatically to the next line if you reach the end of a line.

Any string of modifiers following a DBRC keyword should be enclosed within single quotation marks (' '), although the closing single quotation mark is not strictly required.

Note: The string of modifiers following a DBRC keyword should not contain additional single quotation marks. For example, the representation of a hexadecimal constant 'ADDEQE(X'3E8')' should be replaced by the decimal equivalent 'ADDEQE(1000)'.

The command is formatted by the CBRC transaction before it is passed to the IMS DBRC component.

You end the CBRC transaction by pressing PF3.

Examples of the CBRC transaction

In the displays that follow, the contents of each can vary according to which release of IMS is installed.

Example of CBRC LIST 'SUBSYS command: The following display shows the result of entering CBRC followed by the List keyword and the 'SUBSYS' modifier.

The display shows the RECON data set subsystem record for the local CICS system.

```

LIST 'SUBSYS
LIST.SUBSYS
-----
SSYS
SSID=CICSA3  IRLMID=JRLM2  LOG START=91.047  13:31:21.3
SSTYPE=ONLINE  ABNORMAL TERM-OFF  RECOVERY STARTED=NO
AUTHORIZED DATA BASES/AREAS:4
-DBD-        -AREA-
BE2PCUST
BE3ORDX
BE3ORDER
BE3PSID1
DSP0180I  NUMBER OF RECORDS LISTED IS          1
DSP0203I  COMMAND COMPLETED WITH CONDITION CODE 00
DSP0220I  COMMAND COMPLETION TIME 91.047  15:16:16.9
DSP0211I  COMMAND PROCESSING COMPLETE
DSP0211I  HIGHEST CONDITION CODE = 00
DSP0058I  RML COMMAND COMPLETED

APPLID=CICSA3
PF1: HELP      3 END              7 SBH 8 SFH      10 SB 11 SF

```

Figure 2. CBRC transaction: LIST 'SUBSYS command

Example of CBRC LIST 'LOG command: The following display shows the result of a LIST 'LOG command. For CICS, all the log data sets used during a run are contained in one PRILOG record. The word "CICS" in the second line of the PRILOG record shows that this is a CICS log.

```
L 'LOG
-----
LIST.LOG
-----
PRILOG
START =91.047 13:31:21.3 STOP =00.000 00:00:00.0
SSID=CICSA3 #DSN=2 CICS
DSN=IMS131.DFH.INTERIM2.J04A
START =91.047 13:31:21.3 STOP =91.047 15:08:09.1
FILE SEQ=0001 #VOLUMES=0001 -VOLSER- -STOPTIME-
VS1134 91.047 15:08:09.1
DSN=IMS135.DFH.J01B
START =91.047 15:08:09.1 STOP =00.000 00:00:00.0
FILE SEQ=0001 #VOLUMES=0001 -VOLSER- -STOPTIME-
VS1135 00.000 00:00:00.0
LOGALL
START = 91 13:31:21.3* -DBD- -DDN- -ALLOC-
BE3PARTS DE3PARTS 1
DSP0200I NO ONLINE LOG RECORDS FOUND IN RECON
DSP0180I NUMBER OF RECORDS LISTED IS 2
+ DSP0203I COMMAND COMPLETED WITH CONDITION CODE 00
APPLID=CICSA3
PF: 1 HELP 3 END 7 SBH 8 SFH 10 SB 11 SF
```

Figure 3. CBRC transaction: LIST 'LOG command

Example of CBRC LIST 'DB command: The following display shows the result of a LIST 'DB command. The RECON record displayed is the database record for the named database, BE3PARTS.

```
L 'DB DBD(BE3PARTS)
-----
LIST.DB DBD(BE3PARTS)
-----
DB
DBD=BE3PARTS IRLMID=**NULL** DMB#= 4 SHARE LEVEL=3
FLAGS: BACKOUT NEEDED=OFF COUNTERS: RECOVERY NEEDED=0
PROHIBIT AUTHORIZATION=OFF IMAGE COPY NEEDED=0
READ ONLY=OFF AUTHORIZED SUBSYSTEMS=0
HELD AUTHORIZATION STATE=0
DSP0180I NUMBER OF RECORDS LISTED IS 1
DSP0203I COMMAND COMPLETED WITH CONDITION CODE 00
DSP0220I COMMAND COMPLETION TIME 91.109 08:04:09.1
DSP0211I COMMAND PROCESSING COMPLETE
DSP0211I HIGHEST CONDITION CODE = 00
DSP0058I RML COMMAND COMPLETED
APPLID=CICSA3
PF: 1 HELP 3 END 7 SBH 8 SFH 10 SB 11 SF
```

Figure 4. CBRC transaction: LIST 'DB command

Example of CBRC LIST 'DBDS command: The following three displays show the multipanel result of entering a LIST 'DBDS command for DE3PARTS, a data set in the BE3PARTS database.

```
L 'DBDS DBD(BE3PARTS) DDN(DE3PARTS)
-----
LIST.DBDS DBD(BE3PARTS) DDN(DE3PARTS)
-----
DBDS
DSN=IMSPRIME.DE3PARTS.DBASE DBDS SEQ=4 IMS
DBD=BE3PARTS DDN=DE3PARTS DSID=01 DBORG=HDAM DSORG=VSAM DSLOG SEQ=02
CA GRPNAME=BE3GRP GENMAX=2 IC AVAIL=1 IC USED=1 DSSN=00000001
IC NEEDED=OFF RECOV=OFF RECOVPD =0
REUSE ICJCL=ICJCL OICJCL=OICJCL RECOVJCL=RECOVJCL
DSLOG
DSN=IMSPRIME.BE3PARTS.DSLOG1 DDN=DS000401
CREATE = 91.105 08:53:38.5*
RUN = 91.105 10:15:21.7
-VOLSER- -STOPTIME- -FLG- -FIRSTRBA- -LASTRBA- -LNUM- -CHG-
VS1134 91.105 08:38:31.2 LST 00000000 00000591 01 YES
VS1134 91.105 08:45:15.1 LST 00000788 00001773 01 YES
INTERM 91.105 09:48:23.1 LST 00001970 00003743 01 YES
ALLOC
ALLOC = 91.105 08:33:04.5* START = 91.105 08:29:05.0
DSSN=00000001
APPLID=CICSA3
PF: 1 HELP 3 END 7 SBH 8 SFH 10 SB 11 SF
```

Figure 5. CBRC transaction: LIST 'DBDS command (1)

```
L 'DBDS DBD(BE3PARTS) DDN(DE3PARTS)
-----
+ ALLOC
ALLOC = 91.105 09:19:34.2* START = 91.105 09:12:42.8
DSSN=00000001
MRGND
DBD=BE3PARTS DDN=DE3PARTS MN TIMESTAMP=91.105 08:29:05.0
DSID=01 DSSN=00000001 SUBSYSTEM COUNT=2 MERGE DONE=YES
ASSOCIATED SUBSYSTEM INFORMATION:
SSID PRILOG START TIME ALLOCATION TIME
CICSA3 91.105 08:29:05.0 91.105 08:33:04.5
CICSA1 91.105 09:12:42.8 91.105 09:19:34.2
IMAGE
RUN = 91.105 08:14:37.6* RECORD COUNT =84
STOP = 00.000 00:00:00.0 BATCH
IC1
DSN=IMSVS.BE3PARTS.DE3PARTS.IC.IC164330 FILE SEQ=0001
VOL DEF=0001 VOLS USED=0001
VOLSER=VS1134
RECOV
+ RUN = 91.105 15:18:17.3*
APPLID=CICSA3
PF: 1 HELP 3 END 7 SBH 8 SFH 10 SB 11 SF
```

Figure 6. CBRC transaction: LIST 'DBDS command (2)

```
L 'DBDS DBD(BE3PARTS) DDN(DE3PARTS)
-----
+ AVAILABLE DATA SETS
DBD=BE3PARTS DDN=DE3PARTS
DSLOG
* DSN=IMSPRIME.BE3PARTS.DSLOG2 DDN=DS000402
CREATE = 91.105 08:10:30.6*
AVAILABLE DATA SETS
DBD=BE3PARTS DDN=DE3PARTS
IMAGE
* CREATE = 91.105 08:10:18.7*
IC1
DSN=IMSVS.BE3PARTS.DE3PARTS.IC.IC165201 FILE SEQ=0001
VOL DEF=0001 VOLS USED=0000
VOLSER=VS1134
DSP0180I NUMBER OF RECORDS LISTED IS 9
DSP0203I COMMAND COMPLETED WITH CONDITION CODE 00
DSP0220I COMMAND COMPLETION TIME 91.109 08:04:42.3
DSP0211I COMMAND PROCESSING COMPLETE
DSP0211I HIGHEST CONDITION CODE = 00
DSP0058I RML COMMAND COMPLETED
APPLID=CICSA3
PF: 1 HELP 3 END 7 SBH 8 SFH 10 SB 11 SF
```

Figure 7. CBRC transaction: LIST 'DBDS command (3)

The HELP panel

If you press the help key (PF1), the following panel is displayed:

```

CBRC HELP INFORMATION

COMMAND FORMAT:
verb DBRC='parameter modifier'   e.g. CHANGE DBRC='DB DBD(MYDATA) NOBACK'
In IMS format the command is:    /RMCHANGE DBRC='DB DBD(MYDATA) NOBACK'

Note: the LTERM parameter is not supported under CICS.

Refer to the CBRC transaction description or IMS DBRC Reference manual
for further information.

PF KEY USAGE
PF1  HELP  Get help information    PF7  SBH  Scroll back half
PF2  Undefined          PF8  SFH  Scroll forward half
PF3  END   End CBRC transaction  PF9  Undefined
PF4  Undefined          PF10 SB  Scroll back
PF5  Undefined          PF11 SF  Scroll forward
PF6  Undefined          PF12 Undefined

Press ENTER or any PF key to continue with command input.

```

Figure 8. CBRC transaction: HELP panel

CDBC—database control menu

Use CDBC to connect CICS to DBCTL, or to disconnect CICS from DBCTL. CDBC is applicable only to CICS systems using the IMS/ESA Database Control (DBCTL) interface. For detailed guidance on using the CDBC transaction with databases controlled by DBCTL, see the *CICS/ESA CICS-IMS Database Control Guide*.

You can start CDBC from any terminal, from a card # reader/line printer (CRLP) or DASD sequential terminal, or from the operating system console.

There are two ways of commencing this transaction:

- Type the identifier, CDBC, on the command line of your display, followed by the required keyword, which can be either:

CDBC CONnect [SUFFix(startup)]

where **startup** is a two-digit startup table suffix, or:

CDBC DISconnect [IMMEDIATE]

- Type the identifier, CDBC, on the command line of your display, and press the ENTER key. You get the following display:

```

CDBC          CICS-DBCTL CONNECTION/DISCONNECTION          93.259
                                                    13:33:20

Select one of the following:

 1 Connection
 2 ORDERLY disconnection
 3 IMMEDIATE disconnection

Option Selection      ==> 1
Startup Table Suffix ==> 00
DBCTL ID Override    ==>

Status of the Interface: DFHDB8290I DBCTL not connected to CICS.
CICS APPLID: IYAHZCD2
DBCTL ID:
Startup Table Suffix:

PF1 = Help  2 = Refresh  3 = End

```

Figure 9. CDBC transaction: initial screen

As you can see from this display, you can select a CICS-DBCTL connection, an orderly disconnection, or an immediate disconnection.

Connecting CICS to DBCTL

You can connect CICS to DBCTL by:

1. Typing CDBC CONnect [SUFFIX(xx)], or
2. Typing '1' in the Option Selection field indicated by ==>. You can also specify a startup table suffix in the Startup Table Suffix field. If you leave this field blank you get the existing suffix, if one exists.

You should get the following message:

```
DFHDB8207D DBCTL Connection requested. Press PF5
to confirm.
```

If you want to proceed with the CICS-DBCTL connection, press PF5 as requested on the display. The "status" line of the display is then updated. (You can find out the current status of the connection at any time by pressing PF2, which refreshes the display.)

This display also shows you the application identifier of the CICS system (in this case, DBDCCICS), and the identifier of the DBCTL system to which CICS is connected. The DBCTL identifier is available only when the connection has been made. You can also see the suffix of the startup table for this connection.

The following display shows you the effect of asking for option 1:

```

CDBC          CICS-DBCTL CONNECTION/DISCONNECTION          93.259
                                                    13:33:59

Select one of the following:

 1 Connection
 2 ORDERLY disconnection
 3 IMMEDIATE disconnection

Option Selection      ==> 1
Startup Table Suffix ==> 00
DBCTL ID Override    ==>

DFHDB8207D Connection to DBCTL requested. Press PF5 to confirm.

Status of the Interface: DFHDB8290I DBCTL not connected to CICS.
CICS APPLID: IYAHZCD2
DBCTL ID:
Startup Table Suffix:

PF1 = Help  2 = Refresh  3 = End

```

Figure 10. CDBC transaction: option 1 screen

Disconnecting CICS from DBCTL

To disconnect CICS from DBCTL, you can:

1. Type
CDBC DISConnect [IMMEDIATE]
or
2. Choose either option 2 or option 3 of the CDBC panel.

Option 2 gives you an orderly disconnection. An orderly disconnection allows all existing CICS-DBCTL tasks to be completed before CICS is disconnected from DBCTL.

CDBC—database control menu

The following display shows you the effect of asking for option 2:

```
CDBC          CICS-DBCTL CONNECTION/DISCONNECTION          93.259
                                                    13:39:20

Select one of the following:

  1 Connection
  2 ORDERLY disconnection
  3 IMMEDIATE disconnection

Option Selection      ==> 2
Startup Table Suffix ==> 00
DBCTL ID Override    ==>

DFHDB8209D DBCTL orderly disconnection requested. Press PF5 to confirm.

Status of the Interface: DFHDB8293I DBCTL connected and ready.
CICS APPLID: IYAHZCD2
DBCTL ID: SYS2
Startup Table Suffix: 00

PF1 = Help  2 = Refresh  3 = End
```

Figure 11. CDBC transaction: option 2 screen

Option 3 gives you an immediate disconnection. This allows only current DL/I requests to DBCTL from this CICS system to be completed before CICS is disconnected from DBCTL.

| **Specifying a DBCTL system identifier (DBCTLID):**

| A field on the CDBC panel enables you to use the CDBC transaction to specify a DBCTLID to override the one in the DRA startup table. The syntax for connection to DBCTL via CDBC is:

| CDBC CONNECT [SUFFIX(xx)] [DBCTLID(yyyy)]

For more details on using CDBC, see the *CICS/ESA CICS-IMS Database Control Guide*.

The HELP panel

If you press the help key (PF1), the following panel is displayed:

```
HELP : CICS-DBCTL CONNECTION/DISCONNECTION

To CONNECT to DBCTL, select option 1. You can also specify a startup
table suffix, or accept the existing suffix. The id of the DBCTL system is
obtained from the startup table, but can be optionally overridden.

To DISCONNECT from DBCTL, select option 2 or option 3.

  Select option 2 for ORDERLY disconnection: this allows all CICS-DBCTL
  transactions from this CICS to complete before disconnecting from DBCTL.

  Select option 3 for IMMEDIATE disconnection: this allows all CICS-DBCTL
  requests from this CICS to complete before disconnecting from DBCTL.
-----
Displayed information (press PF2 to refresh the information):
STATUS OF THE INTERFACE The current status of the connection to DBCTL.
CICS APPLID             The application identifier for this CICS system.

Displayed when available:
DBCTL ID                Identifier of the DBCTL system with which this
                        CICS system is communicating.
STARTUP TABLE SUFFIX   Suffix used when CICS was connected to DBCTL.

PRESS ENTER TO RETURN TO SELECTION SCREEN
```

Figure 12. CDBC transaction: the HELP panel

CDBI—database control inquiry

Use CDBI to inquire about the status of the interface between CICS and DBCTL. You can start CDBI from 3270 (and 3270-like) terminals or from the operating system console.

For detailed information about the CICS-DBCTL interface and guidance on using the CDBI transaction with databases controlled by DBCTL, see the *CICS/ESA CICS-IMS Database Control Guide*.

Start the transaction by typing the identifier, CDBI, on the command line of your display, and press the ENTER key. You get the following display:

```

CDBI                CICS-DBCTL INTERFACE INQUIRY          91.184
                                                           11:23:50

Status      : xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx.
CICS APPLID: DBDCCICS
DBCTL ID   : SYS1

PF1 = Help  2 = Refresh  3 = End

```

Figure 13. CDBI transaction: initial screen

This display tells you the current status of the CICS-DBCTL connection, which can be one of the following:

```

DFHDB8290I DBCTL not connected to CICS.
DFHDB8291I DBCTL connect phase 1 in progress.
DFHDB8292I DBCTL connect phase 2 in progress.
DFHDB8293I DBCTL connected and ready.
DFHDB8294I DBCTL orderly disconnect in progress.
DFHDB8295I DBCTL immediate disconnect in progress.
DFHDB8296I DBCTL cannot be connected to CICS.

```

The display also shows you the application identifier of the CICS system (in this case, DBDCCICS), and the identifier of the DBCTL system to which CICS is connected.

The HELP panel

If you press the help key (PF1), you get the following display:

```

HELP : CICS-DBCTL INTERFACE INQUIRY

The CICS-DBCTL interface inquiry screen shows:

STATUS OF THE INTERFACE   The status can be:

DFHDB8290I DBCTL not connected to CICS.
DFHDB8291I DBCTL connect phase 1 in progress.
DFHDB8292I DBCTL connect phase 2 in progress.
DFHDB8293I DBCTL connected and ready.
DFHDB8294I DBCTL orderly disconnect in progress.
DFHDB8295I DBCTL immediate disconnect in progress.
DFHDB8296I DBCTL cannot be connected to CICS.

CICS APPLID The application identifier of this CICS system.

Displayed when available:

DBCTL ID   The identifier of the DBCTL system with which this CICS
            is communicating

You can press PF2 to update (refresh) the information shown on screen.

PRESS ENTER TO RETURN TO INQUIRY SCREEN

```

Figure 14. CDBI transaction: the HELP panel

CDBM—database control interface

Use the CDBM transaction to issue DBCTL operator commands from a CICS terminal. CDBM is applicable only to CICS systems using the IMS/ESA Database Control (DBCTL) interface.

To use CDBM you must:

1. Have a DBCTL system running IMS/ESA 5.1 or later
2. Generate and add to the DBCTL system, a PSB named DFHDBMP.

Note: The CDBM transaction uses basic mapping support (BMS) and therefore this function is available only through those terminal devices that are supported by BMS.

The syntax of the CDBM transaction is:

CDBM /DBCTL operator command

where / is the default command recognition character (CRC) for DBCTL. Note that, in this case, the default CRC is the one that must be used.

APAR PQ04875

added the following note:

Note: IMS requires that each command be prefixed with the default CRC. The CRC is present only for syntax checking reasons; it does not determine to which DBCTL the command is sent. You cannot use a CRC value to route a command to a particular DBCTL system via CDBM - it can only be sent to the one currently connected to CICS. This DBCTL may have its own CRC value which is different from the default one of /. This does not matter to CDBM however, because the / character is used only for syntax checking, and the command is presented to the connected DBCTL without a CRC, using the AIB interface.

You can also start the transaction by typing the identifier, CDBM, on the command line of your display, as follows:

CDBM

Press the ENTER key. You get the following display:

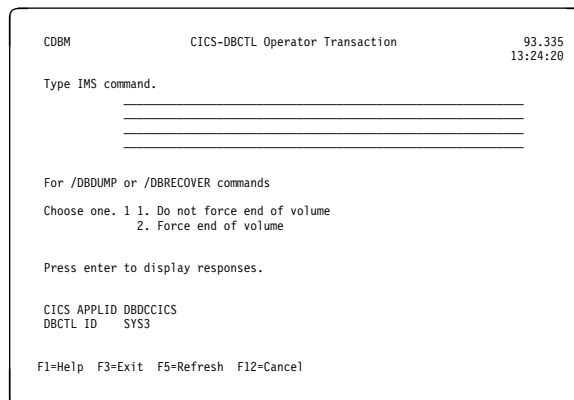


Figure 15. CICS-DBCTL operator transaction

Responses to DBCTL commands issued using CDBM are returned in a screen like the one shown in Figure 16, which shows the first of a number of screens issued in response to a /DISPLAY DB ALL command.

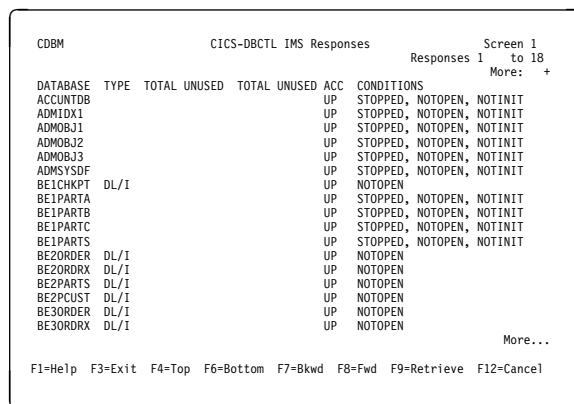


Figure 16. CICS-DBCTL IMS responses

For detailed information about the CICS-DBCTL interface and guidance on using the CDBM transaction with databases controlled by DBCTL, see the *CICS/ESA CICS-IMS Database Control Guide*.

The HELP panel

If you press the help key (PF1), you get the following display:

CDBM—database control interface

Help: CICS-DBCTL Operator Transaction	
CDBM	Use the transaction to send an IMS command to a DBCTL system.
Command	Type the command recognition character / followed by an IMS command and press enter to display responses.
Responses	Use the PF keys to page IMS responses.
Wildcards	* or + can be used within one database name.
End of volume	For /DBDUMP or /DBRECOVER commands only Choose one: 1. Do not force end of volume 2. Force end of volume
CICS APPLID DBCTL ID	These are shown for information.
Example	/DIS DB DEPT* displays the status of several databases.
F3=Exit F12=Cancel	

Figure 17. CICS-DBCTL operation transaction help panel

CEBR—temporary storage browse

Use the CEBR transaction to browse temporary storage queues and to delete them.

You can also use CEBR to transfer a transient data queue to temporary storage in order to look at its contents, and to recreate the transient data queue when you have finished. The CEBR commands that perform these transfers allow you to create and delete transient data queues as well.

| Remember that transient data queue reads are destructive.
| If you read a transient data queue that is being used on an
| active system by applications, this is likely to cause
| problems.

You start the CEBR transaction by entering the transaction identifier CEBR, followed by the name of the queue you want to browse. For example, to display the temporary storage queue named CEBRS209, you enter:

```
CEBR CEBRS209
```

CICS responds with a display of the queue, a sample of which is shown in Figure 18:

```

CEBR          TS QUEUE CEBRS209 RECORD 1 OF 3 COL 1 OF 22
ENTER COMMAND ==>
***** TOP OF QUEUE *****
00001 000055001234000001S209
00002 000056003456000002S209
00003 000102000564000001S209
***** BOTTOM OF QUEUE *****

PF1 : HELP          PF2 : SWITCH HEX/CHAR  PF3 : TERMINATE BROWSE
PF4 : VIEW TOP      PF5 : VIEW BOTTOM    PF6 : REPEAT LAST FIND
PF7 : SCROLL BACK HALF PF8 : SCROLL FORWARD HALF PF9 : UNDEFINED
PF10: SCROLL BACK FULL PF11: SCROLL FORWARD FULL PF12: UNDEFINED

```

Figure 18. Typical CEBR screen displaying temporary storage queue contents

Alternatively, you can start the CEBR transaction from CEDF. You do this by pressing PF5 from the initial CEDF screen (see Figure 46 on page 47) which takes you to the working-storage screen, and then you press PF2 from that screen to browse temporary storage (that is, you invoke CEBR). CEBR responds by displaying the temporary storage queue whose name consists of the four letters 'CEBR' followed by the four letters of your terminal identifier. (CICS uses this same default queue name if you invoke CEBR directly and do not supply a queue name.) The result of invoking CEBR without a queue name or from an EDF session at terminal S21A is shown in Figure 19.

If you enter CEBR from CEDF, you will return to the EDF panel when you press PF3 from the CEBR screen.

```

CEBR          TS QUEUE CEBRS21A RECORD 1 OF 0 COL 1 OF 0
ENTER COMMAND ==>
***** TOP OF QUEUE *****
***** BOTTOM OF QUEUE *****

TEMPORARY STORAGE QUEUE CEBRS21A IS EMPTY
PF1 : HELP          PF2 : SWITCH HEX/CHAR  PF3 : TERMINATE BROWSE
PF4 : VIEW TOP      PF5 : VIEW BOTTOM    PF6 : REPEAT LAST FIND
PF7 : SCROLL BACK HALF PF8 : SCROLL FORWARD HALF PF9 : UNDEFINED
PF10: SCROLL BACK FULL PF11: SCROLL FORWARD FULL PF12: UNDEFINED

```

Note: 1 Header 2 Command line 3 Body 4 Message line
5 Menu of options

Figure 19. Typical CEBR display of default temporary storage queue

For information about the CEBR temporary storage browse transaction and guidance on using it, see the *CICS/ESA Application Programming Guide*.

The HELP panel

If you press the help key (PF1), the following panel is displayed:

```

These commands are available to you (abbreviations in UPPER CASE):
Find /string/ - Keyword optional. Final delimiter optional if
               string has no blanks. Any other delimiter is OK.

Line line-number
Column column-number
Top
Bottom
TERMINAL terminal-id - Browse temp. storage queue for another terminal.
Queue temp-stg-queue - Browse a named temp. storage queue
                       (name may be in hex - e.g., X'C134')
Put transient-data-queue - Copy current queue into a transient data queue.
Get transient-data-queue - Fetch a transient data queue for browsing.
PURGE - Destroy the current queue.

```


CEBT—master terminal (alternate CICS)

Use CEBT to control an alternate CICS system in an extended recovery facility (XRF) environment. For information about XRF, see the *CICS/ESA 3.3 XRF Guide*.

You can start this transaction only at the operating system console. Starting a transaction at the system console is described in “The system console as a CICS terminal” on page 7.

Minimum abbreviation of keywords: The CEBT command accepts as few characters of a keyword as needed to uniquely identify it within the request. An exception to this rule is the SHUTDOWN keyword, for which the minimum abbreviation is SHUT.

In the syntax displays on your screen and in this book, the minimum permitted abbreviation is given in uppercase characters, and the rest of the keyword in lowercase characters.

CEBT INQUIRE and SET commands

The CEBT INQUIRE and SET commands allow you to query or set:

- Auxiliary trace (CEBT INQUIRE|SET AUXTRACE)
- The dump data set (CEBT INQUIRE|SET DUMP)
- GTF tracing (CEBT INQUIRE|SET GTFTRACE)
- Internal tracing (CEBT INQUIRE|SET INTTRACE)
- Surveillance or ‘tracking’ of the active CICS system by the alternate CICS system (CEBT INQUIRE|SET SURVEILLANCE)
- Takeover from the active CICS system by the alternate CICS system (CEBT INQUIRE|SET TAKEOVER).

Descriptions follow of the CEBT INQUIRE and SET commands in alphabetic order of the name of the resource.

CEBT INQUIRE AUXTRACE

Function: Return information about the status of auxiliary trace.

Description: Auxiliary trace entries are made to a pair of CICS-controlled BSAM data sets, ‘A’ and ‘B’.

CEBT INQUIRE AUXTRACE tells you:

- Whether the auxiliary trace data set is open or closed
- Which of the auxiliary trace data sets is active, Cur(A) or Cur(B)
- Whether an auxiliary trace is in progress (started) or not (stopped).

For background information about auxiliary tracing, see the *CICS/ESA Problem Determination Guide*.

Input: Press the Clear key and type CEBT INQUIRE AUXTRACE (the minimum abbreviation is CEBT I AUX).

You will get a display screen, a sample of which is shown below.

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see “Overtyping a display” on page 51), or
- Use the CEBT SET AUXTRACE command.

Sample screen

```

CEBT IN AUXTR
STATUS: RESULTS - OVERTYPE TO MODIFY
Aux Cur(B) Sto _ _ _

```

Figure 20. CEBT INQUIRE AUXTRACE screen

Note: The underscores on the sample screen indicate the positions of ‘negative’ attributes (blank fields).

Displayed fields

Auxiliary

identifies this panel as relating to auxiliary trace.

Current(A|B)

displays a 1-character identifier of the current auxiliary data set, which can be ‘A’ or ‘B’. This value is blank if there is no auxiliary trace data set.

CEBT INQUIRE DUMP

Start|Pause|Stop

displays the status of auxiliary tracing in your CICS system. The values are:

Start Auxiliary tracing is in progress.

Pause

Auxiliary tracing has stopped, but the trace data set has been left open. A subsequent START request causes trace entries to be written immediately following those that were written before the PAUSE request.

Stop Auxiliary tracing has stopped.

Note: You can reset this value by overtyping it with a different value.

Noswitch|Next|All

displays whether automatic data set switching is to occur when the current auxiliary trace data set becomes full. The values are:

Noswitch

Switching does not occur without operator intervention.

Next Automatic switching occurs when the current trace data set is full, but not subsequently.

All Automatic switching occurs as necessary until the end of this CICS session without the need for operator intervention.

Switch

displays the information that an immediate switch is being made from the current auxiliary trace data set to the alternate trace data set.

CEBT INQUIRE DUMP

Function: Retrieve information about the CICS dump data sets.

Description: CEBT INQUIRE DUMP tells you which dump data set (A or B) is currently open.

For general information about dumps, see the *CICS/ESA Problem Determination Guide*.

Input: Press the Clear key and type CEBT INQUIRE DUMP (the minimum abbreviation is CEBT I DU).

You will get a display screen, a sample of which is shown below.

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see "Overtyping a display" on page 51), or
- Use the CEBT SET DUMP command.

Sample screen

```
CEBT IN DUMP
STATUS: RESULTS - OVERTYPE TO MODIFY
Dum Cur(A) Ope   
```

Figure 21. CEBT INQUIRE DUMP screen

Note: The underscores on the sample screen indicate the positions of 'negative' attributes (blank fields).

Displayed fields

Dum

indicates that this panel relates to a dump data set inquiry.

Currentdds(value)

displays a 1-character indicator as to which of the two dump data sets is active. This can be A or B.

Open|Closed|Switch

displays the status of the active CICS dump data set. The values are:

Open

The active CICS dump data set is open.

Closed

The active CICS dump data set is closed.

Switch

The currently active dump data set is to become inactive, and the currently inactive data set is to become active.

Note: You can reset this value by overtyping it with a different value.

Autoswitch|Noautoswitch

displays whether there is to be an automatic switch to the inactive dump data set when the active dump data set is full. The values are:

Autoswitch

The switch occurs **only** when the active dump data set is full, but not subsequently.

Noautoswitch

When the active dump data set is full, there is not to be an automatic switch to the inactive dump data set.

Note: Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overwrite it with a different value.

Note: You can reset this value by overtyping it with a different value.

CEBT INQUIRE GTFTRACE

Function: Show the GTF status.

Description: CEBT INQUIRE GTFTRACE tells you whether CICS tracing to the MVS Generalized Tracing Facility (GTF) is started or stopped.

This command is intended for use at terminals that do not support the CETR full-screen tracing transaction.

For information about GTF tracing, see the *CICS/ESA Problem Determination Guide* and the *CICS/ESA Performance Guide*.

Input: Press the Clear key and type CEBT INQUIRE GTFTRACE (the minimum abbreviation is CEBT I G).

You will get a display screen, a sample of which is shown below.

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see "Overtyping a display" on page 51), or
- Use the CEBT SET GTFTRACE command.

▶▶—CEBT Inquire Gtftrace—◀◀

Sample screen

```

CEBT IN GTFTRA
STATUS: RESULTS - OVERTYPE TO MODIFY
Gtf Sto

```

Figure 22. CEBT INQUIRE GTFTRACE screen

Displayed fields**Gtftrace**

indicates that this panel relates to a GTFTRACE inquiry.

Start|Stopped

displays whether CICS tracing to the MVS Generalized Tracing Facility (GTF) is in progress. The values are:

Start CICS tracing to the MVS Generalized Tracing Facility (GTF) is in progress.

Stopped

CICS tracing to the MVS Generalized Tracing Facility (GTF) is not in progress.

Note: You can reset this value by overtyping it with a different value.

CEBT INQUIRE INTTRACE

Function: Show the status of CICS internal tracing.

Description: CEBT INQUIRE INTTRACE tells you whether CICS internal tracing is in progress.

This command is intended for use at terminals that do not support the full-screen tracing transaction CETR.

Input: Press the Clear key and type CEBT INQUIRE INTTRACE (the minimum abbreviation is CEBT I IN).

You will get a display screen, a sample of which is shown below.

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see “Overtyping a display” on page 51), or
- Use the CEBT SET INTTRACE command.

Sample screen

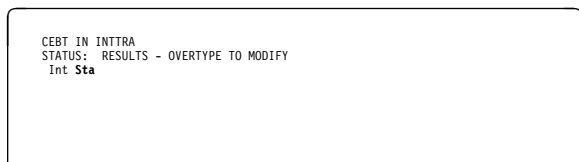


Figure 23. CEBT INQUIRE INTTRACE screen

Displayed fields

Intrace

indicates that this panel relates to an INTTRACE inquiry.

Start|Stopped

displays whether CICS internal tracing is in progress.

The values are:

Start CICS internal tracing is in progress.

Stopped

CICS internal tracing is not in progress.

Note: You can reset this value by overtyping it with a different value.

CEBT INQUIRE SURVEILLANCE

Function: Display whether surveillance (or tracking) of the active CICS system by the alternate CICS system is ON or OFF.

Input: Press the Clear key and type CEBT INQUIRE SURVEILLANCE (the minimum abbreviation is CEBT I SU).

You will get a display screen, a sample of which is shown below.

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see “Overtyping a display” on page 51), or
- Use the CEBT SET SURVEILLANCE command.

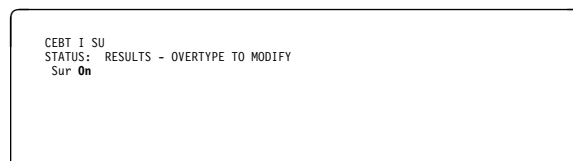
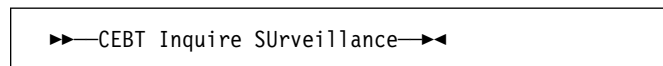


Figure 24. CEBT INQUIRE SURVEILLANCE screen

For more information about surveillance, see the *CICS/ESA 3.3 XRF Guide*.

CEBT INQUIRE TAKEOVER

Function: Display whether any takeover from the active CICS system by the alternate CICS system is to be automatic, manual, or command-driven.

Input: Press the Clear key and type CEBT INQUIRE TAKEOVER (the minimum abbreviation is CEBT I T).

You will get a display screen, a sample of which is shown below.

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see “Overtyping a display” on page 51), or
- Use the CEBT SET TAKEOVER command.

```
CEBT I T
STATUS: RESULTS - OVERTYPE TO MODIFY
Tak Aut
```

Figure 25. CEBT INQUIRE TAKEOVER screen

CEBT PERFORM commands

The CEBT PERFORM commands allow you to:

- Shut down the alternate CICS system (CEBT PERFORM SHUTDOWN)
- Request a dump of the alternate CICS and continue processing (CEBT PERFORM SNAP)
- Cause the alternate CICS to take over from the active CICS (CEBT PERFORM TAKEOVER).

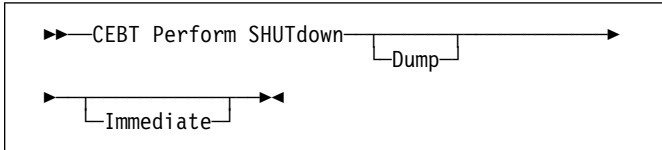
Descriptions follow of the CEBT PERFORM commands in alphabetic order.

CEBT PERFORM SHUTDOWN

Function: Shut down the alternate CICS system in an XRF complex.

Description: If you enter CEBT PERFORM SHUTDOWN, all active system tasks are allowed to finish, and the alternate CICS system signs off normally from the CICS availability manager (CAVM) data set.

Syntax



Options

DUMP

causes a dynamic storage dump to be produced when the shutdown is complete.

IMMEDIATE

causes the alternate CICS system to be shut down immediately, terminating all active tasks. The alternate CICS signs off abnormally from the CAVM data set. This can cause the primary (active) CICS system to abend if tasks are still running.

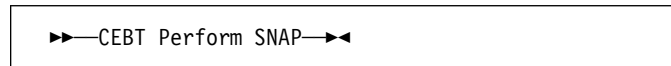
CEBT PERFORM SNAP

Function: Cause a “snapshot” dump of the alternate CICS system to be taken while CICS continues to run.

All CEBT PERFORM SNAP requests result in an SDUMP on an MVS SYS1.DUMPnn data set.

The use of CEBT PERFORM SNAP prevents all other tasks from running on the alternate system, and could delay takeover or recovery after takeover.

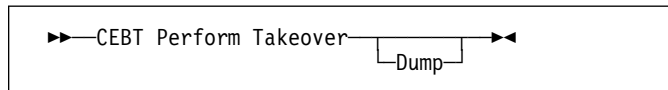
Syntax



CEBT PERFORM TAKEOVER

Function: The CEBT PERFORM TAKEOVER command initiates a takeover by the alternate CICS system, causing the active CICS system to sign off abnormally.

Syntax



Options

DUMP

sends a message to the active CICS system requesting it to take a system dump from the CAVM data set. This request is not honored if the active CICS fails before the dump can be taken.

CEBT SET AUXTRACE

Function: Change auxiliary tracing options.

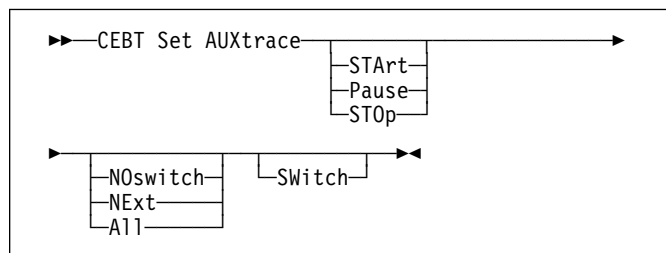
Description: You can start, stop, or pause tracing, and specify that automatic switching of the auxiliary data set is to occur when needed. You can use the switch option to change the data set.

Instead of using the SET command, you can overwrite your changes on the INQUIRE screen after tabbing to the appropriate field (see "Overtyping a display" on page 51).

For information about using traces, see the *CICS/ESA Problem Determination Guide*.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEBT SET AUXTRACE (the minimum abbreviation is CEBT S AUX). You get a display that lists the current status, similar to that obtained by CEBT INQUIRE AUXTRACE. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEBT SET AUXTRACE (CEBT S AUX) followed by one or more attribute settings that you wish to change. For example, CEBT S AUX STO will stop auxiliary tracing if it is already running.



Options

STArt|Pause|STOp

specifies the status of auxiliary tracing in your CICS system. The values are:

STArt

CICS is to start auxiliary tracing and open the auxiliary trace data set if it is currently closed.

Pause

Auxiliary tracing is to stop, but the data set is to remain open. A subsequent START request causes trace entries to be written immediately following those that were written before the PAUSE request.

CEBT SET DUMP

STOp

CICS is to stop auxiliary tracing and close the auxiliary trace data set. A subsequent START request causes new trace entries to be written at the start of the data set, thereby overwriting the trace entries that were written before the STOP request.

NOswitch|NExt|All

specifies whether automatic data switching is to occur when the current auxiliary trace data set becomes full. The values are:

NOswitch

Switching between the auxiliary trace data sets is not to occur without operator intervention.

NExt

Automatic switching of the auxiliary trace data set is to occur when the current trace data set is full, but not subsequently.

All specifies that automatic switching between the two auxiliary trace data sets is to occur as necessary until the end of this CICS session, without the need for operator intervention.

SWitch

specifies that an immediate switch from the current auxiliary trace data set is to be made to the alternate trace data set.

CEBT SET DUMP

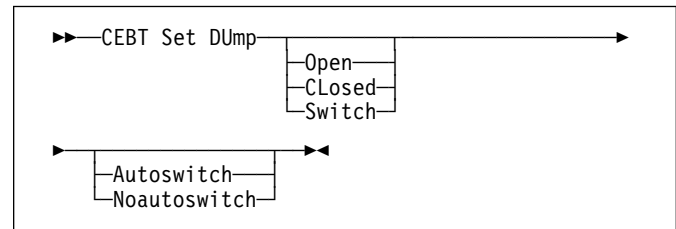
Function: Change the attributes of a CICS dump data set.

Description: Using CEBT SET DUMP, you can open or close the active CICS dump data set, and specify whether or not the automatic switch to the inactive dump data set is to occur when the active dump data set is full. Instead of using the SET command, you can overtype your changes on the INQUIRE screen after tabbing to the appropriate field (see "Overtyping a display" on page 51).

For information about using dumps, see the *CICS/ESA Problem Determination Guide*.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEBT SET DUMP (the minimum abbreviation is CEBT S DU). You get a display that lists the current status, similar to that obtained by CEBT INQUIRE DUMP. You can then tab to the highlighted or blank fields and overtype them with the required values.
- Type CEBT SET DUMP (CEBT S DU) followed by one or more attribute settings that you wish to change. For example, CEBT S DU A will cause an automatic switch to the inactive dump data set if 'noautoswitch' was previously specified.



Options

Open|Closed|Switch

specifies the status of the active CICS dump data set. The values are:

Open

The active CICS dump data set is opened.

Closed

The active CICS dump data set is closed.

Switch

The currently active dump data set is to become inactive, and the currently inactive data set is to become active.

Autoswitch|Noautoswitch

specifies whether there is to be an automatic switch to the inactive dump data set when the active dump data set is full. The values are:

Autoswitch

The switch occurs **only** when the active dump data set is full, but not subsequently.

Noautoswitch

When the active dump data set is full, there is not to be an automatic switch to the inactive dump data set.

CEBT SET GTFTRACE

Function: Change the status of GTF tracing

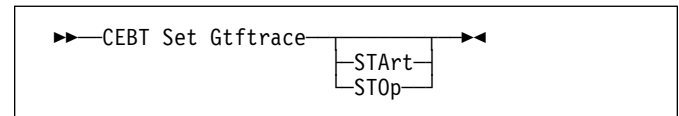
Description: CEBT SET GTFTRACE allows you to switch CICS tracing to the MVS Generalized Tracing Facility (GTF) on and off.

This command is intended for use at terminals that do not support the CETR full-screen tracing transaction.

For information about using GTF tracing, see the *CICS/ESA Problem Determination Guide*.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEBT SET GTFTRACE (the minimum abbreviation is CEBT S G). You get a display that lists the current status, similar to that obtained by CEBT INQUIRE GTFTRACE. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEBT SET GTFTRACE (CEBT S G) followed by one or more attribute settings that you wish to change. For example, CEBT S G ST0 will stop GTF tracing if it is already running.

**Options****STArt|STOp**

specifies the status of CICS tracing to the MVS Generalized Tracing Facility (GTF). The values are:

STArt

CICS tracing to the MVS Generalized Tracing Facility (GTF) is started.

STOp

CICS tracing to the MVS Generalized Tracing Facility (GTF) is stopped.

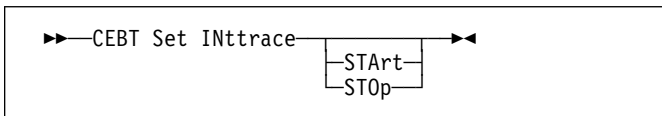
CEBT SET INTRACE

Function: Switch CICS internal tracing on or off.

Description: This command is intended for use at terminals that do not support the full-screen tracing transaction CETR.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEBT SET INTRACE (the minimum abbreviation is CEBT S IN). You get a display that lists the current status, similar to that obtained by CEBT INQUIRE INTRACE. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEBT SET INTRACE (CEBT S IN) followed by one or more attribute settings that you wish to change. For example, CEBT S IN ST0 will stop internal tracing if it is already running.



Options

STArt|STOp

specifies the status of CICS internal tracing. The values are:

STArt

CICS internal tracing is started.

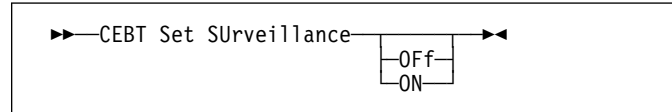
STOp

CICS internal tracing is stopped.

CEBT SET SURVEILLANCE

Function: Set surveillance (or tracking) of the active CICS by the alternate CICS on or off.

Syntax



Options

Off

Surveillance of the active CICS system by the alternate CICS is to be stopped.

ON

Surveillance of the active CICS system by the alternate CICS is to be started.

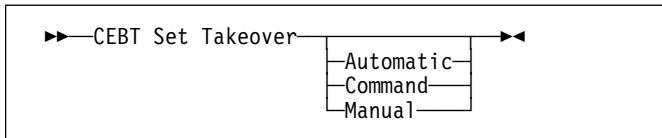
For more information about surveillance, see the *CICS/ESA 3.3 XRF Guide*.

CEBT SET TAKEOVER

Function: Set takeover from the active CICS system by the alternate CICS system to be automatic, manual, or command-driven.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEBT SET TAKEOVER (the minimum abbreviation is CEBT S T). You get a display that lists the current status, similar to that obtained by CEBT INQUIRE TAKEOVER. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEBT SET TAKEOVER (CEBT S T) followed by one or more attribute settings that you wish to change. For example, CEBT S T M changes takeover to a manual operation if it was previously specified to be automatic.



Options

Automatic

Takeover is to occur automatically.

Command

Takeover is to be by command.

Manual

Takeover is to be manual.

The *CICS/ESA 3.3 XRF Guide* tells you more about these command options.

The HELP panel

If you press the help key (PF1), the following panel is displayed:

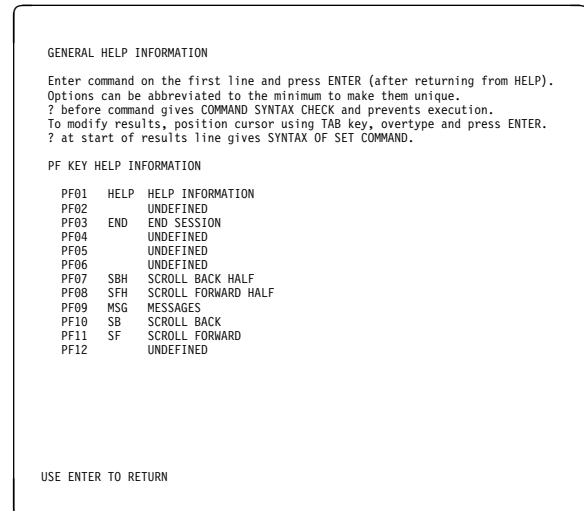


Figure 26. CEBT transaction: the HELP panel

CECI—command-level interpreter

Use CECI, which invokes the CICS command-level interpreter, to enter an EXEC CICS command, check its syntax, and modify it if necessary. In most cases, you can also process the command.

For programming information on each EXEC CICS command, see the *CICS/ESA Application Programming Reference* manual or the *CICS/ESA System Programming Reference* manual.

For details of how to use the CECI transaction, see the *CICS/ESA Application Programming Guide*, which includes an example of a complete session with CECI.

Start the transaction by entering CECI on the command line of the screen, as follows:

CECI

Press ENTER. You get a list of all EXEC CICS commands.

```

STATUS:  ENTER ONE OF THE FOLLOWING

ABend      DEQ      INquire    REceive    STARTBr
ACquire    DISAbLe  ISsue     RELease    Suspend
AdDress    DIScArD   JOurnal   RESEtBr   Sncpoint
ALlocate   DUmP      LInk     RESync    Trace
ASktime    ENAbLe     Load     RETRieve  UnLock
ASSign     ENDbR     MonItor  RETUrN    VerIfy
BIF        ENQ      PERform  REWrite   WAIt
BUIld     ENtER     POInt    Route     WAItCics
CAnceL     EXtRact  POP      SEnd     WRItE
ChAngE     FEpi     POSt     SET       WRItEQ
COLlect    FOrmatTime PURge    SIGNOff   Xct1
CONnect    FREe     PuSh    SIGNON
CONVerse   FREEMain Query   SPOOLClose
Create     GDS      READ    SPOOLOpen
DELAy     GETMain  READNext SPOOLRead
DELETE     Handle  READPrev SPOOLWrite
DELETEQ    IGNore   READQ    START

PF 1 HELP 2 HEX 3 END 4 EIB 5 VAR 6 USER          9 MSG

```

Figure 27. CECI transaction: initial screen

If you then enter the command or its abbreviation on the top line and press ENTER, you get a complete display of the syntax for that command. See, for example, the following screen for the EXEC CICS RETRIEVE command:

```

RETR
STATUS: ABOUT TO EXECUTE COMMAND
EXEC CICS RETRIEVE
  < Set() | Into() >
  < Length() >
  < RTAnsId() >
  < RTErMid() >
  < Queue() >
  < Wait >
NAME=

PF 1 HELP 2 HEX 3 END 4 EIB 5 VAR 6 USER 7 SBH 8 SFH 9 MSG 10 SB 11 SF

```

Figure 28. CECI transaction: RETRIEVE command screen

Alternatively, you can enter CECI together with the name of the command in which you are interested, and bypass the full list of commands; for example:

CECI asktime

In both cases, you can generally go on to check the syntax of the command, change it if necessary, and then process the command.

Many CICS system programming commands use CVDA values, and CECI shows numeric equivalents for these. See the *CICS/ESA System Programming Reference* manual for programming information, including a “translation” of these numeric values to their alphabetic values.

The HELP panel

If you press the help key (PF1), the following panel is displayed:

```

GENERAL HELP INFORMATION

Enter command on the first line and press ENTER (after returning from HELP).
Options can be abbreviated to the minimum to make them unique.
? before command gives COMMAND SYNTAX CHECK and prevents execution.
To expand a value or variable to full screen,
  position cursor using TAB key and press ENTER.

PF KEY HELP INFORMATION

PF01  HELP  HELP INFORMATION
PF02  HEX  SWITCH HEX/CHAR
PF03  END  END SESSION
PF04  EIB  EXEC INTERFACE BLOCK
PF05  VAR  VARIABLES
PF06  USER USER DISPLAY
PF07  SBH  SCROLL BACK HALF
PF08  SFH  SCROLL FORWARD HALF
PF09  MSG  MESSAGES
PF10  SB  SCROLL BACK
PF11  SF  SCROLL FORWARD
PF12  UNDEF UNDEFINED
USE ENTER TO RETURN

```

Figure 29. CECI transaction: general HELP panel

Command-level syntax-checking transaction (CECS)

Use the CECS transaction, which also invokes the command-level interpreter, to check the syntax of an EXEC CICS command, but not to process it.

Start the transaction by entering CECS on the command line of the screen, as follows:

```
CECS
```

Press ENTER. You get a list of all the EXEC CICS commands. This is similar to the CECI screen shown in

Figure 27 on page 37. Enter the command or its abbreviation at the top of the screen (next to the ?) and press ENTER and you get a complete display of the syntax for that command.

Alternatively, you can enter CECS together with the name of the command in which you are interested, and bypass the full list of commands:

```
CECS command
```

For information how to use the CECI and CECS transactions, see the *CICS/ESA Application Programming Guide*.

CEDA—resource definition online

Use CEDA to define resources to your CICS system while the system is running. With CEDA, you can update both the CICS system definition (CSD) file and the running CICS system.

Start the transaction by entering CEDA on the command line of the screen. Press ENTER. You get the following screen (Figure 30), which shows the options available within CEDA.

```

ENTER ONE OF THE FOLLOWING
Add
ALter
Apend
Check
COpy
DEFine
DELeTe
DisPlay
Expand
Install
Lock
Move
REMove
REName
UNlock
USERdefine
View

SYSID=C141 APPLID=IYAHZCCV
PF 1 HELP      3 END      6 CRSR      9 MSG      12 CNCL

```

Figure 30. CEDA transaction: initial screen

CEDA provides the following functions:

- | **Add** Adds a group name to a list, and creates a new list if the list did not already exist.
- | **ALter** Changes some of the attributes of an existing resource definition.
- | **Apend** Copies a list to another list.
- | **CHeck** Checks that the resource definitions within a group or list are consistent with one another.
- | **COpy** Copies one or more resource definitions.
- | **DEFine** Creates a new resource definition on the CSD file.
- | **DELeTe** Erases one or more resource definitions from the CSD file.
- | **DisPlay** Displays one or more lists or groups on a full-screen panel.
- | **Expand** Shows the resource definitions in one or more groups on a full-screen panel.

- | **Install** Dynamically makes one or more resource definitions available to an active CICS system.
- | **Lock** Assures exclusive access to a group or list by restricting update and delete access to a single operator identifier.
- | **Move** Moves one or more resource definitions from one named group to another.
- | **REMove** Removes a group name from a list.
- | **REName** Renames a resource definition.
- | **UNlock** Removes a lock on a group or list which was previously put there by a CEDA LOCK command.
- | **USERdefine** Instead of using CICS-supplied default values with the DEFINE command, you can set your own defaults and use the USERDEFINE command to create a new resource definition on the CSD file.
- | **View** Lets you look at the resource definition attributes.

This section briefly describes each of these functions and their syntax. For guidance on how to use CEDA, see the *CICS/ESA Resource Definition Guide*.

If you enter DEF on the command line and press ENTER, you get the screen shown in Figure 31 which lists the resources:

```

DEF
ENTER ONE OF THE FOLLOWING

Connection
File
Lsrpool
Mapset
PARTitionset
PARTner
PROFile
PROGram
Sessions
TClass
TERminal
TRANSACTION
Typeterm

SYSID=C141 APPLID=IYAHZCCV
PF 1 HELP      3 END      6 CRSR      9 MSG      12 CNCL

```

Figure 31. CEDA transaction: DEFINE screen

CEDA—resource definition online

If you enter INST on the command line and press ENTER, you get the screen shown in Figure 32 which lists the resources:

```

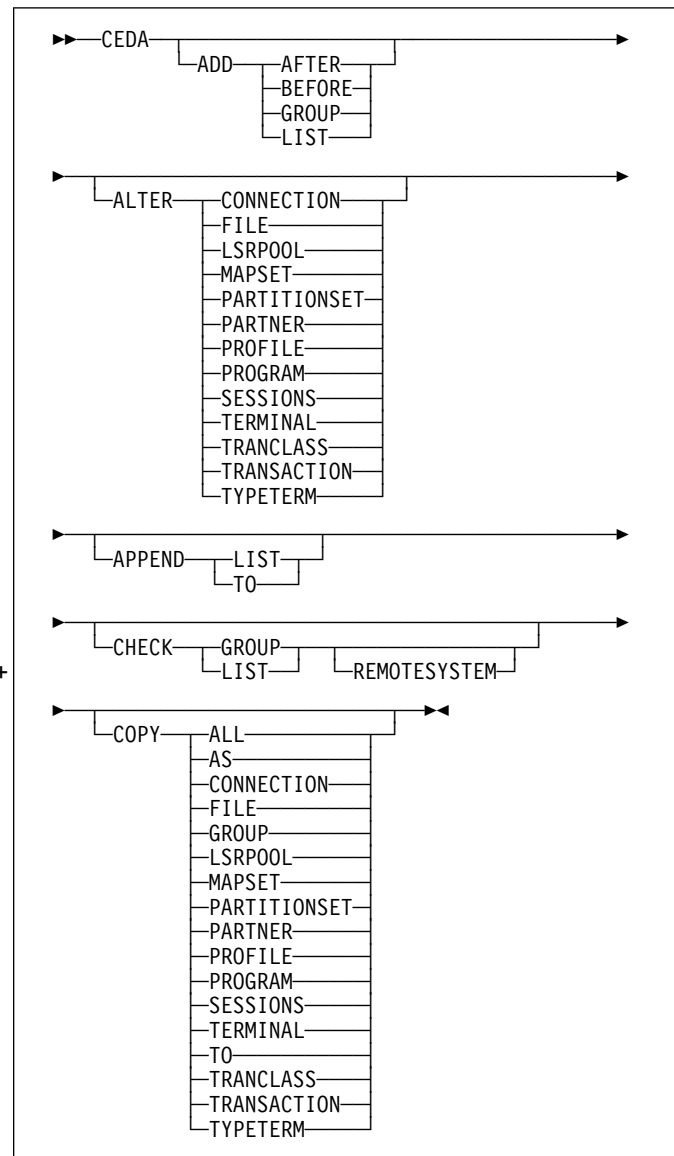
INST
OVERTYPE TO MODIFY
CEDA Install
All
Connection ==>
File ==>
Lsrpool ==>
Mapset ==>
PARTitionset ==>
PARTner ==>
PROFile ==>
PROgram ==>
TClass ==>
Terminal ==>
TRANSACTION ==>
TYpeterm ==>
Group ==>

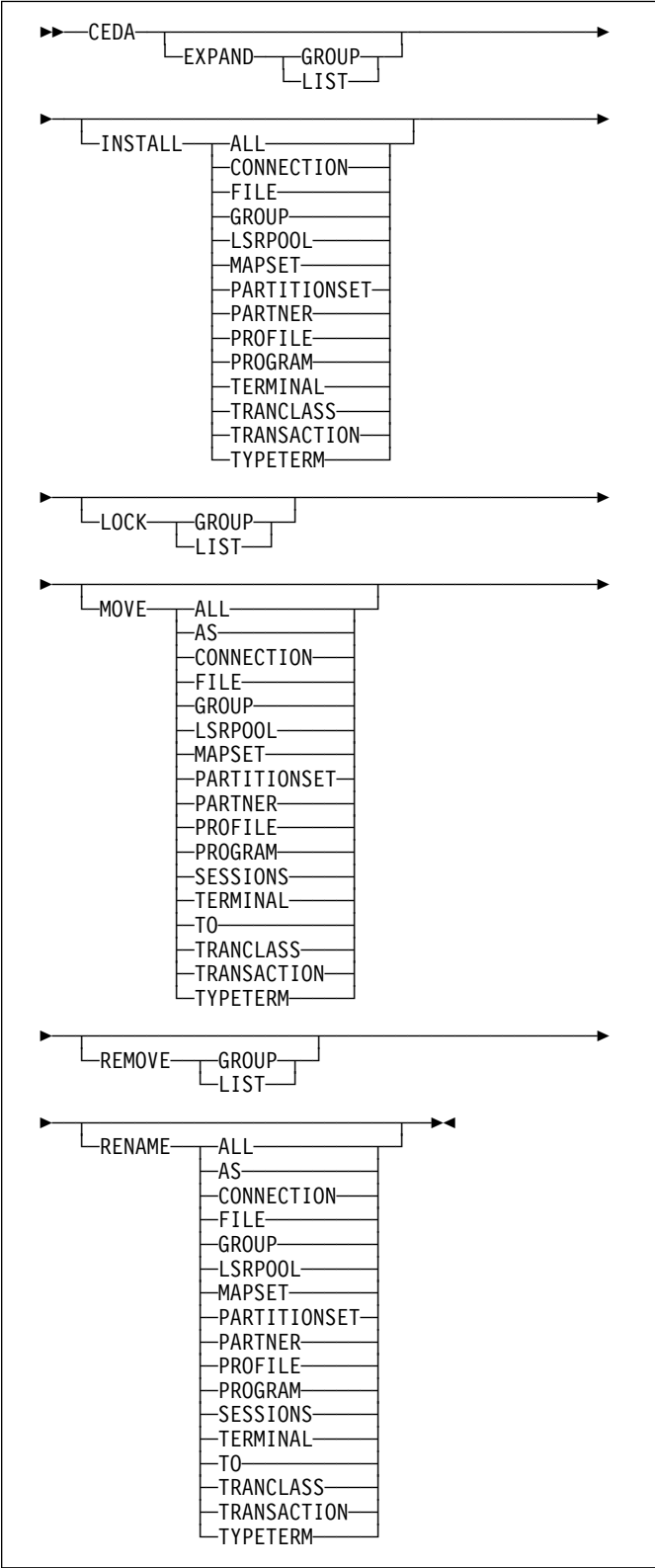
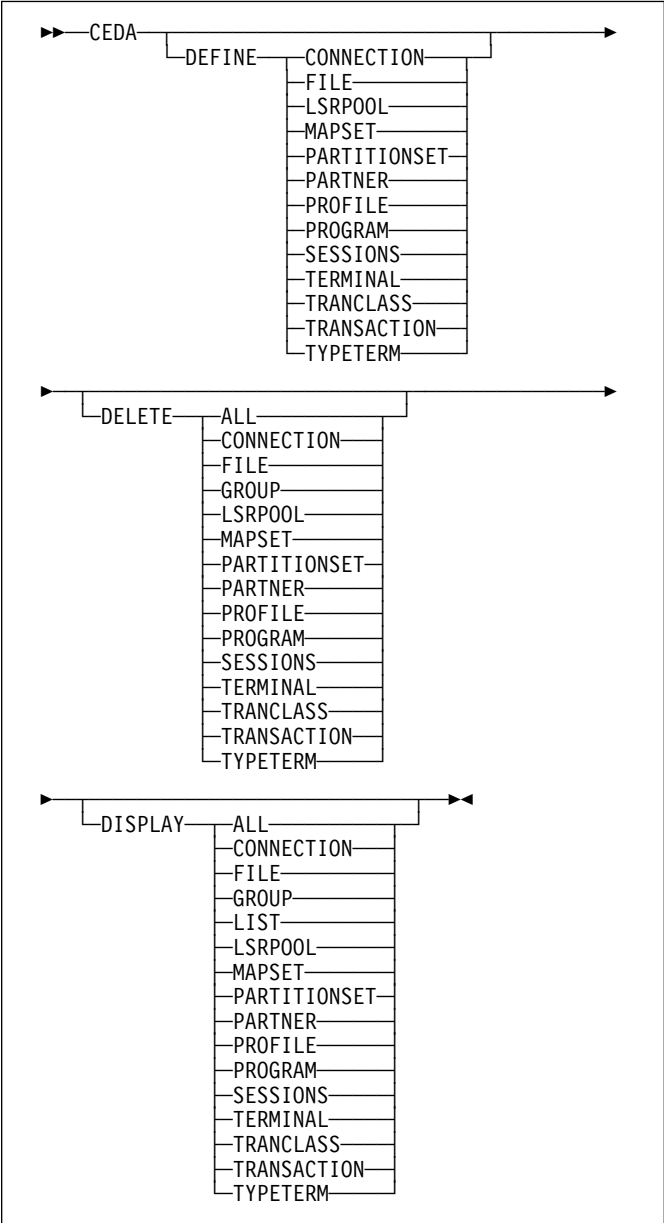
S No GROUP value has been previously specified so there is no current value
to assume. SYSID=C141 APPLID=IYAHZCCV

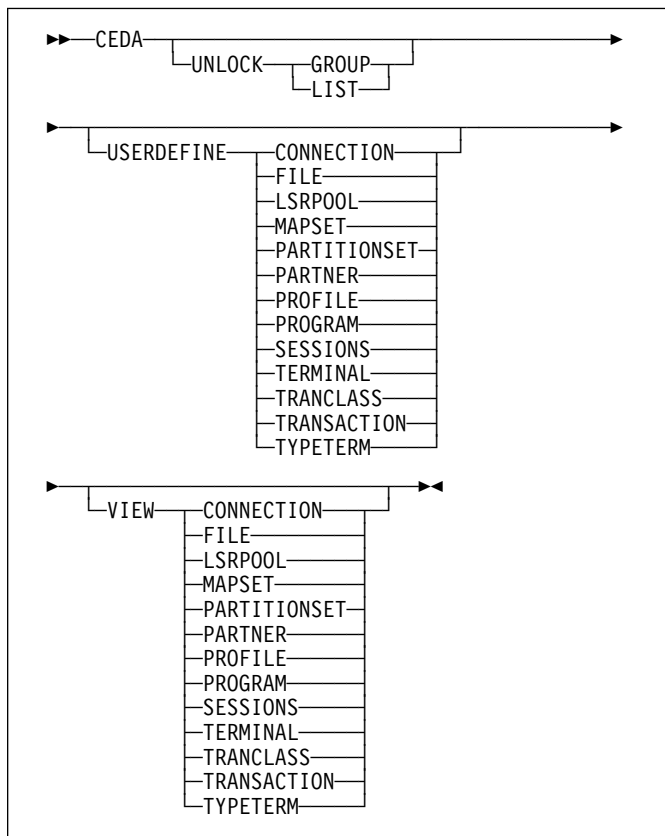
PF 1 HELP 3 END 6 CRSR 7 SBH 8 SFH 9 MSG 10 SB 11 SF 12 CNCL
    
```

Figure 32. CEDA transaction: INSTALL screen

Command syntax







You can go directly to the working screen to make your changes by typing:

CEDA function resource_type

For example:

CEDA DEF CONN

The CEDA keywords are as follows:

AFTER

Controls the placing of a group name in a list.

ALL

All resources are to be copied, deleted, displayed, installed, moved, or renamed.

AS The new name specified for a definition.

BEFORE

Controls the placing of a group name in a list.

CONNECTION

The remote system that your CICS system communicates with, using ISC or MRO.

FILE

The FILE definition describes to CICS file control the physical and operational characteristics of a file.

GROUP

Every resource definition must have a GROUP name. The resource definition becomes a member of the group and is installed in the CICS system when the group is installed. The GROUP name can be up to 8 characters in length.

LIST

The name of the list for which a specified group is to be added, appended, checked, displayed, expanded, locked, removed, or unlocked.

LSRPOOL

The local shared resources (LSR) pool is a reserve of data buffers, strings, and hiperspace buffers that VSAM uses when processing access requests for certain files.

MAPSET

A series of different BMS maps.

PARTITIONSET

A table that describes to CICS how a display screen is to be partitioned.

PARTNER

The PARTNER definition enables CICS application programs to communicate via APPC protocols to a partner application program running on a remote logical unit. PARTNER is one of the four resources (the other three are PROFILE, CONNECTION, and SESSION) that you must specify to allow the System Application Architecture (SAA) communications interface to be used.

PROFILE

A group of programs that control a number of transactions or partners.

PROGRAM

The name of the program that is to control a given transaction.

+ REMOTESYSTEM

- + The command is to be run on a group or list in a CICS region with a different sysid from the region that the command is being issued from. If this option is not used, the command will use the sysid of the region from which the command is issued.

SESSIONS

The logical link of two systems that communicate using ISC or MRO.

TERMINAL

The definition of each terminal used in your CICS system. A terminal can be any device linked to your system, for example, visual display units, printers, facsimile machines. To simplify matters, it is possible to group resources that have common features by using TYPETERM and through AUTOINSTALL.

TO The new group to which a definition is to be copied.

| TRANCLASS

| The name of a user-defined class of transactions.

TRANSACTION

The name of the transaction. Within the transaction definition, you can specify options such as transaction priority and length of the transaction work area. You also add to the transaction name the names of related resources: PROGRAM, PROFILE, and PARTITIONSET.

TYPETERM

Some of the common attributes of your terminals. This has to be defined as part of the terminal definition.

```

REStart ==>          No | Yes
SPurge  ==>          No | Yes
TPurge  ==>          No | Yes
Dump    ==>          Yes | No
TRACe   ==>          Yes | No
SECURITY
RESec   ==>          No | Yes
Cmdsec  ==>          No | Yes
Extsec   :
TRANSec :             1-64
RSI     :             0-24 | Public
    
```

Figure 35. CEDA transaction: normal panel (end)

CSD compatibility panel

Figure 33 shows a normal ALTER panel with one attribute (PRIMedsize) that is obsolete in CICS/ESA 3.3, protected as indicated by the colon symbol (:).

Use the PF2 key to change to the compatibility mode panel shown in Figure 36. PRIMedsize is now shown with the ==> symbols indicating that it can be modified. Use the PF2 key again to return to the normal panel.

See the *CICS/ESA Resource Definition Guide* for background information about the CSD compatibility panel.

```

OVERTYPE TO MODIFY                                COMPATIBILITY MODE
CEDA Alter TRANSACTION( )
Transaction ==>
Group ==>
Description ==>
PROGRAM ==>
TWSIZE ==>          0-32767
PROFILE ==>
PARTITIONSET ==>
STATUS ==>          Enabled | Disabled
PRIMedsize ==>      0-65520
TASKDATALOC ==>     Below | Any
TASKDATAKEY ==>     User | Cics
REMOTE ATTRIBUTES
Dynamic ==>         No | Yes
REMOTESYSTEM ==>
REMOTENAME ==>
TRPROF ==>
+ Localq ==>        No | Yes
    
```

Figure 36. CEDA transaction: compatibility mode panel

```

ALTER TRANS                                       CICS RELEASE = 0410
OVERTYPE TO MODIFY
CEDA Alter TRANSACTION( )
Transaction ==>
Group ==>
Description ==>
PROGRAM ==>
TWSIZE ==>          0-32767
PROFILE ==>
PARTITIONSET ==>
STATUS ==>          Enabled | Disabled
PRIMedsize ==>      0-65520
TASKDATALOC ==>     Below | Any
TASKDATAKEY ==>     User | Cics
STORAGECLEAR ==>   No | Yes
RUNAWAY ==>         System | 0-2700000
SHUTDOWN ==>        Disabled | Enabled
ISOLATE ==>         Yes | No
REMOTE ATTRIBUTES
+ Dynamic ==>       No | Yes
    
```

Figure 33. CEDA transaction: normal panel

```

REMOTESYSTEM ==>
REMOTENAME ==>
TRPROF ==>
Localq ==>          No | Yes
SCHEDULING
Priority ==>         0-255
TClass :           No | 1-10
TRANCLASS
ALIASES
Alias ==>
TASKReq ==>
XTRanid ==>
TPName ==>
XTPname ==>
RECOVERY
DTimout ==>         No | 1-6800
+ INdoubt ==>       Backout | Commit | Wait
    
```

Figure 34. CEDA transaction: normal panel (continued)

CEDA HELP panels

If you press the help key (PF1), the following panels are displayed:

```

                          CEDA Help Selection
This panel allows you to see a brief description of the CEDA transaction.
For a complete description see Resource Definition (Online) (SC33-0666).

Select one of the following topics:

  1 Command Summary
  2 Resources, Groups and Lists
  3 Using the commands
  4 Expand and Display
  5 Messages
  6 Defaults and Userdefine
  7 PF keys

Selection ==>

Press Enter or any PF key to return
    
```

Figure 37. CEDA transaction: initial HELP panel

Command Summary

Resource management commands:

- DEFINE creates a resource definition (see Topic 6 for USERDEFINE)
- ALTER,VIEW modify and display the attributes of a resource (or resources)
- COPY creates new resources from existing definitions
- DELETE destroys resource definitions
- MOVE,RENAME change the names and/or groupings of resources

List management commands:

- ADD creates or extends a list
- REMOVE reduces or destroys a list
- APPEND copies a list or combines lists

General purpose commands:

- CHECK cross-checks definitions in a group or list
- DISPLAY shows the names of groups or lists on the CSD file
- EXPAND shows the contents of groups or lists
- INSTALL dynamically adds resources to the running CICS system
- LOCK,UNLOCK control access to a group or list

CEDB does not have INSTALL. CEDC has DISPLAY, EXPAND and VIEW only.

Press Enter or any PF key to return to Help Selection Panel

Figure 38. CEDA transaction: HELP Panel 1

Expand and Display

The commands you can use on each kind of panel are as follows:

- EXPAND GROUP panel - Alter, Copy, Delete, Install, Move, Rename, View
- EXPAND LIST panel - Add, Remove
- DISPLAY GROUP panel - Check, Expand, Install, Lock, Unlock
- DISPLAY LIST panel - Append, Check, Expand, Lock, Unlock

All these commands operate on the thing beside which you enter them. ALTER means ALTER PROGRAM(P) GROUP(G), if these are the object and group values on the line. In this case, since no attributes are changed, you will see a display of the object which you can then overwrite. The EXPAND command on a DISPLAY panel also results in a new panel.

You can enter as many commands as you like at one time and you can use = to mean the same command as the last one.

The RENAME option of EXPAND GROUP gives a panel on which you can change the names of objects directly, by overtyping the name fields displayed. When you change a name field a RENAME command is put in the corresponding command field, and causes anything entered there to be ignored.

Press Enter or any PF key to return to Help Selection Panel

Figure 41. CEDA transaction: HELP Panel 4

Resources, Groups and Lists

You use CEDA to create and modify resource definitions. Using the DEFINE command, you specify a resource's type, name and attributes, which are then stored on the CICS System Definition (CSD) file.

You can see what types of resource there are by using DEFINE on its own as a command. Similarly you can see what attributes any resource may have by adding just the type of resource, as in, for example, DEFINE PROGRAM.

Each resource must belong to a GROUP, which is a collection of resources, usually related in some way. A group of resources can be installed on your running CICS system.

A LIST is a collection of group names, and can be used to specify large numbers of resources during a cold start.

Note that program P, say, may be defined in more than one group. Such definitions are separate resources and may have different attributes. By contrast the same group names in different lists refer to the same group. The DELETE command destroys a resource, but REMOVE does not destroy a group. A group has no attributes and need not even exist to be used in a list.

Press Enter or any PF key to return to Help Selection Panel

Figure 39. CEDA transaction: HELP Panel 2

Messages

Single messages appear near the bottom of panels. If there is more than one message a summary appears instead. PF9 shows the details of such a summary.

Messages are preceded by a single letter indicating the severity:

- I-Informatory
- W-Warning
- E-Error
- S-Severe

Commands with only I or N-level messages are executed. E-level messages are given for errors that CEDA attempts to correct. Such commands can be executed by pressing ENTER without making any changes. S-level messages require you to correct the command.

For a command executed on an EXPAND or DISPLAY panel you can see the messages by using ? in the command field or by means of the cursor and PF9. Commands with errors that have apparently been fixed (E-level messages) must still be corrected by you.

You can correct a command on the message panel or on the original panel.

Press Enter or any PF key to return to Help Selection Panel

Figure 42. CEDA transaction: HELP Panel 5

Using the commands

You type CEDA commands on the first line of the screen and press ENTER. You will then see a panel that shows your command in detail, and the results of its execution. You can then either modify the panel to execute a similar command with new values or type a different command on the top line.

You can see the syntax of a command, without executing it, by typing ? in front of the command.

You can shorten command keywords as much as you like provided the result remains unique. Thus ALT and AL both mean ALTER but A is invalid because of ADD. The minimum number of letters you can use is shown in upper case.

You can specify generic names in some commands, by using * and +. * means any number of characters, + means any single character. Thus PROGRAM(P*) refers to all programs whose names begin with P.

Current values for GROUP and LIST are kept and are used when either keyword is omitted from commands other than DISPLAY and EXPAND LIST.

Press Enter or any PF key to return to Help Selection Panel

Figure 40. CEDA transaction: HELP Panel 3

Defaults and Userdefine

When you DEFINE a resource any attributes you do not specify are defaulted. You cannot change the defaults that DEFINE uses. You can however DEFINE "default resources" with whatever values you like and then create new resources using USERDEFINE.

You DEFINE resources called USER in a group called USERDEF, giving each one the values you would like to have as defaults. These are now your default resources.

USERDEFINE will then behave just like DEFINE except that it will get default values from the appropriate default resource. If a default resource does not exist then USERDEFINE fails.

This facility is restricted to initial values only. Default values are also given by CEDA to attributes you remove from a resource, by overtyping with blanks for instance. These defaults are the same as those used for the DEFINE command and you cannot change them.

Press Enter or any PF key to return to Help Selection Panel

Figure 43. CEDA transaction: HELP Panel 6

```

                                PF keys
The PF keys do the following:
1 HELP  Gives the initial help panel
2 COM   Selects and deselects compatibility mode
3 END   Terminates the CEDA transaction if no data has been entered
4       Does nothing
5       Does nothing
6 CRSR  Moves the cursor to the command line or first input field
7 SBH   Scrolls back half a screen
8 SFH   Scrolls forward half a screen
9 MSG   Displays the current set of messages
10 SB   Scrolls back a full screen
11 SF   Scrolls forward a full screen
12 CNCL Cancels changes not yet executed and returns to previous panel

When you press ENTER without having entered any data you will normally
be returned to the previous panel.

Positioning the cursor at a PF key and pressing ENTER will have the same
effect as pressing the key. PF13 to PF24 have the same effects as PF1 to PF12.

Press Enter or any PF key to return to Help Selection Panel

```

Figure 44. CEDA transaction: HELP panel 7

CEDB and CEDC

Two further resource definition transactions, CEDB and CEDC, allow you to use some, but not all, of the functions of CEDA.

CEDB

When you use the CEDB transaction, the INSTALL command is not available to you. This means that you can update the CSD, but not the running CICS system.

```

ENTER ONE OF THE FOLLOWING

Add
ALter
APpend
CHeck
COpy
DEFine
DELete
DISplay
EXpand
Lock
Move
REMove
REName
UNLock
USerdefine
View

                                SYSID=C141 APPLID=IYAHZCCV

PF 1 HELP      3 END      6 CRSR      9 MSG      12 CNCL

```

Figure 45. CEDB transaction: initial screen

CEDA—resource definition online

CEDC

The CEDC transaction allows you only to look at data on the CICS system definition (CSD) file. You cannot update either the CSD file or the running CICS system. The only options that are available are DISPLAY, EXPAND, and VIEW.

For background information about the CEDA, CEDB, and

CEDC transactions, see the *CICS/ESA Resource Definition Guide*.

CEDF—execution diagnostic facility

Use CEDF, which invokes the CICS execution diagnostic facility (EDF), to test your command level application programs interactively without having to supply special program testing procedures.

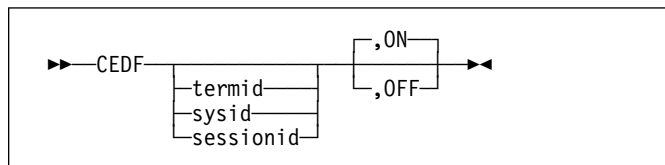
CEDF allows you to intercept your application programs at the program's initiation, at each CICS command, and at the program termination. CEDF helps you to isolate and focus on problems in your application programs.

For guidance on how to use the CEDF transaction, see the *CICS/ESA Application Programming Guide*.

You must ensure that the EDF resource definitions are installed. These resource definitions are provided in the IBM-supplied group, DFHEDF. For information about installing the resource definitions, see the *CICS/ESA Resource Definition Guide*.

You must also ensure that the terminal from which you run EDF is in transceive (ATI/TTI) status.

Command syntax



Command options

ON|OFF

specifies whether the EDF screen is to be switched ON or OFF. The default is ON. If you specify ON or OFF, you **must** enter the preceding comma, as shown in the following examples:

```

CEDF T33A
CEDF T33A ,OFF
CEDF ,ON
CEDF ,OFF
  
```

sessionid

specifies the session identifier used to test a transaction attached across an MRO, APPC, or LU6.1 session. All CICS commands processed by the attached transaction are monitored.

sysid

specifies the system identifier used to test a transaction across an MRO or APPC session.

termid

specifies the identifier of the terminal on which the transaction to be tested is being run. If you do not provide an identifier, the terminal at which you enter the CEDF transaction is assumed.

Beginning an EDF session (single-screen mode):

To start an EDF session with a single terminal, clear the screen and enter the transaction identifier, CEDF. The EDF inputs and outputs are interleaved with those of the transaction. This is known as *single-screen mode*.

CEDF

When you press ENTER, the response is:

THIS TERMINAL: EDF MODE ON

Now clear the screen and enter the name of your transaction. Figure 46 shows the initial screen for a typical transaction using EDF.

```

TRANSACTION: ACCT PROGRAM: ACCT00 TASK: 0000054 APPLID: 00001349 DISPLAY: 00
STATUS: PROGRAM INITIATION

EIBTIME = 110343
EIBDATE = 09174
EIBTRMID = 'ACCT'
EIBTASKN = 54
EIBTRMID = '025L'

EIBCPOSN = 4
EIBCALEN = 0
EIBAID = 'X'7D' AT X'00543F1E'
EIBFN = 'X'0000' AT X'00543F1F'
EIBRCODE = 'X'000000000000' AT X'00543F21'
EIBDS = '.....'
+ EIBREQID = '.....'

ENTER: CONTINUE
PF1 : UNDEFINED PF2 : SWITCH HEX/CHAR PF3 : END EDF SESSION
PF4 : SUPPRESS DISPLAYS PF5 : WORKING STORAGE PF6 : USER DISPLAY
PF7 : SCROLL BACK PF8 : SCROLL FORWARD PF9 : STOP CONDITIONS
PF10: PREVIOUS DISPLAY PF11: UNDEFINED PF12: UNDEFINED
  
```

Figure 46. CEDF transaction: initial screen

Beginning an EDF session (dual-screen mode):

You can also use EDF in what is known as *dual-screen mode*; that is, using one terminal to monitor a transaction running at a second terminal.

This mode is started by adding the terminal identifier (termid) of the second terminal to the CEDF command at the first terminal:

CEDF tttt

The message that CEDF gives in response to this depends on whether there is already a transaction running on the second terminal. If the second terminal is not busy, the message displayed at the first terminal is:

TERMINAL tttt: EDF MODE ON

and nothing further will happen until a transaction is started on the second terminal, when the PROGRAM INITIATION display will appear.

If a transaction is already running on the second terminal, the message displayed at the first terminal is:

TERMINAL tttt: TRANSACTION RUNNING: EDF MODE ON

CEDF—execution diagnostic facility

| CEDF then picks up control at the next command processed
| and presents the appropriate display. At the first terminal,
| you can then follow the sequence of commands in the
| transaction running at the second terminal.

Monitoring remote transactions: In a multiregion operation (MRO) or an intersystem communication (ISC) environment (APPC only), you can use CEDF (in single screen mode only) for transactions that are defined in the terminal owning region (TOR) as remote. CICS automatically notifies the application owning region (AOR) that the transaction is to be run in EDF mode.

When the remote application ends, if your reply is YES, the terminal remains in EDF mode as usual. However, CICS deletes all the associated temporary storage queues, and none of the previous EDF screens or options is saved: you must type these again for the next transaction. Responding NO at the termination screen ends the EDF session in all participating regions.

Note: CICS supports EDF for remote transactions only when all the communicating regions are using CICS/ESA.

| **Invoking CEBR and CECI from CEDF:** See Figure 47
| for an example of the screen from which CEBR and CECI
| can be invoked.

| **Note:** If you are not authorized to use the CEBR or CECI
| transaction by the external security manager, a warning
| message will appear on the EDF panel. See the *CICS/ESA*
| *CICS-RACF Security Guide* for information about security
| checking of transactions running under CEDF.

```
TRANSACTION: DLID PROGRAM: DLID      TASK: 0000049 APPLID: IYAHZCIB
ADDRESS: 00000000

WORKING STORAGE IS NOT AVAILABLE
ENTER: CURRENT DISPLAY
PF1 : UNDEFINED          PF2 : BROWSE TEMP STORAGE PF3 : UNDEFINED
PF4 : EIB DISPLAY       PF5 : INVOKE CECI      PF6 : USER DISPLAY
PF7 : SCROLL BACK HALF PF8 : SCROLL FORWARD HALF PF9 : UNDEFINED
PF10: SCROLL BACK FULL  PF11: SCROLL FORWARD FULL PF12: REMEMBER DISPLAY
```

| *Figure 47. Typical EDF display from which CEBR or CECI can be
| invoked*

| To invoke the CEBR transaction from the CEDF screen,
| press PF2. You can then use CEBR commands to browse
| temporary storage queues and to delete them. (CEBR
| commands are described briefly in “CEBR—temporary
| storage browse” on page 23; for detailed guidance on using
| them, see the *CICS/ESA Application Programming Guide*.)

| To invoke the CECI transaction from the CEDF screen, press
| PF5. You can then use CECI commands to display or alter
| resource status. (CECI commands are described briefly in
| “CECI—command-level interpreter” on page 37; for detailed
| guidance on using them, see the *CICS/ESA Application
| Programming Guide*.)

CEMT—master terminal

Use CEMT to invoke all the master terminal functions.

The master terminal program provides dynamic user control of the CICS system. By using this function, an operator can inquire about and change the values of parameters used by CICS, alter the status of the system resources, terminate tasks, and shut down the CICS system.

The following transactions are subsets of CEMT (that is, they contain some but not all of the functions of CEMT):

- CEBT for alternate CICS systems (see page 25)
- CEOT (see page 157)
- CEST (see page 165).

The CECI transaction (see page 37) also uses the same command interpreter as CEMT.

You can start CEMT from IBM 3270 family display devices or equivalent terminals or from the system console. Starting CEMT from the operating system console is described in “The system console as a CICS terminal” on page 7. The description of CEMT throughout this section assumes, unless stated otherwise, that you are using a 3270 family display device or equivalent terminal.

To start CEMT, you can either enter the identifier CEMT on the command line by itself, or you can add options on the same line, separated by commas or blanks, to form a complete request.

If you start the transaction by entering CEMT by itself and pressing ENTER, you get a display that prompts you for more information, as described in “CEMT INQUIRE SYSTEM” on page 91.

Warning: The CEMT program does not perform any resource level security checking. Thus defining the CEMT transaction with RSLC(YES) has no effect. To protect resources from update by unauthorized users, you must use transaction security checking, TRANSEC, in the CEDA DEFINE TRANSACTION command.

Starting the CEMT transaction

You can construct a CEMT request in stages, or you can enter a complete request in one go. The CEMT transaction checks the syntax of requests and diagnoses errors. If your request is syntactically correct, it is processed immediately. If your request cannot be processed because of severe syntax errors, the full syntax of your request is displayed.

If you put a question mark (?) in front of your request, the syntax of your request is displayed but it is not processed.

After you have initiated the CEMT transaction, you need not reenter CEMT on subsequent requests, because the identifier is implied at the beginning of any further request. However, if you are using the system console, you must always start each master terminal request with CEMT.

Enter CEMT on the command line of the screen, as follows:

CEMT

Press the ENTER key. You get the following response:

```

STATUS:  ENTER ONE OF THE FOLLOWING

Discard
Inquire
Perform
Set

```

Figure 48. CEMT transaction: initial screen

This display prompts you to enter one of the keywords shown.

If you then type:

D

and press ENTER, you get the following screen:

```

D
STATUS:  ENTER ONE OF THE FOLLOWING

Autinstmodel
FENode
FEPOol
FEPropset
FETarget
File
PArtnr
PROFile
PROGram
TClass
TRANSaction

```

Figure 49. CEMT transaction: DISCARD screen

If you type:

I

CEMT—master terminal

and press ENTER, you get the following screen:

```
I
STATUS: ENTER ONE OF THE FOLLOWING OR HIT ENTER FOR DEFAULT

AUTInstall Pitrace
AUTOinstall PROfile
AUXtrace PRoGram
Connection StAtistics
DEletshipped SYDumPCODE
DLIdatabase SYStem
DSAs TAsK
DSName TClAsS
DUMpds TDqueue
FEConnection TErminAl
FENode TRAnsaction
FEPool TRDumPCODE
FEPopset TSqueue
FETarget VOlume
File VTAm
Gfttrace
INttrace
IRBatch
IRC
Journalnum
Line
MODename
MONitor
Netname
PArtnEr
```

Figure 50. CEMT transaction: INQUIRE screen

If you type:

P

and press ENTER, you get the following screen:

```
P
STATUS: ENTER ONE OF THE FOLLOWING

DEletshipped
DUMp
REConnect
RESet
SEcurity
SHUTdown
SNap
StAtistics
```

Figure 51. CEMT transaction: PERFORM screen

If you type:

S

and press ENTER, you get the following screen:

```
S
STATUS: ENTER ONE OF THE FOLLOWING OR HIT ENTER FOR DEFAULT

AUTInstall SYStem
AUXtrace TAsK
Connection TClAsS
DEletshipped TDqueue
DLIdatabase TErminAl
DSAs TRAnsaction
DSName TRDumPCODE
DUMpds VOlume
FEConnection VTAm
FENode
FEPool
FETarget
File
Gfttrace
INttrace
IRC
Journalnum
Line
MODename
MONitor
Netname
Pitrace
PProgram
StAtistics
SYDumPCODE
```

Figure 52. CEMT transaction: SET screen

System parameters

If you press ENTER without selecting one of the CEMT keywords, INQUIRE SYSTEM is assumed and you get a display of the system parameters. Full details are given in “CEMT INQUIRE SYSTEM” on page 91.

Program function (PF) keys

When you start CEMT, the lower part of your display contains a list of PF keys. If your terminal does not have such keys, you can get the same effect by placing the cursor under a name in the list, and pressing ENTER.

Here is what the PF keys do:

PF1 is a general HELP key. It also gives you a list of all the PF keys and what they do.

PF3 ends this master terminal session by terminating the CEMT transaction. If, however, you use this key when you are modifying your display, say by keying in a new command, or by overtyping an old command, this key does not end your session; it is ignored.

PF7 scrolls backward half a screen.

PF8 scrolls forward half a screen.

PF9 expands messages. If more than one message has been generated in response to your request, a message telling you how many messages have been generated appears near the bottom of the screen. PF9 lets you display all the messages on a separate display. Press ENTER to go back to your original display.

PF10 scrolls backward a full screen.

PF11 scrolls forward a full screen.

Minimum abbreviation of keywords

CEMT accepts as few characters of a keyword as needed to uniquely identify it within the request. This means that you can enter the keyword TASK as TA or TAS, but you cannot use T, because it can be confused with TCLASS, TDQUEUE, TERMINAL, TRANSACTION, or TRDUMPCODE. You are prompted if the abbreviation you use is not unique. An exception to this rule is SHUTDOWN, for which you must specify at least SHUT.

In the syntax displays on your screen and in the railroad diagrams and syntax descriptions in this book, the minimum permitted abbreviation is given in uppercase characters, with the remainder in lowercase characters.

ALL option

Many of the request formats contain the ALL option. For INQUIRE, this is the default. For example, if you inquire about terminals, you receive information about all terminals unless you specify a terminal identifier, a terminal class identifier, or a system identifier.

ALL is not the default on a SET command, however. If you specify the ALL option on a SET command, any changes you request are made to all resources of the specified type that you are authorized to access.

If there are no resources of the type specified on the SET command, a response of NOT FOUND is given.

CLASS option

When operating on terminals, transactions, and programs, the CLASS option can be used to identify the suffix of a TLT, XLT, or PLT. This limits the scope of the INQUIRE or SET commands to those resources defined in the specified table. Any resources whose definitions have not been installed are displayed as NOT FOUND. For information about the TLT, the XLT, and the PLT, see the *CICS/ESA Resource Definition Guide*.

Family of resources (using * and + symbols)

You can use the symbols * and + as part of an identifier to specify a family of resources. * represents any number of characters (including none), and + represents a single character, for example:

A*	all identifiers beginning with A
DATA	all identifiers containing the characters DATA
TERM00+	all 7-character identifiers starting with TERM00.

Use of * and + is restricted to selecting existing resources and cannot be used either to create a new set of resources or to discard resources.

Note: The INQUIRE command and the SET command may use the generic name in a different way. The following two examples illustrate the difference:

```
# CEMT INQUIRE F(*) DSN(ABCD*)
```

lists all the data sets with a name beginning with ABCD.

```
# CEMT SET F(*) DSN(ABCD*) CLO
```

renames all your files as ABCD* and closes them all.

You are strongly recommended not to use a generic name with the SET command.

List of resource identifiers: You can specify a list of resource identifiers, rather than a single one, separating the items in the list by commas or blanks. Any errors of syntax are reported.

```
# CEMT SET TERMINAL(T01,T02,T03,T04) INSERVICE
```

You cannot use * or + when the identifier is in a list of identifiers.

Note: If you use the comma (,) in the name of a resource identifier, you will not be able to use any commands that permit the use of lists of resources, because the comma will be treated as a list separator, and not as a part of a name.

Subdefining resource groups

When you make an inquiry, you can subdefine a resource group by specifying one or more attributes of the group. For example:

```
CEMT INQUIRE TERMINAL ALL INSERVICE
```

displays the status of all terminals that are in service.

If the subdefined resource group has no members, CEMT returns a NOT FOUND response. For example, if all the files in the system are closed, the command:

```
CEMT INQUIRE FILE ALL OPEN
```

gives the NOT FOUND response. Similarly, if journal 14 is open for output, the command:

```
CEMT INQUIRE JOURNAL(14) CLOSED
```

gives the NOT FOUND response, because CEMT looks for a journal numbered 14 that is closed.

You cannot subdefine a resource group on the SET command in the same way. For example:

```
CEMT SET TERMINAL ALL INSERVICE PAGE
```

puts all terminals both in service **and** into page status.

However, you can manage such groups of resources by issuing an INQUIRE request, and overtyping the display produced.

Overtyping a display

When you issue an INQUIRE request, you usually get a display that consists of status information for each resource in the specified group. The status information is displayed as a list of abbreviated keywords. You can move the cursor to some fields and change their contents by overtyping. When you press the ENTER key again, CICS reads the contents of all fields that have been changed, and processes any valid operations implied by the changes. If you make an invalid change, you get an error message, and the field is not changed.

+ When a field is overtyped, CEMT will accept and identify only + as few characters as are necessary to uniquely identify the + keyword within the valid options for that position. This is + usually only one character.

| On many of the status displays, the current status is | displayed in certain positional fields at the right-hand side of | the display. For some resources, the positional display

CEMT—master terminal

| appears only when the status of a particular resource is 'on';
| for other resources, it appears only when the status is 'off'.
| You can overwrite the current status (when it is either
| displayed or blank) to change it.

| So, for example, if you type 'CEMT INQUIRE SYD', you get
| a display of the current settings of the entries in the system
| dump table. The various attributes of those entries are
| displayed in fields across the screen. If CICS is to be shut
| down after the occurrence of an error for this dump code,
| 'Shu' appears in the third field of attributes for that dump
| code. If CICS is not to be shut down, however, the 'Shu'
| space is left blank. If you want CICS to be shut down for
| this dump code, you can tab to that field and type 'shu' in
| that blank space in that field only.

| The sequence of the positional fields is given in the
| descriptions of the various CEMT INQUIRE commands.

| Whenever you overwrite a display, not only is that particular
| action taken but all the status information is refreshed. You
| can avoid the overhead of a large number of table searches
| either by using the SET command, or by limiting your inquiry
| to a specific number of resources (either by using a 'wild
| card' in the search argument or by naming a range of
| resource identifiers).

Tab key

The fields you can change are different in each display. You can detect them, however, by pressing the tab key repeatedly. This causes the cursor to jump from one field to the next.

Using the ? key

If you press the ? key in the space on the extreme left of the command line, the syntax for that command appears on the screen. For example ?INQUIRE TERMINAL gives the list of options that you can receive from the inquiry command with the default highlighted. See Figure 53.

```
?INQ TERM
STATUS: COMMAND SYNTAX CHECK
CEMT Inquire Terminal()
< Class() | AL1 >
< Transaction() >
< Priority() >
< PAgeable | AUtopageable >
< Inservice | Outservice >
< ATi | NOAti >
< TTi | NOTTi >
< NETname() >
< ACquired | REleased >
< Create | NOCreate >
< REMotesystem() >
```

Figure 53. Sample of screen showing the syntax of a INQUIRE command

A further use for the ? key is to select one resource item from a list, then check and change its options if required. This is done, for example, by entering CEMT INQUIRE TERM, which gives the screen in Figure 54.

```
INQ TERM
STATUS: RESULTS - OVERTYPE TO MODIFY
Ter(CERR) Tra(CEMT) Pri( 000 ) Pag Ins Tti
Ter(S208) Tra(CEMT) Pri( 000 ) Pag Ins Ati Tti
Net(IGKS208 ) Acq
```

Figure 54. Sample of screen showing a list of terminals

Type a ? to the left of the second entry and press ENTER. This selects the second terminal, and displays the relevant information. The available command options of the SET TERM command are also shown on the screen (see Figure 55).

```
INQ TERM
SYNTAX OF SET COMMAND
Ter(S208) Tra(CEMT) Pri( 000 ) Pag Ins Ati Tti
Net(IGKS208 ) Acq

CEMT Set Terminal()
< Class() | AL1 >
< Priority() >
< PAgeable | AUtopageable >
< Inservice | Outservice >
< ATi | NOAti >
< TTi | NOTTi >
< Purge | Forcepurge | Cancel >
< ACquired | COIdacq | REleased >
< Create | NOCreate >
< REMotesystem() >
```

Figure 55. Terminal settings and allowed changes

Overwrite the settings shown, on the line beginning Ter, if you want to make changes.

Scrolling symbol (+ sign)

A plus (+) sign on the first or last line of a display tells you that there is more data above or below your current display. Scrolling backward reveals data above, and scrolling forward reveals data below.

Blank fields in a display

Some displays contain blank fields that allow you to specify options, such as NEWCOPY, on the CEMT SET PROGRAM command, which are not part of the status of a resource. A status, such as NOREAD, which begins NO, is also represented by a blank field. You can detect these fields by using the tab key.

Invoking CEMT from an application program

Many of the CEMT INQUIRE and SET operations are available through the EXEC CICS INQUIRE and EXEC CICS SET commands; for programming information, see the *CICS/ESA System Programming Reference* manual. That manual also describes the programmable interface to master terminal functions that use an EXEC CICS LINK to a master terminal program. If the function you require is available via the EXEC CICS INQUIRE|SET commands, you are recommended to use them in preference to the programmed master terminal equivalent.

Security checking

The scope of a particular INQUIRE, SET, or PERFORM command can be limited by a combination of several levels of security checking. The normal transaction-attach security is described in the *CICS/ESA CICS-RACF Security Guide*. CEMT calls the exec interface programs to process the user's commands, in much the same way as CECL or a user's command-level program would. The resource security and the command security used by the command-level programming interface are thus applicable to the master terminal user.

For programming information about command security checking, see the *CICS/ESA System Programming Reference* manual.

CEMT DISCARD commands

Function: The DISCARD command allows you to remove an installed resource definition and its corresponding catalog entry from an active CICS system.

DISCARD does not affect the CICS system definition (CSD) file, and you can therefore reinstate the resource using CEDA INSTALL(resource name). DISCARD commands have the same security attached to them as SET commands. You cannot discard resources that are currently in use or are CICS owned resources (beginning with "DFH" or "C").

You can discard the following resource types:

- Autinstmodel
- FEPI node
- FEPI pool
- FEPI property set
- FEPI target
- File
- Partner
- Profile
- Program
- Transaction
- Transaction class.

(Programming information about FEPI commands is in the *CICS/ESA Front End Programming Interface User's Guide*.)

There are two ways to discard a resource:

1. If you know the name of the resource that you want to discard, type:

```
CEMT DISCARD resourcetype(resource name)
```

2. If you do not know the name of the resource, type:

```
CEMT INQUIRE resourcetype
```

and a screen similar to Figure 56 appears. Use the carriage return key to move the cursor to the beginning of the line for the resource or resources you want to discard, and type "D" as shown and then press ENTER.

```

INQ PROG
STATUS: RESULTS - OVERTYPE TO MODIFY
D Prog(ABCDTASK) Len(0002936) Ass Pro Ena Pri Ced
  Res(000) Use(000000)
  Prog(DFHACP ) Len(0008232) Ass Pro Ena Pri
    Res(001) Use(000002) Any Cex Ful
  Prog(DFHAKP ) Len(0005672) Ass Pro Ena Pri
    Res(000) Use(000001) Be1 Cex Ful
  Prog(DFHAMP ) Len(0108432) Ass Pro Ena Pri
    Res(000) Use(000009) Any Cex Ful
  Prog(DFHAPATT) Len(0000632) Ass Pro Ena Sha
    Res(005) Use(000018) Any Cex Ful
  Prog(DFHBRCP ) Len(0000000) Ass Pro Ena Pri
    Res(000) Use(000000) Be1 Cex Ful
  Prog(DFHCCNV ) Len(0000000) Ass Pro Ena Pri
    Res(000) Use(000000) Any Cex Ful
D Prog(ERRTASK ) Len(0000448) Ass Pro Ena Pri
  Res(000) Use(000000)

```

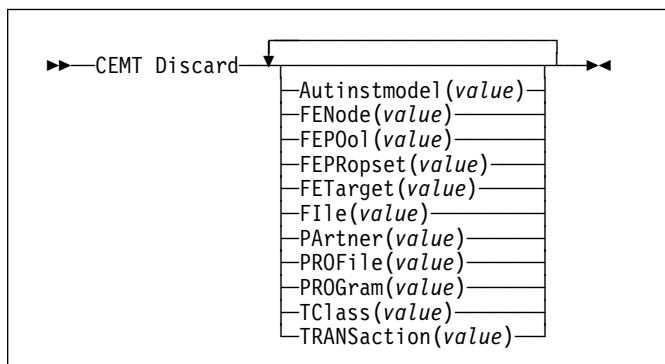
Figure 56. Example of screen showing the discarding of resources

CEMT INQUIRE AND SET COMMANDS

Notes:

1. A program cannot be discarded if a running transaction is referencing it. The transaction must be discarded first, then the program.
2. A remote file can be discarded but cannot be disabled.
3. A CEMT INQUIRE display can be used to discard more than one entry at a time but cannot be used to disable and discard at the same time.
4. When discarding a resource, the use of * or + in the resource name is not allowed.

Syntax



Options

Autinstmodel(data-value)

specifies the name of the autoinstall model that is to be removed. The name can be up to 8 characters long. The DISCARD AUTINSTMODEL command removes the installed name of an autoinstall model from the autoinstall terminal model (AITM) table and the CICS catalog.

FENode|FEPOol|FEPRopset|FETarget

These are described in the *CICS/ESA Front End Programming Interface User's Guide*.

File(data-value)

specifies the name of the file that is to be removed. The name can be up to 8 characters long. The DISCARD FILE command removes the installed name of a file from the CICS file control table (FCT) and the CICS catalog.

PArtner(data-value)

specifies the name of the partner that is to be removed. The name can be up to 8 characters long. The DISCARD PARTNER command removes the installed name of a partner from the CICS side information table and the CICS catalog.

PROFile(data-value)

specifies the name of the profile that is to be removed. The name can be up to 8 characters long. The

DISCARD PROFILE command removes the installed name of a profile from the CICS profile table (PFT) and the CICS catalog.

PROGram(data-value)

specifies the name of the program, map set, or partition set that is to be removed. The name can be up to 8 characters long. The DISCARD PROGRAM command removes the installed name of a program, map set, or partition set from the CICS processing program table (PPT) and the CICS catalog.

TClass(data-value)

specifies the name of the transaction class that is to be removed. The name can be up to 8 characters long. The DISCARD TCLASS command removes the installed name of a transaction class from the CICS program control table (PCT) and the CICS catalog.

Note: 'TRANCLASS' is also accepted as a synonym for TCLASS.

TRANSACTION(data-value)

specifies the name of the transaction that is to be removed. The name can be up to 8 characters long. The DISCARD TRANSACTION command removes the installed name of a transaction from the CICS program control table (PCT) and the CICS catalog.

CEMT INQUIRE and SET commands

Most of your requests either inquire about (INQUIRE), or change (SET) the status of one or more named instances of a resource (such as a terminal), a particular subgroup of resources (such as a class of terminals), or all resources of a particular type (such as all terminals).

The INQUIRE command causes the status of the specified resources to be displayed. The SET command makes the changes that you specify, and displays the new status of the resources. No changes are made if there are syntax errors in the SET command.

If, for example, you want to inquire about a resource, enter INQUIRE (or a suitable abbreviation) on the command line. The keywords you can use with CEMT INQUIRE are described in the rest of this section.

If you want to perform those functions that are not concerned with resource status, enter PERFORM (or a suitable abbreviation) on the command line. The keywords you can use with PERFORM are described starting on page 111.

And finally, if you want to change the attributes of a resource, enter SET (or a suitable abbreviation) on the command line. The keywords you can use with SET are described starting on page 116.

If you enter INQUIRE, you get the following display:

```

INQ
STATUS: ENTER ONE OF THE FOLLOWING OR HIT ENTER FOR DEFAULT
├─Command Line
├─Status Line
├─Resources
AUTInstmodel Journalnum TRANsaction
AUTOinstall Line TRDumpcode
AUXtrace MODename TSqueue
Connection MONitor VOlume
DLIdatabase Netname VTam
DSname PARTner
DUmpds PIttrace
FEConnection PROFile
FENode PROGram
FEPOol STATistics
FEPropset STOrage
FETarget SYDumcode
File SYStem
Gtfttrace TAsk
INttrace TClasS
IRBatch TDqueue
IRC TErminat
├─
PF 1 HELP 3 END
SYSID=C141 APPLID=IYAHZCCV
9 MSG ─PF keys

```

Figure 57. Sample of the screen following either the INQUIRE or the SET command

You can inquire about any of the displayed options by typing its keyword after INQUIRE on the command line. For example,

```
INQUIRE PROGRAM
```

gives you the status of all programs, and for each program gives its attributes. Full details are given in “CEMT INQUIRE PROGRAM” on page 83.

On every SET command, an argument, a generic argument, or ALL must be specified. For example:

```
SET TERMINAL(TRM1) INSERVICE
```

sets terminal TRM1 in service.

```
| SET TERMINAL(TRM1 TRM2 TRM3) INSERVICE
```

| or

```
| SET TERMINAL(TRM1,TRM2,TRM3) INSERVICE
```

| sets terminals TRM1, TRM2, and TRM3 in service.

```
SET TERMINAL(TRM*) INSERVICE
```

sets all terminals with identifiers starting with TRM in service.

```
SET TERMINAL ALL INSERVICE
```

sets all terminals in service.

However,

```
SET TERMINAL INSERVICE
```

produces an error.

CEMT INQUIRE AUTINSTMODEL

Function: Find out whether a named autoinstall model is present.

Description: The INQUIRE AUTINSTMODEL command returns the names of all the autoinstall models installed in your system. There is no CEMT SET AUTINSTMODEL function, but the INQUIRE AUTINSTMODEL screens allow you to use the DISCARD function.

For information about autoinstall models, see the *CICS/ESA Resource Definition Guide*.

Input: Press the Clear key and type CEMT INQUIRE AUTINSTMODEL (the minimum abbreviation is CEMT I AUTI).

You will get a display screen, a sample of which is shown below.

If you do not type the name of a specific autoinstall model (the name can be up to 8 characters long—for example, cemt i auti (dfhlu0e2)), the names of all the autoinstall models will be displayed.

Sample screen

```

CEMT IN AUTI
STATUS: RESULTS
AutI (DFHLU0E2)
AutI (DFHLU0M2)
AutI (DFHLU0M3)
AutI (DFHLU0M4)
AutI (DFHLU0M5)
AutI (DFHLU2 )
AutI (DFHLU2E2)
AutI (DFHLU2E3)
AutI (DFHLU2E4)
AutI (DFHLU2M2)
AutI (DFHLU2M3)
AutI (DFHLU2M4)
AutI (DFHLU2M5)
AutI (DFHLU3 )
AutI (DFHLU62T)
AutI (DFHSCSP )
AutI (DFH3270 )
+ AutI (DFH3270P)

```

Figure 58. CEMT INQUIRE AUTINSTMODEL screen

Note: The ‘+’ symbol in the left margin by the last item on the screen indicates that further model names are displayed when the PF8 key is pressed.

Displayed fields

Auti

identifies this panel as relating to autoinstall models.

(value)

displays the name of an autoinstall model in your CICS system.

To discard an autoinstall model, type a “D” in the left-hand margin by the model name on the display panel and press ENTER.

CEMT INQUIRE AUTOINSTALL

Function: Retrieve information about autoinstall values.

Description: The INQUIRE AUTOINSTALL command lets you look at some of the values that control the automatic installation of terminals (autoinstall).

For background information about autoinstall, see the *CICS/ESA Resource Definition Guide*.

Input: Press the Clear key and type CEMT INQUIRE AUTOINSTALL (the minimum abbreviation is CEMT I AUTO).

You will get a display screen, a sample of which is shown below. If you want to change any of the values shown, you can then tab to the highlighted fields and overtype them as required.

Sample screen

```

CEMT IN AUTOINSTALL
STATUS: RESULTS - OVERTYPE TO MODIFY
Auto Max( 100 ) Pro( DFHZATDX ) Cur(000)
    
```

Figure 59. CEMT INQUIRE AUTOINSTALL screen

Displayed fields

Autoinstall

identifies this panel as relating to autoinstall.

Maximum(value)

displays the largest number of autoinstall requests that are allowed to queue at any one time. (This is not the largest number of terminals that can be installed using autoinstall.)

Note: You can reset this value by overtyping it with a different value.

Program(value)

displays the name of the program that controls the autoinstall process. This is either the CICS-supplied default autoinstall program, DFHZATDX, or a user-written program.

Note: You can reset this value by overtyping it with a different value.

Current(value)

displays the number of autoinstall requests that are currently being processed. (This is not the number of terminals currently installed using autoinstall.)

CEMT INQUIRE AUXTRACE

Function: Retrieve information about the status of auxiliary trace.

Description: Auxiliary trace entries are made to a pair of CICS-controlled BSAM data sets, 'A' and 'B'.

INQUIRE AUXTRACE tells you:

- Whether the auxiliary trace data set is open or closed
- Which of the auxiliary trace data sets is active, Cur(A) or Cur(B)
- Whether an auxiliary trace is in progress (started) or not (stopped).

You can start, stop, or pause tracing, and specify that automatic switching of the auxiliary data set is to occur when needed. You can use the SWITCH option to change the data set.

Instead of using the SET command, you can overtype your changes on the INQUIRE screen after tabbing to the appropriate field (see "Overtyping a display" on page 51).

For information on using auxiliary tracing, see the *CICS/ESA Problem Determination Guide*. See also the description of the CETR transaction on page 181.

Input: Press the Clear key and type CEMT INQUIRE AUXTRACE (the minimum abbreviation is CEMT I AUX).

You will get a display screen, a sample of which is shown below. If you want to change any of the values shown, you can then tab to the highlighted or blank fields and overtype them as required.

Sample screen

```

CEMT IN AUXTR
STATUS: RESULTS - OVERTYPE TO MODIFY
Aux Cur(B) Sto _ _
    
```

Figure 60. CEMT INQUIRE AUXTRACE screen

Note: The underscores on the sample screen indicate the positions of 'negative' attributes (blank fields).

Displayed fields

Auxiliary

identifies this panel as relating to auxiliary trace.

Current(A|B)

displays a 1-character identifier of the current auxiliary data set, which can be 'A' or 'B'. This value is blank if there is no auxiliary trace data set.

Start|Pause|Stop

displays the status of auxiliary tracing in your CICS system. The values are:

Start Auxiliary tracing is in progress (the auxiliary trace data set is open).

Pause

Auxiliary tracing has stopped, but the trace data set has been left open. A subsequent START request causes trace entries to be written immediately following those that were written before the PAUSE request.

Stop Auxiliary tracing has stopped, and the trace data set is closed.

Note: You can reset this value by overtyping it with a different value.

Noswitch|Next|All

displays whether automatic data set switching is to occur when the current auxiliary trace data set becomes full. The values are:

Noswitch

Switching does not occur without operator intervention.

Next Automatic switching occurs when the current trace data set is full, but not subsequently.

All Automatic switching occurs as necessary until the end of this CICS session without the need for operator intervention.

Switch

makes an immediate switch from the current auxiliary trace data set to the alternate trace data set.

CEMT INQUIRE CONNECTION

Function: Retrieve information about system connections.

Description: CEMT INQUIRE CONNECTION returns information about the status of connections to a remote system or to another CICS region.

When a connection has been defined as INDIRECT, no information is given unless the direct connection to which it refers is installed.

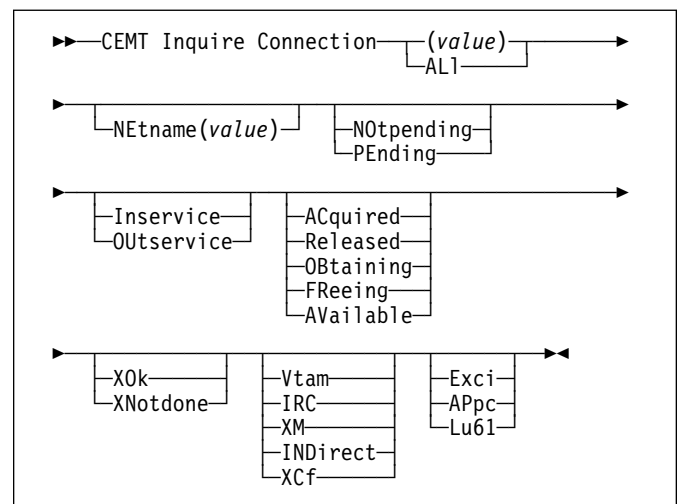
You can reset the options either by typing the SET command or by overtyping at the appropriate place on the INQUIRE screen. If you want to install a new connection definition when one is already installed, you must set the connection OUTSERVICE and, if it is VTAM-connected, release it before using the CEDA INSTALL commands for your new definition.

See the *CICS/ESA Resource Definition Guide* for further information about connections.

Input: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE CONNECTION (the minimum abbreviation is CEMT I C). You get a display that lists the current status.
- Type CEMT INQUIRE CONNECTION (CEMT I C) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter cent i c ins acq, the resulting display will show you the details of only those connections that are in service and acquired.

You can then tab to the highlighted or blank fields and overtype them with the required values.



ALL

is the default.

CEMT INQUIRE CONNECTION

(value)

specifies one or more names (1–4 characters) defined for an interregion communication (IRC) or an intersystem communication (ISC) connection.

Sample screen

```
I CONN
STATUS: RESULTS - OVERTYPE TO MODIFY
Con(GIGA)          ___ Ins          Irc Exci
Con(ISC1) Net(AUHZCIC1) ___ Ins Acq   Xok Vta Appc
Con(MR02) Net(CICSHAA1) ___ Ins Acq   Xm
Con(MR04) Net(CICSHAA2) ___ Ins Acq   Xm
Con(MR05) Net(CICSHAA3) ___ Ins Acq   Xm
Con(MR06) Net(CICSHAB1) ___ Ins Acq   Xcf
```

Figure 61. CEMT INQUIRE CONNECTION screen

Note: The underscores on the sample screen indicate the positions of 'negative' attributes (blank fields).

Displayed fields

Connection(value)

identifies this panel as relating to system connections, and displays the 4-character name by which the connection is known.

Netname(value)

displays the 8-character name by which the remote system is known to the network.

Notpending|Pending (APPC only)

displays whether there are any pending units of work. The values are:

Notpending

Units of work are currently being synchronized.

Pending

The local system has units of work that require resynchronization with the remote system. The resynchronization process results in CLS2 transactions being initiated when a new session is bound between the systems.

Inservice|Outservice

displays whether the system can receive and send data. The values are:

Inservice

The system is in service; that is, it is available for use.

Outservice

The system is out of service; that is, it is not available for use.

Acquired|Released|Obtaining|Freeing|Available

displays the state of the connection between CICS and a remote system. The remote system can be an APPC or an MRO partner identified by (value) on the CEMT INQUIRE CONNECTION command. The ACQUIRED

and RELEASED values are common to both APPC and MRO; the others are unique to APPC. The values are:

Acquired (APPC and MRO)

The CONNECTION is acquired. The criteria for ACQUIRED for VTAM links are:

- The partner LU has been contacted.
- Initial CNOS exchange has been done.

The criteria for ACQUIRED for MRO links are:

- Both sides of the link are in service.
- Both sides of the link are successfully logged on to the CICS interregion communication program (DFHIRP).
- A connection request by each side has been successful for at least one session, and therefore each side can send and receive data.

Released (APPC and MRO)

The connection is released. Although the connection might be in service, it is not usable.

In the case of an MRO link, the released status can be caused by any one of a number of conditions. For example, it could be because the CICS region on the other side has not yet initialized, or not yet signed on to the CICS interregion communication program (DFHIRP); or it could be because CICS interregion communication may have been closed on the other side, or the connection on the other side may have been set out of service.

Obtaining (APPC only)

The connection is being acquired. The connection remains in the OBTAINING state until all the criteria for ACQUIRED have been met.

Freeing (APPC only)

The connection is being released.

Available (APPC only)

The connection is acquired but there are currently no bound sessions because they were unbound for limited resource reasons.

Xok|Xnotdone

displays the status of the exchange lognames (XLN) process. The values are:

Xok (APPC only)

The exchange log names (XLN) process for the APPC connection has completed successfully.

Xnotdone (APPC only)

The exchange log names (XLN) flow for the APPC connection has not completed successfully. The CSMT log can contain information relating to this state. Synchronization level 2 conversations are not allowed on the connection, but synchronization levels 0 and 1 are still allowed.

No status is displayed if exchange log names is not applicable. This can be because the link:

- Is released
- Is MRO, LU6.1, or single-session APPC
- Does not support synchronization level 2 conversations.

For information about the APPC exchange log names process, see the *CICS/ESA Intercommunication Guide*.

Vtam|Irc|Xm|Indirect|Xcf

displays the access method in use for this connection. The values are:

Vtam

The connection is used for intersystem communication (ISC).

Irc The connection is used for multiregion operation (MRO), and has been defined to use the interregion communication (IRC) program for communication. The IRC access method is used only if the other CICS region is on the same MVS image.

Xm The connection is used for multiregion operation (MRO) and has been defined to use MVS cross-memory (XM) services for communication. The XM access method is used only if the other CICS region is on the same MVS image.

Indirect

Communication between the local CICS system and the system defined by this connection is through the system named in the INDSYS operand of the connection definition.

Xcf The connection is used for multiregion operation (MRO), and communication uses the cross-system coupling facility (XCF) of MVS/ESA. XCF is used for MRO links between CICS regions on different MVS images within an MVS sysplex. It is selected dynamically by CICS for such links when the access method is defined as IRC or XM in the connection definition.

Exci|Appc|Lu61

displays the protocol in use if this is a VTAM or external CICS interface connection. The values are:

Appc

The connection uses the VTAM LUTYPE6.2 protocol for intersystem communication.

Exci The connection uses the external CICS interface for communication between CICS and a non-CICS client program.

Lu61

The connection uses the VTAM LUTYPE6.1 protocol for CICS-to-CICS or CICS-to-IMS intersystem communication.

CEMT INQUIRE DATASET

Replaced by CEMT INQUIRE FILE (see page 68). DATASET is still accepted, except for EXEC CICS SET commands.

CEMT INQUIRE DELETSHIPED

Function: Display system settings that control the CICS timeout delete mechanism.

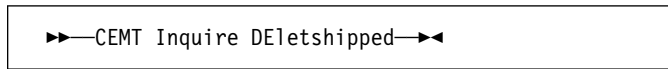
Description: The CICS timeout delete mechanism is invoked at user-specified intervals to remove any shipped terminal definitions that have not been used for longer than a user-specified time.

INQUIRE DELETSHIPED displays the current settings of the parameters that control the mechanism.

Input: Press the Clear key and type CEMT INQUIRE DELETSHIPED (the minimum abbreviation is CEMT I DE). You will get a display screen.

To change attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field.
- Use the CEMT SET DELETSHIPED command.



Sample screen

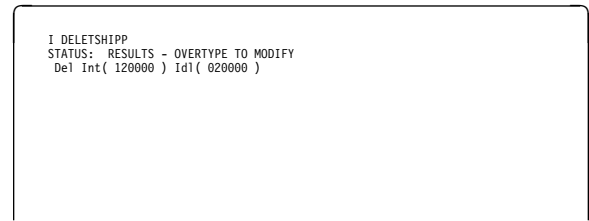


Figure 62. CEMT INQUIRE DELETSHIPED screen

Displayed fields

Del

identifies this panel as relating to CICS timeout delete information.

Interval(value)

displays, in the form “0hhmmss+”, the interval between invocations of the CICS timeout delete mechanism. The timeout delete mechanism removes any shipped terminal definitions that have not been used for longer than the time displayed by the IDLE option.

The time interval can be in the range 00–99 hours; 00–59 minutes; and 00–59 seconds.

Note: You can reset this value by overtyping it with a different value.

Idle(value)

displays, in the form “0hhmmss+”, the minimum time that an *inactive* shipped terminal definition must remain installed in this region. When the CICS timeout delete mechanism is invoked, only those shipped definitions that have been inactive for longer than this time are deleted.

The time interval can be in the range 00–99 hours; 00–59 minutes; and 00–59 seconds.

Note: You can reset this value by overtyping it with a different value.

CEMT INQUIRE DLIDATABASE

Function: Retrieve information about local DL/I databases.

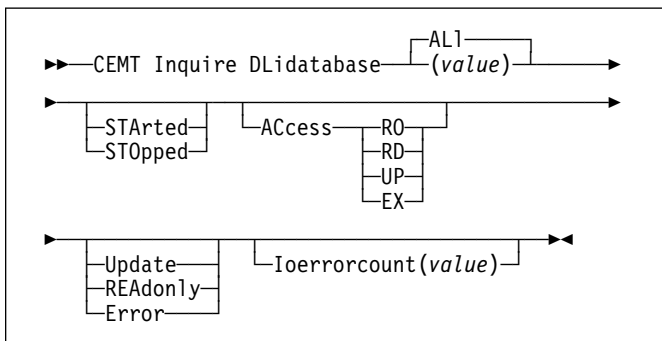
Description: INQUIRE DLIDATABASE returns information about DL/I databases that are local to the CICS region.

This command is applicable only to CICS systems using a local DL/I interface.

Input: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE DLIDATABASE (the minimum abbreviation is CEMT I DL). You get a display that lists the current status.
- Type CEMT INQUIRE DLIDATABASE (CEMT I DL) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter `cemt i dl sta upd`, the resulting display will show you the details of only those DL/I databases that are started and available for updating.

You can then tab to the highlighted or blank fields and overwrite them with the required values.



ALI

is the default.

(value)

specifies one or more identifiers (1–8 characters) defined to DL/I in the DDIR control block.

Displayed fields

Dli identifies this panel as relating to DL/I database information.

(value)

displays one or more identifiers (1–8 characters) defined to DL/I in the DDIR control block.

Started|Stopped|Recoverdb|Dumpdb

displays the status of the database. The values are:

Started

The database is available for processing. The database is physically opened when the first

schedule request is made against it. The IMS equivalent is /START.

Stopped

Causes a physical close of the database. The IMS equivalent is /STOP.

Recoverdb

Reads and updates on DL/I databases are prohibited. This allows a recovery utility to be run in another region, following which the database can be returned to online operation by resetting the STARTED option.

The current tape volume (or disk data set) of the system log is closed and the next is opened. This happens once for each batch of commands (a “batch” is the set of changes to the CEMT display when ENTER is pressed). You are advised that all databases that require RECOVERDB processing be processed in one batch so that system log volume switching occurs once only. The IMS equivalent is /DBR.

Dumpdb

Updates on DL/I databases are prohibited. You can run a backup utility in another region, after which you can return the database to online operation by resetting the STARTED option. The IMS equivalent is /DBD.

Access(RO|RD|UP|EX)

displays the access intent against a DL/I database. The values are:

EX Exclusive access

RD Read access

RO Read-only access

UP Update access.

STARTED is always assumed when the ACCESS value is changed. ACCESS values can only be changed locally. If you change the ACCESS value when GLOBAL is specified, the command is processed locally only, and an error message is returned.

Update

displays the update status of the database. The values are:

Update

The database is available for updating, if the ACCESS value allows it (UP or EX). A database in this state has no DUMPDB in progress.

Readonly

The database is not available for updating, no matter what the ACCESS value is. A database is placed in this state when a DUMPDB request is issued against it.

Error

The database is in error.

CEMT INQUIRE DLIDATABASE

loerrorcount(value)

displays the number of read and write errors that have occurred.

Dynamic allocation and deallocation of DL/I

databases: If an IMS dynamic allocation macro (DFSMDA) has been set up for a DL/I database, the first reference to the database after it has been STARTED causes it to be dynamically allocated. Similarly, specifying STOPPED or RECOVERDB causes the database to be dynamically deallocated.

Return codes for DL/I database operations: If a CEMT command for a DL/I database fails for any reason, a return code is displayed. Some return codes are generated by CICS; others are received from DBRC and passed directly to the CEMT display.

Successful completion of a command is indicated by the response 'NORMAL'.

If you issue a command by overtyping the CEMT display, rather than by typing a specific SET command on the command line, there is no subsequent display of the command that you actually issued. It is important that you remember any commands that you issue in this way, so that you can interpret the DBRC return codes generated by failing commands.

CICS return codes: Return codes generated by CICS have the following format:

RC=0000xxyy

where "xx" (in hexadecimal) is the **primary code**, and "yy" (also in hex) is the **subcode**.

In general, the primary code indicates the type of failure that has occurred, and the subcode gives the reason for the failure. The meanings of the return codes are as follows:

Primary codes

- 08** Incorrect request.
- 18** GLOBAL specified, but command cannot be transmitted. Command processed locally only.

Subcodes

- 00** Local command processed normally (this occurs only with primary code 18).
- 1C** IMS storage unavailable.
- 71** Database not found. (It is not defined in DFHDLDBD.)
- 72** Database busy. (It is being used by another CEMT command.)
- 73** Integrity risk. This condition cannot occur if DBRC is present. It indicates that, following a backout failure, an attempt has been made to open the DL/I database before RECOVERDB has been issued.
- 74** Incorrect access parameter. Possible reasons are:
 - The access keyword (RD, RO, UP, or EX) is not spelled correctly.
 - GLOBAL is specified.
- 75** Incorrect global parameter. IRLM and DBRC have not been specified by the DLIRLM and DLDBRC system initialization parameters.
- 76** Close failure. The database could not be closed. This can occur for any operation that requires closure, not just for the CLOSED command.
- 77** Change authorization failure. A requested access value has not been allowed. For example, exclusive access (EX) has been requested on a database for which another subsystem has authorization.
- 79** The database has been closed and an attempt has been made to deallocate it, but the attempt has failed.

Note: When local DL/I is used, CICS always makes a dynamic /// deallocation request. Subcode 79 can be ignored if the DL/I environment has not been set up for dynamic allocation.

DBRC return codes: Return codes from DBRC have the following format:

DBRC RC=n

| where "n" is a decimal number. The meanings of the return
| codes are given in the *IMS Messages and Codes* manual
| under 'DSP messages'. A return code of zero, meaning
| successful completion, is not displayed.

To interpret a DBRC return code, you must take into account the command that you issued and whether it is local or global.

CEMT INQUIRE DSAS

Function: Retrieve information about the local CICS dynamic storage areas (DSAs).

Input: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE DSAS (the minimum abbreviation is CEMT I DSA). You get a display that lists the current DSA status.
- Type CEMT INQUIRE DSAS (CEMT I DSA) followed by any one of the other attributes that is necessary to produce the information that you require.

You can then tab to the highlighted fields and overtype them with the required values.

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see Figure 63)
- Use the CEMT SET DSAS command.

▶—CEMT Inquire DSAs—◀

Sample screen

```

INQ DSAS
STATUS: RESULTS - OVERTYPE TO MODIFY
SOSStatus( NOTSOS )

Dsalimit( 04194304 )
Cdsasize( 00524208 )
Rdsasize( 00262144 )
SDsasize( 00262144 )
Udsasize( 00000000 )

EDsalimit( 0020971520 )
ECdsasize( 0002097152 )
ERdsasize( 0003145728 )
ESdsasize( 0000000000 )
EUdsasize( 0001048576 )

```

Figure 63. CEMT INQUIRE DSAS screen

Displayed fields

DSalimit(value)

displays the maximum amount of storage, as a total number of bytes, within which CICS can dynamically allocate storage for the four individual DSAs that reside below the 16MB boundary. (See the *CICS/ESA System Definition Guide* for a description of the DSALIM system initialization parameter.)

Note: You can reset this value by overtyping it with a different value.

If DSALIMIT specifies a value lower than the current limit, CICS may not be able to implement the new limit

immediately, but will attempt to do so over time as dynamic storage is freed in the individual DSAs.

SOSStatus

displays whether CICS is short on storage in any of the dynamic storage areas. The values are:

NOTSOS

CICS is not short on storage in any of the dynamic storage areas.

SOS CICS is short on storage in dynamic storage areas above and below 16MB.

SOSABOVE

CICS is short on storage in at least one of the dynamic storage areas above 16MB.

SOSBELOW

CICS is short on storage in at least one of the dynamic storage areas below 16MB.

CDsasize(value)

displays the size, in bytes, of the CICS dynamic storage area (CDSA). The size of this storage area is calculated and managed by CICS automatically, within the overall limits specified for all the DSAs that reside below the 16MB boundary.

RDsasize(value)

displays the current size of the read-only dynamic storage area (RDSA). The size of this storage area is calculated and managed by CICS automatically, within the overall limits specified for all the DSAs that reside below the 16MB boundary.

SDsasize(value)

displays the current size of the shared dynamic storage area (SDSA). The size of this storage area is calculated and managed by CICS automatically, within the overall limits specified for all the DSAs that reside below the 16MB boundary.

Udsasize(value)

displays the size, in bytes, of the user dynamic storage area (UDSA) below the 16MB boundary.

EDsalimit(value)

displays the maximum amount of storage, as a total number of bytes, within which CICS can dynamically allocate storage for the four individual DSAs that reside above the 16MB boundary. (See the *CICS/ESA System Definition Guide* for a description of the EDSALIM system initialization parameter.)

Note: You can reset this value by overtyping it with a different value.

If EDSALIMIT specifies a value lower than the current limit, CICS may not be able to implement the new limit immediately, but will attempt to do so over time as dynamic storage is freed in the individual DSAs.

CEMT INQUIRE DSNAME

SOSAbove

displays whether CICS is short on storage in any of the dynamic storage areas above 16MB. The values are:

NOTSOS

CICS is not short on storage in any of the dynamic storage areas above 16MB.

SOS CICS is short on storage in at least one of the dynamic storage areas above 16MB.

ECdsasize(value)

displays the size, in bytes, of the extended CICS dynamic storage area (ECDSA) above the 16MB boundary. The size of this storage area is calculated and managed by CICS automatically, within the overall limits specified for all the DSAs that reside above the 16MB boundary.

ERdsasize(value)

displays the size, in bytes, of the extended read-only dynamic storage area (ERDSA) above the 16MB boundary. The size of this storage area is calculated and managed by CICS automatically, within the overall limits specified for all the DSAs that reside above the 16MB boundary.

ESdsasize(value)

displays the current size of the extended shared dynamic storage area (ESDSA). The size of this storage area is calculated and managed by CICS automatically, within the overall limits specified for all the DSAs that reside above the 16MB boundary.

EUdsasize(value)

displays the size, in bytes, of the extended user dynamic storage area (EUDSA) above the 16MB boundary. The size of this storage area is calculated and managed by CICS automatically, within the overall limits specified for all the DSAs that reside above the 16MB boundary.

CEMT INQUIRE DSNAME

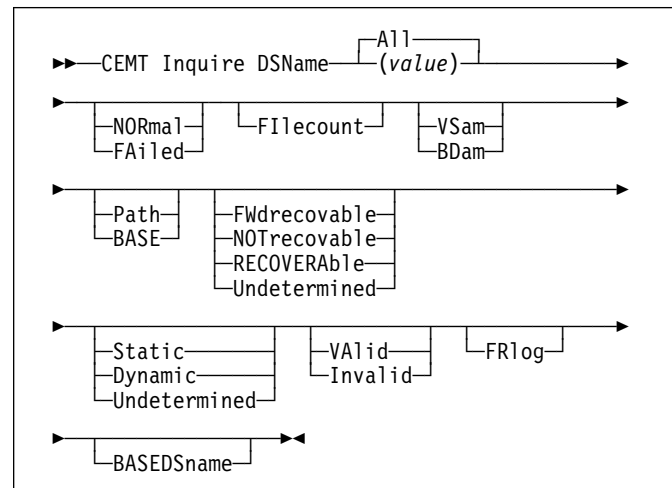
Function: Retrieve information about an external data set.

Description: INQUIRE DSNAME returns information about the status of a data set managed by CICS file control. The data set name is either the name specified on the DSN parameter of the data set's DD statement, or the DSNAME parameter of the data set's file resource definition. Its main purpose is to allow you to monitor failing VSAM data sets. Many of the attributes cannot be determined until a file that references the data set has been opened. If this has not happened, blank values are returned for most attributes.

Input: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE DSNAME (the minimum abbreviation is CEMT I DSN). You get a display that lists the current status.
- Type CEMT INQUIRE DSNAME (CEMT I DSN) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter `cemt i dsn nor vs fw`, the resulting display will show you the details of only those external data sets for which all backouts have been successful (normal), are VSAM data sets, and are forward-recoverable.

You can then tab to the highlighted or blank fields and overwrite them with the required values.



ALL

is the default.

(value)

specifies one or more names (1–44 characters) of an external data set.

Sample screen

```
CEMT IN DSNA
STATUS: RESULTS - OVERTYPE TO MODIFY
Dsn(WATTS.CICSCV.RXB1.CSD ) Nor
```

Figure 64. CEMT INQUIRE DSNAME screen

Because of the large number of keywords supported for this command, only one line of information for each result is displayed. The full set of keywords usually needs 3 lines on a screen and is displayed only if you specifically select it by typing a ? in front of the chosen result. You get a display of all the keyword information and also the syntax of the CEMT SET DSNAME command. Only one ? is honored for each ENTER input.

```
IN DSNA
SYNTAX OF SET COMMAND
Dsn(WATTS.CICSCV.RXB1.CSD ) Nor
  Fil(0001) Vsa Bas Und Und Val
  Bas(WATTS.CICSCV.RXB1.CSD )
CEMT Set DSname()
< All >
< Normal | Failed >
< Remove | RECOVERed >
```

Figure 65. CEMT INQUIRE DSNAME—extended screen

Displayed fields

Dsn

identifies this panel as relating to an external data set.

(value)

displays the 44-character name of an external data set.

Normal|Failed

displays the status of the data set. The values are:

Normal

All backouts have been successful, or backout has not been necessary. Data sets that are currently in the process of failing backout are also displayed as NORMAL.

Failed

An attempt to back out has failed. Batch backout or forward recovery needs to be carried out, and CICS must be told when this has been completed successfully. Use the CEMT SET DSNAME NORMAL command to do this.

Note: You can reset this value by overtyping it with a different value.

Remove|Recovered

displays the action taken on this data set. The values are:

Remove

The data set name block for this data set has been removed.

Recovered

The data set has been restored from a backup version and forward recovery has run and completed successfully.

Filecount(value)

displays information on how many different files are currently associated with this data set. You can associate a file with a data set by a job control DD statement, or dynamically by a DSNAME parameter on the file definition. If a file has been associated by a job control DD statement, the file name cannot be changed by a CEDA command or by a CEMT or EXEC CICS SET FILE DSNAME command.

FILECOUNT does not show how many files are **open** against the data set; it only shows how many files are **associated** with the data set. If a file is associated with a data set and is then closed and associated with a different data set, the FILECOUNT of the first data set decreases by 1, and the FILECOUNT of the second data set increases by 1.

Vsam|Bdam

displays the access method of the data set. The values are:

Vsam

Virtual storage access method (VSAM).

Bdam

Basic direct access method (BDAM).

Path|Base

displays the type of the data set. The values are:

Path (VSAM only)

This data set is a path leading to another data set.

Base

The named data set is a base data set, as opposed to a path data set.

Fwdrecoverable|Notrecoverable|Recoverable|Undetermined

displays the recovery status of the data set. The values are:

Fwdrecoverable

All updates to the data set are logged for both backout and forward recovery.

Notrecoverable

Updates to the data set are not logged.

This response may also be returned as the result of use of the XFCNREC global user exit. A program enabled at XFCNREC may indicate that file opens should proceed even if there is a

CEMT INQUIRE DSNAME

mismatch in the backout recovery requirements for different files associated with same data set. In these circumstances, the data set is marked as NOTRECOVABLE to indicate that its data integrity can no longer be guaranteed.

The condition remains until cleared by a CEMT SET DSNAME REMOVE, EXEC CICS SET DSNAME REMOVE, or a cold start (if the associated data set is not in backout-failed state). While the data set is in this state, backout logging is performed for a particular request based on the specification in the file definition. Therefore backout logging may occur for requests via one file and not via another.

Recoverable

All updates to the data set are logged for backout.

Undetermined

The recovery status of the data set is not known because files accessing the data set have not been opened for output.

Static|Dynamic|Undetermined

displays the backup type of the data set. The values are:

Static

All the files in this data set must be closed and the data set serialized by a backup manager such as DFHSM/DFDSS before a data set backup copy can be made.

Dynamic

Data set backup is allowed while it is open for output, using a data set backup manager such as DFHSM or DFDSS.¹

Undetermined

The backup type of the data set is not known because files accessing the data set have not been opened for output.

Valid|Invalid

displays the validity of the data-set name. The values are:

Valid

The data-set name has been validated against the VSAM catalog by opening a file against that data set.

Invalid

The data-set name has not been validated against the VSAM catalog by opening a file against that data set.

Frlog(value)

displays the number of the journal used to log the updates if this is a FWDRECOVABLE data set.

Basedsname(value) (VSAM only)

When PATH is displayed as well, this is the name of the base data set with which this path is associated.

When BASE is displayed as well, this is the same as the name shown in the Dsn(value) field.

¹ Data Facility Hierarchical Storage Manager (DFHSM) and Data Facility Data Set Services (DFDSS) are IBM licensed programs that perform data set backup and recovery operations.

CEMT INQUIRE DUMPDS

Function: Retrieve information about the CICS dump data sets.

Description: INQUIRE DUMPDS tells you which dump data set (A or B) is currently open.

Instead of using the SET command, you can overwrite your changes on the INQUIRE screen after tabbing to the appropriate field. See "Overtyping a display" on page 51.

For information on using dumps, see the *CICS/ESA Problem Determination Guide*.

Input: Press the Clear key and type CEMT INQUIRE DUMPDS (the minimum abbreviation is CEMT I DU).

You will get a display screen, a sample of which is shown below. If you want to change any of the values shown, you can then tab to the highlighted or blank fields and overwrite them as required.

Sample screen

```

CEMT IN DUMPDS
STATUS: RESULTS - OVERTYPE TO MODIFY
Dum Cur(A) Ope   

```

Figure 66. CEMT INQUIRE DUMPDS screen

Note: The underscores on the sample screen indicate the positions of 'negative' attributes (blank fields).

Displayed fields

Dum

indicates that this panel relates to a dump data set inquiry.

Currentdds(value)

displays a 1-character indicator as to which of the two dump data sets is active. This can be A or B.

Open|Closed|Switch

displays the status of the active CICS dump data set. The values are:

Open

The active CICS dump data set is open.

Closed

The active CICS dump data set is closed.

Switch

The currently active dump data set is to become inactive, and the currently inactive data set is to become active.

Note: You can reset this value by overtyping it with a different value.

Autoswitch|Noautoswitch

displays whether there is to be an automatic switch to the inactive dump data set when the active dump data set is full. The values are:

Autoswitch

The switch occurs **only** when the active dump data set is full, but not subsequently.

Noautoswitch

When the active dump data set is full, there is not to be an automatic switch to the inactive dump data set.

Note: Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overwrite it with a different value.

Note: You can reset this value by overtyping it with a different value.

CEMT INQUIRE FEPI

For information on CEMT INQUIRE FECONNECTION, CEMT INQUIRE FEPOOL, CEMT INQUIRE FEPROPSET, and CEMT INQUIRE FETARGET, see the *CICS/ESA Front End Programming Interface User's Guide*.

CEMT INQUIRE FILE

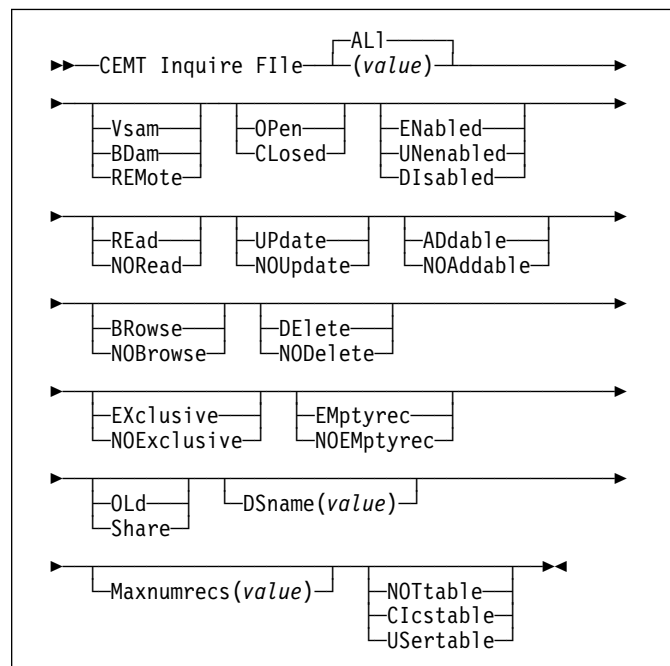
Function: Retrieve information about VSAM, BDAM, and remote files.

Description: The values that are returned to you can vary according to when the command is issued. For example, if the file is closed when you issue the command, much of the information you receive tells you the state of the file when it is next opened. If the file has never been opened, you receive default or null values for some of the options, which could change when the file is opened.

Input: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE FILE (the minimum abbreviation is CEMT I FI). You get a display that lists the current status.
- Type CEMT INQUIRE FILE (CEMT I FI) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter `cemt i fi v op en up`, the resulting display will show you the details of only those files that are VSAM, open, enabled, and updatable.

You can then tab to the highlighted or blank fields and overwrite them with the required values.



ALI

is the default. Information about all files is given, unless you specify a selection of files to be queried.

(value)

specifies one or more names (1–8 characters) defined in the file control table (FCT).

Sample screen

```

CEMT IN FILE
STATUS: RESULTS - OVERTYPE TO MODIFY
Fil(DFHCSO ) Vsa C1o Une Rea Upd Add Bro Del   Sha
Dsn( WATTS.CICSCV.RXB1.CSD ) Max( 00000000 )

```

Figure 67. CEMT INQUIRE FILE screen

Notes:

1. The highlighted sections can be changed by overtyping them.
2. The underscores on the sample screen indicate the positions of 'negative' attributes (blank fields).

Displayed fields

File

indicates that this panel relates to a file inquiry.

(value)

displays one or more names (1–8 characters) defined in the file control table (FCT).

Vsam|Bdam|Remote

displays the access method of the file. The values are:

Vsam

Virtual storage access method (VSAM).

Bdam

Basic direct access method (BDAM).

Remote

The file is defined as remote.

Open|Closed|Forclose

displays the open status of the file. The values are:

Open

The file is open. If the file is OPEN ENABLED, it is available for data accesses by CICS transactions. If it is OPEN DISABLED, it must first be enabled before it is available.

Closed

The file is closed; the access method does not allow accesses to the data until the file is opened. The file can be opened either explicitly by the user or, if the file has the ENABLED attribute, implicitly by CICS on the next reference to the file.

A file with the DISABLED attribute can be enabled only by a SET FILE ENABLED command. A file with the UNENABLED attribute can be enabled by a SET FILE ENABLED command or SET FILE OPEN command.

- + **Note:** The CLOSED status may be a temporary status for a file that has just come out of LOADMODE status.
- +
- +

Forclose

The file is closed, and the tasks of any existing users of the file are abended.

Note: You can reset this value by overtyping it with a different value.

Enabled|Unenabled|Disabled

displays whether transactions can access the file. The values are:

Enabled

The file is available for use by transactions and, if closed, it is opened on the first request.

Unenabled

The file is not available for use by transactions except for those that are currently using it. If there are any such users, 'BEING CLOSED' is also displayed.

This status is the same as DISABLED except that it occurs implicitly when a SET FILE CLOSE is requested. The file is enabled implicitly by a SET FILE OPEN command.

Disabled

The file is not available for use by transactions except for those that are currently using it. If there are any such users, 'BEING DISABLED' is also displayed.

The file can be reenabled by a SET FILE ENABLED command. (See also UNENABLED.)

It is not possible to disable a remote file.

Note: You can reset this value by overtyping it with a different value.

Read|Noread

displays whether you can read records from the file. The values are:

Read

You can read records in the file.

Noread

You cannot read records in the file.

Note: You can reset this value by overtyping it with a different value.

Update|Noupdate

displays whether the file is updatable. The values are:

Update

You can update records in the file.

Noupdate

You cannot update records in the file.

Note: You can reset this value by overtyping it with a different value.

Addable|Noaddable

displays whether new records can be added to the file. The values are:

CEMT INQUIRE FILE

Addable

New records can be added to the file.

Noaddable

New records cannot be added to the file.

Note: You can reset this value by overtyping it with a different value.

Browse|Nobrowse

displays whether you can browse the file. The values are:

Browse

You can browse records in the file.

Nobrowse

You cannot browse records in the file.

Note: You can reset this value by overtyping it with a different value.

Delete|Nodelete

displays whether you can delete records from the file. The values are:

Delete

You can delete records from the file.

Nodelete

You cannot delete records from the file.

Note: You can reset this value by overtyping it with a different value.

Exclusive|Noexclusive (BDAM only)

displays whether records on this file are to be placed under exclusive control when a read for update is issued. The values are:

Exclusive

Records on the file are protected from simultaneous update.

Noexclusive

Records on the file are not protected from simultaneous update.

Emptyreq|Noemptyreq (VSAM only)

displays whether the data set is to be made empty when a file that references it is next opened, and is valid only for data sets that have been defined as reusable. The values are:

Emptyreq

Applies only to a VSAM file that has been defined to VSAM as a cluster with the REUSE parameter. It indicates that when a file is next opened, its data is erased.

Noemptyreq

Applies only to VSAM files. It indicates that when a file is next opened, its data is not erased.

Note: You can reset this value by overtyping it with a different value.

Old|Share

displays the disposition of this file. The values are:

Old The disposition of the data set associated with the file is defined as unshared for dynamic allocation.

Share

The disposition of the data set associated with the file is defined as shared for dynamic allocation.

Note: You can reset this value by overtyping it with a different value.

Dsname(value)

displays the name (1–44 characters) of the VSAM or BDAM data set with which this file is associated.

Notes:

1. You can reset this value by overtyping it with a different value.
2. DSNAMES has now replaced OBJECTNAME.

Maxnumrecs(value)

displays the maximum number of records that the data table for this file can hold. The value can be in the range 16 through 16777215 (16 to 16MB–1). INQUIRE returns a zero value if no value has been set for the file.

Note: You can reset this value by overtyping it with a different value.

Nottable|Cicstable|Usertable

displays whether the file name specified on the FILE parameter represents a data table. The values are:

Nottable

The file name does not represent a data table.

Note: Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.

Cicstable

The file name represents a CICS-maintained data table.

Usertable

The file name represents a user-maintained data table.

Note: You can reset this value by overtyping it with a different value.

CEMT INQUIRE GTFTRACE

Function: Show the GTF status.

Description: CEMT INQUIRE GTFTRACE tells you whether CICS tracing to the MVS Generalized Tracing Facility (GTF) is started or stopped.

This command is intended for use at terminals that do not support the CETR full-screen tracing transaction.

For background information about GTF tracing, see the *CICS/ESA Problem Determination Guide*.

Input: Press the Clear key and type CEMT INQUIRE GTFTRACE (the minimum abbreviation is CEMT I G).

You will get a display screen, a sample of which is shown below. If you want to change the displayed value, you can then tab to the highlighted field and overwrite it as required.

Sample screen

```

CEMT IN GTFTRA
STATUS: RESULTS - OVERTYPE TO MODIFY
Gtf Sta
  
```

Figure 68. CEMT INQUIRE GTFTRACE screen

Displayed fields

Gtftrace

indicates that this panel relates to a GTFTRACE inquiry.

Start|Stopped

displays whether CICS tracing to the MVS Generalized Tracing Facility (GTF) is in progress. The values are:

Start CICS tracing to the MVS Generalized Tracing Facility (GTF) is in progress.

Stopped

CICS tracing to the MVS Generalized Tracing Facility (GTF) is not in progress.

Note: You can reset this value by overtyping it with a different value.

CEMT INQUIRE INTTRACE

Function: Show the status of CICS internal tracing.

Description: INQUIRE INTTRACE tells you whether CICS internal tracing is in progress.

This command is intended for use at terminals that do not support the full-screen tracing transaction CETR.

Input: Press the Clear key and type CEMT INQUIRE INTTRACE (the minimum abbreviation is CEMT I IN).

You will get a display screen, a sample of which is shown below. If you want to change the displayed value, you can then tab to the highlighted field and overwrite it as required.

Sample screen

```

CEMT IN INTTRA
STATUS: RESULTS - OVERTYPE TO MODIFY
Int Sta
  
```

Figure 69. CEMT INQUIRE INTTRACE screen

Displayed fields

Intrtrace

indicates that this panel relates to an INTTRACE inquiry.

Start|Stopped

displays whether CICS internal tracing is in progress. The values are:

Start CICS internal tracing is in progress.

Stopped

CICS internal tracing is not in progress.

Note: You can reset this value by overtyping it with a different value.

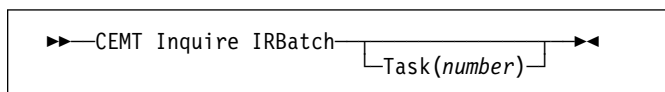
CEMT INQUIRE IRBATCH

Function: Retrieve information about each batch region connected to CICS.

Description: INQUIRE IRBATCH identifies the names of batch jobs currently connected to CICS through the interregion communication (IRC) facility. These jobs could be sharing data with CICS using the batch shared database interface to local DL/I, or the jobs could be using the external CICS interface (EXCI) to link to a server program running in CICS.

Input: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE IRBATCH (the minimum abbreviation is CEMT I IRB). You get a display that lists the current status.
- Type CEMT INQUIRE IRBATCH (CEMT I IRB) followed by Task(number) to limit the range of information that you require.



Displayed fields

Irbatch

indicates that this panel relates to an IRBATCH inquiry.

Task(value)

displays the task number of the mirror transaction running on behalf of a specific batch job.

For batch jobs using the batch shared database interface to local DL/I, the identification for each batch consists of:

jobname.stepname.procname - time

or, if the program has issued a checkpoint:

chkpid - time

For jobs using the external CICS interface, the identification consists of:

jobname.stepname.procname - mvsid

One or both of the stepname and procname may not be present, indicated by the periods (.) being adjacent to one another.

The mvsid identifies the MVS system on which the job is running. If XCF/MRO is in use, the job can reside on a different MVS image from that on which CICS is running.

Information about jobs using the external CICS interface is available only after that job has issued at least one DPL request. A nonzero task number indicates that a DPL request is currently active. A zero task number indicates that an external CICS interface session is still open (connected) for that job, although no DPL request is currently active.

CEMT INQUIRE IRC

Function: Show the IRC status.

Description: INQUIRE IRC tells you whether the interregion communication (IRC) facility is open or closed. SET IRC can be used to open or close the IRC, or the displayed value can be overtyped in the CEMT INQUIRE IRC panel.

Input: Press the Clear key and type CEMT INQUIRE IRC (the minimum abbreviation is CEMT I IRC).

You will get a display screen, a sample of which is shown below. If you want to change the displayed value, you can then tab to the highlighted field and overwrite it as required.

Sample screen

```

CEMT IN IRC
STATUS: RESULTS - OVERTYPE TO MODIFY
Irc ClO

```

Figure 70. CEMT INQUIRE IRC screen

Displayed fields

Irc indicates that this panel relates to an IRC inquiry.

Closed|Immclose|Open

displays whether the interregion communication (IRC) facility is open or closed. The values are:

Closed

Interregion communication for this CICS system is terminated after tasks using the session have terminated normally.

Immclose

All tasks using IRC sessions are to be abended when they next try to use the session. Interregion communication is terminated when all tasks that were using IRC have been abended or have terminated normally.

Open

Interregion communication for this CICS system is initialized. This allows connections to be established between this system and other systems (including DL/I batch regions using shared database). You can control the availability of individual connections with the INSERVICE or OUTSERVICE settings on the connection names, using CEMT INQUIRE CONNECTION or CEMT SET CONNECTION.

The DFHIR3780 message is issued to the console log if the region made an unsuccessful attempt to start IRC.

Note: You can reset this value by overtyping it with a different value.

CEMT INQUIRE JOURNALNUM

Function: Retrieve information about the system log and user journals.

Description: INQUIRE JOURNALNUM returns information about the attributes of the system log and of user journals that are defined in the journal control table (JCT).

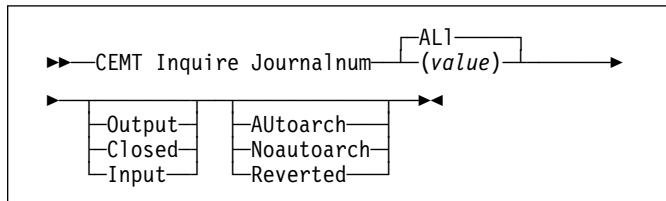
For a disk journal defined with two data sets, for example, INQUIRE JOURNALNUM gives the status of the A and B journal data sets.

For the system journal, the status of the X data set is **not** displayed. Instead, a warning message is issued if the X data set is not ready for use.

Input: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE JOURNALNUM (the minimum abbreviation is CEMT I J). You get a display that lists the current status.
- Type CEMT INQUIRE JOURNALNUM (CEMT I J) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter `cemt i j o au`, the resulting display will show you the details of only those journals that are opened for output and are subject to automatic archiving.

You can then tab to the highlighted field and overwrite it with the required value.



ALI
is the default.

(value)
specifies the journal number. '01' is the system log.

Sample screen

```

CEMT IN JOURNAL
STATUS: RESULTS - OVERTYPE TO MODIFY
Jou(01) Out  Dat(A CURRENT B READY )
    
```

Figure 71. CEMT INQUIRE JOURNALNUM screen

Displayed fields

Jou
indicates that this panel relates to a JOURNALNUM inquiry.

(value)
displays the journal number. '01' is the system log.

Output|Closed|Leave|Advance
displays whether the journal is open for output. The values are:

Output
The journal is opened for output and can be written to by any task authorized to do so.

Closed
The journal is closed.

Leave
The same as CLOSED for a disk journal. For a tape journal, the specified journal is closed but the volume is not rewound.

Advance
For disk journals, the journal data sets are switched. For tape journals, the volume is advanced. The journals are open.

Note: You can reset this value by overtyping it with a different value.

Dat(value)
displays the status of the 'A' data set, the 'B' data set, and the extra system log 'X' data set. The values are:

CURRENT
The disk data set is currently active.

READY
The disk data set is ready to be written to if a switch occurs.

NOTREADY
The data set is waiting to be archived.

Autoarch|Noautoarch|Reverted
displays whether the journal is subject to automatic archiving. The values are:

Autoarch (disk journals only)
The journal is to be archived automatically.

Noautoarch (disk journals only)
The journal is not to be archived automatically.

Reverted (disk journals only)
Automatic archiving has been in effect, but an error has caused a reversion to operator archiving for this journal. Pause messages are issued when archiving is necessary.

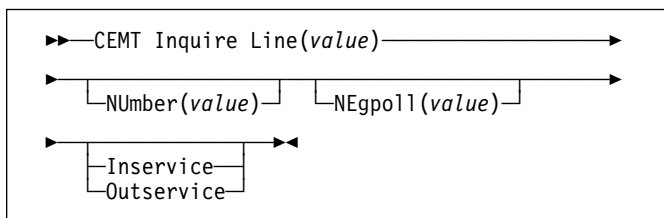
CEMT INQUIRE LINE

Function: Retrieve information about lines connected to terminals. This request is valid only for non-VTAM terminals.

Input: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE LINE(value) (the minimum abbreviation is CEMT I L(value)). You get a display that lists the current status of the named line.
- Type CEMT INQUIRE LINE(termid) (CEMT I L(termid)) followed by as many of the other attributes as are necessary to limit the range of information that you require.

You can specify a list of identifiers (see “List of resource identifiers” on page 51), but you cannot use the symbols * and + to specify a family of identifiers. You can then tab to the highlighted or blank fields and overwrite them with the required values.



Displayed fields

Line

indicates that this panel relates to a LINE inquiry.

(value)

displays the identifier of a terminal on the line. This request is valid only for non-VTAM terminals.

Number(value)

displays the relative line number of a pooled line. For information about pooled lines, see the *CICS/ESA Resource Definition Guide*.

Negpoll(value)

displays the negative poll delay interval (0–20000 milliseconds). For a TCAM line, this specifies the interval before control is passed to the terminal error program (DFHTEP) when a CICS task is not ready to accept a record from an input process queue.

If the CICS task issues a read before the interval expires, processing continues normally and DFHTEP is not notified. The default value is zero.

Inservice|Outservice

displays whether the line is available for use. The values are:

Inservice

The line is available for use. Changing the status of the line does not affect the equivalent status of the terminals on it.

Outservice

The line is not available for use. Changing the status of the line does not affect the equivalent status of the terminals on it.

CEMT INQUIRE MODENAME

Function: Retrieve information about connection sessions.

Description: INQUIRE MODENAME returns information about the named group of sessions that has been defined for a connection to a remote system or to another CICS region.

Input: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

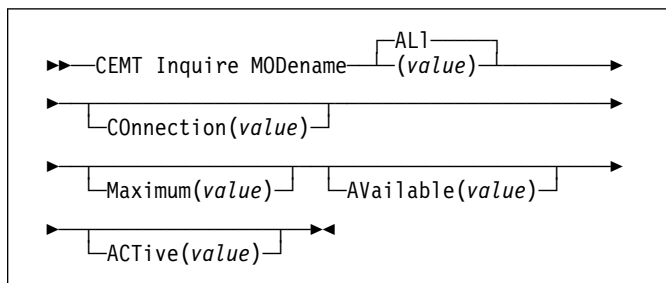
- Type CEMT INQUIRE MODENAME (the minimum abbreviation is CEMT I MOD). You get a display that lists the current status.
- Type CEMT INQUIRE MODENAME (CEMT I MOD) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter `cemt i mod acq`, the resulting display will show you the details of all modenames that are acquired.

Mode names need not be unique. You cannot specify a list of names, but you can use the symbols * and + to specify a family of mode names.

A mode name consisting of eight blanks is valid. To specify this name, enclose the string of blanks within single quotation marks:

MODENAME(' ')

You can then tab to the highlighted or blank fields and overwrite them with the required values.



ALI is the default.

(value) specifies one or more names (1–8 characters) of a group of sessions.

Displayed fields

Modename indicates that this panel relates to a MODENAME inquiry.

(value) displays one or more names (1–8 characters) of a group of sessions.

Connection(value) displays the 4-character identifier of the remote system with which this group of IRC or ISC sessions is connected.

Maximum(value) displays the maximum number of sessions that are supported at one time within this group of sessions, in the range 0–999.

Available(value) displays the currently negotiated number of sessions within the group that can be allocated for use at one time. During a CICS run, you can change this value to any number between 0 and the maximum.

Active(value) displays the number of sessions within the group (or “modename”) that are currently in use (“bound”).

Acquired|Closed displays the acquisition status of sessions. The values are:

Acquired CICS should acquire (or “bind”) all the negotiated contention-winner sessions within the group.

Closed CICS releases all sessions within the group. The sessions are quiesced and unbound. No further sessions can be acquired by another CICS system. No further activity is possible on the sessions within the group until the group is reacquired by the same CICS system in which it has been closed.

CEMT INQUIRE MONITOR

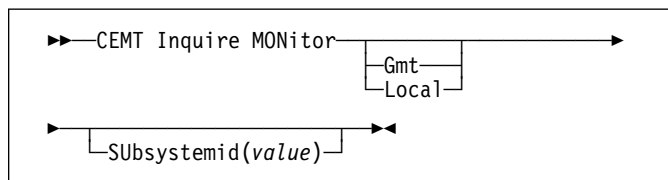
Function: Retrieve information about the status of CICS monitoring.

Description: INQUIRE MONITOR tells you whether monitoring is switched on or off, which classes of monitoring data are to be collected, and the current settings of the monitoring options.

Input: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE MONITOR (the minimum abbreviation is CEMT I MON). You get a display that lists the current status.
- Type CEMT INQUIRE MONITOR (CEMT I MON) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter `cemt i mon`, the resulting display will show you the details of all monitoring data classes being collected and the current settings of the monitoring options.

You can then tab to the highlighted or blank fields and overwrite them with the required values.



Sample screen

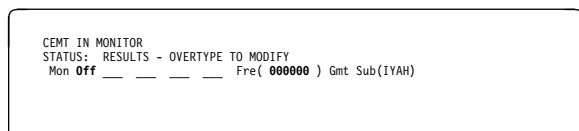


Figure 72. CEMT INQUIRE MONITOR screen

Note: The underscores on the sample screen indicate the positions of 'negative' attributes (blank fields).

Displayed fields

Monitor

indicates that this panel relates to a MONITOR inquiry.

On|Off

displays whether monitoring is active. The values are:

On Monitoring data is accumulated continuously, and is collected (written out to an SMF data set) for each of the classes of monitoring data that is active.

Off No monitoring data is accumulated or collected, irrespective of the settings of the monitoring data classes.

Note: You can reset this value by overtyping it with a different value.

Performance|Noperformance

displays whether the performance class of monitoring data is being collected. The values are:

Performance

Performance-class monitoring data is being collected.

Noperformance

Performance-class monitoring data is not being collected.

Note: Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overwrite it with a different value.

Event|Noevent

displays whether the SYSEVENT class of monitoring data is being collected. The values are:

Event

SYSEVENT-class monitoring data is being collected.

Note: There are implications with using the Event class of monitoring and MVS 5.1 WLM. For information, see the *CICS/ESA Performance Guide*.

Noevent

SYSEVENT-class monitoring data is not being collected.

Note: Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overwrite it with a different value.

Except|Noexcept

displays whether the exception class of monitoring data is being collected. The values are:

Except

Exception-class monitoring data is being collected.

Noexcept

Exception-class monitoring data is not being collected.

Note: Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overwrite it with a different value.

CEMT INQUIRE MONITOR

Converse|Noconverse

displays whether conversational tasks are to have separate performance class records produced for each pair of terminal control I/O requests (Converse or Send/Receive pair). The values are:

Converse

Separate performance class records will be produced.

Noconverse

Separate performance class records will not be produced.

Note: Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overwrite it with a different value.

Syncpoint|Nosyncpoint

displays whether a transaction performance class record is produced when a transaction takes an explicit or implicit syncpoint (unit-of-work), except when the syncpoint is part of task termination or a syncpoint rollback. The values are:

Syncpoint

A transaction performance class record will be produced.

Nosyncpoint

A transaction performance class record will not be produced.

Note: Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overwrite it with a different value.

Frequency(value)

displays the interval for which monitoring automatically produces a transaction performance class record for any long-running transaction that has been in the system for a greater time than the interval. FREQUENCY values can be either 000000 (meaning that FREQUENCY monitoring is inactive), or in the range 001500–240000.

Note: You can reset this value by overtyping it with a different value.

Gmt|Local

displays whether the time stamp fields in the performance class monitoring data are returned in GMT or local time to an application using the EXEC CICS COLLECT STATISTICS MONITORING(taskno) command. The values are:

Gmt The time stamp fields in the performance class data are Greenwich mean time (GMT).

Local

The time stamp fields in the performance class data are local time.

For programming information on the EXEC CICS COLLECT STATISTICS command, see the *CICS/ESA System Programming Reference* manual.

Subsystemid(value)

displays a 4-character name used as the subsystem identification in the monitoring SYSEVENT class records. The subsystem identification defaults to the first 4 characters of the VTAM generic APPLID.

For information on the SYSEVENT class of monitoring data and the subsystem identification, see the *CICS/ESA Performance Guide*.

CEMT INQUIRE NETNAME

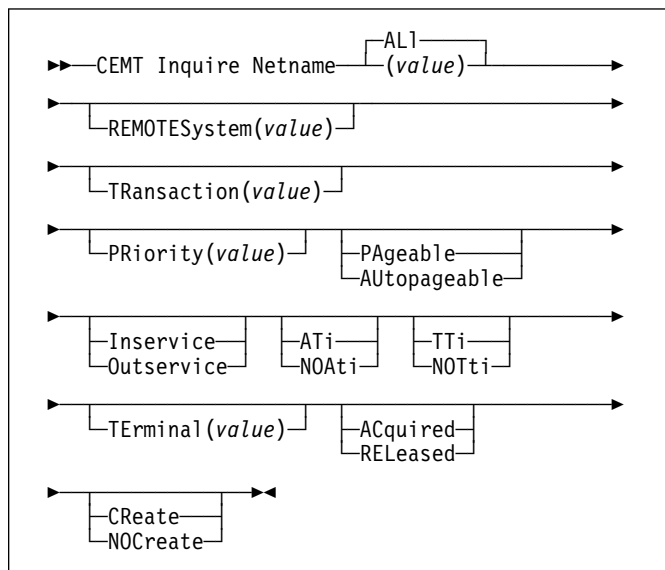
Function: Retrieve information about a network.

Description: If you are familiar with network names, you may prefer to use this command as an alternative to CEMT INQUIRE TERMINAL.

Input: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE NETNAME (the minimum abbreviation is CEMT I N). You get a display that lists the current status.
- Type CEMT INQUIRE NETNAME (CEMT I N) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter `cent i n ins ati`, the resulting display will show you the details of only those netnames that are in service and available for use.

You can then tab to the highlighted or blank fields and overtype them with the required values.



ALI

is the default. For example, if you inquire about terminals, you receive information about all terminals, unless you specify a terminal identifier, a terminal class identifier, or a system identifier.

(value)

specifies an 8-character network name.

The remaining operands for NETNAME are identical to those for CEMT INQUIRE TERMINAL.

Sample screen

```
CEMT IN NETNAME
STATUS: RESULTS - OVERTYPE TO MODIFY
Net(IGKS205 ) Tra(CEMT) Pri( 000 ) Pag Ins Ati Tti ___
Ter(S205) Acq ___
```

Figure 73. CEMT INQUIRE NETNAME screen

Note: The underscores on the sample screen indicate the positions of 'negative' attributes (blank fields).

Displayed fields

Netname

indicates that this panel relates to a NETNAME inquiry.

(value)

displays an 8-character network name.

For a physical terminal, the Net(name) is the name by which this terminal is known to VTAM.

For ISC sessions, the Net(name) is the name by which the session (or group of sessions) is known to VTAM.

For IRC sessions, the Net(name) is the name used by the connected region to logon to the interregion communication program (DFHIRP).

For EXCI sessions, the Net(name) is **DFHGEN** for generic sessions and, for specific sessions, it is the value of the user_name parameter used in the EXCI INITIALISE_USER call.

When an inquiry is made on DFHGEN, the name is an 8-character field with a leading and trailing blank (' DFHGEN '). The name must be enclosed in quotes and include the blanks, so you enter the command on the screen as follows:

```
CEMT INQ NETNAME(' DFHGEN ')
```

Transaction(value)

displays a 4-character string indicating the name of the transaction currently being processed with this terminal as its principal facility or as a secondary facility.

Priority(value)

displays a 3-character string indicating the priority of this terminal relative to other terminals. The priority of a task is the sum of the transaction priority, the terminal priority, and the operator priority. Priority has no meaning for terminals that are ISC sessions being used as alternative facilities. The value is in the range 0–255, where 255 is the highest priority.

Note: You can reset this value by overtyping it with a different value.

CEMT INQUIRE NETNAME

Pageable|Autopageable

displays whether pages after the first in a series are written to the terminal on request from the operator or automatically. The values are:

Pageable

Pages are written on request.

Autopageable

Pages are written automatically.

Note: You can reset this value by overtyping it with a different value.

Inservice|Outservice

displays whether the terminal is available for use. The values are:

Inservice

The terminal is available for use. For VTAM, INSERVICE means that the terminal can be ACQUIRED. For IRC sessions, INSERVICE means that the connection to the MRO partner is INSERVICE.

Outservice

The terminal is not available for use. Setting a terminal OUTSERVICE means that the terminal can no longer be used by transactions. If PURGE or FORCEPURGE is also specified, any transaction using the terminal is terminated abnormally. If PURGE or FORCEPURGE is not specified, the transaction is allowed to terminate normally, but no further transactions are allowed to use the terminal. For VTAM, setting a terminal OUTSERVICE also causes it to be released and the operator to be signed off, either immediately or when the current transaction has terminated.

For IRC sessions, OUTSERVICE means that the connection to the MRO partner is OUTSERVICE.

In an LU6.1 ISC session, the connection is set OUTSERVICE if there are no allocatable sessions left.

Note: For physical terminals and LU6.1 sessions, you can reset this value by overtyping it with a different value.

Ati|Noati

displays whether the terminal is available for use by transactions that are automatically initiated from within CICS or, if the terminal is an ISC session, by transactions that are using this session as an alternate facility to communicate with another system. The values are:

Ati The terminal is available for use.

Noati

The terminal is not available for use.

Note: Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.

Note: You can reset this value by overtyping it with a different value.

Note: A terminal cannot be defined with both NOATI and NOTTI.

Tti|Notti

displays whether the terminal can be used by the transactions that are initiated from this terminal. The values are:

Tti This terminal can be used by transactions.

Notti This terminal cannot be used by transactions.

Note: Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.

Notes:

1. You can reset this value by overtyping it with a different value.
2. A terminal cannot be defined with both NOATI and NOTTI.

Purge|Forcepurge

displays whether the transactions running with the named terminal can be purged. The values are:

Purge

Transactions can be terminated only if system and data integrity can be maintained. A transaction is to be purged if its definition specifies SPURGE=NO.

Forcepurge

Transactions are to be purged immediately. This can lead to unpredictable results and should be used only in exceptional circumstances.

Terminal(value)

displays a 4-character terminal identifier (1–4 characters) as specified in an installed terminal definition.

Acquired|Coldacquired|Released (VTAM only)

displays whether CICS is in session with the logical unit represented by this terminal. The values are:

Acquired

CICS is in session with the logical unit represented by the terminal.

Coldacquired

CICS is in session with the logical unit represented by the terminal, where no resynchronization is required.

Released

CICS is not in session with the logical unit represented by the terminal. If you set this option to RELEASED, a session is terminated immediately if you also specify the PURGE option, otherwise the session is terminated when the current active transaction finishes.

Note: For physical terminals and LU6.1 sessions, you can reset this value by overtyping it with a different value.

Create|Nocreate (VTAM only)

displays whether the terminal can be acquired automatically by ATI transactions. This cannot be specified for IRC sessions. The values are:

Create

If the terminal is not in session, CICS acquires it if it is needed to satisfy an ATI request.

Nocreate

If the terminal is not in session, CICS does not acquire it to satisfy an ATI request. A session must be started by, for example, a logon request or a CEMT SET TERMINAL ACQUIRED command before the ATI request can be satisfied.

If NOCREATE is set for an LU6.1 ISC session and there are no allocatable sessions left, the connection is placed OUTSERVICE.

Note: Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.

Note: You can reset this value by overtyping it with a different value.

CEMT INQUIRE PARTNER

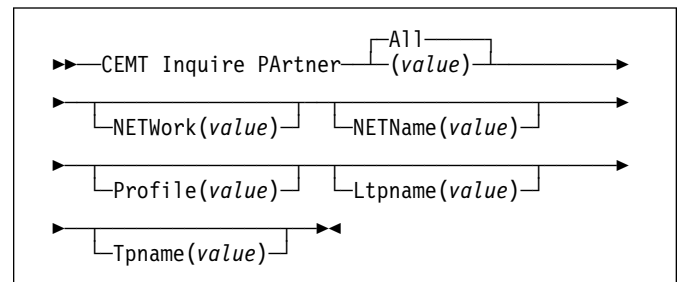
Function: Retrieve information about the partner table.

Description: INQUIRE PARTNER returns information from the partner table (side information table) installed in your system. There is no SET PARTNER function. However the INQUIRE PARTNER screen does allow you to type a D in the left-hand margin by the partnername to be discarded (the CEMT DISCARD PARTNER function).

For information on partners, see the *CICS/ESA Resource Definition Guide*.

Input: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE PARTNER (the minimum abbreviation is CEMT I PA). You get a display that lists the current status.
- Type CEMT INQUIRE PARTNER (CEMT I PA) followed by as many of the other attributes as are necessary to limit the range of information that you require.



All is the default.

(value)

specifies the 8-character partner name as specified in the installed partner definition.

Sample screen

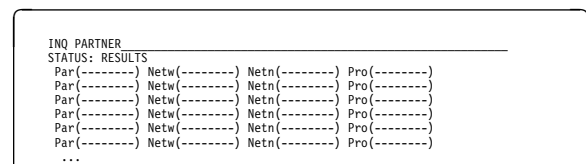


Figure 74. Initial screen layout for CEMT INQUIRE PARTNER

If a “?” is typed in column 2 (see Figure 74), an expanded display for the line in question is shown in Figure 75 on page 82.

```

INQ PARTNER
EXPANDED RESULTS
Par(-----) Netw(-----) Netn(-----) Pro(-----)
LTP(---)
Tpn(-----)
...
    
```

Figure 75. Expanded screen layout for CEMT INQUIRE PARTNER with TPNAME

```

INQ PARTNER
EXPANDED RESULTS
Par(-----) Netw(-----) Netn(-----) Pro(-----)
LTP(---)
Xtp(-----)
Xtp(-----)
...
    
```

Figure 76. Expanded screen layout for CEMT INQUIRE PARTNER with XTPNAME

To discard a partner, type a “D” by the partner name and press ENTER.

Displayed fields

Partner

indicates that this panel relates to a PARTNER inquiry.

(value)

displays the 8-character partner name as specified in the installed partner definition.

Network(value)

displays the 8-character name of the network in which the partner is located.

Netname(value)

displays the 8-character name of the node at which the partner is located.

Profile(value)

displays the 8-character name of the CICS profile associated with the partner.

LTPname(value)

displays the length of the name of the remote transaction program (TPNAME), in bytes.

Tpname(value)

displays the 64-character name of the remote transaction program.

Xtpname(value)

displays TPNAME in hexadecimal (128 characters) when there are nonprintable characters.

CEMT INQUIRE PITRACE

Function: Retrieve information about the status of program isolation trace.

Description: INQUIRE PITRACE tells you whether program isolation trace is ON or OFF.

You can overtype the relevant field or use SET PITRACE to switch the program isolation trace on or off.

For guidance on using program isolation tracing, see the *CICS/ESA Problem Determination Guide*.

Input: Press the Clear key and type CEMT INQUIRE PITRACE (the minimum abbreviation is CEMT I PI).

You will get a display screen. If you want to change the displayed value, you can then tab to the highlighted field and overtype it as required.

Displayed fields

Pittrace

indicates that this panel relates to a PITRACE inquiry.

On|Off

displays whether IMS program isolation trace records are being written to the CICS system log. The values are:

- On** IMS program isolation trace records are being written.
- Off** IMS program isolation trace records are not being written.

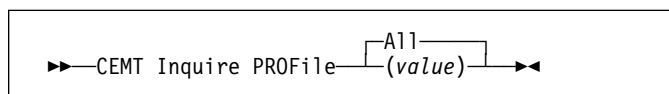
CEMT INQUIRE PROFILE

Function: Retrieve information about a transaction profile.

Description: INQUIRE PROFILE returns information about the profiles installed in your system. There is no SET PROFILE function. However, the INQUIRE PROFILE screen does allow you to type a D in the left-hand margin by the name of the profile to be discarded (the DISCARD PROFILE function).

Input: Press the Clear key and type CEMT INQUIRE PROFILE (the minimum abbreviation is CEMT I PROF).

You will get a display screen, a sample of which is shown below.



All is the default.

(value) is the name of a specific profile.

To discard a profile, type a “D” by the profile name and press ENTER.

Sample screen



Figure 77. CEMT INQUIRE PROFILE screen

Displayed fields

Profile indicates that this panel relates to a PROFILE inquiry.

(value) displays the 8-character name of a profile installed in your system.

CEMT INQUIRE PROGRAM

Function: Retrieve information about programs, maps, or partition sets.

Description: INQUIRE PROGRAM returns information about the programs, map sets, and partition sets that are defined to your system.

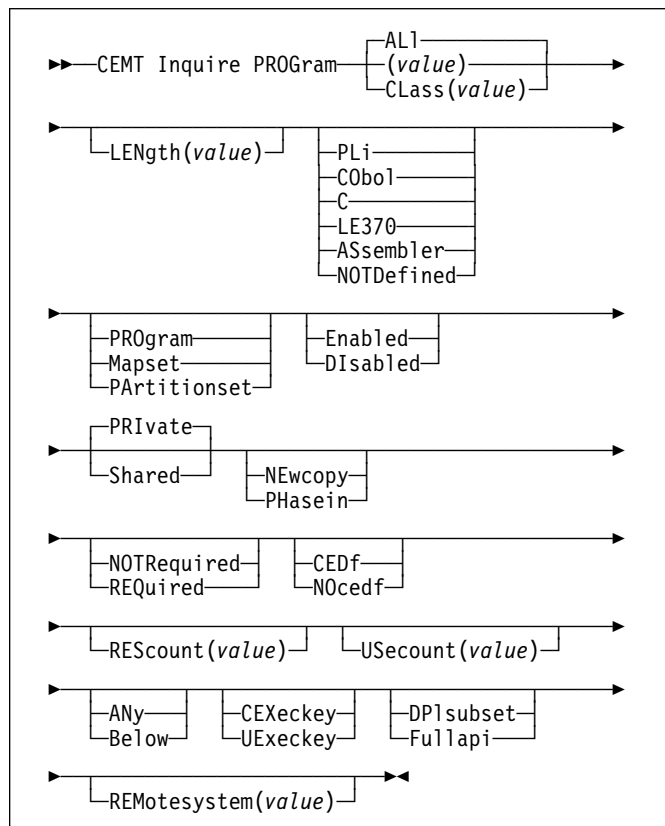
Only programs that have been defined in the CICS system definition (CSD) file and installed on the running CICS system are accessible through CEMT.

The default value is not shown unless it has been set by the user.

Input: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE PROGRAM (the minimum abbreviation is CEMT I PROG). You get a display that lists the current status.
- Type CEMT INQUIRE PROGRAM (CEMT I PROG) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter `cemt i prog c e`, the resulting display will show you the details of only those programs that are written in C language and are enabled.

You can then tab to the highlighted or blank fields and overwrite them with the required values.



CEMT INQUIRE PROGRAM

ALI

is the default.

Class(value)

is the 2-character suffix of a program list table (PLT). Use this option to inquire on those programs defined in the specified PLT. Note that, unlike a shutdown PLT, it is not mandatory to define a program definition for a startup PLT. However, if you want to use the CLASS option, you must define and install a program resource definition for the PLT specified by "clasid".

If the clasid specified is the suffix of a PLT that does not have a program definition, the INQUIRE PROGRAM CLASS(clasid) command returns a 'CLASS NOT FOUND' message.

(value)

is a program identifier (1–8 characters), which is the name of a specific program entry in the table of installed program definitions. If you omit the program name, the ALL option is assumed by default.

You cannot specify the CLASS option and a program name.

Sample screen

```

CEMT IN PROGRAM
STATUS: RESULTS - OVERTYPE TO MODIFY
Prog(APP001 ) Len(0000000) Pro Ena Pri Req Ced
Res(000) Use(0000000) Bel Uex Ful
Prog(DFHACP ) Len(0000216) Ass Pro Ena Pri
Res(001) Use(0000003) Any Cex Ful
Prog(DFHAKP ) Len(0005672) Ass Pro Ena Pri
Res(000) Use(0000001) Bel Cex Ful
Prog(DFHAMP ) Len(0000000) Ass Pro Ena Pri
Res(000) Use(0000001) Any Cex Ful
Prog(DFHAPATT) Len(0000632) Ass Pro Ena Sha
Res(005) Use(0000017) Any Cex Ful
Prog(DFHBRCPC) Len(0000000) Ass Pro Ena Pri
Res(000) Use(0000000) Bel Cex Ful
Prog(DFHCNV ) Len(0000000) Ass Pro Ena Pri
Res(000) Use(0000000) Any Cex Ful
Prog(DFHCETRA) Len(0000000) Ass Pro Ena Pri
Res(000) Use(0000000) Any Cex Ful
Prog(DFHCETRB) Len(0000000) Ass Pro Ena Pri
Res(000) Use(0000000) Any Cex Ful
+ Prog(DFHCETRC) Len(0000000) Ass Pro Ena Pri
Res(000) Use(0000000) Any Cex Ful
  
```

Figure 78. CEMT INQUIRE PROGRAM screen

Note: The underscores on the sample screen indicate the positions of 'negative' attributes (blank fields).

Displayed fields

Program

indicates that this panel relates to a PROGRAM inquiry.

(value)

displays an 8-character program identifier (1–8 characters), which is the name of a specific program entry in the table of installed program definitions.

Length(value)

displays the size of the program in bytes. The value returned is 0000000 if the program has not been loaded during this CICS run.

Pll|Cobol|C|Le370|Ass|Notdefined

displays the language in which the

+

APAR PN79813

+

changed this sentence

+

module is written if known, or the defined language if not. The values are:

+

PL/I, COBOL, C, LE370, or Assembler

Supported languages. In the case of LE370, the program exploits multi-language support, or has been compiled by the SAA Language Environment/370 (LE/370)-enabled compiler.

Notdefined

The language in which the program has been written is not defined.

Program|Mapset|Partitionset

displays the type of program. The values are:

Program

The entry is defined in the CICS system definition as a program.

Mapset

The entry is defined in the CICS system definition as a map set.

Partitionset

The entry is defined in the CICS system definition as a partition set.

Enabled|Disabled

displays whether the program is available for use. The values are:

Enabled

The program is available for use.

Disabled

The program is not available for use.

Note: Programs beginning with "DFH" cannot be disabled because these characters are reserved for use by CICS.

Note: You can reset this value by overtyping it with a different value.

Shared|Private

displays, when the next NEWCOPY or PHASEIN request is received, where the next new copy of the program is to be loaded from. The values are:

Shared

CICS is using, or will use, a shared copy of the program from the link pack area (LPA). If no LPA version is available, the program is loaded from DFHRPL.

Private

The next new copy of the program is to be loaded from the DFHRPL library.

Note: You can reset this value by overtyping it with a different value.

Newcopy|Phasein

displays when to load a new copy of the program. The values are:

Newcopy

CICS uses a new copy of the program when all the transactions currently using the program have finished (RESCOUNT equal to zero). CICS loads the new version either from the DFHRPL library concatenation or uses an LPA-resident version, depending on the PRIVATE or SHARED options. PRIVATE is the default setting.

Note: NEWCOPY cannot be specified for a program specified with the HOLD option.

Phasein

CICS uses a new copy of the program now for all new transaction requests. CICS continues to use the old copy for all currently running transactions until they have finished (RESCOUNT equal to zero). CICS loads the new version either from the DFHRPL library concatenation or uses an LPA-resident version, depending on the PRIVATE or SHARED options. PRIVATE is the default setting.

Note: PHASEIN cannot be specified for a program specified with the HOLD option.

PHASEIN performs a REFRESH PROGRAM function to inform the loader domain that a new

version of the program has been cataloged and that this version of the named program should be used in all future ACQUIRE requests.

Until the program goes to a zero RESCOUNT and a subsequent ACQUIRE PROGRAM has been performed, CEMT INQUIRE PROGRAM () will return information on the first copy of the program.

Notrequired|Required

displays the load status of the specified program. The values are:

Notrequired

The program status is either LOADABLE or NOT_LOADED, and you do not have to specify CEMT SET PROGRAM NEWCOPY or CEMT SET PROGRAM PHASEIN.

Required

The program status is NOT_LOADABLE. This means that a search for the program failed during a load operation, and the program has been marked as not loadable to avoid the overhead of further load attempts.

You need to specify CEMT SET PROGRAM NEWCOPY or CEMT SET PROGRAM PHASEIN to reset the status to NOT_LOADED, which will enable the program to be loaded. However, before doing this, you should ensure that there is a copy of the program in the DFHRPL library concatenation.

CEMT INQUIRE PROGRAM

Cedf|Nocedf

displays what action the execution diagnostic facility (EDF) is to take for this program when the program runs under EDF. The values are:

Cedf When EDF is active, CEDF initiation and termination screens are shown by CEDF while this program is running. Other screens are also shown unless the program was translated using the NOEDF translator option.

Nocedf

All CEDF activities, including initiation and termination screens, stop while this program is being processed.

Rescount(value)

displays a 3-character string identifying the number of separate invocations of this program that are taking place at the time of this inquiry. Note that this is not necessarily the same as the number of times the module has been loaded from dfhrpl.

#

Usecount(value)

+ displays a 10-character string identifying the total number of times the program has been executed since the start of the current CICS session.

Any|Below

displays whether the program is able to accept data addresses higher than 16MB. The values are:

Any The program can handle 31-bit addresses. The address of the data can be above or below the 16MB boundary. CICS returns an address above the 16MB boundary if possible.

Below

The program can handle only 24-bit addresses and must therefore be given addresses of data located below the 16MB boundary. If necessary, CICS copies data below the 16MB boundary before passing its address to the application program.

Cexeckey|Uexeckey

displays which access key the program is executing in. The values are:

Cexeckey

The program is executing in CICS access key, and has read and write access to both CICS-key and user-key storage.

Uexeckey

The program is executing in user access key, and has write access to user-key storage, but read-only access to CICS-key storage.

Dplsubset|Fullapi

displays whether the program is restricted to the API subset as for a distributed program link request. The values are:

Dplsubset

The program is restricted to the DPL API subset, as for a distributed program link request, when it runs in the local CICS region.

A program is always restricted to the DPL subset when it is invoked in a remote region via a DPL request, even if this option is not specified.

Fullapi

The program is not restricted to the DPL subset of the CICS API when it runs in the local CICS region, and can use the full API.

A program is always restricted to the DPL subset when it is invoked in a remote region via a DPL request, regardless of this option.

Note: You can reset this value by overtyping it with a different value.

Remotesystem(value)

displays the 4-character name of the remote system in which the program is to execute.

CEMT INQUIRE QUEUE

See CEMT INQUIRE TDQUEUE on page 98. (QUEUE is accepted for INQUIRE commands, but the correct keyword is TDQUEUE.)

CEMT INQUIRE STATISTICS

Function: Retrieve statistics information.

Description: INQUIRE STATISTICS tells you the interval during which statistics are accumulated, the end-of-day time for shutdown (or logical end-of-day) statistics, the time at which statistics are next recorded (that is, written to an SMF data set), and whether statistics recording is currently on or off.

For details of how to print statistics using the CICS-supplied utility program DFHSTUP, see the *CICS/ESA Operations and Utilities Guide*.

NEXTTIME cannot be specified on an INQUIRE or SET STATISTICS command, but its value is displayed when INQUIRE STATISTICS is issued. NEXTTIME indicates the time at which statistics will next be recorded and reset. If statistics are in the OFF condition, this is at the end of the day. Otherwise, in the ON condition, it is the earlier time of either the next interval to occur or the end of the day.

Input: Press the Clear key and type CEMT INQUIRE STATISTICS (the minimum abbreviation is CEMT I ST).

You will get a display screen, a sample of which is shown below. If you want to change any of the values shown, you can then tab to the highlighted or blank fields and overwrite them as required.

Sample screen

```

CEMT IN STATI
STATUS: RESULTS - OVERTYPE TO MODIFY
Sta On  _  _  Int( 030000 ) End( 000000 ) Nex(150000)

```

Figure 79. CEMT INQUIRE STATISTICS screen

Note: The underscores on the sample screen indicate the positions of 'negative' attributes (blank fields).

Displayed fields

Statistics

indicates that this panel relates to a STATISTICS inquiry.

On|Off

displays whether the recording of interval statistics is switched on or off. End-of-day statistics, requested statistics, and unsolicited statistics are always recorded, irrespective of the setting of the ON or OFF option. (Requested statistics are those called for by a CEMT PERFORM STATISTICS command or by an EXEC CICS PERFORM STATISTICS RECORD command.) The values are:

CEMT INQUIRE STATISTICS

On Interval statistics are being recorded. Counters are incremented as usual, and are reset at the expiry of each interval and at end-of-day.

Off Interval statistics are not being recorded. Counters are still incremented as usual, and the recording of end-of-day, requested, and unsolicited statistics is still made.

Note: You can reset this value by overtyping it with a different value.

Resetnow|Noresetnow

displays whether the statistics counters are to be reset. The values are:

Resetnow

The statistics counters are to be reset. The reset takes effect only if the recording option is changed from OFF to ON or from ON to OFF. For information about the effect of reset on each individual counter, see the CICS statistics tables in the *CICS/ESA Performance Guide*.

The action, for each counter, is one of the following:

- Not reset
- Reset to zero
- Reset to 1
- Reset to current value (this applies to peak values)
- An exception to the above.

Note: You can reset this value by overtyping it with a different value.

Noresetnow

The statistics counters are not to be reset.

Note: Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.

Recordnow|Norecordnow

displays whether existing statistics are to be written to an SMF data set. The values are:

Recordnow

Existing statistics are to be written to an SMF data set. The statistics are those collected since the last ENDOFDAY or INTERVAL collection, or since the last time the RESETNOW function was used in this or the PERFORM STATISTICS command.

Norecordnow

Existing statistics are not written to an SMF data set.

Note: Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.

Notes:

1. You can reset this value by overtyping it with a different value.
2. When both Rec(ordnow) and Res(etnow) are specified, statistics counters are written to the SMF data set and reset. The statistics that you are given are those collected since the last ENDOFDAY or INTERVAL collection, or since the last time the RESETNOW function was used in this or the PERFORM STATISTICS command.
3. RECORDNOW RESETNOW and NORECORDNOW NORESETNOW take effect only when the recording status is changed.

Interval(hhmmss)

displays the length of time during which the statistics counters are incremented. At the end of each interval, the accumulated statistics are recorded and the statistics counters are reset.

Note: You can reset this value by overtyping it with a different value.

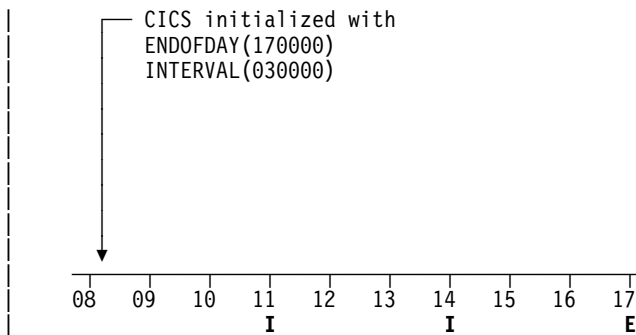
Interval times must be in the range 000100–240000. The default interval value is 030000. The interval value can be adjusted, but will have no effect unless the statistics recording status is set ON. You can set the statistics recording status ON or OFF using the RECORDING option on this command or by using the STATRCD system initialization parameter.

The arrival of the ENDOFDAY time always causes the current interval to be ended (possibly prematurely) and a new interval to be started. Only end-of-day statistics are recorded at the end-of-day time, even if it coincides exactly with the expiry of an interval.

Changing the ENDOFDAY value has an immediate effect on the times at which INTERVAL statistics are recorded. New interval expiry times are recalibrated in accordance with the new end-of-day time.

When you change the INTERVAL value or the ENDOFDAY value (and also when CICS is initialized), the length of the current (or first) interval is adjusted so that it expires after an integral number of intervals from the end-of-day time.

These rules are illustrated by the following example, where **I** indicates an interval recording, INTERVAL is set at 3-hourly intervals, CICS is initialized at 0815 hours, and **E** indicates the ENDOFDAY setting at 1700 hours.



Note: In this example, there would have been an interval at 0800 hours if CICS had been initialized earlier.

If you want your end-of-day recordings to cover 24 hours, set INTERVAL to 240000.

Endofday(hhmmss)

displays the end-of-day time for recording statistics. At end-of-day, the current values of the CICS statistics counters are written out to an SMF data set and the statistics counters are reset.

End-of-day times must be in the range 000000–235959. The default end-of-day time is 12 midnight (000000).

Nexttime(hhmmss)

displays the time at which statistics are next recorded and reset. This is the expiry time of the current interval or the end-of-day time, whichever is earlier.

CEMT INQUIRE SYDUMPCODE

Function: Retrieve information about the system dump code table.

Description: INQUIRE SYDUMPCODE allows you to see the current settings of the entries in the system dump table. 'NO' settings (NOSYS DUMP, for example) are shown as blank.

The INQUIRE command tells you:

- The system dump code or message identifier
- Whether or not CICS takes a system dump
- Whether the system dump request is local or related
- Whether or not CICS is to shut down following the dump
- The current number of dumps taken
- The maximum number of dumps
- Whether or not a dump produced by CICS is eligible for suppression by the MVS Dump Analysis and Elimination (DAE) component.

A system dump code is the CICS message number with the DFH prefix removed. Typically this leaves a 6-character code comprising 2 alphabetic characters and 4 numeric characters, for example AP0001. The command syntax permits up to 8 characters for the dump code and the dump codes you specify are padded with trailing spaces.

Each message has its own system default actions that you cannot necessarily override with the SET command. For example, when a serious error occurs, CICS shuts down even if you have asked for no shut down. See the *CICS/ESA Messages and Codes* manual for information about the system action for each message.

There are other system parameters that take priority over your dump table entries. For example, EXEC CICS SET SYSTEM DUMPING NOSYS DUMP, or a DUMP=NO system initialization parameter inhibits system dumping. For information on using dumps, see the *CICS/ESA Problem Determination Guide*.

The transaction dump command SET TRDUMPCODE can also cause CICS to produce system dumps for the specified transaction dump code.

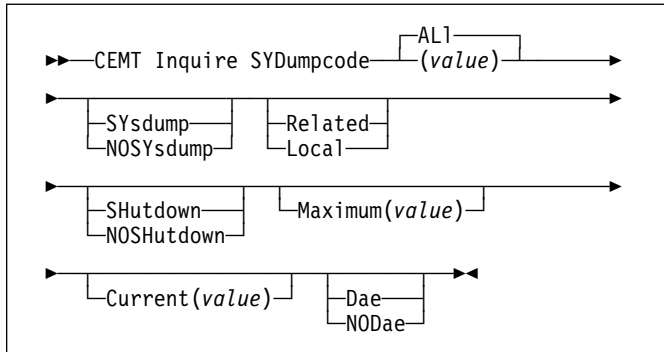
Input: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE SYDUMPCODE (the minimum abbreviation is CEMT I SYD). You get a display that lists the current status.
- Type CEMT INQUIRE SYDUMPCODE (CEMT I SYD) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter `cemt i syd sy sh`, the resulting display will show you the details of only those system

CEMT INQUIRE SYDUMPCODE

dump codes for which a system dump is to be taken and CICS is to be shut down.

You can then tab to the highlighted or blank fields and overtype them with the required values.



ALI

is the default.

(value)

is an 8-character system dump code. See the *CICS/ESA Messages and Codes* manual for details of the codes.

Sample screen

```
CEMT IN SYD
STATUS: RESULTS - OVERTYPE TO MODIFY
Syd(AP0001 ) Sys Loc ___ Max( 001 ) Cur(0000) Dae
```

Figure 80. CEMT INQUIRE SYDUMPCODE screen

Displayed fields

Sydumpcode

indicates that this panel relates to a SYDUMPCODE inquiry.

(value)

displays an 8-character system dump code. See the *CICS/ESA Messages and Codes* manual for details of the codes.

Sysdump|Nosysdump

displays whether a system dump is taken for this system dump code. The values are:

Sysdump

A system dump is taken for this system dump code.

Nossysdump

A system dump is not taken for this system dump code.

Related|Local

displays whether a system dump request is to be sent to MVS images in the sysplex which are running XCF/MRO

connected CICS regions related to the CICS region on which the dump is initiated.

Note: A related CICS region is one in which the unit of work identifiers, in the form of APPC tokens, of one or more tasks match those in the CICS region that issued the dump request.

Related

A system dump request is to be sent for this system dump code.

Local

A system dump request is not to be sent to other MVS images in the sysplex for this system dump code.

Note: You can reset this value by overtyping it with a different value.

Shutdown|Noshutdown

displays whether CICS is to be shut down after the occurrence of an error corresponding to this dump code.

Shutdown

CICS is to be shut down.

Noshutdown

CICS is not to be shut down.

Maximum(value)

displays the maximum number of dump calls for this system dump code which result in system dumps being taken.

#

APAR PQ01620

#

added to the next sentence

#

The value is in the range 0-999 and can be specified by using SYDUMAX in the SIT parameter. A value of 999 means the default, 'no limit'.

#

Current(value)

displays the number of dump calls that have been made for this dump code since it was last reset.

Reset|Remove|Add

displays the action to be taken with this system dump code. The values are:

Reset

The current number of calls for this dump code is reset to zero.

Remove

This system dump code is removed from the system dump code table.

Add

This system dump code is added to the system dump code table.

Dae|Nodae

displays whether a dump taken for CICS is eligible for suppression by the MVS dump analysis and elimination (DAE) component. The values are:

Dae A system dump is eligible for suppression by the DAE component.

Nodae

A system dump will not be suppressed by the DAE component. (However, be aware of the SUPPRESS and SUPPRESSALL options in the ADYSETxx parmlib member. These are controlled by the VRADAE and VRANODAE keys in the SDWA. They may lead to dump suppression even though NODAE is set here. For information about DAE, SUPPRESS, and SUPPRESSALL, see the *MVS ESA Planning: Problem Determination and Recovery* manual.

CEMT INQUIRE SYSTEM

Function: Retrieve information about CICS.

Input: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

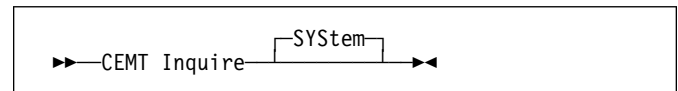
- Type CEMT INQUIRE SYSTEM (the minimum abbreviation is CEMT I SYS). You get a display that lists the current status.
- Type CEMT INQUIRE SYSTEM (CEMT I SYS) followed by as many of the other attributes as are necessary to limit the range of information that you require.

You can then tab to the highlighted or blank fields and overwrite them with the required values.

The SYSTEM keyword does not have to be typed. If you type just CEMT I, SYSTEM is assumed as the default.

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see Figure 81)
- Use the CEMT SET SYSTEM command.



Sample screen

```

I SYS
STATUS: RESULTS - OVERTYPE TO MODIFY
AGing( 32768 )           Storeprotect( ACTIVE )
AKp( 00200 )           Time( 0001000 )
CDsasize( 00524288 )   TRansolate( INACTIVE )
CMDPROTECT( CMDPROT ) Udsasize( 00262144 )
DFltuser( CICSID1 )
DSalimit( 05242880 )
DTTrprogram( WLMDDYP )
ECdsasize( 0002097152 )
EDsalimit( 0020971520 )
ERdsasize( 0003145728 )
ESdsasize( 0001048576 )
EUdsasize( 0001048576 )
Mxxtasks( 032 )
MRobatch( 001 )
OPRel( 22 )
OPSys( X )
PROGAUTOctlg( CTLMODIFY )
PROGAUTOExit( DFHPGADX )
PROGAUTOInst( AUTOACTIVE )
RDSasize( 00524288 )
REENTPROTECT( REENTPROT )
RELEase( 0410 )
RUNaway( 0005000 )
SCandelay( 0500 )
SDsasize( 00262144 )
SOSStatus( NOTSOS )

```

Figure 81. CEMT INQUIRE SYSTEM screen

Displayed fields

Aging(value)

displays the time factor for CICS to use in the priority aging algorithm for incrementing the priority of a task. The value is expressed as “milliseconds per unit of priority”, and is in the range 0–65535.

The priority aging factor is defined initially by the PRTYAGE system initialization parameter, in which the value represents the number of milliseconds that must

CEMT INQUIRE SYSTEM

elapse before the priority of a waiting task can be adjusted upward by 1. See the *CICS/ESA System Definition Guide* for information about the PRTYAGE parameter.

Note: You can reset this value by overtyping it with a different value.

AKp(value)

displays the activity keypoint trigger value, which is the number of logging operations between the taking of keypoints. It is in the range 200–65535.

Note: You can reset this value by overtyping it with a different value.

You cannot change this value if AKPFREQ=0 was specified at system initialization.

CDsasize(value)

displays the size, in bytes, of the CICS dynamic storage area (CDSA). The size of this storage area is calculated and managed by CICS automatically, within the overall limits specified for all the DSAs that reside below the 16MB boundary.

CMdprotect(value)

displays whether command protection, which validates start addresses passed on in CICS commands, is active or not (that is, whether the CMDPROT system initialization parameter specifies YES or NO). The values are:

CMDPROT

Command protection is active. CICS checks to ensure that the task itself has write access to the storage referenced on the command before writing to the storage on the task's behalf.

NOCMDPROT

Command protection is not active. CICS does not check to ensure that the task itself has write access to the storage referenced on the command before writing to the storage on the task's behalf.

DFltuser(value)

displays the userid of the default user for this instance of the CICS region.

DSalimit(value)

displays the maximum amount of storage, as a total number of bytes, within which CICS can dynamically allocate storage for the four individual DSAs that reside below the 16MB boundary. (See the *CICS/ESA System Definition Guide* for a description of the DSALIM system initialization parameter.)

Note: You can reset this value by overtyping it with a different value.

If DSALIMIT specifies a value lower than the current limit, CICS may not be able to implement the new limit

immediately, but will attempt to do so over time as dynamic storage is freed in the individual DSAs.

DTRProgram(pgrmid)

displays the name of the program defined to control the dynamic routing of programs.

Note: You can reset this value by overtyping it with a different value.

ECdsasize(value)

displays the size, in bytes, of the extended CICS dynamic storage area (ECDSA) above the 16MB boundary. The size of this storage area is calculated and managed by CICS automatically, within the overall limits specified for all the DSAs that reside above the 16MB boundary.

EDsalimit(value)

displays the maximum amount of storage, as a total number of bytes, within which CICS can dynamically allocate storage for the four individual DSAs that reside above the 16MB boundary. (See the *CICS/ESA System Definition Guide* for a description of the EDSALIM system initialization parameter.)

Note: You can reset this value by overtyping it with a different value.

If EDSALIMIT specifies a value lower than the current limit, CICS may not be able to implement the new limit immediately, but will attempt to do so over time as dynamic storage is freed in the individual DSAs.

ERdsasize(value)

displays the size, in bytes, of the extended read-only dynamic storage area (ERDSA) above the 16MB boundary. The size of this storage area is calculated and managed by CICS automatically, within the overall limits specified for all the DSAs that reside above the 16MB boundary.

ESdsasize(value)

displays the current size of the extended shared dynamic storage area (ESDSA). The size of this storage area is calculated and managed by CICS automatically, within the overall limits specified for all the DSAs that reside above the 16MB boundary.

EUdsasize(value)

displays the size, in bytes, of the extended user dynamic storage area (EUDSA) above the 16MB boundary. The size of this storage area is calculated and managed by CICS automatically, within the overall limits specified for all the DSAs that reside above the 16MB boundary.

MAxtasks(value)

displays the maximum number of tasks, both active and suspended, allowed at any one time in the CICS system. It must have a value in the range 1–999.

Notes:

1. You can reset this value by overtyping it with a different value.
2. The value assigned to MAXTASKS might be less than the requested value, because of CICS storage constraints. If this occurs, the message CEILING REACHED is displayed when the request is made.

MRobatch(value)

displays the number of MRO requests from connected regions which are to be batched before this region is posted. It is a value in the range 1–255.

Note: You can reset this value by overtyping it with a different value.

OPRel(value)

displays the formal release number of the operating system currently running. For example, MVS/ESA 2.2 is represented by 22.

OPSys(value)

displays the type of operating system currently running. A value of "X" represents MVS/ESA.

PROGAUTOctlg

displays whether autoinstalled program definitions are to be cataloged. The values are:

CTLGALL

All autoinstalled program definitions are to be cataloged and restored on a warm or emergency start.

CTLGMODIFY

Autoinstalled program definitions are to be cataloged only if they are modified (for example, by a CEMT SET PROGRAM command), so that the modified definitions are restored on a warm or emergency restart.

CTLGNONE

No autoinstalled program definitions are to be cataloged. They are autoinstalled again after a warm or emergency start.

Note: You can reset this value by overtyping it with a different value.

PROGAUTOExit(value)

displays the name of the user-provided program that is called by the program autoinstall code to select or modify a model definition.

Note: You can reset this value by overtyping it with a different value.

PROGAUTOInst

displays whether autoinstall for programs is active or inactive. The values are:

AUTOACTIVE

Autoinstall for programs is active. On first use, if a program, mapset, or partitionset is not defined, the definition is created dynamically.

AUTOINACTIVE

Autoinstall is not active. If a program is not defined, a PGMIDERR or transaction abend occurs when it is referenced.

Note: You can reset this value by overtyping it with a different value.

RDSasize(value)

displays the current size of the read-only dynamic storage area (RDSA). The size of this storage area is calculated and managed by CICS automatically, within the overall limits specified for all the DSAs that reside below the 16MB boundary.

REEntprotect(value)

displays whether read-only storage is in use for reentrant programs (that is, whether the RENTPGM system initialization parameter specifies PROTECT or NOPROTECT). The values are:

NOREENTPROTECT

CICS allocates storage for the read-only DSAs (RDSA and ERDSA) from CICS-key storage. Reentrant programs do not have the protection of residing in read-only storage, and can be modified by programs executing in CICS key.

REENTPROTECT

CICS allocates storage for the RDSA and ERDSA from key-0, non-fetch protected, storage. CICS loads reentrant programs into this storage, and the programs are protected by residing in read-only storage.

RELease(value)

displays the level of the CICS code present. This is a 4-digit number representing the CICS version and release numbers. For example, CICS/ESA Version 4 Release 1 has the value (0410).

RUnaway(value)

displays the interval, in milliseconds, for which a task can have control before it is assumed to be looping.

Note: You can reset this value by overtyping it with a different value.

If you are resetting this value, you can specify 0, or a value in the range 500–2700000. The value you specify is rounded down to a multiple of 500.

CICS purges a task if the task has not given up control after this interval (that is, CICS assumes that the task is looping). If you specify zero, runaway task control is inoperative (that is, tasks do not get purged if they appear to be looping). The value is independent of, and can be less than, the value in the TIME operand.

CICS runaway-task detection is based upon task time (that is, the interval is reset each time a task receives control of the processor, and is then decremented while the task is in control). You do not, therefore, need to allow for the effect of other jobs when setting the runaway value.

CEMT INQUIRE SYSTEM

SCandelay(value)

displays the maximum number of milliseconds between the receipt of a VTAM request, and the time when CICS begins to process the request. The number is in the range 0–5000, and is less than or equal to the TIME value.

Notes:

1. You can reset this value by overtyping it with a different value.
2. In the summary report of the dispatcher statistics, SCANDELAY is referred to as ICVTSD.

SDsasize(value)

displays the current size of the shared dynamic storage area (SDSA). The size of this storage area is calculated and managed by CICS automatically, within the overall limits specified for all the DSAs that reside below the 16MB boundary.

SOSAbove(value)

displays whether CICS is short on storage in any of the dynamic storage areas above 16MB. The values returned are:

NOTSOS

CICS is not short on storage in any of the dynamic storage areas above 16MB.

SOS CICS is short of storage in at least one of the dynamic storage areas above 16MB.

SOSBelow(value)

displays whether CICS is short on storage in any of the dynamic storage areas below 16MB. The values returned are:

NOTSOS

CICS is not short on storage in any of the dynamic storage areas below 16MB.

SOS CICS is short of storage in at least one of the dynamic storage areas below 16MB.

SToreprotect(value)

displays whether storage protection is active in the CICS region. The values returned are:

ACTIVE

CICS is operating with the CICS storage protection facility.

INACTIVE

CICS is operating without the CICS storage protection facility.

See the description of the STGPROT system initialization parameter in the *CICS/ESA System Definition Guide* for background information about CICS storage protection.

Time(value)

displays the interval, in milliseconds, for which CICS releases control to the operating system if no transactions are ready to resume processing. This interval is known as the 'region exit interval'.

Note: You can reset this value by overtyping it with a different value.

It can have a value in the range 100–3600000, and must be greater than or equal to the SCANDELAY value.

Note: In the summary report of the dispatcher statistics, TIME is referred to as ICV.

TRanisolate

displays the status of transaction isolation. The values returned are:

ACTIVE

Transaction isolation is active in the CICS region.

INACTIVE

CICS is running without transaction isolation, either because the support is not available, or it was not requested at CICS initialization.

You cannot modify the status of transaction isolation while CICS is running. To do this you must shut down CICS and restart.

Udsasize(value)

displays the size, in bytes, of the user dynamic storage area (UDSA) below the 16MB boundary. The size of this storage area is calculated and managed by CICS automatically, within the overall limits specified for all the DSAs that reside below the 16MB boundary.

CEMT INQUIRE TASK

Function: Retrieve information about a user task.

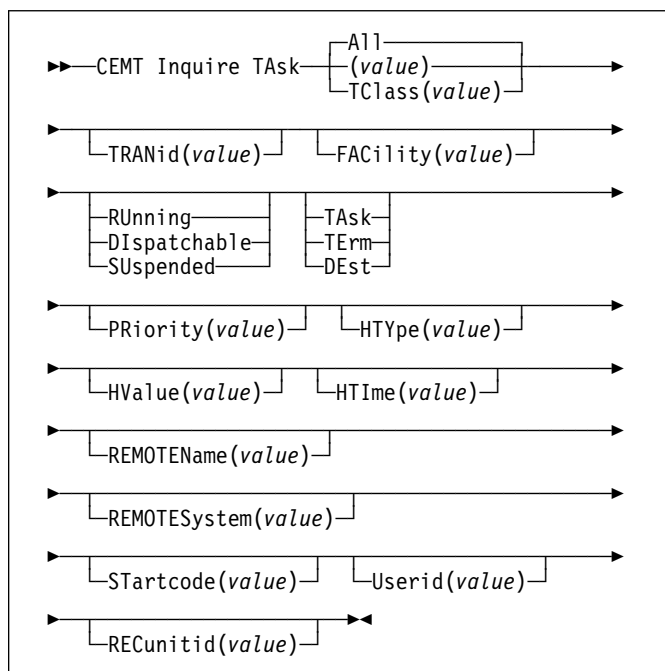
Description: INQUIRE TASK returns information about user tasks. Only information about user tasks can be displayed or changed; information about CICS-generated system tasks or subtasks cannot be displayed or changed. System tasks are those tasks started (and used internally) by CICS, and not as a result of a user transaction.

Input: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE TASK (the minimum abbreviation is CEMT I TA). You get a display that lists the current status.
- Type CEMT INQUIRE TASK (CEMT I TA) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter `cemt i ta ru i`, the resulting display will show you the details of only those tasks that are running and for which the data is not shared with other tasks (isolated).

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see “Overtyping a display” on page 51).
- Use the CEMT SET TASK command.



All is the default.

TClass(value)

is the 8-character transaction class name to which the transaction belongs.

(value)

is the CICS-generated task number, in the range 1–99999.

You cannot specify a list of identifiers, nor can you use the symbols * and + to specify a family of tasks.

Sample screen

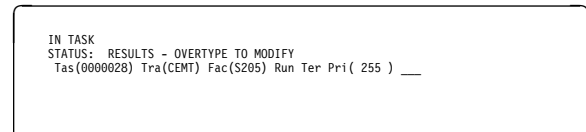


Figure 82. CEMT INQUIRE TASK screen

Note: The underscore on the sample screen indicates the position of a ‘negative’ attribute (blank field).

The full range of keywords associated with this command is always displayed if the request is made from the MVS console. For other terminals, because of the large number of keywords supported, only one line of information for each result is displayed.

The full range of keywords usually requires 3 lines on a screen and is displayed only if you specifically select them by typing a ? in front of the chosen result. You get a display of all the keyword information in addition to the expanded SET syntax. However, the following keywords are not shown: USERID, if the user is not signed on, and HTIME, HTYPE, and HVALUE if the task is not suspended at the time of the inquiry. When shown, they are abbreviated: Hva for HVALUE and Hty for HTYPE, for example. Only one ? is honored for each ENTER input.

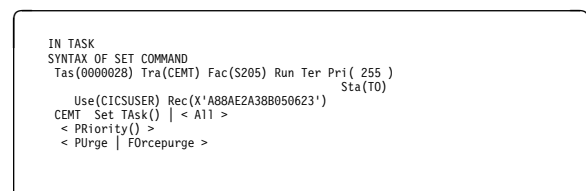


Figure 83. CEMT INQUIRE TASK screen—full keywords

Displayed fields

Task

indicates that this panel relates to a TASK inquiry.

(value)

displays a CICS-generated task number in the range 1–99999.

Tranid(value)

displays a 4-character string identifying the transaction name associated with the task.

CEMT INQUIRE TASK

Facility(value)

displays a 4-character string identifying the name of the terminal or queue that initiated the task. If no FACILITY value is displayed, the task was started without a facility.

Running|Dispatchable|Suspended

displays the status of this task. The values are:

Running

The task is running.

Dispatchable

The task is dispatchable.

Suspended

The task is suspended.

Taskx|Term|Dest

displays the type of facility that initiated this task. The values are:

Taskx

The task was initiated from another task.

Term

The task was initiated from a terminal.

Dest The task was initiated by a destination trigger level as defined in the destination control table (DCT).

Priority(value)

displays the priority of the task, in the range 0–255 where 255 is the highest priority.

Purge|Forcepurge

is an input field for purging or forcepurging a task. The values are:

Purge

The task is to be terminated. Termination occurs only when system and data integrity can be maintained.

Forcepurge

The task is to be terminated immediately. System integrity is not guaranteed. In some extreme cases, for example if a task is forcepurged during backout processing, CICS terminates abnormally. If you want to terminate a task but do not want to terminate CICS, you should use PURGE instead of FORCEPURGE.

In some BTAM situations, further user action is required to complete the purging of the task. If a task is in a terminal read on a BTAM nonlocal terminal and that task is canceled, it can require input from another terminal on the same line before the cancel operation completes.

Htype(value)

displays the reason why the task is suspended. A null value indicates that there is no hold-up, except for the necessity of reaching the head of the queue.

Hvalue(value)

displays a resource name, such as a file name, or a value such as a TCLASS value.

- + For information on the values that can appear in the HTYPE and HVALUE options, and how they can be used as an aid in problem determination, see the “resource type” and “resource name” details in the *CICS/ESA Problem Determination Guide*.

Htime(value)

displays the time (in seconds) that the task has been in the current suspended state.

Startcode(value)

displays how this task was started. The values are:

- D** A distributed program link (DPL) request. The program cannot issue I/O requests against its principal facility or any syncpoint requests.
- DS** A distributed program link (DPL) request, as for code D, with the exception that the program can issue syncpoint requests.
- QD** A transient data trigger level was reached.
- S** Start command (no data)
- SD** Start command (with data)
- TO** The operator typed a transaction code at the terminal.
- TP** The transaction was started by presetting the transaction ID for the terminal.
- U** User-attached task.

Userid(value)

displays the user currently associated with the task.

Recunitid(value)

displays a unique identifier for the current unit of recovery. This identifier is passed as a token to IMS when DBCTL is being used, and is the means of synchronizing DL/I and CICS transactions. The identifier takes the form of an 8-byte clock value and is displayed in hexadecimal format. Information on recovery tokens is given in the *CICS/ESA CICS-IMS Database Control Guide*.

CEMT INQUIRE TCLASS

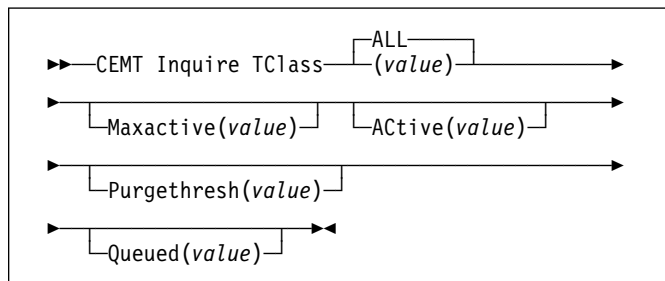
Function: Retrieve information about tasks within a task class.

Description: INQUIRE TCLASS returns information about the current and maximum number of tasks, the purge threshold, and the status of a user-defined task class.

Input: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE TCLASS (the minimum abbreviation is CEMT I TC). You get a display that lists the current status.
- Type CEMT INQUIRE TCLASS (CEMT I TC) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter `cemt i tc p(value)`, the resulting display will show you the details of only those transaction classes that have a purge threshold of the value indicated.

To change various attributes, use the CEMT SET TCLASS command.



ALL
is the default.

(value)
is the 8-character transaction class name.

Sample screen

```
INQUIRE TCLASS
STATUS: RESULTS - OVERTYPE TO MODIFY
Tcl(DFHTCL01) Max( 001 ) Act(000) Pur( 0000000 )
Que(000000)
Tcl(DFHTCL02) Max( 001 ) Act(000) Pur( 0000000 )
Que(000000)
Tcl(DFHTCL03) Max( 001 ) Act(000) Pur( 0000000 )
Que(000000)
Tcl(DFHTCL04) Max( 001 ) Act(000) Pur( 0000000 )
Que(000000)
Tcl(DFHTCL05) Max( 001 ) Act(000) Pur( 0000000 )
Que(000000)
Tcl(DFHTCL06) Max( 001 ) Act(000) Pur( 0000000 )
Que(000000)
Tcl(DFHTCL07) Max( 001 ) Act(000) Pur( 0000000 )
Que(000000)
Tcl(DFHTCL08) Max( 001 ) Act(000) Pur( 0000000 )
Que(000000)
Tcl(DFHTCL09) Max( 001 ) Act(000) Pur( 0000000 )
Que(000000)
Tcl(DFHTCL10) Max( 001 ) Act(000) Pur( 0000000 )
Que(000000)
```

Figure 84. CEMT INQUIRE TCLASS screen

Displayed fields

Tclass

indicates that this panel relates to a TCLASS inquiry.

(value)

displays an 8-character transaction class name.

Maxactive(value)

displays the largest number of transactions in the transaction class which are allowed to run concurrently. The value can be in the range 0-999.

Active(value)

displays the total number of transactions that are currently active in a user-defined transaction class.

Purgethresh(value)

displays the limit at which the queuing transactions are purged for the transaction class. It can have a value in the range 0000000–1000000. Zero means that the transactions are not purged. A nonzero number “n” means that the first (n-1) transactions to arrive are queued and the nth is purged.

Queued(value)

displays the total number of current tasks that are suspended because the class maximum has been reached.

CEMT INQUIRE TDQUEUE

Function: Retrieve information about transient data queues.

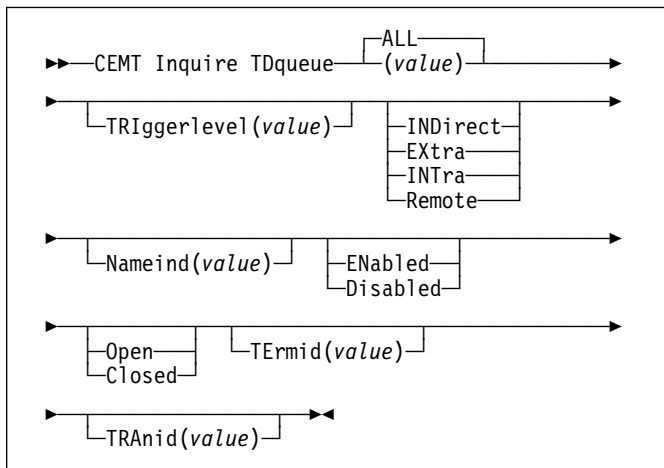
Description: INQUIRE TDQUEUE returns information about a named transient data queue that is defined in the destination control table (DCT).

Input: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE TDQUEUE (the minimum abbreviation is CEMT I TD). You get a display that lists the current status.
- Type CEMT INQUIRE TDQUEUE (CEMT I TD) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter `cemt i td ind en`, the resulting display will show you the details of only those transient data queues that are indirect and enabled.

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see "Overtyping a display" on page 51).
- Use the CEMT SET TDQUEUE command.



ALL
is the default.

(value)
is the identifier (1–4 characters) of a transient data queue.

Sample screen

```

CEMT IN TDQUEUE
STATUS: RESULTS - OVERTYPE TO MODIFY
Tdq(ACEL)           Ext           Ena Clo
Tdq(AP02) Tri ( 00001 ) Int           Ena
  Tra(AP03)
Tdq(CADL)           Ind Nam(CSML)
Tdq(CCP1)           Ind Nam(CSML)
Tdq(CCS2)           Ind Nam(CSML)
Tdq(CCS0)           Ind Nam(CSML)
Tdq(CDB0)           Ind Nam(CSML)
Tdq(CDUL)           Ind Nam(CSML)
Tdq(CMIG)           Ind Nam(CSML)
Tdq(CPLD)           Ind Nam(CPLI)
Tdq(CPLI)           Ext           Ena Ope
Tdq(CRD1)           Ind Nam(CSML)
Tdq(CSCS)           Ind Nam(CSML)
Tdq(CSDL)           Ind Nam(CSML)
Tdq(CSFL)           Ind Nam(CSML)
Tdq(CSKL)           Ind Nam(CSML)
+ Tdq(CSML)         Ext           Ena Ope
    
```

Figure 85. CEMT INQUIRE TDQUEUE screen

Displayed fields

Tdqueue

indicates that this panel relates to a TDQUEUE inquiry.

(value)

displays the 4-character identifier of a transient data queue. Queue names beginning with "C" are normally reserved for use by CICS.

Triggerlevel(value) (intrapartition queues only)

displays the number of requests for output to a queue that must accrue before automatic transaction initiation (ATI) occurs.

Note: You can reset this value by overtyping it with a different value. The number can be between 0 and 32767.

Indirect|Extra|Intra|Remote

displays the type of this transient data queue. The values are:

Indirect

The queue type is indirect. The name of the final target queue is shown in the next field.

Extra

The queue type is extrapartition.

Intra

The queue type is intrapartition.

Remote

The queue type is remote.

Nameind(value) (indirect queues only)

displays a 4-character string identifying the name of the queue pointed to by the indirect queue.

Enabled|Disabled (all except indirect queues)

displays a value indicating whether the queue can be accessed by applications. The values are:

Enabled

The queue can be accessed by applications.

Disabled

The queue cannot be accessed by applications, although it can still be open. Queues with names beginning with "C" cannot be disabled because they are usually reserved for use by CICS.

Note: You can reset this value by overtyping it with a different value.

Open|Closed (extrapartition queues only)

displays whether the extrapartition queue is open or closed. The values are:

Open

The queue is open.

Closed

The queue is closed.

Note: You can reset this value by overtyping it with a different value.

Termid(value)

displays the 4-character name of the terminal or session to be associated with this queue when automatic transaction initiation occurs. See also **Tranid** and **Triggerlevel**.

Tranid(value)

displays the 4-character identifier of the transaction that is to be initiated automatically when the queue trigger level is reached.

CEMT INQUIRE TERMINAL

Function: Retrieve information about terminals.

Description: INQUIRE TERMINAL returns information about a named terminal defined in the terminal control table (TCT).

In an SNA environment, a terminal is the CICS representation of an SNA logical unit with which CICS can be in communication. (SNA environment means that CICS is using VTAM or ACF/TCAM GSA as the access method for communication with SNA logical units.)

This logical unit can be:

- A physical terminal (such as a 3277)
- A function of a cluster controller (such as a 3790 Type 2 batch function)
- An intersystem communication (ISC) or interregion communication (IRC) session that has been generated by the CEDA transaction.

If you are familiar with network names, you may prefer to use the command that uses these names. See "CEMT INQUIRE NETNAME" on page 79.

The message "TEMP OUT SERVICE" can be displayed if recovery is in progress for the terminal. The "TEMP OUT SERVICE" indicator is reset by simply refreshing the screen, or by overtyping the "INS" field with "INS" or "OUT". If "TEMP OUT SERVICE" continues to be displayed, the cause of the indicator should be investigated.

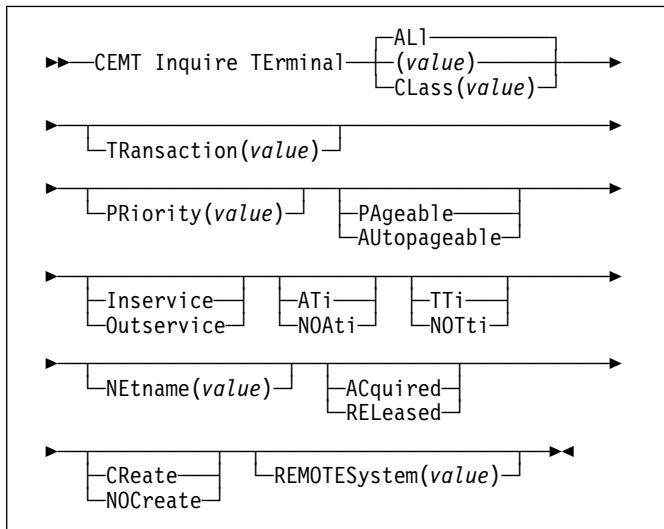
Input: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE TERMINAL (the minimum abbreviation is CEMT I TE). You get a display that lists the current status.
- Type CEMT INQUIRE TERMINAL (CEMT I TE) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter `cemt i te i at`, the resulting display will show you the details of only those terminals that are in service and available for use.

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see "Overtyping a display" on page 51).
- Use the CEMT SET TERMINAL command.

CEMT INQUIRE TERMINAL



ALI

is the default. For example, if you inquire about terminals, you receive information about all terminals, unless you specify a terminal identifier, a terminal class identifier, or a system identifier.

(value)

is a terminal identifier (1–4 characters) as specified in an installed terminal definition.

If the terminal name is, for example, S201, this option is coded thus:

```
CEMT INQUIRE TERMINAL(S201)
```

CClass(value)

is the 1- or 2-character suffix of a terminal list table (TLT).

| If you do not specify a termid or class identifier, by default
| you receive information about all the terminals.

Sample screen

```

CEMT IN TERMINAL
STATUS: RESULTS - OVERTYPE TO MODIFY
Ter(CERR) Pri( 000 ) Pag Ins Tti ___
Ter(S205) Tra(CEMT) Pri( 000 ) Pag Ins ATi Tti ___
Net(IGKS205 ) Acq ___
    
```

Figure 86. CEMT INQUIRE TERMINAL screen

Note: The underscores on the sample screen indicate the positions of 'negative' attributes (blank fields).

Displayed fields

Terminal

indicates that this panel relates to a TERMINAL inquiry.

(value)

displays a 4-character terminal identifier as defined in an installed terminal definition. This includes all terminals

and sessions, but not logical device codes (LDCs), model TCTTEs, mode groups, or system entries. See also **Netname**.

Transaction(value)

displays a 4-character string identifying the name of the transaction currently being processed with this terminal as its principal facility or as a secondary facility.

Priority(value)

displays a 3-character string identifying the priority of a terminal relative to other terminals. The priority of a task is the sum of the transaction priority, the terminal priority, and the operator priority. Priority has no meaning for terminals that are ISC sessions being used as alternative facilities.

Note: You can reset this value by overtyping it with a different value.

The value is in the range 0–255, where 255 is the highest priority.

Pageable|Autopageable

displays whether pages after the first in a series are written to the terminal on request from the operator or automatically. The values are:

Pageable

Pages are written on request.

Autopageable

Pages are written automatically.

Note: You can reset this value by overtyping it with a different value.

Inservice|Outservice

displays whether the terminal is available for use. The values are:

Inservice

The terminal is available for use. For VTAM, Ins(ervice) means that the terminal can be ACQUIRED. For IRC sessions, Ins(service) means that the connection to the MRO partner is INSERVICE.

Outservice

The terminal is not available for use. Setting a terminal Out(service) means that the terminal can no longer be used by transactions. If PURGE or FORCEPURGE is also specified, any transaction using the terminal is terminated abnormally. If PURGE or FORCEPURGE is not specified, the transaction is allowed to terminate normally, but no further transactions are allowed to use the terminal. For VTAM, setting a terminal Out(service) also causes it to be released and the operator to be signed off, either immediately or when the current transaction has terminated. For IRC sessions, Out(service) means that the connection to the MRO partner is OUTSERVICE.

In an LU6.1 ISC session, the connection is set Out(service) if there are no allocatable sessions left.

Note: For physical terminals and LU6.1 sessions, you can reset this value by overtyping it with a different value.

Ati|Noati

displays whether the terminal is available for use by transactions that are automatically initiated from within CICS or, if the terminal is an ISC session, by transactions that are using this session as an alternate facility to communicate with another system. The values are:

Ati The terminal is available for use.

Noati

The terminal is not available for use.

Note: Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.

Notes:

1. You can reset this value by overtyping it with a different value.
2. A terminal cannot be defined with both NOATI and NOTTI.

Tti|Notti

displays whether the terminal can be used by the transactions that are initiated from this terminal. The values are:

Tti This terminal can be used by transactions.

Notti This terminal cannot be used by transactions.

Note: Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.

Notes:

1. You can reset this value by overtyping it with a different value.
2. A terminal cannot be defined with both NOATI and NOTTI.

Purge|Forcepurge

is an input field that allows you to purge transactions running with the named terminal. The values are:

Purge

Transactions will be terminated only if system and data integrity can be maintained. A transaction is purged if its definition specifies SPURGE=NO.

Forcepurge

Transactions are to be purged immediately. This can lead to unpredictable results and should be used only in exceptional circumstances.

Netname(value)

displays an 8-character network name.

For a physical terminal, the Net(name) is the name by which this terminal is known to VTAM.

For ISC sessions, the Net(name) is the name by which the session (or group of sessions) is known to VTAM.

For IRC sessions, the Net(name) is the name used by the connected region to log on to the interregion communication program (DFHIRP).

Acquired|Coldacquired|Released (VTAM only)

displays whether CICS is in session with the logical unit represented by this terminal. The values are:

Acquired

CICS is in session with the logical unit represented by the terminal.

Coldacquired

CICS is in session with the logical unit represented by the terminal, where no resynchronization is required.

Released

CICS is not in session with the logical unit represented by the terminal. If you set this option to RELEASED, a session is terminated immediately if you also specify the PURGE option, otherwise the session is terminated when the current active transaction finishes.

Note: For physical terminals and LU6.1 sessions, you can reset this value by overtyping it with a different value.

Create|Nocreate (VTAM only)

displays whether the terminal can be acquired automatically by ATI transactions. This cannot be specified for IRC sessions. The values are:

Create

If the terminal is not in session, CICS acquires it if it is needed to satisfy an ATI request.

Nocreate

If the terminal is not in session, CICS does not acquire it to satisfy an ATI request. A session must be started by, for example, a logon request or a CEMT SET TERMINAL ACQUIRED command before the ATI request can be satisfied.

If NOCREATE is set for an LU6.1 ISC session and there are no allocatable sessions left, the connection is placed OUTSERVICE.

CEMT INQUIRE TRANSACTION

Remotesystem(value)

displays a 4-character system identifier specified in the CICS terminal definition. This limits the terminals referred to by the request to those ISC or IRC sessions connected to the specified system. Batch regions currently connected to the CICS system through IRC can be addressed by the system identifier "@BCH". For example:

```
CEMT SET TERMINAL REMOTESYSTEM(@BCH) INSERVICE
```

enables communication between CICS and all batch regions.

CEMT INQUIRE TRANSACTION

Function: Retrieve information about transactions.

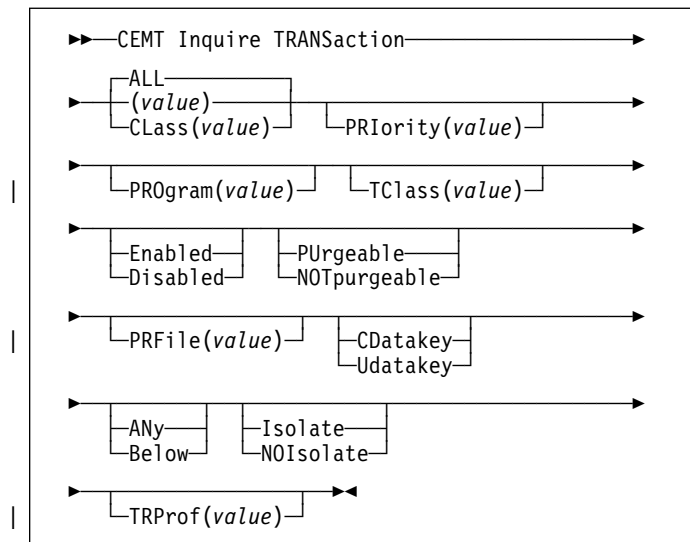
Description: INQUIRE TRANSACTION returns information about a selected transaction.

Input: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE TRANSACTION (the minimum abbreviation is CEMT I TRANS). You get a display that lists the current status.
- Type CEMT INQUIRE TRANSACTION (CEMT I TRANS) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter cent i trans en pu, the resulting display will show you the details of only those transactions that are enabled and system-purgeable.

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see "Overtyping a display" on page 51).
- Use the CEMT SET TRANSACTION command.



ALL

is the default.

Class(value)

is the 2-character suffix of a transaction list table (XLT).

(value)

is a 1–4 character transaction identifier. Only transactions that have been defined in the CICS system definition (CSD) file and installed on the running CICS system are accessible through CEMT.

Sample screen

```

CEMT IN TRANSACTION
STATUS: RESULTS - OVERTYPE TO MODIFY
Trans (CATA) Pri( 255 ) Pro(DFHZATA ) Tc1( DFHTCL00 ) Ena Pur
Trans (CATD) Pri( 255 ) Pro(DFHZATD ) Tc1( DFHTCL00 ) Ena Pur
Trans (CATR) Pri( 255 ) Pro(DFHZATR ) Tc1( DFHTCL00 ) Ena
Trans (CBRC) Pri( 001 ) Pro(DFHBRCP ) Tc1( DFHTCL00 ) Ena
Trans (CBDC) Pri( 255 ) Pro(DFHDBME ) Tc1( DFHTCL00 ) Ena
Trans (CDBD) Pri( 255 ) Pro(DFHDBD1 ) Tc1( DFHTCL00 ) Ena
Trans (CDBI) Pri( 001 ) Pro(DFHDBI1 ) Tc1( DFHTCL00 ) Ena Pur
Trans (CDBN) Pri( 255 ) Pro(DFHDBCOM) Tc1( DFHTCL00 ) Ena
Trans (CDBO) Pri( 255 ) Pro(DFHDBCT ) Tc1( DFHTCL00 ) Ena
Trans (CDBT) Pri( 255 ) Pro(DFHDBDSC) Tc1( DFHTCL00 ) Ena
Trans (CDTS) Pri( 255 ) Pro(DFHZATS ) Tc1( DFHTCL00 ) Ena Pur
Trans (CEBR) Pri( 001 ) Pro(DFHEDFBR) Tc1( DFHTCL00 ) Ena
Trans (CECI) Pri( 001 ) Pro(DFHECIP ) Tc1( DFHTCL00 ) Ena Pur
Trans (CECS) Pri( 001 ) Pro(DFHECSP ) Tc1( DFHTCL00 ) Ena Pur
Trans (CEDA) Pri( 001 ) Pro(DFHEDAP ) Tc1( DFHTCL00 ) Ena Pur
Trans (CEDB) Pri( 001 ) Pro(DFHEDAP ) Tc1( DFHTCL00 ) Ena Pur
Trans (CEDC) Pri( 001 ) Pro(DFHEDAP ) Tc1( DFHTCL00 ) Ena Pur
+ Trans (CEDF) Pri( 001 ) Pro(DFHEDFP ) Tc1( DFHTCL00 ) Ena

```

Figure 87. CEMT INQUIRE TRANSACTION screen

Note: The '+' symbol in the left-hand margin of the last item indicates that more transaction details will be shown if the PF8 key is pressed.

The full range of keywords associated with this command is always displayed if the request is made from the MVS console. For other terminals, because of the large number of keywords supported, only one line of information for each result is displayed. The full range of keywords usually requires 3 lines on a screen and is only displayed if you specifically select them by typing a ? in front of the chosen result. You get a display of all the keyword information in addition to the expanded SET syntax.

Only one ? is honored for each ENTER input.

```

IN TRA
SYNTAX OF SET COMMAND
Trans(CATA) Pri( 255 ) Pro(DFHZATA ) Tc1( DFHTCL00 ) Ena Pur
Prf(DFHICISV) Cda Any Iso

CEMT Set TRANSACTION()
< Class() | ALL >
< Priority() >
< Tclass() >
< Enabled | Disabled >
< Purgeable | NOTpurgeable >

```

Figure 88. CEMT INQUIRE TRANSACTION screen—extended inquiry

Displayed fields

Transaction

indicates that this panel relates to a TRANSACTION inquiry.

(value)

displays a 4-character transaction identifier. Only transactions that have been defined in the CICS system definition (CSD) file and installed on the running CICS system are accessible through CEMT.

Priority(value)

displays a value indicating the priority of a transaction relative to other transactions. When a transaction is running as a CICS task, the priority of a task is the sum

of the transaction priority, the terminal priority, and the operator priority.

Note: You can reset this value by overtyping it with a different value. The value is in the range 0–255, where 255 is the highest priority.

Program(value)

displays an 8-character string identifying the name of the first program to be executed when this transaction is started.

Tclass(value)

displays an 8-character string identifying the name of the transaction class to which the transaction belongs. If the transaction does not belong to a class, DFHTCL00 is returned.

Note: You can reset this value by overtyping it with a different value.

To remove a transaction from its TCLASS, set this field to DFHTCL00. A series of blanks can be inserted, in which case DFHTCL00 is returned. An added or changed TCLASS **must** be one that has already been defined.

Enabled|Disabled

displays whether the transaction is available for use. The values are:

Enabled

The transaction is available for use.

Disabled

The transaction is not available for use.

Note: If a transaction is disabled, this does not prevent a START command that names this transaction from being shipped to a remote region. When a task is attached for the requested transaction, CICS checks that the transaction is enabled in the remote region.

Note: You can reset this value by overtyping it with a different value.

Purgeable|Notpurgeable

displays whether the transaction is purgeable in system stall conditions. The values are:

Purgeable

The transaction is system-purgeable. This value relates to the SPURGE parameter on the transaction resource definition and indicates that CICS can purge the transaction in a deadlock time-out situation. See the *CICS/ESA Resource Definition Guide* for information about the SPURGE and DTIMEOUT parameters on a transaction resource definition.

Notpurgeable

The transaction cannot be purged.

Note: Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.

CEMT INQUIRE TRANSACTION

Note: You can reset this value by overtyping it with a different value.

Prfile(value)

“name” is the name of the profile definition that defines additional options associated with this transaction.

Cdatakey|Udatakey

displays the storage key in which CICS obtains all storage for use by the transaction. This includes the task life-time storage—the transaction work area (TWA) and the EXEC interface block (EIB)—and the storage that CICS obtains on behalf of programs that run under the transaction.

The values are:

Cdatakey

CICS obtains storage for the transaction from CICS-key storage. Application programs that execute in CICS key have read-write access to this storage, but user-key programs have read-only access.

Udatakey

CICS obtains storage for the transaction from user-key storage. Application programs that execute in any key have read-write access to this storage.

See the description of the TASKDATAKEY parameter on the transaction resource definition in the *CICS/ESA Resource Definition Guide*.

Any|Below

displays whether certain CICS control blocks (including EIB and TWA) for a transaction are acquired above or below the 16MB line. The values are:

Any The transaction accepts task-related data anywhere.

Below

The transaction requires any task-related data (TWA and EIB plus any internal control blocks) to be located below the 16MB line.

| Isolate|Noisolate

| displays whether the transaction's user-key task-lifetime storage is isolated from the user-key programs of other transactions. The values are:

| Isolate

| The transaction's user-key task-lifetime storage is accessible only by the user-key programs of its own task. The transaction's user-key task-lifetime storage is isolated from all the user-key programs of all other tasks.

| Noisolate

| The transaction's user-key task-lifetime storage is accessible by its own programs, and also by user-key programs of other transactions defined with the ISOLATE(NO) option.

Trprof(value)

displays the name of the transaction routing profile that defines additional options associated with this transaction if it is defined as a remote transaction.

CEMT INQUIRE TRDUMPCODE

Function: Retrieve information about transaction dump codes.

Description: The INQUIRE function allows you to see the current settings of the entries in the transaction dump table. See the *CICS/ESA Problem Determination Guide* for information on using dumps.

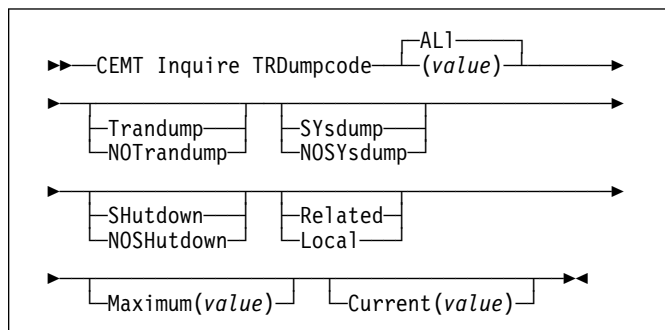
Note: SHUTDOWN and MAXIMUM must not be used in the same command.

Input: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE TRDUMPCODE (the minimum abbreviation is CEMT I TRD). You get a display that lists the current status.
- Type CEMT INQUIRE TRDUMPCODE (CEMT I TRD) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter `cemt i trd sy sh`, the resulting display will show you the details of only those transaction dump codes for which system dumps are to be taken and for which the CICS system is to shut down.

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see “Overtyping a display” on page 51).
- Use the CEMT SET TRDUMPCODE command.



ALL
is the default.

(value)
is a 4-byte transaction dump code. See the *CICS/ESA Messages and Codes* manual for information on transaction dump codes.

Sample screen

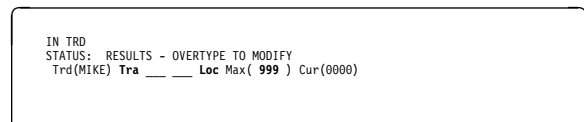


Figure 89. CEMT INQUIRE TRDUMPCODE screen

Note: The underscores on the sample screen indicate the positions of ‘negative’ attributes (blank fields).

Displayed fields

Trdumpcode
indicates that this panel relates to a TRDUMPCODE inquiry.

(value)
displays a 4-character transaction dump code. See the *CICS/ESA Messages and Codes* manual for information on transaction dump codes.

Trandump|Notrandump
displays whether a transaction dump is to be taken for this transaction dump code. The values are:

Trandump
A transaction dump is to be taken.

Notrandump
A transaction dump is not to be taken.

Sysdump|Nosysdump
displays whether a system dump is to be taken for this transaction dump code. The values are:

Sysdump
A system dump is to be taken.

Nosysdump
A system dump is not to be taken.

Note: Because this is a ‘negative’ attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.

Shutdown|Noshutdown
displays whether the CICS system is to shut down after the occurrence of an error corresponding to this dump code. The values are:

Shutdown
The CICS system is to shut down.

Noshutdown
The CICS system is not to shut down.

Note: Because this is a ‘negative’ attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.

CEMT INQUIRE TSQUEUE

Related|Local

displays whether a system dump request is to be sent to MVS images in the sysplex which are running XCF/MRO connected CICS regions related to the CICS region on which the dump is initiated.

Note: A related CICS region is one in which the unit of work identifiers, in the form of APPC tokens, of one or more tasks match those in the CICS region that issued the dump request.

Related

A system dump request is to be sent for this system dump code.

Local

A system dump request is not to be sent to other MVS images in the sysplex for this system dump code.

Note: You can reset this value by overtyping it with a different value.

Maximum(value)

displays the largest number of dump calls for this dump code that result in dumps being taken.

APAR PQ01620

added to the next sentence

The value is in the range 0-999 and can be specified by
using TRDUMAX in the SIT parameter. A value of 999
means the default, 'no limit'.

Current(value)

displays the number of dump calls that have been made for this transaction dump code since the number was last reset to zero. The CURRENT value can be reset explicitly (using a SET SYDUMPCODE RESET command), or automatically whenever CICS shuts down.

Reset|Remove|Add

displays whether the specified transaction dump code is to be reset, removed from the dump code table, or added to the dump code table. The values are:

Reset

The current count of dump calls for this dump code is to be reset to zero.

Remove

This code is to be removed from the dump code table.

Add The specified transaction dump code is to be added to the dump code table.

CEMT INQUIRE TSQUEUE

Function: Retrieve information about temporary storage queues.

Description: The INQUIRE TSQUEUE command returns information about temporary storage queues (TS queues). The INQUIRE TSQUEUE command operates on all the temporary storage queues that exist in the CICS region, including those created internally by CICS for use by CICS itself (for example, queues used by BMS). You can identify the temporary storage queues created by CICS for its own use by queue names that begin with the following character strings:

**	BMS paging
\$\$	BMS route
X'FA' to X'FF'	CICS
X'FF'DTB	Dynamic log overflow
CEBR	Default CEBR queue name
DF	CICS
DFHM	Message cache for message-protected tasks
DFxxxx	CICS REQIDS (where x is hexadecimal)

Notes:

1. The actual length in bytes of temporary storage items is rounded up to include the item header and any extra storage used by the temporary storage control program, as follows:
 - 24 bytes of header information.
 - A number of bytes to round up the record size, as follows:
 - For auxiliary temporary storage, the item is rounded up to a multiple of 64 bytes or 128 bytes, depending on the CI size of the temporary storage data set. (For background information about CI sizes, see the *CICS/ESA System Definition Guide*.)
 - For main temporary storage, the item is padded up to the storage subpool boundary (main temporary storage subpools are always in multiples of 64 bytes).

CICS uses these rounded lengths to return values for FLENGTH, MAXITEMLEN, and MINITEMLEN.

Example: If you create a main temporary storage queue with one item of 40 bytes, then the item occupies the following amount of storage:

```
4 bytes of header data in the form of an LLBB
length
20 bytes of descriptive header data
40 bytes of user data
-----
64 bytes total
-----
```

An INQUIRE TSQUEUE command on this item returns a length of 64 bytes.

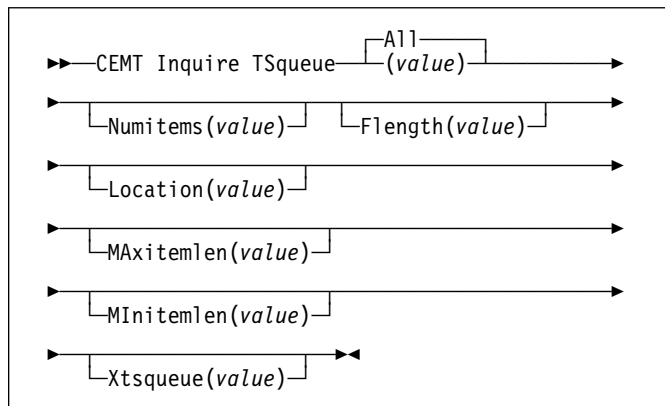
However, if the length of the item is 41 bytes, the queue occupies 65 bytes plus the padding that storage manager adds to round up to a 64-byte boundary. In this case the INQUIRE TSQUEUE command returns the length as 128 bytes.

- If an auxiliary temporary storage queue contains an item that is larger than the control interval size of the temporary storage dataset, CICS returns a value of -1 as the length for FLENGTH, MAXITEMLEN, and MINITEMLEN.

Input: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE TSQUEUE (the minimum abbreviation is CEMT I TS). You get a display that lists the current status.
- Type CEMT INQUIRE TSQUEUE (CEMT I TS) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter `cemt i ts l(main)`, the resulting display will show you the details of only those temporary storage queues that are resident in main storage.

+ To change various attributes, overtype your changes on the + INQUIRE screen after tabbing to the appropriate field (see + "Overtyping a display" on page 51).



All is the default.

(value)

is the name of the temporary storage queue for which information is requested.

Sample screen

```

CEMT IN TSQUEUE
STATUS: RESULTS
Tsq(.....) Num(00001) Fle(00000064) Loc(00000247) Max(00064) Min(00064)
Xts(01020304AABCCDD)
Tsq(ABCD ) Num(00001) Fle(00000064) Loc(00000247) Max(00064) Min(00064)
Xts(C1C2C3C40404040)
    
```

Figure 90. CEMT INQUIRE TSQUEUE screen

Displayed fields

Tsqueue

indicates that this panel relates to a TSQUEUE inquiry.

(value)

displays the 8-character name of a temporary storage queue.

Numitems(value)

displays the number of items in the temporary storage queue.

Flength(value)

displays the total length in bytes of all the items in the temporary storage queue. For information about how CICS calculates the length of items, see the notes preceding these command options.

Location(value)

displays where the temporary storage queue resides. The values are:

Auxiliary

The temporary storage queue is held on the CICS temporary storage VSAM data set, DFHTEMP.

Main

The temporary storage queue is held in main storage.

Maxitemlen(value)

displays the length in bytes of the largest item in the temporary storage queue. For information about how CICS calculates the length of items, see the notes preceding these command options.

Minitemlen(value)

displays the length in bytes of the smallest item in the temporary storage queue. For information about how CICS calculates the length of items, see the notes preceding these command options.

Xtsqueue(value)

displays the name of the temporary storage queue in hexadecimal representation.

CEMT INQUIRE VOLUME

Function: Retrieve information about journal volumes.

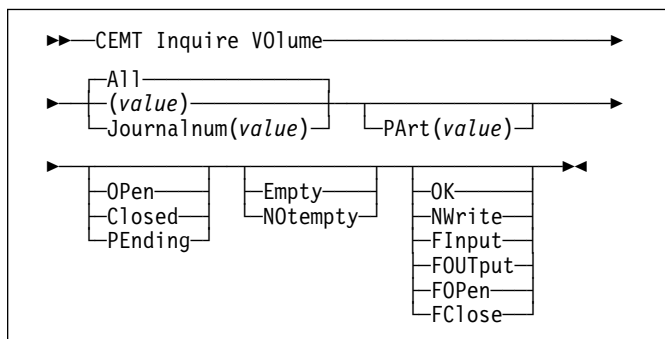
Description: INQUIRE VOLUME applies only to standard-labeled tape journals. Each volume that is known to the system belongs to one journal; a single journal can span one or more tape volumes.

Input: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE VOLUME (the minimum abbreviation is CEMT I V0). You get a display that lists the current status.
- Type CEMT INQUIRE VOLUME (CEMT I V0) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter `cemt i v0 op e`, the resulting display will show you the details of only those volumes that are open and empty.

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see "Overtyping a display" on page 51).
- Use the CEMT SET VOLUME command.



All is the default.

(value) is the 6-digit volume serial number of the volume that is the subject of your inquiry.

Displayed fields

Volume indicates that this panel relates to a VOLUME inquiry.

(value) displays a 6-digit volume serial number.

Journalnum(value) displays the journal number. The system journal is number 1.

Part(value) displays the sequence number of this volume in a series of volumes.

Open|Closed|Pending displays the status of the volume. The values are:

Open
The volume is being written to by CICS, or the volume is on standby in the case of a tape-2 defined journal.

Closed
The volume is not being written to by CICS, or the volume is not on standby in the case of a tape-2 defined journal.

Pending
The volume is waiting for an open request, a close request, or a mount request to be satisfied.

Empty|Notempty displays whether the volume is empty. The values are:

Empty
The volume has no data on it.

Notempty
The volume has data on it.

OK|Nwrite|Finput|Foutput|Fopen|Fclose displays the availability of the volume. The values are:

OK The volume can be written to.

Note: You cannot specify both OK and JOURNALNUM.

Nwrite
The volume is unavailable for writing. A volume set to NWRITE is not selected for output by CICS. Instead, the next volume in the series is used.

Finput
The volume is unavailable because of a failure during input.

Foutput
The volume is unavailable because of failure during output.

Fopen
The volume is unavailable because of failure during open.

Fclose

The volume is unavailable because of failure during close.

Add|Remove

displays the action to be taken with this volume. The values are:

Add The named volume is to be made available for journaling. The volume is added to the series of volumes associated with the named journal.

Remove

The named volume is no longer known to the CICS system.

Note: You cannot specify both REMOVE and JOURNALNUM.

Date(value)

displays the date of the oldest data in the volume.

Time(value)

displays the time of writing of the oldest data in the volume.

CEMT INQUIRE VTAM

Function: Inquire on the state of the connection between CICS and VTAM.

Description: INQUIRE VTAM inquires on the state of the connection between CICS and VTAM, and also on the generic resource name (GRNAME) and the persistent session delay interval (PSDI).

Input: Press the Clear key and type CEMT INQUIRE VTAM (the minimum abbreviation is CEMT I VT). You will get a display screen, a sample of which is shown below.

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see "Overtyping a display" on page 51).
- Use the CEMT SET VTAM command.

▶▶—CEMT Inquire VTam—◀◀

Sample screen

```
IN VTAM
STATUS: RESULTS - OVERTYPE TO MODIFY
Vta Ope Psd( 000000 ) Grn( aaaaaaa ) Unr
```

Figure 91. CEMT INQUIRE VTAM screen

Displayed fields**Vtam**

indicates that this panel relates to a VTAM inquiry.

Open|Closed|Immclose|Forceclose

displays the status of the connection between CICS and VTAM. The values are:

Open

There is a connection between CICS and VTAM.

Closed

The connection between CICS and VTAM has terminated.

Immclose

The connection between CICS and VTAM is in the process of closing following an EXEC CICS SET VTAM IMMCLOSE or CEMT SET VTAM IMMCLOSE command.

Forceclose

The connection between CICS and VTAM is in the process of closing following an EXEC CICS SET VTAM FORCECLOSE or CEMT SET VTAM FORCECLOSE command.

CEMT INQUIRE VTAM

Note: You can reset this value by overtyping it with a different value.

Psdinterval(value)

displays the persistent session delay interval, expressed in the form *hhmmss*. It specifies if and for how long sessions are held in recovery-pending state after CICS fails.

Note: You can reset this value by overtyping it with a different value. The permitted range is 000000 to 235959 inclusive.

000000 If CICS fails, sessions are terminated.

hhmmss If CICS fails, sessions are held in recovery-pending state by VTAM for up to the interval specified.

CEMT issues new error messages associated with the use of CEMT to set the persistent session delay interval. These are:

Message	RESP/RESP2
INVALID PSDINT	RESP=INVREQ, RESP2=4
NOT WITH XRF	RESP=INVREQ, RESP2=8
SETLOGON FAILURE	RESP=INVREQ, RESP2=9
BACK LEVEL VTAM	RESP=INVREQ, RESP2=10
ACB CLOSED	RESP=INVREQ, RESP2=12
RECOVERY ERROR	All other cases of INVREQ

Grname

displays the generic resource name under which this CICS region is registered to VTAM.

Registered|Deregistered|Unregistered|Unavailable displays the status of generic resource registration. The values are:

Registered

CICS registered successfully as a member of the VTAM generic resource named by the GRNAME option.

Deregistered

CICS was registered as a member of the generic resource named by the GRNAME and has deregistered successfully.

Unregistered

A generic resource name (GRNAME) was specified, but CICS has not made any attempt to register.

Unavailable

A generic resource name (GRNAME) was specified, but the version of VTAM that CICS is connected to does not support generic resources.

If CICS makes an unsuccessful attempt to register, the status is shown as UNREGISTERED, and the words REGISTER ERROR appear alongside.

If CICS makes an unsuccessful attempt to deregister, the status is shown as REGISTERED, and the words DEREGISTER ERROR appear alongside.

CEMT PERFORM commands

Descriptions follow of the CEMT PERFORM commands in alphabetic order. The operands for each of the commands are also presented in alphabetic order.

These commands are not concerned with resource status. They are used to:

- Cause the CICS timeout delete mechanism to be invoked immediately (PERFORM DELETSHIPPED)
- Dump and continue processing (PERFORM DUMP or PERFORM SNAP)
- Reconnect the IMS Resource Lock Manager (PERFORM RECONNECT)
- Reset the date and time of day (PERFORM RESET)
- Rebuild the RACF resource profile (PERFORM SECURITY)
- Shut down the CICS region (PERFORM SHUTDOWN)
- Request statistics to be recorded (PERFORM STATISTICS).

CEMT PERFORM DELETSHIPPED

Function: Cause the CICS timeout delete mechanism to be invoked immediately.

Description: The CICS timeout delete mechanism removes any shipped terminal definitions that have not been used for longer than the time specified on the DSHIPIDL system initialization parameter, or on a subsequent SET DELETSHIPPED IDLE command. The interval between scheduled invocations of the mechanism is specified on the DSHIPINT system initialization parameter, or on a subsequent SET DELETSHIPPED INTERVAL command.

PERFORM DELETSHIPPED invokes timeout delete immediately.

Notes:

1. Shipped definitions are not deleted if there is an automatic initiate descriptor (AID) associated with the terminal.
2. Issuing a PERFORM DELETSHIPPED command does **not** reset the start of the time interval until the next invocation of the timeout delete mechanism. In other words, causing the timeout delete mechanism to be invoked immediately does not affect the time remaining until the next scheduled invocation.

Syntax

►►—CEMT Perform DEletshipped—►◄

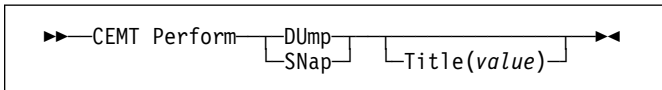
CEMT PERFORM DUMP|SNAP

Function: Obtain a CICS system dump

Description: To get a CICS system to dump and continue processing, you can use either the CEMT PERFORM DUMP command or the CEMT PERFORM SNAP command. Both commands produce a “snapshot” of the CICS system.

The use of CEMT PERFORM DUMP or CEMT PERFORM SNAP prevents all other tasks from running. Consequently, terminal operators may experience delays in response.

Syntax



Options

DUmp

specifies that a system dump is to be produced.

SNap

specifies that CICS is to issue the MVS SDUMP macro to produce an SDUMP (system dump) of the CICS region.

Title(value)

specifies a title of up to 32 characters; it is added at the beginning of the dump. If your title includes spaces, you must enclose the whole title within single quotation marks (' ').

CEMT PERFORM RECONNECT

Function: Reconnect CICS to the internal resource lock manager (DB2 or IMS IRLM) after IRLM has been restarted following a failure.

Syntax

```

  ───▶ CEMT Perform REconnect ───▶
  
```

You get one of the following responses to this command:

ALREADY CONNECTED

specifies that IRLM is already connected.

IN PROGRESS

A CEMT PERFORM RECONNECT command has already been issued for this CICS system and is being processed.

IRLM NOT UP YET

specifies that the new IRLM has not been started or has not yet completed initialization.

IRLM REQUEST FAIL

specifies that the “identify” request that CICS issued to identify itself to IRLM has been rejected, either by the MVS subsystem interface (SSI) or by IRLM itself. When this happens, CICS issues the following message to the CSMT destination:

```
DFHDL3921 Identify failed during reconnect - RC=rr
```

The return codes are documented in the *IMS Messages and Codes manual*.

NO IRLM SUPPORT

specifies that there is no IRLM associated with this CICS system. DLIRLM=NO has been specified as a system initialization parameter.

NO LOCAL DLI

specifies that there is no IMS associated with this CICS system. DLI=NO has been specified as a system initialization parameter.

NORMAL

specifies that CICS has been reconnected successfully.

PREV IRLM CLEANUP

specifies that the failing IRLM has not yet terminated. This usually means that not all the transactions that were scheduled when the IRLM failed have completed pseudoabend processing.

CEMT PERFORM RESET

Function: Synchronize the CICS date and time-of-day with the system date and time-of-day.

This command should be executed following a change to the system date or to the time-of-day.

+ For example, when setting clocks forward or back an hour to
+ adjust for Summer and Winter time, use this command to
+ ensure that CICS immediately updates the correct local time.

+ CICS generally obtains and stores the local time at specific
+ times of day only (for example, at start up, and midnight).
+ Thus you should execute this command whenever you
+ change the system date or time-of-day while CICS is
+ running. Note that to obtain the time, CICS issues an MVS
+ STCK macro and modifies this by the local time difference, if
+ any. Whenever an application program issues an EXEC
+ CICS ASKTIME command, CICS updates the EIBTIME field
+ in the exec interface block, always with the local time. To
+ ensure that your applications are receiving the correct time,
+ use CEMT PERFORM REST whenever you alter the MVS
+ time.

Syntax

►►—CEMT Perform RESet—◄◄

CEMT PERFORM SECURITY

Function: Rebuild the in-store RACF resource profiles. The RACF resource profiles are rebuilt by reissuing the RACLIST macro for the active class names.

Syntax

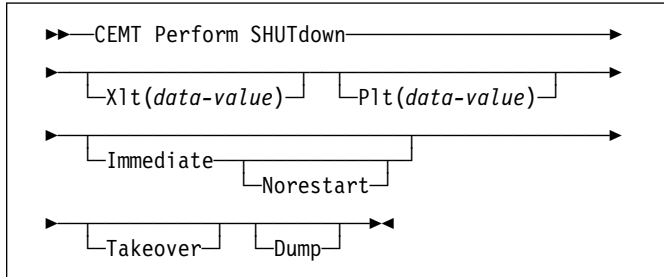
►►—CEMT Perform SEcurity rebuild—◄◄

| If the external security manager is RACF 2.1 or an equivalent
| product, the PERFORM SECURITY command is not required
| to refresh the classes used for resource checks. A message
| of NOT REQUIRED is displayed and no action is taken.

CEMT PERFORM SHUTDOWN

Function: Shut down the CICS region. The shutdown can be either controlled or immediate.

Syntax



Options

Dump

A dynamic storage dump is produced upon completion of the termination process.

Immediate

specifies that the system is shut down immediately, terminating all active tasks and SNA sessions. If IMMEDIATE is not specified, all tasks are allowed to finish, and SNA sessions are allowed to terminate normally.

NORestart

specifies that if the CICS region is registered to
MVS/ESA Automatic Restart Manager (ARM), it is to be
deregistered as part of shutdown and not restarted
automatically.

Plt(data-value)

specifies the 2-character suffix of a program list table (PLT) to be used for the shutdown.

Takeover

specifies that this CICS region should be closed down, and the alternate CICS region is to take over. This is valid only if the XRF=YES system initialization parameter was specified for CICS startup.

Xlt(data-value)

specifies the 2-character suffix of a transaction list table (XLT) to be used for the shutdown.

Transactions listed in the specified XLT can be initiated after the SHUTDOWN request, and before the system quiesces. The default XLT should contain an entry for the master terminal transaction. This ensures that you can issue an immediate shutdown if, for example, a task is found to be suspended after an ordinary (nonimmediate) shutdown has been requested.

Table 1 shows the effect of the TAKEOVER and IMMEDIATE options on the active CICS system.

	CEMT PERFORM SHUTDOWN		
	(normal)	TAKEOVER	IMMEDIATE
Tasks	finish	finish	terminate
SNA session (XRF)	unbind	leave	leave
SNA session (non-XRF)	unbind	unbind	unbind

Table 2 shows the effect of the TAKEOVER and IMMEDIATE options on the alternate CICS system.

	CEMT PERFORM SHUTDOWN		
	(normal)	TAKEOVER	IMMEDIATE
CICS alternate	shuts down	takes over	takes over

For further information on XRF, see the *CICS/ESA 3.3 XRF Guide*.

CEMT PERFORM STATISTICS RECORD

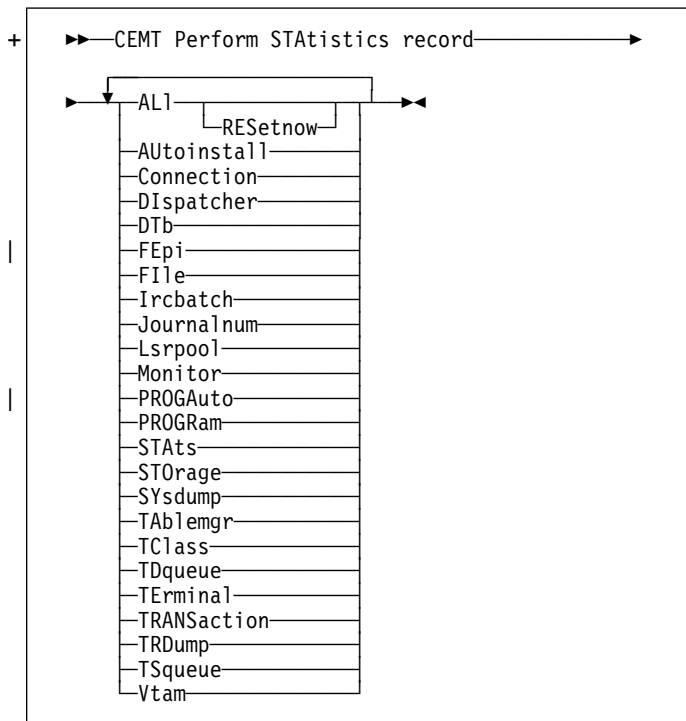
Function: Write the statistics for a named resource type immediately to the SMF data set, rather than wait for the current statistics-gathering interval to expire. The recording is made irrespective of the ON or OFF setting of statistics. See also page 87 and page 140 for a description of the CEMT INQUIRE and SET STATISTICS commands.

Description: You can request either statistics for all resources (ALL), or statistics for individual resources in various combinations by selecting one or more keywords from the list.

The message 'STATS MISSING' appears when the resource type is either not functioning or not available. As much data is recorded as possible.

See the *CICS/ESA Operations and Utilities Guide* for information about printing statistics using the CICS-supplied utility program DFHSTUP, and for information about the reports produced by DFHSTUP.

Syntax



Options

ALI

Statistics for all resources are to be written immediately to the SMF data set.

ALL RESETNOW resets the counters for the collection of statistics. RESETNOW only works if the ALL operand is set, that is, ALL RESETNOW.

AUtoinstall

Autoinstall statistics are to be written immediately to the SMF data set.

Connection

Connection statistics are to be written immediately to the SMF data set.

DIspatcher

Dispatcher statistics are to be written immediately to the SMF data set.

DTb

Dynamic transaction backout statistics are to be written immediately to the SMF data set.

FEpi

FEPI statistics are to be written immediately to the SMF data set.

FIle

File control statistics are to be written immediately to the SMF data set.

Ircbatch

IRC batch statistics are to be written immediately to the SMF data set.

Journalnum

Journal control statistics are to be written immediately to the SMF data set.

Lsrpool

LSRPOOL statistics are to be written immediately to the SMF data set.

Monitor

Monitoring statistics are to be written immediately to the SMF data set.

PROGAuto

Autoinstalled program statistics are to be written immediately to the SMF data set.

PROGRam

Program statistics are to be written immediately to the SMF data set.

RESetnow

The statistics counters are to be reset.

STAts

Statistics domain statistics are to be written immediately to the SMF data set.

STOrage

Storage manager statistics are to be written immediately to the SMF data set.

SYsdump

System dump statistics are to be written immediately to the SMF data set.

TAblemgr

Table manager statistics are to be written immediately to the SMF data set.

CEMT SET AUTOINSTALL

TClass

Transaction class statistics are to be written immediately to the SMF data set.

TDqueue

Transient data statistics are to be written immediately to the SMF data set.

TErminAl

Terminal statistics are to be written immediately to the SMF data set.

TRANSAction

Transaction statistics are to be written immediately to the SMF data set.

TRDump

Transaction dump statistics are to be written immediately to the SMF data set.

TSqueue

Temporary storage statistics are to be written immediately to the SMF data set.

Vtam

VTAM statistics are to be written immediately to the SMF data set.

CEMT SET AUTOINSTALL

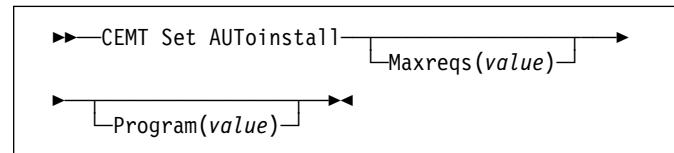
Function: Change autoinstall values.

Description: The CEMT SET AUTOINSTALL command allows you to change some of the values that control the automatic installation of terminals (autoinstall). For information about autoinstall, see the *CICS/ESA Resource Definition Guide*.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET AUTOINSTALL (the minimum abbreviation is CEMT S AUTO). You get a display that lists the current status, similar to that obtained by CEMT INQUIRE AUTOINSTALL. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET AUTOINSTALL (CEMT S AUTO) followed by one or more attribute settings that you wish to change. For example, `cemt s aut m(newvalue) p(newname)` will reset the values for maximum number of requests for a new program.

Typing ? at the beginning of either the first or second line gives a syntax prompt. Resetting the values takes effect immediately.



Options

Maxreqs(value)

specifies the largest number of autoinstall requests that are allowed to queue at one time, in the range 0–999.

You can prevent more terminals from logging on through autoinstall by setting this value to 0. This allows autoinstalled entries for terminals currently logged on to be deleted by the autoinstall program when they log off.

Program(value)

specifies the name of the user program that is to control the autoinstall process. A default program is supplied.

CEMT SET AUXTRACE

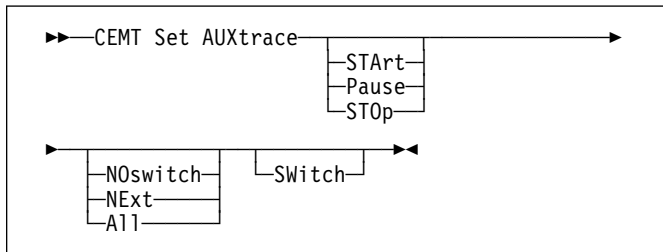
Function: Change auxiliary tracing options.

Description: For more information about traces, see the *CICS/ESA Problem Determination Guide*. See also the description of the CETR transaction on page 181.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET AUXTRACE (the minimum abbreviation is CEMT S AUX). You get a display that lists the current status, similar to that obtained by CEMT INQUIRE AUXTRACE. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET AUXTRACE (CEMT S AUX) followed by one or more attribute settings that you wish to change. For example, `cemt s aux sto a` will stop auxiliary tracing and cause automatic switching to occur as necessary.

Typing ? at the beginning of either the first or second line gives a syntax prompt. Resetting the values takes effect immediately.



Options

STArt|Pause|STOp

specifies the status of auxiliary tracing in your CICS system. The values are:

STArt

CICS is to start auxiliary tracing and open the auxiliary trace data set if it is currently closed.

Pause

Auxiliary tracing is to stop, but the data set is to remain open. A subsequent START request causes trace entries to be written immediately following those that were written before the PAUSE request.

STOp

CICS is to stop auxiliary tracing and close the auxiliary trace data set. A subsequent START request causes new trace entries to be written at the start of the data set, thereby overwriting the trace entries that were written before the STOP request.

NOswitch|NExt|All

specifies whether automatic data switching is to occur when the current auxiliary trace data set becomes full. The values are:

NOswitch

Switching between the auxiliary trace data sets is not to occur without operator intervention.

NExt

Automatic switching of the auxiliary trace data set is to occur when the current trace data set is full, but not subsequently.

All

specifies that automatic switching between the two auxiliary trace data sets is to occur as necessary until the end of this CICS session, without the need for operator intervention.

SWitch

specifies that an immediate switch from the current auxiliary trace data set is to be made to the alternate trace data set.

CEMT SET CONNECTION

Function: Change the status of connections linked to specific terminals.

Description: When a connection has been defined as INDIRECT, no information is given unless the direct connection to which it refers is installed.

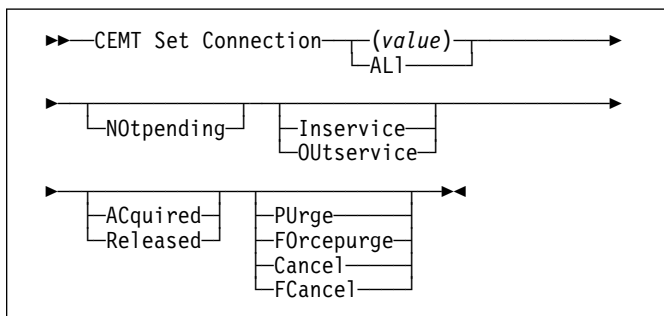
If you want to install a new connection definition when one is already installed, you must set the connection OUTSERVICE and, if it is VTAM-connected, release it before using the CEDA INSTALL commands for your new definition.

See the *CICS/ESA Resource Definition Guide* for further information about connections.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET CONNECTION (the minimum abbreviation is CEMT S C) followed by one or more connection identifiers or ALL. You get a display that lists the current status, similar to that obtained by CEMT INQUIRE CONNECTION. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET CONNECTION (CEMT S C) followed by one or more connection identifiers or ALL, followed in turn by one or more attribute settings that you wish to change. For example, cemt s c a l i will reset the values for all connections to make them available for use (inservice).

Typing ? at the beginning of either the first or second line gives a syntax prompt. Resetting the values takes effect immediately.



Options

(value)|ALI

specifies whether the SET command is to apply to one or more connections, or whether it is al apply to all connections. The values are:

(value)

One or more names (1–4 characters) defined for an interregion communication (IRC) or an intersystem communication (ISC) connection.

Batch regions currently connected to the CICS system through IRC can be addressed by the value (“@BCH”). For example:

```
CEMT SET CONNECTION(@BCH) INSERVICE
```

enables communication between CICS and all batch regions.

ALI Any changes you request are made to all resources of the specified type that you are authorized to access.

NOTpending (APPC only)

Specifying this command performs two functions:

1. The local system erases its memory of the remote system’s log name. This means that the local system sends a COLD exchange log names (XLN) GDS variable.
2. Units of work (UOW) that require resynchronization with the remote system are erased and any suspended recoverable changes associated with those UOWs are unilaterally committed. CICS does not perform any resynchronization with the remote system when the connection is reacquired.

The command can be issued only if exchange log names processing has not been completed successfully. The exchange log names and resynchronization functions are described in the *CICS/ESA Intercommunication Guide* and the *Systems Network Architecture—LU6.2 Reference: Peer Protocols* manual.

Inservice|Outservice

specifies whether the system can receive and send data. The values are:

Inservice

The system is in service; that is, it is available for use.

For an interregion communication (IRC) system (that is, links to system (“sysid”) are through IRC), all IRC sessions owned by the system are placed in service and the following occurs:

- If both the issuing system and system “sysid” have IRC open, and the issuing system has status INSERVICE within system “sysid”, connections are established and made available between the two systems.
- Otherwise, the status of the system (and the status of the underlying sessions) is set INSERVICE, so that when both systems have IRC open and are INSERVICE with respect to each other, connections are established. Note that INQUIRE indicates that systems (and their underlying sessions) are INSERVICE even though no connections can be used.

- The status of the underlying sessions for a system is always the same as that for the system itself.

For an ISC system, the following occurs:

- LU6.1 system (that is, links to “sysid” are through intersystem communication)—all underlying sessions are placed in service.
- APPC system—causes the SNASVCMG sessions to be placed in service thereby enabling the connection subsequently to be established.

OUTservice

The system is out of service; that is, it is not available for use.

For an IRC system, the following applies:

- If the issuing system and “sysid” are currently connected, those connections are broken (quiesce). The connections cannot be reestablished until an INSERVICE request is issued for “sysid”.
- If the systems are not currently connected, connections are not allowed until an INSERVICE request is issued for “sysid”.
- The status of the underlying sessions for a given system is always the same as that for the system itself.

For an ISC system, the following occurs:

- LU6.1 system—all underlying sessions owned by the system are released and placed out of service: immediately if PURGE or FORCEPURGE is specified; or when tasks have terminated if neither PURGE nor FORCEPURGE is specified.

If the response to an INQUIRE CONNECTION command shows OUTSERVICE, it does not imply that the connection has been explicitly set as SET OUTSERVICE; in particular circumstances, you cannot reinstall this connection.

- APPC system—this option is valid only if the system is released. All sessions owned by the ISC system are then out of service and released.

ACquired|Released (APPC only)

specifies whether CICS is to acquire or release a session with the logical unit represented by the CONNECTION name. To get more detailed information about the availability status of the connection elements, use the CEMT INQUIRE MODENAME command. A connection cannot be both ACQUIRED and OUTSERVICE. The values are:

ACquired

The session is to be acquired.

Released

The connection is to be released.

PURge|FORCEpurge|Cancel|FCancel

specifies how associated transactions are to be purged. The values are:

PURge (VTAM only)

Transactions running on the connected system are abnormally terminated. Transactions are terminated only if system and data integrity can be maintained. A transaction is not purged if its definition specifies SPURGE=NO.

FORCEpurge (VTAM only)

All transactions running on sessions on the connected system are immediately terminated abnormally. This can lead to unpredictable results and should be used only in exceptional circumstances.

In some extreme cases (for example, if an error occurs during backout processing), CICS might terminate abnormally.

FORCEPURGE replaces PURGE FORCE which is retained only for compatibility purposes. You should use FORCEPURGE in new applications.

Cancel

Automatic initiate descriptors (AIDs) queuing for the specified connection are to be canceled.

AIDs representing scheduled and allocated requests waiting in the local CICS system for the specified connection are canceled. However, TD AIDs with an associated triggered task already started will not be canceled. In addition, the following CICS system AIDs are not purged unless FCANCEL is specified.

<i>Table 3. System AIDs requiring FCANCEL to remove them</i>	
Description	Tranid
Remote delete AIDs	
Remote scheduler AIDs	CRSR
LU6.2 service manager 1 AIDs	CLS1
LU6.2 service manager 2 AIDs	CLS2
LU6.2 service manager 3 AIDs	CLS3
Remote scheduler PURGE AIDs	CRSQ
Resource manager resync AIDs	CRSY
Autoinstalled terminal delete AIDs	CATD
Autoinstalled terminal restart AIDs	CATR

When a canceled SCHEDULE request is found to have a precursor in a remote CICS system, that is, the AID was originally scheduled in a remote system, the remote AID is canceled asynchronously.

CEMT SET DATASET

Message DFHTF0100 is written to CSMT to indicate how many AIDs have been deleted for the connection and how many remain.

An 'AIDS CANCELED' message appears on the CEMT panel whenever AIDs are deleted using the CANCEL option of the CEMT SET CONNECTION command.

FCancel

All AIDs, including system AIDs, queuing for the specified connection are to be canceled. See Table 3 on page 119 for a list of those system AIDs that require FCANCEL to remove them. This can lead to unpredictable results and should be used only in exceptional circumstances.

Note: FCANCEL does not remove transient data AIDs with an associated triggered task. These aids may be removed by purging the associated task.

An 'AIDS CANCELED' message appears on the CEMT panel whenever AIDs are deleted using the FCANCEL option of the CEMT SET CONNECTION command.

CEMT SET DATASET

Replaced by CEMT SET FILE (see "CEMT SET FILE" on page 127). DATASET is still accepted, except for command-line SET commands.

CEMT SET DELETSHIPED

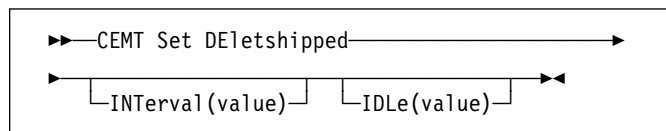
Function: Change system settings that control the CICS timeout delete mechanism.

Syntax: The CICS timeout delete mechanism is invoked at user-specified intervals to remove any shipped terminal definitions that have not been used for longer than a user-specified time.

SET DELETSHIPED allows you to change the values that control the mechanism.

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET DELETSHIPED (the minimum abbreviation is CEMT S DE). You get a display that lists the current status, similar to that obtained by CEMT INQUIRE DELETSHIPED. You can then tab to the highlighted or blank fields and overtype them with the required values.
- Type CEMT SET DELETSHIPED (CEMT S DE), followed by one or more attributes that you wish to change. For example, `cemt s de idl(0150000)` specifies that shipped terminal definitions are to remain installed for at least fifteen hours after they become inactive.



Options

Idle(value)

specifies, in the form “0hhmmss+”, the minimum time that an *inactive* shipped terminal definition must remain installed in this region. When the CICS timeout delete mechanism is invoked, only those shipped definitions that have been inactive for longer than this time are deleted.

The time interval can be in the range 00–99 hours; 00–59 minutes; and 00–59 seconds.

At CICS startup, the interval is set to the value specified on the DSHIPIDL system initialization parameter.

Interval(value)

specifies, in the form “0hhmmss+”, the interval between invocations of the CICS timeout delete mechanism. The timeout delete mechanism removes any shipped terminal definitions that have not been used for longer than the time specified by the IDLE option.

The time interval can be in the range 00–99 hours; 00–59 minutes; and 00–59 seconds. If you specify 0, the timeout delete mechanism is not invoked.

At CICS startup, the interval is set to the value specified on the DSHIPINT system initialization parameter. By resetting the interval, you can change the time of day at which a mass delete operation takes place.

Note: The revised interval starts from *the time the command is issued*, **not** from the time the timeout delete mechanism was last invoked, nor from the time of CICS startup.

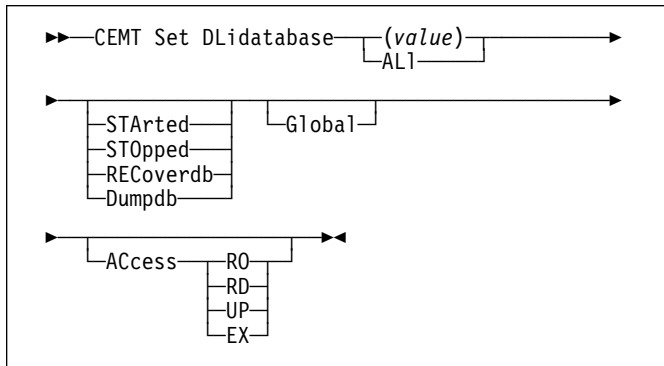
CEMT SET DLIDATABASE

Function: Change the logical state, the access, and global options in relation to the associated DL/I database.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET DLIDATABASE (the minimum abbreviation is CEMT S DL) with either a database identifier or 'ALL'. You get a display that lists the current status, similar to that obtained by CEMT INQUIRE DLIDATABASE. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET DLIDATABASE (CEMT S DL) with either a database identifier or 'ALL', followed by one or more attribute settings that you wish to change. For example, `cemt s dl (value) sta` will make the DL/I database identified by 'value' available for processing.

Typing ? at the beginning of either the first or second line gives a syntax prompt. Resetting the values takes effect immediately.



Options

(value)

specifies one or more database identifiers (1–8 characters) defined to DL/I in the DDIR control block.

ALI

If you specify the ALL operand on a SET command, any changes you request are made to all resources of the specified type that you are authorized to access.

STArTted|STOpped|RECOverdb|DumPdb

specifies the status of the database. The values are:

STArTted

The database is available for processing. The database is physically opened when the first schedule request is made against it. The IMS equivalent is /START.

STOpped

Causes a physical close of the database. The IMS equivalent is /STOP.

RECOverdb

Reads and updates on DL/I databases are prohibited. This allows a recovery utility to be run in another region, following which the database can be returned to online operation by resetting the STARTED option.

The current tape volume (or disk data set) of the system log is closed and the next is opened. This happens once for each batch of commands (a "batch" is the set of changes to the CEMT display when ENTER is pressed). You are advised that all databases that require RECOVERDB processing be processed in one batch so that system log volume switching occurs once only. The IMS equivalent is /DBR.

DumPdb

Updates on DL/I databases are prohibited. You can run a backup utility in another region, after which you can return the database to online operation by resetting the STARTED option. The IMS equivalent is /DBD.

Global

In a data-sharing environment, this specifies that a SET STARTED, SET STOPPED, SET RECOVERDB, or SET DUMPDB command for a DL/I database is to be sent to all the data-sharing subsystems in addition to being processed on the local CICS system.

ACcess{RO|RD|UP|EX}

specifies the access intent against a DL/I database. You can specify the following values:

EX Exclusive access

RD Read access

RO Read-only access

UP Update access.

STARTED is always assumed when the ACCESS value is changed. ACCESS values can only be changed locally. If you change the ACCESS value when GLOBAL is specified, the command is processed locally only, and an error message is returned.

Dynamic allocation and deallocation of DL/I databases:

If an IMS dynamic allocation macro (DFSMDA) has been set up for a DL/I database, the first reference to the database after it has been STARTED causes it to be dynamically allocated. Similarly, specifying STOPPED or RECOVERDB causes the database to be dynamically deallocated.

Return codes for DL/I database operations: If a CEMT command for a DL/I database fails for any reason, a return code is displayed. Some return codes are generated by CICS; others are received from DBRC and passed directly to the CEMT display.

Successful completion of a command is indicated by the response 'NORMAL'.

If you issue a command by overtyping the CEMT display, rather than by typing a specific SET command on the command line, there is no subsequent display of the command that you actually issued. It is important that you remember any commands that you issue in this way, so that you can interpret the DBRC return codes generated by failing commands.

CICS return codes: Return codes generated by CICS have the following format:

RC=0000xxyy

where "xx" (in hexadecimal) is the **primary code**, and "yy" (also in hex) is the **subcode**.

In general, the primary code indicates the type of failure that has occurred, and the subcode gives the reason for the failure. The meanings of the return codes are as follows:

Primary codes

- 08** Incorrect request.
- 18** GLOBAL specified, but command cannot be transmitted. Command processed locally only.

Subcodes

- 00** Local command processed normally (this occurs only with primary code 18).
- 1C** IMS storage unavailable.
- 71** Database not found. (It is not defined in DFHDLDBD.)
- 72** Database busy. (It is being used by another CEMT command.)

- 73** Integrity risk. This condition cannot occur if DBRC is present. It indicates that, following a backout failure, an attempt has been made to open the DL/I database before RECOVERDB has been issued.
- 74** Incorrect access parameter. Possible reasons are:
 - The access keyword (RD, RO, UP, or EX) is not spelled correctly.
 - GLOBAL is specified.
- 75** Incorrect global parameter. IRLM and DBRC have not been specified by the DLIRLM and DLDBRC system initialization parameters.
- 76** Close failure. The database could not be closed. This can occur for any operation that requires closure, not just for the CLOSED command.
- 77** Change authorization failure. A requested access value has not been allowed. For example, exclusive access (EX) has been requested on a database for which another subsystem has authorization.
- 79** The database has been closed and an attempt has been made to deallocate it, but the attempt has failed.

Note: When local DL/I is used, CICS always makes a dynamic /// deallocation request. Subcode 79 can be ignored if the DL/I environment has not been set up for dynamic allocation.

DBRC return codes: Return codes from DBRC have the following format:

DBRC RC=n

where "n" is a decimal number. The meanings of the return codes are given in the *IMS Messages and Codes* manual under 'DSP messages'. A return code of zero, meaning successful completion, is not displayed.

To interpret a DBRC return code, you must take into account the command that you issued and whether it is local or global.

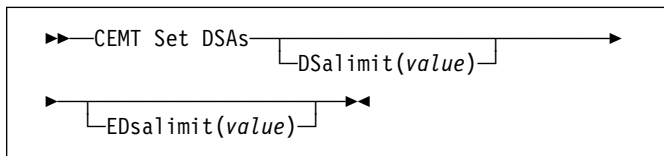
CEMT SET DSAS

Function: Change the system storage attributes.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET DSAS. You get a display that lists the current status, similar to that obtained by CEMT INQUIRE DSAS. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET DSAS followed by one or more attribute settings that you wish to change. For example, `cemt s dsas ds(value) ed(value)` will reset the values for dynamic storage below the 16MB boundary and above the 16MB boundary.

Typing ? at the beginning of either the first or second line gives a syntax prompt. Resetting the values takes effect immediately.



Options

DSalimit(value)

specifies the maximum amount of storage, as a total number of bytes, within which CICS can dynamically allocate storage for the four individual DSAs that reside below the 16MB boundary. (See the *CICS/ESA System Definition Guide* for a description of the DSALIM system initialization parameter.) If DSALIMIT specifies a value lower than the current limit, CICS may not be able to implement the new limit immediately, but will attempt to do so over time as dynamic storage is freed in the individual DSAs.

EDsalimit(value)

specifies the maximum amount of storage, as a total number of bytes, within which CICS can dynamically allocate storage for the four individual DSAs that reside above the 16MB boundary. (See the *CICS/ESA System Definition Guide* for a description of the EDSALIM system initialization parameter.) If EDSALIMIT specifies a value lower than the current limit, CICS may not be able to implement the new limit immediately, but will attempt to do so over time as dynamic storage is freed in the individual DSAs.

CEMT SET DSNAME

Function: Change the attributes of an external data set.

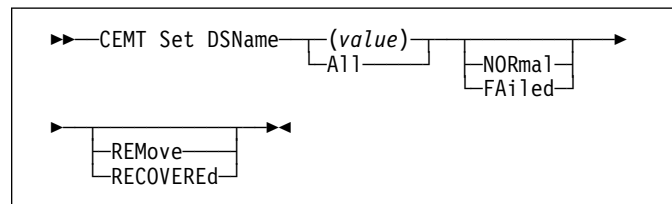
Description: With the SET DSNAME command, you can change the backout status of a VSAM base data set, tell CICS that a data set is no longer required on the local system, and set the Backup While Open (BWO) attributes of a data set to the Forward Recovered state to indicate that a forward recovery has taken place. The main purpose of this command is to reset the backout status of a VSAM base cluster after running the batch backout utility.

For SET DSNAME to have any effect, the data set must have been opened during the current CICS session.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET DSNAME (the minimum abbreviation is CEMT S DSN) with either a value corresponding to a data set name or 'ALL'. You get a display that lists the current status, similar to that obtained by CEMT INQUIRE DSNAME. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET DSNAME (CEMT S DSN) with either a dataset_name or 'ALL', followed by one or more attribute settings that you wish to change. For example, `cemt s dsname a nor rem` will reset all data sets to normal backout and remove all data sets from the system.

Typing ? at the beginning of either the first or second line gives a syntax prompt. Resetting the values takes effect immediately.



Options

(value)

specifies one or more names (1–44 characters) of an external data set.

- All** If you specify the ALL operand on a SET command, any change you request is made to all resources of the specified type that you are authorized to access.

NORmal|FAiled

specifies the backout status of the data set. The values are:

NORmal

All backouts have been successful, or backout has not been necessary. Data sets that are currently in the process of failing backout are also displayed as NORMAL.

FAiled

Backout of the data set has failed.

REMove|RECOVEREd

specifies the action to be taken on this data set. The values are:

REMove

This option is used when a data set is no longer required on the local system. It deletes the data set name block for the named data set. The REMOVE option can be used only when there are no file control table (FCT) entries that refer to the data set name. If any FCT entries refer to the data set name when you enter SET DSNAME REMOVE, you receive an error message indicating that the use count of the data set name block is not zero. To ensure that no FCT entries refer to the data set name:

- Close all files that refer to the data set. These files can be found using the command:
CEMT INQUIRE FILE(*) DSNAME(dsname)
- Remove the data set name from each FCT entry by over-typing the data set name with blanks on the CEMT display.

If you have a base data set with one or more alternative indexes, you are unable to remove the data set name block for the base until you have removed all references to the base data set and all references to paths.

RECOVEREd

The data set has been restored from a backup version and forward recovery has run and completed successfully. CICS normally updates the Backup While Open (BWO) attributes using MVS/DFP 3.2 Callable Services² for the base cluster data set BASEDSNAME. If the BWO attributes are not updated after the restore of a backup copy of a data set that was taken using BWO, CICS fails a subsequent file open because the data set is marked as down-level.

CEMT SET DUMPDS

Function: Change the attributes of a CICS dump data set.

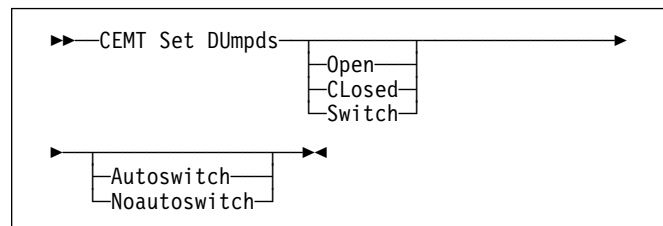
Description: Using SET DUMPDS, you can open or close the active CICS dump data set, and specify whether or not the automatic switch to the inactive dump data set occurs when the active dump data set is full.

For more information about dumps, see the *CICS/ESA Problem Determination Guide*.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET DUMPDS (the minimum abbreviation is CEMT S DU). You get a display that lists the current status, similar to that obtained by CEMT INQUIRE DUMPDS. You can then tab to the highlighted or blank fields and overtype them with the required values.
- Type CEMT SET DUMPDS (CEMT S DU) followed by one or more attribute settings that you wish to change. For example, `cemt s du o a` will open the active dump data set and cause autoswitch to occur only when the active dump data set is full.

Typing ? at the beginning of either the first or second line gives a syntax prompt. Resetting the values takes effect immediately.

**Options****Open|CLosed|Switch**

specifies the status of the active CICS dump data set. The values are:

Open

The active CICS dump data set is opened.

CLosed

The active CICS dump data set is closed.

Switch

The currently active dump data set is to become inactive, and the currently inactive data set is to become active.

² Further information on MVS/DFP Callable Services can be found in the *MVS/DFP 3.2 System Programming Reference* manual.

CEMT SET FEPI

Autoswitch|Noautoswitch

specifies whether there is to be an automatic switch to the inactive dump data set when the active dump data set is full. The values are:

Autoswitch

The switch occurs **only** when the active dump data set is full, but not subsequently.

Noautoswitch

When the active dump data set is full, there is not to be an automatic switch to the inactive dump data set.

CEMT SET FEPI

For information on CEMT SET FECONNECTION, CEMT SET FEPOOL, CEMT SET FEPROPSET, and CEMT SET FETARGET, see the *CICS/ESA Front End Programming Interface User's Guide*.

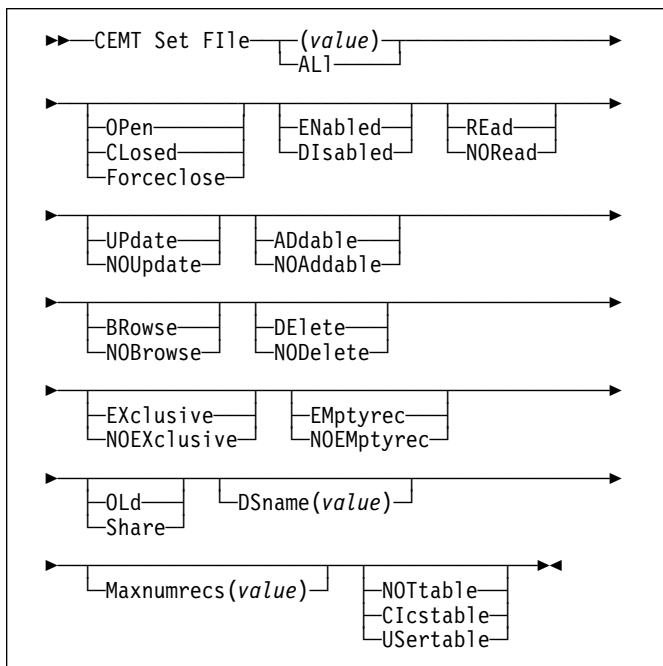
CEMT SET FILE

Function: Change some of the attributes of one or more VSAM or BDAM files.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET FILE (the minimum abbreviation is CEMT S FI) with either a value corresponding to a file name or ALL. You get a display that lists the current status, similar to that obtained by CEMT INQUIRE FILE. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET FILE (CEMT S FI) with either the name of a file or ALL, followed by one or more attribute settings that you wish to change. For example, `cemt s fi al op ex` will set all files open and protect the records on those files from simultaneous update (exclusive).

Typing ? at the beginning of either the first or second line gives a syntax prompt. Resetting the values takes effect immediately.



Options

(value)|ALI

specifies attributes are to be changed for one or more names defined in the FCT, or for all files. The values are:

(value)

One or more names (1–8 characters) defined in the file control table (FCT).

ALI Any change you request is made to all files that you are authorized to access.

Open|Closed|Forceclose

specifies the status of the file. The values are:

Open

The file is open. If the file is OPEN ENABLED, it is available for data accesses by CICS transactions. If it is OPEN DISABLED, it must first be enabled before it is available.

If the file was unenabled by a previous SET FILE CLOSED command, the SET FILE OPEN command reenables the file implicitly.

Closed

The file is closed; the access method does not allow accesses to the data until the file is opened. The file can be opened either explicitly by the user or, if the file has the ENABLED attribute, implicitly by CICS on the next reference to the file.

When the SET FILE CLOSED command is used, the file is closed and also disabled. (The file is disabled to prevent access requests from implicitly opening the file again.) The close is effected at the time of the command only if there are no tasks currently accessing the file. If there are current users, the display indicates CLOSE requested. This means that, when the last user finishes using the file, it effects the close.

A file that has been disabled by a SET FILE CLOSED command becomes enabled again by a subsequent SET FILE OPEN command. To distinguish a file that has been disabled by a SET FILE CLOSED from one that has been disabled by a SET FILE DISABLED command, the SET FILE CLOSED command closes the file with the UNENABLED attribute.

A file with the DISABLED attribute can be enabled only by a SET FILE ENABLED command. A file with the UNENABLED attribute can be enabled by a SET FILE ENABLED or SET FILE OPEN command.

Forceclose

Similar to SET FILE CLOSED, except that any existing users of the file are abended (abend code 'AKC3' or 'ATCH'). As for CLOSED, the close is effected by the last of these users.

Data integrity

Closing a file using the FORCECLOSE option causes tasks of any current users of the file to be terminated immediately by the CICS task FORCEPURGE mechanism. Data integrity is not guaranteed with this mechanism. In some extreme cases (for example, if an error occurs during backout processing) CICS might terminate abnormally. For this reason, closing files using the FORCECLOSE option should be restricted to exceptional circumstances.

CEMT SET FILE

ENabled|Disabled

specifies whether transactions can access the file. The values are:

ENabled

The file is available for use by transactions and, if closed, it is opened on the first request. If the command CEMT SET FILE(value) CLOSED ENABLED is given while the file is in use, the status of the file becomes 'closed-unenabled'. If the command CEMT SET FILE(value) CLOSED is given while the file is in use, the file is disabled to prevent new users accessing the file.

Disabled

The file is not available for use by transactions except for those that are currently using it. If there are any such users, 'BEING DISABLED' is also displayed. The CEMT SET FILE DISABLED command has no effect on existing users; it simply prevents new users from accessing the file.

The file can be reenabled by a SET FILE ENABLED command. (See also UNENABLED.)

It is not possible to disable a remote file.

REad|NORead

specifies whether you can read records from the file. The values are:

REad

You can read records in the file.

NORead

You cannot read records in the file.

UPdate|NOUpdate

specifies whether the file is updatable. The values are:

UPdate

You can update records in the file.

NOUpdate

You cannot update records in the file.

ADdable|NOAddable

specifies whether new records can be added to the file. The values are:

ADdable

You can add records to the file.

NOAddable

You cannot add records to the file.

BRowse|NOBrowse

specifies whether you can browse the file. The values are:

BRowse

You can browse records in the file.

NOBrowse

You cannot browse records in the file.

DElete|NODelete

specifies whether you can delete records from the file. The values are:

DElete

You can delete records from the file.

NODelete

You cannot delete records from the file.

EXclusive|NOEXclusive (BDAM only)

specifies whether records on this file are to be placed under exclusive control when a read for update is issued. The values are:

EXclusive

Records on the file are protected from simultaneous update.

NOEXclusive

Records on the file are not protected from simultaneous update.

EMptyrec|NOEMptyrec (VSAM only)

specifies whether the data set is to be made empty when a file that references it is next opened, and is valid only for data sets that have been defined as reusable. The values are:

EMptyrec

Applies only to a VSAM file that has been defined to VSAM as a cluster with the REUSE parameter. It indicates that when a file is next opened, its data is erased.

A CEMT SET FILE EMPTYREC command can be applied only to files that are closed and either disabled or unenabled, and has no effect on the data until the file is opened. A SET FILE EMPTYREQ command can be canceled by a SET FILE NOEMPTYREQ command.

NOEMptyrec

Applies only to VSAM files. It indicates that when a file is next opened, its data is not erased.

A CEMT SET FILE NOEMPTYREC command can be applied only to files that are closed and either disabled or unenabled, and cancels the implicit request in a previous SET FILE EMPTYREQ command.

OLd|Share

specifies the disposition of this file. The values are:

OLd The disposition of the data set associated with the file is defined as unshared for dynamic allocation.

Share

The disposition of the data set associated with the file is defined as shared for dynamic allocation.

DSname(value)

specifies the name (1–44 characters) of the VSAM or BDAM data set with which this file is associated. CEMT SET FILE(value) DSNAME(value) associates the data set with the file and causes the FILECOUNT of the data set to be incremented by 1. You can use CEMT SET FILE DSNAME with a null DSNAME value to dissociate a file from its current data set.

Note: DSNAME has now replaced OBJECTNAME.

Maxnumrecs(value)

specifies the maximum number of records that the data table for this file can hold. The value can be in the range 16 through 16777215 (16 to 16MB–1).

NOTable|Cicstable|USertable

specifies whether the file name defined in the filename option represents a data table. The values are:

NOTable

The file name does not represent a data table.

Cicstable

The file name represents a CICS-maintained data table.

USertable

The file name represents a user-maintained data table.

CEMT SET GTFTRACE

Function: Change the status of GTF tracing

Description: SET GTFTRACE allows you to switch CICS tracing to the MVS Generalized Tracing Facility (GTF) on and off.

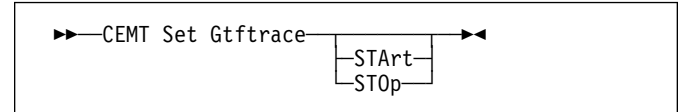
This command is intended for use at terminals that do not support the CETR full-screen tracing transaction.

For guidance on using GTF tracing, see the *CICS/ESA Problem Determination Guide*.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET GTFTRACE (the minimum abbreviation is CEMT S G). You get a display that lists the current status, similar to that obtained by CEMT INQUIRE GTFTRACE. You can then tab to the highlighted field and overwrite it with the required value.
- Type CEMT SET GTFTRACE (CEMT S G) followed by the attribute setting that you wish to change. For example, `cemt s g sta` will cause CICS GTF tracing to be started.

Typing ? at the beginning of either the first or second line gives a syntax prompt. Resetting the values takes effect immediately.

**Options****STArt|STOp**

specifies the status of CICS tracing to the MVS Generalized Tracing Facility (GTF). The values are:

STArt

CICS tracing to the MVS Generalized Tracing Facility (GTF) is started.

STOp

CICS tracing to the MVS Generalized Tracing Facility (GTF) is stopped.

CEMT SET INTRTRACE

Function: Switch CICS internal tracing on or off.

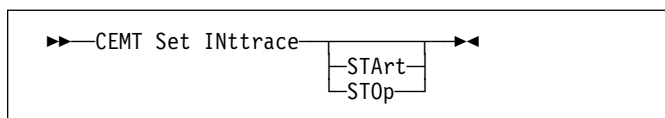
Description: SET INTRTRACE allows you to switch CICS internal tracing on and off.

This command is intended for use at terminals that do not support the full-screen tracing transaction CETR.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET INTRTRACE (the minimum abbreviation is CEMT S IN). You get a display that lists the current status, similar to that obtained by CEMT INQUIRE INTRTRACE. You can then tab to the highlighted field and overtype it with the required value.
- Type CEMT SET INTRTRACE (CEMT S IN) followed by the attribute setting that you wish to change. For example, `cemt s in sta` will cause CICS internal tracing to be started.

Typing ? at the beginning of either the first or second line gives a syntax prompt. Resetting the values takes effect immediately.



Options

STArt|STOp

specifies the status of CICS internal tracing. The values are:

STArt

CICS internal tracing is started.

STOp

CICS internal tracing is stopped.

CEMT SET IRC

Function: Open or close the interregion communication (IRC) facility.

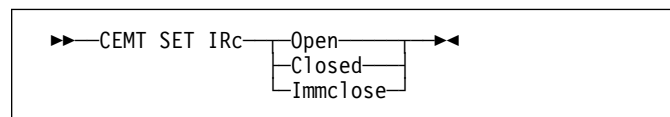
Description: New MRO connections can be installed without first closing IRC. However, if you want to modify existing MRO connections, IRC must be closed using the SET IRC CLOSED command. For example:

```
CEMT SET IRC CLOSED
CEDA INSTALL GROUP(groupname)
CEMT SET IRC OPEN
```

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET IRC (the minimum abbreviation is CEMT S IR). You get a display that lists the current status, similar to that obtained by CEMT INQUIRE IRC. You can then tab to the highlighted field and overtype it with the required value.
- Type CEMT SET IRC (CEMT S IR) followed by the attribute setting that you wish to change. For example, `cemt s ir o` will cause interregion communication to be initialized.

Typing ? at the beginning of either the first or second line gives a syntax prompt. Resetting the values takes effect immediately.



Options

Open|Closed|Immclose

specifies the status of the interregion communication (IRC) facility. The values are:

Open

Interregion communication for this CICS system is to be initialized. This allows connections to be established between this system and other systems, including DL/I batch regions and non-CICS client programs using the external CICS interface (EXCI). You can control the availability of individual connections with the INSERVICE|OUTSERVICE settings on the connection names.

The DFHIR3780 message and CICS interregion communication program (IRP) return and reason codes are displayed if IRC fails to open. For a description of DFHIR3780, see the *CICS/ESA Messages and Codes* manual.

Closed

Interregion communication for this CICS system is to be terminated after all tasks using IRC sessions have terminated normally.

Immclose

All tasks using IRC sessions are to be abended when they next try to use the session. Interregion communication is terminated when all tasks that were using IRC have been abended or have terminated normally.

CEMT SET JOURNALNUM

Function: Change the status of CICS journals.

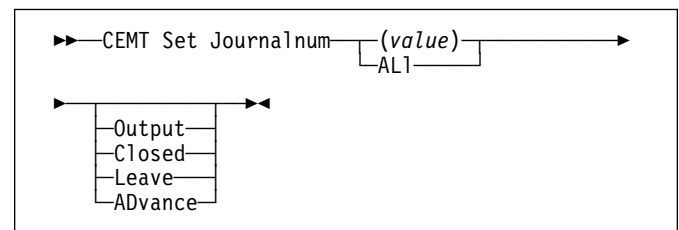
Description: The SET JOURNALNUM command allows you to open or close a journal, and to modify the method of collecting data.

You cannot specify a list of identifiers, nor can you use the symbols * and + to specify a family of journals.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET JOURNALNUM (the minimum abbreviation is CEMT S J) with either a journal number or ALL. You get a display that lists the current status, similar to that obtained by CEMT INQUIRE JOURNALNUM. You can then tab to the highlighted field and overtype it with the required value.
- Type CEMT SET JOURNALNUM (CEMT S J) with either a journal number or ALL, followed by the attribute setting that you wish to change. For example, `cent s j al c` will close all journals.

Typing ? at the beginning of either the first or second line gives a syntax prompt. Resetting the values takes effect immediately.



CEMT SET LINE

Options

(value)

specifies the number of the journal. The system journal is number 1.

ALI

Any changes you request are made to all resources of the specified type that you are authorized to access.

Output|Closed|Leave|ADvance

specifies the status of the journal. The values are:

Output

The journal is to be opened for output and can be written to by any task authorized to do so.

Closed

The specified journal is to be closed (without acquiring exclusive control) and, for tape journals, the volume is rewound.

Note: Do not set the CICS system journal (01) closed. If the journal used by the system to write log information is not open, any task issuing a journal request will abend. In addition, during any backout operation, CICS will not be able to write to the log and will itself abend. Use the ADVANCE option rather than the CLOSED option to switch the extent used for the system log.

Leave (tape journals only)

The specified journal is to be closed, but the volume is not to be rewound. The journal cannot be opened again until the volume is rewound.

ADvance

The volumes are to be switched.

You should use ADVANCE to unload a labeled tape because, when the journal is closed, MVS does not unload such a tape until the end of the job step.

CEMT SET LINE

Function: Change the status of a line.

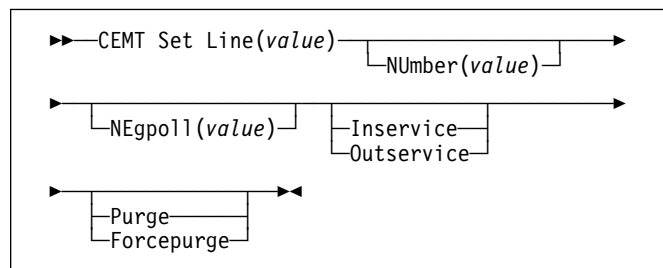
Description: The SET LINE command allows you to purge or forcepurge a line, to put the line in or out of service, and to adjust the relative line number.

You can specify a list of identifiers (see “List of resource identifiers” on page 51), but you cannot use the symbols * and + to specify a family of identifiers.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET LINE (the minimum abbreviation is CEMT S L) with a terminal identifier. You get a display that lists the current status, similar to that obtained by CEMT INQUIRE LINE. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET LINE (CEMT S L) with a terminal identifier, followed by one or more attribute settings that you wish to change. For example, `cemt s 1(value) i` will make the line available for use (inservice).

Typing ? at the beginning of either the first or second line gives a syntax prompt. Resetting the values takes effect immediately.



Options

(value)

specifies the identifier of a terminal on the line. This request is valid only for non-VTAM terminals.

NUmber(value)

specifies the relative line number of a pooled line. It is mandatory when inquiring about pooled lines. For information about pooled lines, see the *CICS/ESA Resource Definition Guide*.

NEGpoll(value)

specifies the negative poll delay interval (00000–20000 milliseconds). For a TCAM line, this specifies the interval before control is passed to the terminal error program (DFHTEP) when a CICS task is not ready to accept a record from an input process queue.

If the CICS task issues a read before the interval expires, processing continues normally and DFHTEP is not notified. The default value is zero.

Inservice|Outservice

specifies the status of the line. The values are:

Inservice

The line is available for use. Changing the status of the line does not affect the equivalent status of the terminals on it.

Outservice

The line is not available for use. Changing the status of the line does not affect the equivalent status of the terminals on it.

Purge|Forcepurge

specifies the status of tasks running on terminals associated with the line. The values are:

Purge

Tasks running on terminals associated with the line are abnormally terminated, but task termination occurs only if system and data integrity can be maintained.

Forcepurge

All transactions running with terminals on the line are immediately terminated abnormally. Data integrity is not guaranteed. In some extreme cases (for example, if an error occurs during backout processing), CICS might terminate abnormally.

CEMT SET MODENAME

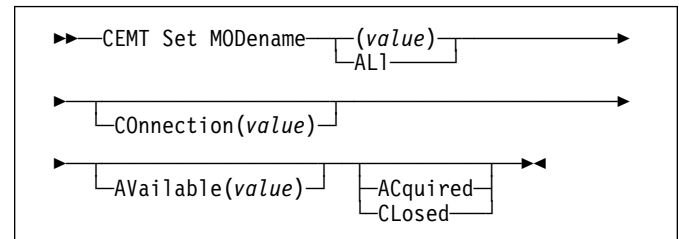
Function: Change the status of a mode name.

Description: The SET MODENAME command is used to reset the connection to a remote system or to another CICS region, change the number of sessions available, and acquire or close the sessions associated with the mode name.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET MODENAME (the minimum abbreviation is CEMT S MOD) with either a modename or ALL. You get a display that lists the current status, similar to that obtained by CEMT INQUIRE MODENAME. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET MODENAME (CEMT S MOD) with either a modename or ALL, followed by one or more attribute settings that you wish to change. For example, `cemt s mod(modename) acq` will cause CICS to acquire all the negotiated contention-winner sessions within the group named by modename.

Typing ? at the beginning of either the first or second line gives a syntax prompt. Resetting the values takes effect immediately.



Options**(value)**

specifies one or more names (1–8 characters) of a group of sessions. Mode names need not be unique. You cannot specify a list of names, but you can use the symbols * and + to specify a family of mode names.

A mode name consisting of eight blanks is valid. To specify this name, enclose the string of blanks within single quotation marks:

```
MODENAME('      ')
```

ALI

specifies that any changes you request are done to all resources of the specified type that you are authorized to access.

Connection(value)

specifies an identifier (1–4 characters) defined for an IRC or ISC connection.

Available(value)

specifies the maximum number of sessions within the group that can be concurrently allocated for use. This value has to be the same for both sides involved in the session.

ACquired|CLosed

specifies the status of sessions within the group. The values are:

ACquired

CICS is to acquire (or “bind”) all the negotiated contention-winner sessions within the group.

CLosed

CICS is to release all sessions within the group. The sessions are quiesced and unbound. No further sessions can be acquired by another CICS system. No further activity is possible on the sessions within the group until the group is reacquired by the same CICS system in which it has been closed.

CEMT SET MONITOR

Function: Change the status of monitoring.

Description: SET MONITOR allows you to select the classes of monitoring data you want collected, switch monitoring on or off, and set the status of monitoring options. For programming information on the monitoring classes, see the *CICS/ESA Customization Guide*.

Notes:

1. When you change the status of CICS monitoring from OFF to ON, CICS starts to accumulate monitoring data, and to write monitoring records for the active monitoring classes, for all tasks that start **after** the change is made. The monitoring status of tasks being processed is not affected.
2. When you change the status of CICS monitoring from ON to OFF, CICS stops writing monitoring data immediately. No monitoring data is accumulated for tasks that start after the change is made.
3. The monitoring class settings can be changed irrespective of whether monitoring is ON or OFF.

If monitoring is OFF, you can change the class settings as required in preparation for the next time STATUS is set to ON.

If monitoring is ON, changes to the class settings have the following effects:

- a. Changing a class from not-active to active has no effect on the data written for running tasks.
- b. Changing a class from active to not-active prevents monitoring data for that class being written for running tasks as follows:

SYSEVENT

Monitoring data is not written at transaction termination.

PERFORMANCE

Any performance class data remaining in the output buffer is recorded, and no further data is collected.

EXCEPTION

Monitoring data is not written at the completion of the exception condition.

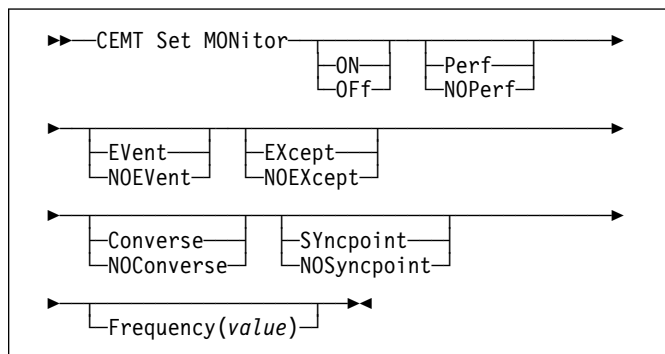
- c. Exception class and performance class data are gathered during the life of a running transaction. When you change these settings, you should be aware of their impact on transactions that are running. For example, if a transaction is started when the performance class is set to PERF and monitoring is ON, performance class data is accumulated for that transaction. If you switch the performance class to NOPERF while the transaction is running, and then back to PERF before the transaction ends, performance data will be missing from the final monitoring data for that transaction,

even though, when it started and when it ended, the performance class was set to PERF.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET MONITOR (the minimum abbreviation is CEMT S MON). You get a display that lists the current status, similar to that obtained by CEMT INQUIRE MONITOR. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET MONITOR (CEMT S MON) followed by one or more attribute settings that you wish to change. For example, `cemt s mon on p ex` will set CICS monitoring ON and collect performance-class and exception-class data.

Typing ? at the beginning of either the first or second line gives a syntax prompt. Resetting the values takes effect immediately.



Options

ON|OFF

specifies the status of monitoring. The values are:

- ON** CICS monitoring is to be switched on. When monitoring is ON, monitoring data is accumulated continuously, and is collected (written out to an SMF data set) for each of the classes of monitoring data that are active.
- OFF** CICS monitoring is to be switched off. When monitoring is OFF, no monitoring data is accumulated or collected, irrespective of the settings of the monitoring data classes.

Perf|NOPerf

specifies whether the performance class of monitoring data is to be collected. The values are:

- Perf** The performance class of monitoring data is to be collected.
- NOPerf** The performance class of monitoring data is not to be collected.

Event|NOEvent

specifies whether the SYSEVENT class of monitoring data is to be collected. The values are:

Event

The SYSEVENT class of monitoring data is to be collected.

NOEvent

The SYSEVENT class of monitoring data is not to be collected.

EXcept|NOEXcept

specifies whether the exception class of monitoring data is to be collected. The values are:

EXcept

The exception class of monitoring data is to be collected.

NOEXcept

The exception class of monitoring data is not to be collected.

Converse|NOConverse

specifies whether conversational tasks are to have separate performance class records produced for each pair of terminal control I/O requests (Converse or Send/Receive pair). The values are:

Converse

Conversational tasks are to have separate performance class records produced.

NOConverse

Conversational tasks are not to have separate performance class records produced.

SYncpoint|NOSyncpoint

specifies whether a transaction performance class record is to be produced when a transaction takes an explicit or implicit syncpoint (unit-of-work), except when the syncpoint is part of task termination or a syncpoint rollback. The values are:

SYncpoint

A transaction performance class record is to be produced.

NOSyncpoint

A transaction performance class record is not to be produced.

Frequency(value)

specifies the interval for which monitoring produces automatically a transaction performance class record for any long-running transaction that has been in the system for a greater time than the interval. Frequency times are 0, or in the range 001500–024000. The default frequency value is 0, which means that FREQUENCY monitoring is inactive (that is, no performance class records are produced for long-running transactions).

CEMT SET NETNAME

Function: Change the status of networks.

Description: If you are familiar with network names, you may prefer to use this command as an alternative to CEMT SET TERMINAL (described under “CEMT SET TERMINAL” on page 148). However, CEMT SET NETNAME cannot be used for APPC sessions.

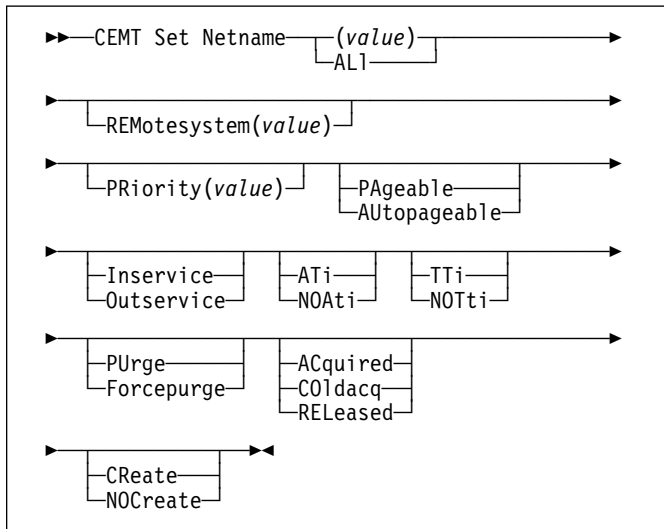
“netname” is the name by which the remote system or terminal is known to the network. The remaining operands for NETNAME are identical to those for TERMINAL.

Netnames need not be unique, and you cannot specify a list of names.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET NETNAME (the minimum abbreviation is CEMT S N) with netname or ALL. You get a display that lists the current status, similar to that obtained by CEMT INQUIRE NETNAME. You can then tab to the highlighted or blank fields and overtype them with the required values.
- Type CEMT SET NETNAME (CEMT S AUTO) with netname or ALL, followed by one or more attribute settings that you wish to change. For example, `cemt s n(netname) i at` will reset the named remote system or terminal to inservice and available for use.

Typing ? at the beginning of either the first or second line gives a syntax prompt. Resetting the values takes effect immediately.



Options

(value)

specifies the name by which the remote terminal is known in the network.

ALI

specifies that any changes you request are made to all resources of the specified type that you are authorized to access.

REMOtesystem(value)

specifies an identifier (1–4 characters) defined in the CICS terminal definition. This limits the terminals referred to by the request to those ISC or IRC sessions connected to the specified system. Batch regions currently connected to the CICS system through IRC can be addressed by the system identifier “@BCH”. For example:

```
CEMT SET TERMINAL REMOTESYSTEM(@BCH) INSERVICE
```

enables communication between CICS and all batch regions.

PRiority(value) (VTAM only)

specifies the priority of a terminal relative to other terminals. The priority of a task is the sum of the transaction priority, the terminal priority, and the operator priority. Priority has no meaning for terminals that are ISC sessions being used as alternative facilities. The value must be in the range 0–255, where 255 is the highest priority.

PAGEable|AUTopageable (VTAM only)

specifies whether pages after the first in a series are to be written to the terminal on request from the operator or automatically. The values are:

PAGEable

Pages after the first in a series are to be written to the terminal only if you request them to be.

AUTopageable

Pages after the first in a series are to be written to the terminal automatically.

INSERVICE|OUTSERVICE (VTAM only)

specifies whether the terminal is available for use. The values are:

INSERVICE

The terminal is available for use. For VTAM, INSERVICE means that the terminal can be ACQUIRED.

OUTSERVICE

The terminal is not available for use. Setting a terminal OUTSERVICE means that the terminal can no longer be used by transactions. If PURGE or FORCEPURGE is also specified, any transaction using the terminal is terminated abnormally. If PURGE or FORCEPURGE is not specified, the transaction is allowed to terminate normally, but no further transactions are allowed to use the terminal. For VTAM, setting a terminal OUTSERVICE also causes it to be released and the operator to be signed off, either immediately or when the current transaction has terminated.

In an LU6.1 ISC session the connection is set OUTSERVICE if there are no allocatable sessions left.

To set an IRC session OUTSERVICE, you must set the connection to the MRO partner OUTSERVICE.

ATi|NOAti (VTAM only)

specifies whether the terminal is available for use by transactions that are initiated automatically from within CICS or, if the terminal is an ISC session, by transactions that are using this session as an alternative facility to communicate with another system. The values are:

ATi The terminal is available for use.

NOAti

The terminal is not available for use.

Note: A terminal cannot be defined with both NOATI and NOTTI.

TTi|NOTti (VTAM only)

specifies whether the terminal can be used by the transactions that are initiated from this terminal. The values are:

TTi This terminal can be used by transactions.

NOTti

This terminal cannot be used by transactions.

Note: A terminal cannot be defined with both NOATI and NOTTI.

PUrge|Forcepurge

purges the transaction running with this terminal. The values are:

PUrge

Tasks running on this terminal are abnormally terminated, but task termination occurs only if system integrity can be maintained.

Forcepurge

All transactions running with this terminal are immediately terminated abnormally. Data integrity is not guaranteed. In some extreme cases (for

example, if an error occurs during backout processing), CICS might terminate abnormally.

ACquired|COldacq|REleased (VTAM only)

specifies whether CICS is in session with the logical unit represented by this terminal. The values are:

ACquired

CICS is in session with the logical unit represented by the terminal.

COldacq

This is a special form of ACQUIRED, where no resynchronization is required. If the previous session abended, the use of COLDACQ overrides CICS integrity control. This could lead to integrity problems. Also, you should check the CSMT log for an activity keypoint after the restart of a session following a CICS failure. If there is no activity keypoint, you should issue COLDACQ again after the next emergency restart.

REleased

CICS is not in session with the logical unit represented by the terminal. Setting a terminal RELEASED causes the session to be terminated. Running transactions are allowed to finish unless PURGE or FORCEPURGE is also specified.

CReate|NOCreate (VTAM only)

specifies whether the terminal can be acquired automatically by ATI transactions. This cannot be specified for IRC sessions. The values are:

CReate

If the terminal is not in session, CICS is to acquire it if it is needed to satisfy an ATI request.

NOCreate

If the terminal is not in session, CICS is not to acquire it to satisfy an ATI request. A session must be started by, for example, a logon request or a CEMT SET TERMINAL ACQUIRED command before the ATI request can be satisfied.

If NOCREATE is set for an LU6.1 ISC session and there are no allocatable sessions left, the connection is placed OUTSERVICE.

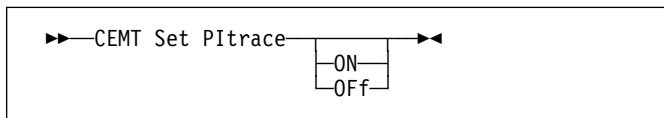
CEMT SET PITRACE

Function: Switch the program isolation trace on or off.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET PITRACE (the minimum abbreviation is CEMT S PI). You get a display that lists the current status, similar to that obtained by CEMT INQUIRE PITRACE. You can then tab to the highlighted field and overwrite it with the required value.
- Type CEMT SET PITRACE (CEMT S PI) followed by the attribute setting that you wish to change. For example, `cemt s pi on` will cause program isolation trace records to be written to the CICS system log.

Typing ? at the beginning of either the first or second line gives a syntax prompt. Resetting the values takes effect immediately.



Options

ON|OFF

specifies whether IMS program isolation trace records are to be written to the CICS system log. The values are:

- ON** IMS program isolation trace records are to be written.
- Off** IMS program isolation trace records are not to be written.

CEMT SET PROGRAM

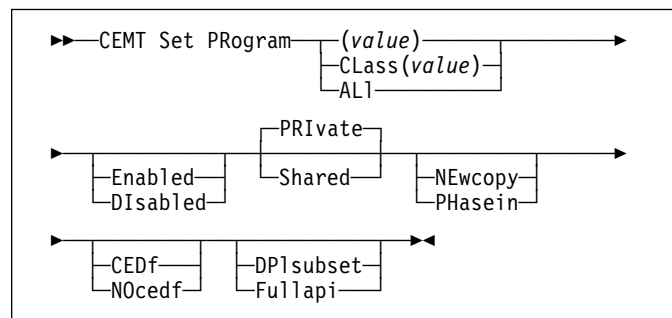
Function: Change the attributes of installed programs.

Description: Only programs that have been defined in the CICS system definition (CSD) file and installed on the running CICS system are accessible through CEMT.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET PROGRAM (the minimum abbreviation is CEMT S PR) with `pgrmid`, `CLASS(value)`, or `ALL`. You get a display that lists the current status, similar to that obtained by CEMT INQUIRE PROGRAM. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET PROGRAM (CEMT S PR) followed by one or more attribute settings that you wish to change. For example, `cemt s pr(pgrmid) e ne` will reset the values for the named program to make it available for use (enabled) and a new copy of the program will be used when all the transactions currently using the program have finished (newcopy).

Typing ? at the beginning of either the first or second line gives a syntax prompt. Resetting the values takes effect immediately.



Options

(value)

specifies a program identifier (1–8 characters), which is the name of a specific program entry in the table of installed program definitions. If you omit the program name, the ALL option is assumed by default.

You cannot specify the CLASS option and a program name.

Class(value)

specifies the 2-character suffix of a program list table (PLT). Use this option to inquire on those programs defined in the specified PLT. Note that, unlike a shutdown PLT, it is not mandatory to define a program definition for a startup PLT. However, if you want to use the CLASS option, you must define and install a program resource definition for the PLT specified by "clsid".

If the clasid specified is the suffix of a PLT that does not have a program definition, the INQUIRE PROGRAM CLASS(clasid) command returns a 'CLASS NOT FOUND' message.

You cannot specify CLASS and a program name.

ALI

specifies that any changes you request are to be made to all resources of the specified type that you are authorized to access.

Enabled|Disabled

specifies whether the program is available for use. The values are:

Enabled

The program is available for use.

Disabled

The program is not available for use. Programs beginning with "DFH" cannot be disabled because these characters are reserved for use by CICS.

PRIVate|SHared

specifies, when the next NEWCOPY or PHASEIN request is received, where the next new copy of the program is to be loaded from. The values are:

PRIVate

The next new copy of the program is to be loaded from the DFHRPL library. This is the default action.

SHared

CICS is to use a shared copy of the program from the LPA as the next new copy of the program.

NEwcopy|PHasein

specifies when to load a new copy of the program. The values are:

NEwcopy

CICS is to use a new copy of the program when all the transactions currently using the program have finished (RESCOUNT equal to zero). CICS loads the new version either from the DFHRPL library concatenation or uses an LPA-resident version, depending on the PRIVATE or SHARED options. PRIVATE is the default setting.

Note: NEWCOPY cannot be specified for a program specified with the HOLD option.

PHasein

CICS is to use a new copy of the program now for all new transaction requests. CICS continues to use the old copy for all currently running transactions until they have finished (RESCOUNT equal to zero). CICS loads the new version either from the DFHRPL library concatenation or uses an LPA-resident version, depending on the PRIVATE or SHARED options. PRIVATE is the default setting.

Note: PHASEIN cannot be specified for a program specified with the HOLD option.

PHASEIN performs a REFRESH PROGRAM function to inform the loader domain that a new version of the program has been cataloged and that this version of the named program should be used in all future ACQUIRE requests.

Until the program goes to a zero RESCOUNT and a subsequent ACQUIRE PROGRAM has been performed, CEMT INQUIRE PROGRAM () will return information on the first copy of the program.

CEdf|NOcedf

specifies what action the execution diagnostic facility (EDF) is to take for this program when the program runs under EDF. The values are:

CEdf

When EDF is active, CEDF initiation and termination screens are to be shown by CEDF while this program is running. Other screens are also to be shown unless the program was translated using the NOEDF translator option.

NOcedf

All CEDF activities, including initiation and termination screens, are to stop while this program is being processed.

DPIsubset|Fullapi

specifies whether the program is restricted to the API subset as for a distributed program link request. The values are:

DPIsubset

The program is restricted to the DPL API subset, as for a distributed program link request, when it runs in the local CICS region.

Fullapi

The program is not restricted to the DPL subset of the CICS API when it runs in the local CICS region, and can use the full API.

A program is always restricted to the DPL subset when it is invoked in a remote region via a DPL request, regardless of this option.

CEMT SET QUEUE

See “CEMT SET TDQUEUE” on page 147. (QUEUE is accepted for INQUIRE commands, but the correct keyword is TDQUEUE.)

CEMT SET STATISTICS

Function: Change statistics attributes.

Description: SET STATISTICS allows you to change some of the values that control the accumulation and recording of statistics.

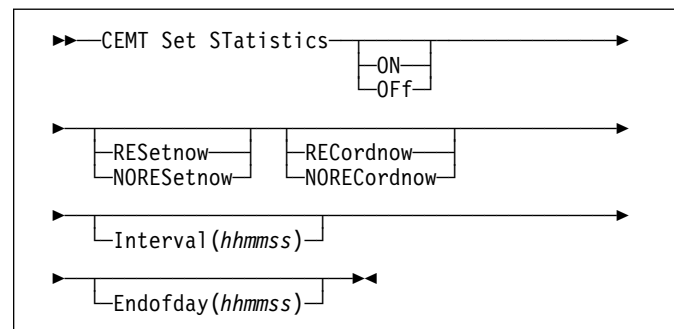
For information about printing statistics using the CICS-supplied utility program DFHSTUP, see the *CICS/ESA Operations and Utilities Guide*.

NEXTTIME cannot be specified on an INQUIRE or SET STATISTICS command, but its value is displayed when INQUIRE STATISTICS is issued. NEXTTIME indicates the time at which statistics will next be recorded and reset. If SET STATISTICS is in the OFF condition, this is at the end of the day. Otherwise, in the ON condition, it is the earlier time of either the next interval to occur or the end of the day.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET STATISTICS (the minimum abbreviation is CEMT S ST). You get a display that lists the current status, similar to that obtained by CEMT INQUIRE STATISTICS. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET STATISTICS (CEMT S ST) followed by one or more attribute settings that you wish to change. For example, `cemt s st on res` will switch CICS statistics ON and will reset the statistics counters.

Typing ? at the beginning of either the first or second line gives a syntax prompt. Resetting the values takes effect immediately.



Options

ON|OFF

specifies whether CICS statistics recording is to be switched ON or OFF. The values are:

- | **ON** The recording of interval statistics is switched ON. Counters are incremented as usual, and are reset at the expiry of each interval and at end-of-day. Statistics can be recorded at any time by issuing a CEMT PERFORM STATISTICS command.

Off The recording of interval statistics is switched OFF. (End-of-day, requested, and unsolicited statistics are always recorded.) Counters are still incremented as usual and the recording of end-of-day, requested, and unsolicited statistics is still made. Statistics can be recorded at any time by issuing a CEMT PERFORM STATISTICS command.

RESetnow|NORESetnow

specifies whether the statistics counters are to be reset. The values are:

RESetnow

The statistics counters are to be reset. The reset takes effect only if the recording option is changed from OFF to ON or from ON to OFF. For information about the effect of reset on each individual counter, see the CICS statistics tables in the *CICS/ESA Performance Guide*.

The action, for each counter, is one of the following:

- Not reset
- Reset to zero
- Reset to 1
- Reset to current value (this applies to peak values)
- An exception to the above.

NORESetnow

The statistics counters are not to be reset.

RECORDnow|NORECORDnow

specifies whether existing statistics are to be written to an SMF data set. The values are:

RECORDnow

The existing statistics are to be written to an SMF data set. The statistics that you are given are those collected since the last ENDOFDAY or INTERVAL collection, or since the last time the RESETNOW function was used in this or the PERFORM STATISTICS command.

RECORDNOW RESETNOW only takes effect when the recording status is changed.

Note: RECORDNOW RESETNOW both resets the statistics counter and also writes the existing statistics to an SMF data set. The statistics that you are given are those collected since the last ENDOFDAY or INTERVAL collection, or since the last time the RESETNOW function was used in this or the PERFORM STATISTICS command. RECORDNOW RESETNOW only takes effect when the recording status is changed.

NORECORDnow

Existing statistics are not written to an SMF data set.

Interval(hhmmss)

specifies the length of time during which the statistics counters are incremented. At the end of each interval, the accumulated statistics are recorded and the statistics counters are reset.

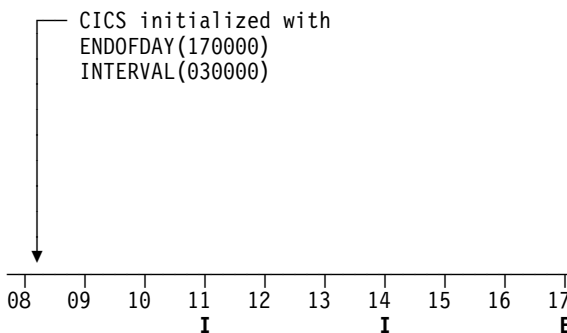
Interval times must be in the range 000100–240000. The default interval value is 030000. These interval settings only take place if you set the statistics recording status to ON. You can set the statistics recording status ON or OFF using the RECORDING option on this command or by using the STATRCD system initialization parameter.

The arrival of the ENDOFDAY time always causes the current interval to be ended (possibly prematurely) and a new interval to be started. Only end-of-day statistics are recorded at the end-of-day time, even if it coincides exactly with the expiry of an interval.

Changing the ENDOFDAY value has an immediate effect on the times at which INTERVAL statistics are recorded. New interval expiry times are recalibrated in accordance with the new end-of-day time.

When you change the INTERVAL value or the ENDOFDAY value (and also when CICS is initialized), the length of the current (or first) interval is adjusted so that it expires after an integral number of intervals from the end-of-day time.

These rules are illustrated by the following example, where **I** indicates an interval recording, INTERVAL is set at 3-hourly intervals, CICS is initialized at 0815 hours, and **E** indicates the ENDOFDAY setting at 1700 hours.



Note: In this example, there would have been an interval at 0800 hours if CICS had been initialized earlier.

If you want your end-of-day recordings to cover 24 hours, set INTERVAL to 240000.

Endofday(hhmmss)

specifies the end-of-day time for recording statistics. At end-of-day, the current values of the CICS statistics counters are written out to an SMF data set and the statistics counters are reset.

End-of-day times must be in the range 000000–235959. The default end-of-day time is 12 midnight (000000).

CEMT SET SYDUMPCODE

Function: Change the attributes of the system dump codes.

Description: SET SYDUMPCODE allows you to define the entries that you require in the system dump table. You control system dumps by creating an entry in the system dump table for each dump code that requires a change from the default action.

A system dump code is the CICS message number with the DFH prefix removed. Typically this leaves a 6-character code comprising 2 alphabetic characters and 4 numeric characters, for example AP0001. The command syntax permits up to 8 characters for the dump code, and the dump codes you specify are padded with trailing spaces.

Each message has its own system default actions that you cannot necessarily override with the SET command. For example, when a serious error occurs, CICS shuts down even if you have asked for no shut down. See the *CICS/ESA Messages and Codes* manual for information about the system action for each message.

There are other system parameters that take priority over your dump table entries. For example, EXEC CICS SET SYSTEM NOSYSDUMP, or a DUMP=NO system initialization parameter, inhibits system dumping. For more information on using dumps, see the *CICS/ESA Problem Determination Guide*.

The transaction dump command SET TRDUMPCODE can also cause CICS to produce system dumps for the specified transaction dump code.

The SET command allows you to:

- Add a new entry to the system dump table
- Remove an entry from the system dump table
- Indicate whether or not you want a system dump taken
- Indicate whether the system dump request is to be local or related
- Indicate whether or not you want CICS to shut down following the dump
- Set the maximum number of dumps
- Reset the counter of the current number of dumps to zero
- Determine whether or not a dump produced by CICS is eligible for any suppression by the MVS Dump Analysis and Elimination (DAE) component.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET SYDUMPCODE (the minimum abbreviation is CEMT S SYD) with code or ALL. You get a display that lists the current status, similar to that obtained by CEMT INQUIRE SYDUMPCODE. You can then tab to the highlighted or blank fields and overtyping them with the required values.

- Type CEMT SET SYDUMPCODE (CEMT S SYD) with code or ALL, followed by one or more attribute settings that you wish to change. For example, to add a system dump code:

```
CEMT SET SYDUMPCODE(value) ADD
```

To remove a system dump code:

```
CEMT SET SYDUMPCODE(value) REMOVE
```

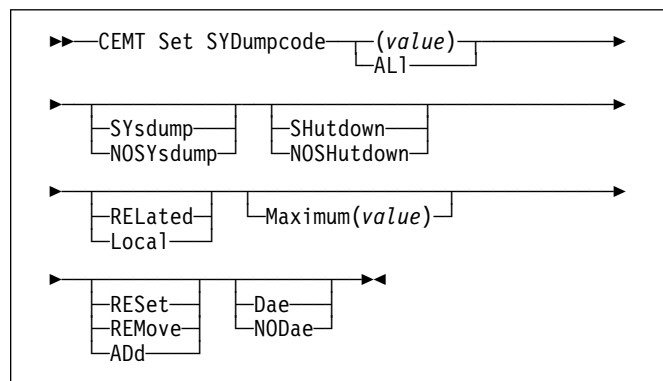
To change the maximum count to 10:

```
CEMT SET SYDUMPCODE(value) MAX(10)
```

Shut down CICS on occurrence of this system dump code:

```
CEMT SET SYDUMPCODE(value) SHUTDOWN
```

Typing ? at the beginning of either the first or second line gives a syntax prompt. Resetting the values takes effect immediately.



Options

(value)

specifies an 8-character system dump code. See the *CICS/ESA Messages and Codes* manual for details of the codes.

ALI

specifies that any changes you request are made to all resources of the specified type that you are authorized to access.

SYsdump|NOSYsdump

specifies whether a system dump is taken for this system dump code. The values are:

SYsdump

A system dump is to be taken for this system dump code.

NOSYsdump

A system dump is not to be taken for this system dump code.

SHUTDOWN|NOSHUTDOWN

specifies whether CICS is to be shut down after the occurrence of an error corresponding to this dump code. The values are:

SHUTDOWN

CICS is to be shut down.

NOSHUTDOWN

CICS is not to be shut down.

RELated|Local

specifies whether a system dump request is to be sent to MVS images in the sysplex which are running XCF/MRO connected CICS regions related to the CICS region on which the dump is initiated.

Note: A related CICS region is one in which the unit of work identifiers, in the form of APPC tokens, of one or more tasks match those in the CICS region that issued the dump request.

RELated

A system dump request is to be sent for this system dump code.

Local

A system dump request is not to be sent to other MVS images in the sysplex for this system dump code.

Maximum(value)

specifies the maximum number of dump calls for this system dump code that result in system dumps being taken. The value must be in the range 0–999; a value of 999 means the default, 'no limit'.

RESet|REMove|ADd

specifies the action to be taken with this system dump code. The values are:

RESet

The current number of calls for this dump code is reset to zero.

REMove

This system dump code is removed from the system dump code table.

ADd This system dump code is added to the system dump code table.

Dae|NODae

specifies whether a dump taken for CICS is eligible for suppression by the MVS dump analysis and elimination (DAE) component. The values are:

Dae A system dump is eligible for suppression by the DAE component.

NODae

A system dump will not be suppressed by the DAE component. (However, be aware of the SUPPRESS and SUPPRESSALL options in the ADYSETxx parmlib member. These are controlled by the VRADAE and VRANODAE keys in the SDWA. They may lead to dump suppression even though NODAE is set here. For information about DAE, SUPPRESS, and SUPPRESSALL, see the *MVS ESA Planning: Problem Determination and Recovery* manual.

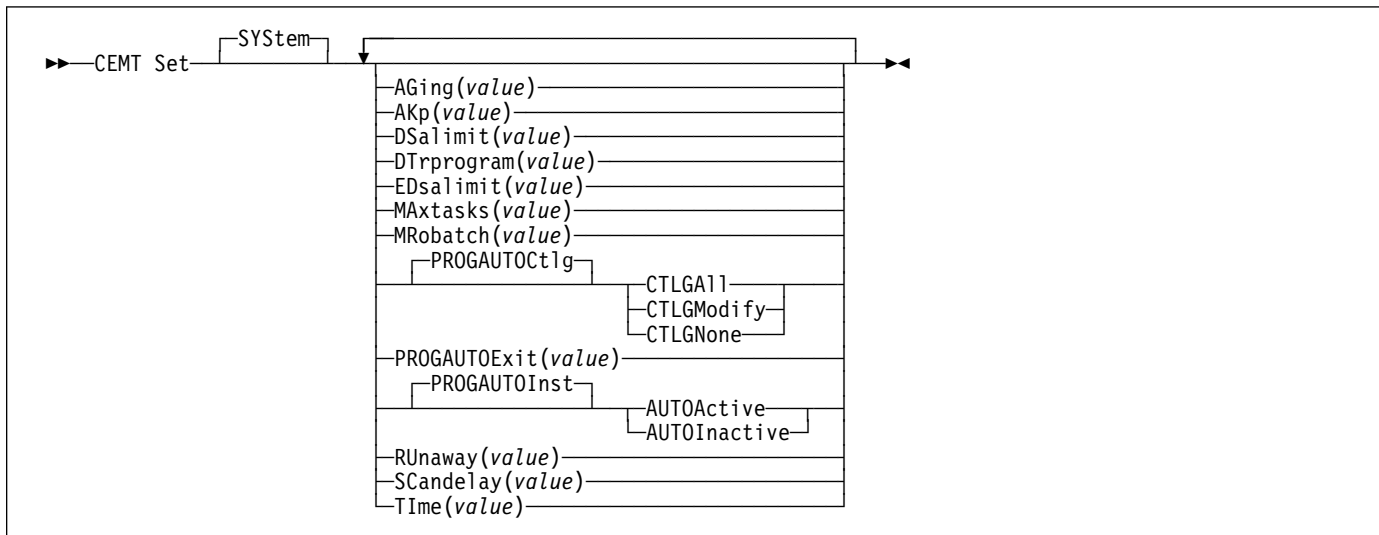
CEMT SET SYSTEM

Function: Change the system attributes.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET. The SYSTEM keyword does not have to be typed. If you type just CEMT SET, SYSTEM is assumed as the default. You get a display that lists the current status, similar to that obtained by CEMT INQUIRE SYSTEM. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET followed by one or more attribute settings that you wish to change. For example, `cemt sag(value) ma(value)` will reset the values for priority aging and for the maximum number of tasks allowed at any one time in the CICS system.

Typing ? at the beginning of either the first or second line gives a syntax prompt. Resetting the values takes effect immediately.



Options

AGing(value)

specifies the time factor for CICS to use in the priority aging algorithm for incrementing the priority of a task. The value is expressed as “milliseconds per unit of priority”, and must be in the range 00000–65535. The priority aging factor is defined initially by the PRTYAGE system initialization parameter, in which the value represents the number of milliseconds that must elapse before the priority of a waiting task can be adjusted upward by 1. See the *CICS/ESA System Definition Guide* for information about the PRTYAGE parameter.

AKp(value)

specifies the activity keypoint trigger value, which is the number of logging operations between the taking of keypoints. It must have a value in the range 00200–65535. You cannot change this value if AKPFREQ=0 was specified at system initialization.

DSalimit(value)

specifies the maximum amount of storage, as a total number of bytes, within which CICS can dynamically allocate storage for the four individual DSAs that reside below the 16MB boundary. (See the *CICS/ESA System*

Definition Guide for a description of the DSALIM system initialization parameter.) If DSALIMIT specifies a value lower than the current limit, CICS may not be able to implement the new limit immediately, but will attempt to do so over time as dynamic storage is freed in the individual DSAs.

Note: Dynamic changes to the DSA limit are cataloged in the *local* catalog, and override values specified in the system initialization table during all forms of restart-initial, cold, and warm. The cataloged value is *not* used if:

- You specify startup values as system initialization parameters overrides (for example, in SYSIN).
- You re-initialize the CICS catalog data sets.

DTprogram(value)

specifies the name of the program defined to control the dynamic routing of programs.

EDsalimit(value)

specifies the maximum amount of storage, as a total number of bytes, within which CICS can dynamically allocate storage for the four individual DSAs that reside

above the 16MB boundary. (See the *CICS/ESA System Definition Guide* for a description of the EDSALIM system initialization parameter.) If EDSALIMIT specifies a value lower than the current limit, CICS may not be able to implement the new limit immediately, but will attempt to do so over time as dynamic storage is freed in the individual DSAs.

Note: Dynamic changes to the EDSA limit are
cataloged in the *local* catalog, and override
values specified in the system initialization table
during all forms of restart-initial, cold, and warm.
The cataloged value is *not* used if:

- # • You specify startup values as system
initialization parameters overrides (for
example, in SYSIN).
- # • You re-initialize the CICS catalog data sets.

MAXtasks(value)

specifies the maximum number of tasks, both active and suspended, allowed at any one time in the CICS system. It must have a value in the range 1–999.

Note: The value assigned to MAXTASKS might be less than the requested value, because of CICS storage constraints. If this occurs, the message CEILING REACHED is displayed when the request is made.

MRobatch(value)

specifies the number of MRO requests from connected regions that are to be batched before this region is posted. It must have a value in the range 001–255.

PROGAUTOctlg

specifies whether autoinstalled program definitions are to be cataloged. You can omit 'PROGAUTOCTLG' when specifying the value. The values are:

CTLGAll

All autoinstalled program definitions are to be cataloged and restored on a warm or emergency restart.

CTLGModify

Autoinstalled program definitions are to be cataloged only if they are modified (for example, by a CEMT SET PROGRAM command), so that the modified definitions are restored on a warm or emergency restart.

CTLGNone

No autoinstalled program definitions are to be cataloged. They are autoinstalled again after a warm or emergency restart.

PROGAUTOExit(value)

specifies the name of the user-provided program that is called by the program autoinstall code to select or modify a model definition.

PROGAUTOInst

specifies whether autoinstall for programs is active or inactive. You can omit 'PROGAUTOINST' when specifying the value. The values are:

AUTOActive

Autoinstall for programs is active. On first use, if a program, mapset, or partitionset is not defined, the definition is created dynamically.

AUTOInactive

Autoinstall is not active. If a program is not defined, a PGMIDERR or transaction abend occurs when it is referenced.

RUnaway(value)

specifies the interval, in milliseconds, for which a task can have control before it is assumed to be looping.

You can specify 0, or a value in the range 500–2700000. The value chosen is rounded down to a multiple of 500. CICS purges a task if it has not given up control after this interval (that is, if the task appears to be looping). If you specify zero, runaway task control is inoperative (that is, tasks do not get purged if they appear to be looping). The value is independent of, and can be less than, the value in the TIME operand.

CICS runaway-task detection is based upon task time, that is, the interval is decremented only when the task has control of the processor. You do not, therefore, need to allow for the effect of other jobs when setting the value.

SCandelay(value)

specifies the maximum number of milliseconds between the receipt of a VTAM request, and the time when CICS begins to process the request. The number must be in the range 0–5000, and must be less than or equal to the TIME value.

In the summary report of the dispatcher statistics, SCANDELAY is referred to as ICVTSD.

Time(value)

specifies the interval, in milliseconds, for which CICS releases control to the operating system if no transactions are ready to resume processing. This interval is known as the 'region exit interval'.

It can have a value in the range 100–3600000, and must be greater than or equal to the SCANDELAY value.

In the summary report of the dispatcher statistics, TIME is referred to as ICV.

CEMT SET TASK

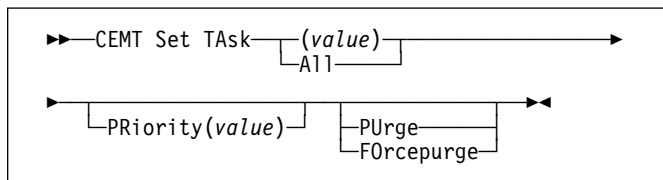
Function: Change the status of tasks.

Description: You cannot specify a list of identifiers, nor can you use the symbols * and + to specify a family of tasks.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET TASK (the minimum abbreviation is CEMT S TA) with (value) or ALL. You get a display that lists the current status, similar to that obtained by CEMT INQUIRE TASK. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET TASK (CEMT S TA) with number or ALL, followed by one or more attribute settings that you wish to change. For example, `cemt s ta(value) pu` will make the specified task purgeable in system-stall conditions.

Typing ? at the beginning of either the first or second line gives a syntax prompt. Resetting the values takes effect immediately.



Options

(value)|All

specifies the identifier(s) of the task(s) for which the status is to be changed. The values are:

(value)

The CICS-generated task number. This is in the range 1–99999.

All

Any changes you request are made to all resources of the specified type that you are authorized to access.

PRiority(value)

specifies the priority of the task, in the range 0–255 where 255 is the highest priority.

PUrge|FOrcepurge

purges the task in system stall conditions. The values are:

PUrge

The task is terminated. Task termination occurs only when system and data integrity can be maintained.

FOrcepurge

The task is terminated immediately. System integrity is not guaranteed. In some extreme cases, for example if a task is forcepurged during backout processing, CICS terminates abnormally. If you want to terminate a task but do not want to terminate CICS, you should use PURGE instead of FORCEPURGE.

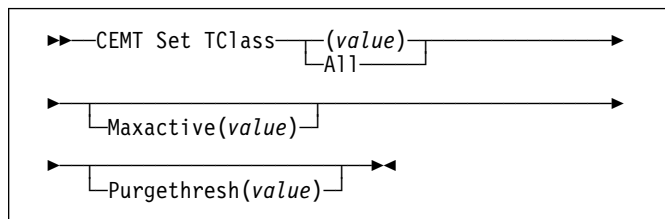
CEMT SET TCLASS

Function: Reset the maximum number of tasks and the purge threshold for a transaction class.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET TCLASS (the minimum abbreviation is CEMT S TC) with (value) or ALL. You get a display that lists the current status, similar to that obtained by CEMT INQUIRE TCLASS. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET TCLASS (CEMT S TC) followed by one or more attribute settings that you wish to change. For example, `cemt s tc(value) p(3)` will reset the purge threshold value to 3.

Typing ? at the beginning of either the first or second line gives a syntax prompt. Resetting the values takes effect immediately.



Options

(value)

specifies the 8-character transaction class name. If no transaction class name is assigned, it defaults to DFHTCL00.

All specifies that any changes you request are made to all resources of the specified type that you are authorized to access.

Maxactive(value)

specifies the largest number of transactions in the transaction class which are allowed to run concurrently. The value can be in the range 0-999.

Purgethresh(value)

specifies the limit at which the queuing transactions are purged for the transaction class. It can have a value in the range 0-1000000. Zero means that the transactions are not purged. A nonzero number "n" means that the first (n-1) transactions to arrive are queued and the nth is purged.

CEMT SET TDQUEUE

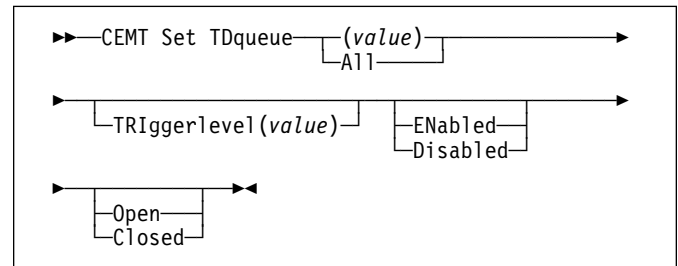
Function: Change the attributes of transient data queues.

Description: The SET TDQUEUE command changes some of the attributes of a transient data queue that is defined in the destination control table (DCT). The queue must not be REMOTE or INDIRECT.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET TDQUEUE (the minimum abbreviation is CEMT S TD) with `destid` or ALL. You get a display that lists the current status, similar to that obtained by CEMT INQUIRE TDQUEUE. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET TDQUEUE (CEMT S TD) with (value) or ALL, followed by one or more attribute settings that you wish to change. For example, `cemt s td(value) en op` will make a named extrapartition queue accessible by applications and open.

Typing ? at the beginning of either the first or second line gives a syntax prompt. Resetting the values takes effect immediately.



Options

(value)

specifies the identifier (1-4 characters) of a transient data queue.

All specifies that any changes you request are made to all resources of the specified type that you are authorized to access.

TRiggerlevel(value)

specifies the number (0-32767) of requests for output to a queue that there must be before automatic transaction initiation (ATI) occurs.

ENabled|Disabled

specifies whether the queue can be accessed by applications. The values are:

ENabled

The queue can be accessed by applications.

CEMT SET TERMINAL

Disabled

The queue cannot be accessed by applications, although it can still be open. Queues with names beginning with "C" cannot be disabled because they are usually reserved for use by CICS.

Open|Closed

specifies whether the extrapartition queue is open or closed. The values are:

Open

The queue is open.

Closed

The queue is closed.

CEMT SET TERMINAL

Function: Change the attributes of named terminals.

Description: The SET TERMINAL command changes some of the values of a named terminal defined in the terminal control table (TCT). It cannot be used for APPC sessions.

In an SNA environment, a terminal is the CICS representation of an SNA logical unit with which CICS can be in communication. (SNA environment means that CICS is using VTAM or ACF/TCAM GSA as the access method for communication with SNA logical units.)

This logical unit can be:

- A physical terminal (such as a 3277)
- A function of a cluster controller (such as a 3790 Type 2 batch function)
- An intersystem communication (ISC) or interregion communication (IRC) session that has been generated by the CEDA transaction.

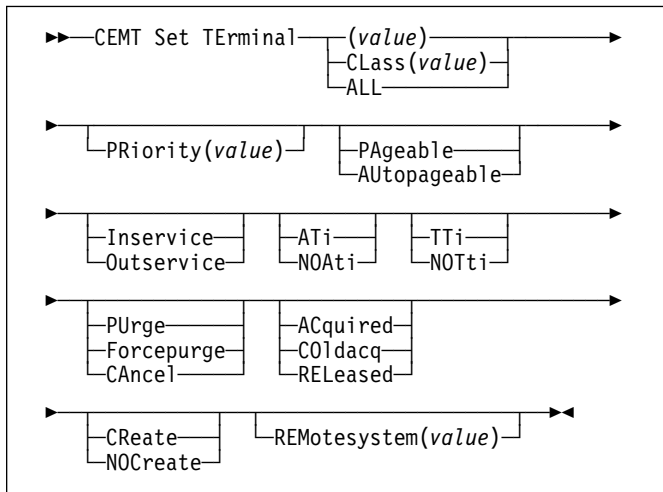
If you are familiar with network names, you may prefer to use the command that uses these names. See "CEMT SET NETNAME" on page 136.

The message "TEMP OUT SERVICE" can be displayed if recovery is in progress for the terminal. The "TEMP OUT SERVICE" indicator is reset by simply refreshing the screen, or by overtyping the "INS" field with "INS" or "OUT". If "TEMP OUT SERVICE" continues to be displayed, the cause of the indicator should be investigated.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET TERMINAL (the minimum abbreviation is CEMT S TE) with (value), CLASS(value), or ALL. You get a display that lists the current status, similar to that obtained by CEMT INQUIRE TERMINAL. You can then tab to the highlighted or blank fields and overtype them with the required values.
- Type CEMT SET TERMINAL (CEMT S TE) with (value), CLASS(value), or ALL, followed by one or more attribute settings that you wish to change. For example, `cemt s te(value) i cr` specifies that a named terminal is available for use (inservice) and that it can be acquired automatically by ATI transactions (create).

Typing ? at the beginning of either the first or second line gives a syntax prompt. Resetting the values takes effect immediately.



Options

(value)|CLass(value)|ALL

specifies the identifier(s) of the terminal(s) for which the status is to be changed. The values are:

(value)

A terminal identifier (1–4 characters) as specified in an installed terminal definition.

If the terminal name is, for example, S201, this option is coded thus:

CEMT SET TERMINAL(S201)

CLass(value)

The 1-or 2-character suffix of a terminal list table (TLT).

ALL Any changes you request are made to all resources of the specified type that you are authorized to access.

PRiority(value) (VTAM only)

specifies the priority of a terminal relative to other terminals. The priority of a task is the sum of the transaction priority, the terminal priority, and the operator priority. Priority has no meaning for terminals that are ISC sessions being used as alternative facilities. The value must be in the range 0–255, where 255 is the highest priority.

PAGeable|AUTopageable (VTAM only)

specifies whether pages after the first in a series are to be written to the terminal on request from the operator or automatically. The values are:

PAGeable

Pages after the first in a series are to be written to the terminal only if you request them to be.

AUTopageable

Pages after the first in a series are to be written to the terminal automatically.

Inservice|Outservice

specifies whether the terminal is available for use. The values are:

Inservice

The terminal is available for use. For VTAM, INSERVICE means that the terminal can be ACQUIRED.

Outservice

The terminal is not available for use. Setting a terminal OUTSERVICE means that the terminal can no longer be used by transactions. If PURGE or FORCEPURGE is also specified, any transaction using the terminal is terminated abnormally. If PURGE or FORCEPURGE is not specified, the transaction is allowed to terminate normally, but no further transactions are allowed to use the terminal. For VTAM, setting a terminal OUTSERVICE also causes it to be released and the operator to be signed off, either immediately or when the current transaction has terminated.

In an LU6.1 ISC session the connection is set OUTSERVICE if there are no allocatable sessions left.

To set an IRC session OUTSERVICE, you must set the connection to the MRO partner OUTSERVICE.

ATi|NOAti (VTAM only)

specifies whether the terminal is available for use by transactions that are initiated automatically from within CICS or, if the terminal is an ISC session, by transactions that are using this session as an alternative facility to communicate with another system. The values are:

ATi The terminal is available for use.

NOAti

The terminal is not available for use.

Note: A terminal cannot be defined with both NOATI and NOTTI.

TTi|NOTti (VTAM only)

specifies whether the terminal can be used by the transactions that are initiated from this terminal. The values are:

TTi This terminal can be used by transactions.

NOTti

This terminal cannot be used by transactions.

Note: A terminal cannot be defined with both NOATI and NOTTI.

CEMT SET TERMINAL

PUrge|Forcepurge|CAnceL

purges the transactions running with this terminal. The values are:

PUrge

Any transaction running with this terminal is purged only if system and data integrity can be maintained.

Forcepurge

Any transaction running with this terminal is immediately terminated abnormally. Data integrity is not guaranteed. In some extreme cases (for example, if an error occurs during backout processing), CICS might terminate abnormally.

CAnceL

AIDs queuing for the specified terminal are canceled. AIDs representing scheduled and allocated requests waiting in the local CICS system for the specified terminal are canceled. However, TD AIDs with an associated triggered task already started are not canceled.

When a canceled scheduled request is found to have a precursor in a remote CICS system, this remote AID is canceled asynchronously. Message DFHTF0100 is written to CSMT to indicate how many AIDs have been deleted for the terminal and how many remain.

An 'AIDS CANCELED' message appears on the CEMT panel whenever AIDs are deleted using the CANCEL option of the CEMT SET TERMINAL command.

ACquired|COLDacq|RELeased (VTAM only)

specifies whether CICS is in session with the logical unit represented by this terminal. The values are:

ACquired

CICS is in session with the logical unit represented by the terminal.

COLDacq

This is a special form of ACQUIRED, where no resynchronization is required. If the previous session abended, the use of COLDACQ overrides CICS integrity control. This could lead to integrity problems. Also, you should check the CSMT log for an activity keypoint after the restart of a session following a CICS failure. If there is no activity keypoint, you should issue COLDACQ again after the next emergency restart.

RELeased

CICS is not in session with the logical unit represented by the terminal. Setting a terminal RELEASED causes the session to be terminated. Running transactions are allowed to finish unless PURGE or FORCEPURGE is also specified.

CReate|NOCreate (VTAM only)

specifies whether the terminal can be acquired automatically by ATI transactions. This cannot be specified for IRC sessions. The values are:

CReate

If the terminal is not in session, CICS is to acquire it if it is needed to satisfy an ATI request.

NOCreate

If the terminal is not in session, CICS is not to acquire it to satisfy an ATI request. A session must be started by, for example, a logon request or a CEMT SET TERMINAL ACQUIRED command before the ATI request can be satisfied.

If NOCREATE is set for an LU6.1 ISC session and there are no allocatable sessions left, the connection is placed OUTSERVICE.

REMotesystem(value)

specifies an identifier (1–4 characters) defined in the CICS terminal definition. This limits the terminals referred to by the request to those ISC or IRC sessions connected to the specified system. Batch regions currently connected to the CICS system through IRC can be addressed by the system identifier "@BCH". For example:

```
CEMT SET TERMINAL REMOTESYSTEM(@BCH) INSERVICE
```

enables communication between CICS and all batch regions.

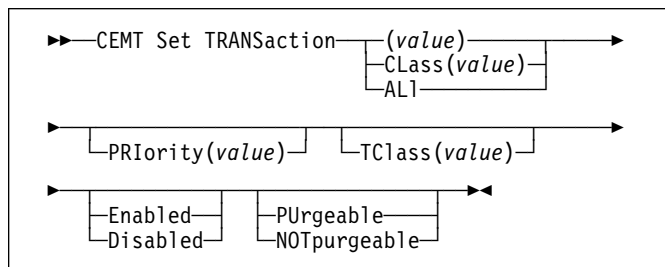
CEMT SET TRANSACTION

Function: Change some of the attributes of a selected transaction.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET TRANSACTION (the minimum abbreviation is CEMT S TRANS) with (value), CLASS(value), or ALL. You get a display that lists the current status, similar to that obtained by CEMT INQUIRE TRANSACTION. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET TRANSACTION (CEMT S TRANS) followed by one or more attribute settings that you wish to change. For example, `cemt s trans(value) e pu` specifies that a named transaction is available for use (enabled) and is system-purgeable.

Typing ? at the beginning of either the first or second line gives a syntax prompt. Resetting the values takes effect immediately.



Options

(value)

specifies a transaction identifier (1–4 characters). Only transactions that have been defined in the CICS system definition (CSD) file and installed on the running CICS system are accessible through CEMT.

CLass(value)

specifies the 2-character suffix of a transaction list table (XLT).

ALI

specifies that any changes you request are made to all resources of the specified type that you are authorized to access.

PRiority(value)

specifies the priority of a transaction relative to other transactions. When a transaction is running as a CICS task, the priority of a task is the sum of the transaction priority, the terminal priority, and the operator priority.

The “value” must be in the range 0–255, where 255 is the highest priority.

TClass(value)

specifies the 8-character transaction class name to which the transaction belongs. If the transaction does not belong to a class, DFHTCL00 is returned. The abbreviation for TCLASS is *Tcl*. To remove a transaction from its TCLASS, the *Tcl* field should be set to DFHTCL00. A series of blanks can be inserted, in which case, DFHTCL00 is returned. An added or changed TClass **must** be defined.

Enabled|Disabled

specifies whether the transaction is available for use. The values are:

Enabled

The transaction is available for use.

Disabled

The transaction is not available for use. Transactions that have identifiers beginning with “C” cannot be disabled because these are reserved for use by CICS.

When the CEMT SET TRANSACTION DISABLED command is used, existing transactions run to completion before being DISABLED.

Note: If a transaction is disabled, this does not prevent a START command which names this transaction from being shipped to a remote region. When a task is attached for the requested transaction, CICS checks that the transaction is enabled in the remote region.

PURgeable|NOTpurgeable

specifies whether the transaction is purgeable in system stall conditions. The values are:

PURgeable

The transaction is system-purgeable. This operand relates to the SPURGE parameter on the transaction resource definition and indicates that CICS can purge the transaction in a deadlock time-out situation. See the *CICS/ESA Resource Definition Guide* for information about the SPURGE and DTIMEOUT parameters on a transaction resource definition.

NOTpurgeable

The transaction cannot be purged.

CEMT SET TRDUMPCODE

Function: Change the status of a transaction dump.

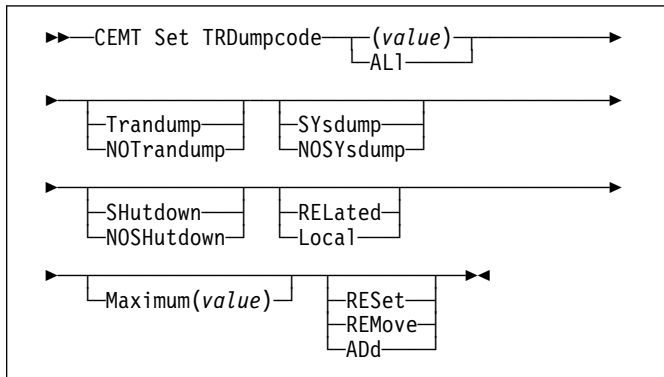
Description: Using the SET function, you can change entries in the transaction dump table to request a transaction dump. You can also set the maximum number of dumps that can be taken. See the *CICS/ESA Problem Determination Guide* for information on using dumps.

Note: SHUTDOWN and MAXIMUM must not be used in the same command.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET TRDUMPCODE (the minimum abbreviation is CEMT S TRD) with (value) or ALL. You get a display that lists the current status, similar to that obtained by CEMT INQUIRE TRDUMPCODE. You can then tab to the highlighted or blank fields and overtype them with the required values.
- Type CEMT SET TRDUMPCODE (CEMT S TRD) followed by one or more attribute settings that you wish to change. For example, cemt s trd(value) t sh specifies that a transaction dump is to be taken for the named transaction dump code and that the CICS system is to shut down after the occurrence of an error corresponding to this dump code.

Typing ? at the beginning of either the first or second line gives a syntax prompt. Resetting the values takes effect immediately.



Options

(value)

specifies a 4-byte transaction dump code. See the *CICS/ESA Messages and Codes* manual for a list of transaction dump codes.

ALI

specifies that any changes you request are made to all resources of the specified type that you are authorized to access.

Trandump|NOTrandump

specifies whether a transaction dump is to be taken for this transaction dump code. The values are:

Trandump

A transaction dump is to be taken.

NOTrandump

A transaction dump is not to be taken.

SYsdump|NOSYsdump

specifies whether a system dump is to be taken for this transaction dump code. The values are:

SYsdump

A system dump is to be taken.

NOSYsdump

A system dump is not to be taken.

SHutdown|NOSHutdown

specifies whether the CICS system is to shut down after the occurrence of an error corresponding to this dump code. The values are:

SHutdown

The CICS system is to shut down.

NOSHutdown

The CICS system is not to shut down.

RELated|Local

specifies whether a system dump request is to be sent to MVS images in the sysplex which are running XCF/MRO connected CICS regions related to the CICS region on which the dump is initiated.

Note: A related CICS region is one in which the unit of work identifiers, in the form of APPC tokens, of one or more tasks match those in the CICS region that issued the dump request.

RELated

A system dump request is to be sent for this system dump code.

Local

A system dump request is not to be sent to other MVS images in the sysplex for this system dump code.

Maximum(value)

specifies the largest number of dump calls for this dump code that result in dumps being taken. The range is 0–999, though a value of 999 means 'no limit'.

RESet|REMove|ADd

specifies whether the specified transaction dump code is to be reset, removed from the dump code table, or added to the dump code table. The values are:

RESet

The current count of dump calls for this dump code is to be reset to zero.

REMove

This code is to be removed from the dump code table.

ADd The specified transaction dump code is to be added to the dump code table.

CEMT SET VOLUME

Function: Change the status of a volume.

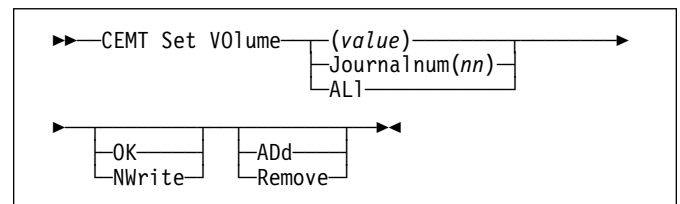
Description: SET VOLUME can be used to add or remove a volume, and to make a volume available or unavailable for writing.

SET VOLUME applies only to standard-labeled tape journals. Each volume that is known to the system belongs to one journal; a single journal can span one or more tape volumes.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET VOLUME (the minimum abbreviation is CEMT S V0) with (value), JOURNALNUM(nn), or ALL. You get a display that lists the current status, similar to that obtained by CEMT INQUIRE VOLUME. You can then tab to the highlighted or blank fields and overtype them with the required values.
- Type CEMT SET VOLUME (CEMT S V0) with (value), JOURNALNUM(nn), or ALL, followed by one or more attribute settings that you wish to change. For example, `cemt s vo(volser) ok ad` specifies that the named volume can be written to (ok) and that it is to be made available for journaling (ad).

Typing ? at the beginning of either the first or second line gives a syntax prompt. Resetting the values takes effect immediately.

**Options****(value)**

specifies a 6-digit volume serial number.

Journalnum(nn)

specifies the journal number. The system journal is number 1. You cannot specify this option with OK or REMOVE.

ALI

specifies that any changes you request are made to all resources of the specified type that you are authorized to access.

OK|NWrite

specifies the availability of the volume. The values are:

OK The volume can be written to. You cannot specify both OK and JOURNALNUM.

CEMT SET VTAM

NWrite

The volume is unavailable for writing. A volume set to NWRITE is not selected for output by CICS. Instead, the next volume in the series is used.

ADd|Remove

specifies the action to be taken with this volume. The values are:

ADd The named volume is to be made available for journaling. The volume is added to the series of volumes associated with the named journal.

Remove

The named volume is no longer known to the CICS system. You cannot specify both REMOVE and JOURNALNUM.

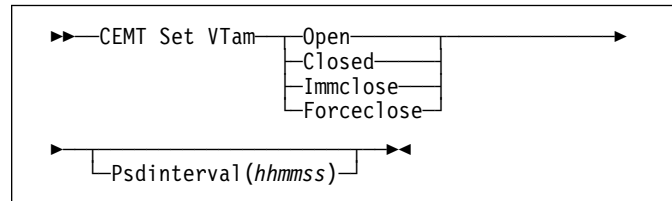
CEMT SET VTAM

Function: Open or close the VTAM ACB and set the persistent session delay interval (PSDI).

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET VTAM (the minimum abbreviation is CEMT S VT). You get a display that lists the current status, similar to that obtained by CEMT INQUIRE VTAM. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET VTAM (CEMT S VT) followed by one or more attribute settings that you wish to change. For example, `cemt s vt o` specifies that the connection between CICS and VTAM is established.

Typing ? at the beginning of either the first or second line gives a syntax prompt. Resetting the values takes effect immediately.



Options

Open|Closed|Immclose|Forceclose

specifies the status of the connection between CICS and VTAM. The values are:

Open

The connection between CICS and VTAM is established. With ACF/VTAM, this refers to the opening of the ACF/VTAM ACB through which ACF/VTAM communicates with CICS.

A CEMT SET VTAM OPEN command will fail with a STILL CLOSING message if the command is issued while a previous predatory takeover is still being processed. No attempt is made to open the VTAM ACB, because it is still being closed as a result of the predatory takeover. After the predatory takeover completes, the CEMT SET VTAM OPEN command will work as normal. The failure is notified by a RESP=INVREQ and RESP2=14 condition.

If CICS is using VTAM multi-node persistent sessions, and VTAM has been restarted after an abend, opening the VTAM ACB causes CICS to restore the persistent sessions that VTAM has retained. However, CICS does not restore APPC synclevel 2 sessions, which are unbound.

Closed

The connection between CICS and VTAM is to terminate normally; that is, transactions are allowed to complete and terminals are released normally.

Immclose

The connection between CICS and VTAM is to be terminated immediately. Any transactions using VTAM-connected terminals are terminated abnormally, and all such terminals are lost to CICS.

Forceclose

The connection is terminated immediately, and all terminal connections using the VTAM ACB (access method control block), together with the transactions associated with them, are terminated abnormally. If transactions do not terminate because of their state at the time FORCECLOSE was issued, it is necessary to issue CEMT SET TASK(nn) PURGE or FORCEPURGE before the ACB can be reopened.

APAR PQ13599
added this paragraph

If VTAM persistent sessions support is in use (that
is, the SIT parameter PSDINT has a value other
than 0) the sessions will persist when the ACB is
closed. They will be unbound if the ACB is
re-opened dynamically. If CICS has shutdown in
any way other than a normal shutdown (see the
CICS/ESA Recovery and Restart Guide for a
description of normal shutdown), and is restarted
with the system initialization START option
START=AUTO, then an emergency restart will be
performed, and the sessions will be restored.

The difference between IMMCLOSE and FORCECLOSE is that IMMCLOSE cancels any task at a VTAM terminal and then closes the terminal sessions tidily. FORCECLOSE cancels any task and closes the VTAM ACB, terminating all sessions

APAR PQ13599
altered this sentence

immediately (unless VTAM persistent sessions support is
in use).

Psdinterval(hhmmss)

specifies the persistent session delay interval, expressed in the form *hhmmss*. It specifies if and for how long sessions are held in recovery-pending state after CICS fails. The permitted range is 000000 to 235959 inclusive.

000000 If CICS fails, sessions are terminated.

hhmmss If CICS fails, sessions are held in recovery-pending state by VTAM for up to the interval specified.

CEMT issues the following error messages associated with the use of CEMT to set the persistent session delay interval:

Message	RESP/RESP2
INVALID PSDINT	RESP=INVREQ, RESP2=4
NOT WITH XRF	RESP=INVREQ, RESP2=8
SETLOGON FAILURE	RESP=INVREQ, RESP2=9
BACK LEVEL VTAM	RESP=INVREQ, RESP2=10
ACB CLOSED	RESP=INVREQ, RESP2=12
RECOVERY ERROR	All other cases of INVREQ

CEOT—terminal status

Function: Inquire about the status of your own terminal, and change some of its values.

Description: Use CEOT to inquire about the status of your own terminal, and to change some of its processing values. You cannot use CEOT to inquire about or change the values of any other terminal.

You can start CEOT from 3270 family display devices, or from equivalent terminals, or from the operating system console.

Press the Clear key to clear the screen. There are two ways of using this transaction: in inquiry mode and in set mode.

CEOT in inquiry mode

Type CEOT. You get the following display:

```

STATUS: RESULTS - OVERTYPE TO MODIFY
Ter(S208) Tra(CEOT) Pri(000) Pag Ins Ati Tti
Net(IGKS208 ) Acq

CEOT SYNTAX:
< PAgeable | AUtopageable >
< ATi | NOAti >
< TTi | NOTTi >

```

Figure 92. CEOT transaction: initial screen

The top half of the screen shows the current status of your terminal. The bottom half of the screen shows the syntax of the CEOT command.

Note: NET, ACQ, and CRE are not displayed for non-VTAM terminals.

The status items are displayed in the following sequence.

Note: If an item has a “negative” value—for example, NOATI—that value will be replaced by a blank space.

Ter(xxxx)

displays the 4-character identifier of your terminal.

Tra(CEOT)

displays the transaction that is running on your terminal. This is always CEOT.

Pri(nnn)

displays the priority of your terminal relative to other terminals, and is a number in the range 0–255.

Pag|Aut

See ‘PAGEABLE’ and ‘AUTOPAGEABLE’ in the Command Options below.

The paging status can be modified by overtyping.

Ins

Your terminal is INSERVICE. You cannot overtype this value.

ATi

See ‘ATI’ in the Command Options below.

Tti

The terminal is available for use by transactions initiated from this terminal. You cannot change the TTI setting by overtyping it with blanks.

Net(netname)

displays the name by which this terminal is known to VTAM.

Acq

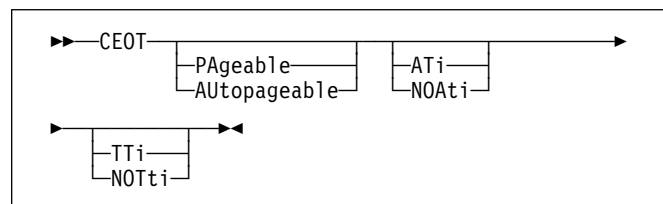
CICS is in session with the logical unit represented by this terminal. You cannot overtype this value.

Cre

This terminal can be acquired automatically by ATI transactions. You cannot overtype this value.

CEOT in set mode

Type CEOT followed by one or more of the following attributes:



PAgeable|AUtopageable

specifies whether pages after the first in a series are written to the terminal on request from the operator or automatically. The values are:

PAgeable

Pages are written on request.

AUtopageable

Pages are written automatically. This option should never be used with a display device.

ATi|NOAti

specifies whether the terminal is available for use by transactions that are automatically initiated from within CICS or, if the terminal is an ISC session, by transactions that are using this session as an alternate facility to communicate with another system. The values are:

ATi Your terminal is available for use.

NOAti

Your terminal is not available for use.

CEOT—terminal status

TTi|NOTti

specifies whether this terminal can be used by the transactions that are initiated from this terminal. The values are:

TTi This terminal can be used by transactions.

NOTti

This terminal cannot be used by transactions. Setting NOTTI is valid only for sequential devices.

Typing ? at the beginning of the first line gives a syntax prompt. Resetting the values takes effect immediately.

If you do not want to view the current status of your terminal (as displayed in the top half of the CEOT screen), you can change the paging status and the ATI status by using the CEOT syntax displayed in the bottom half of the screen. So, for example, if you simply want to make your terminal PAGEABLE, type CEOT PAGEABLE on the command line of your display and press the Enter key.

Notes:

1. You can use CEOT with the routing transaction (CRTE).
 - A user can inquire only about his or her own terminal, and cannot change any of the attributes.
 - The attributes returned are those of the remote terminal TCTTE in the application-owning region(AOR).
 - You must cancel the CRTE transaction by typing CANCEL on the command line.
2. Using CEOT in the TOR:
 - When a terminal is defined as unshippable, and CEOT is used to change the status of the terminal, the changes are not reflected in a remote terminal built in an AOR as a result of a transaction routing request. The status of the remote terminal is determined by the remote definition of the terminal in the AOR.
 - Even when a terminal is defined as shippable, a status change made in the TOR, using CEOT, is not reflected in an existing remote terminal definition in the AOR. A remote terminal in the AOR is created from a shippable definition the first time it is required in the AOR for running a program. The status of the remote terminal returned is its current status in the TOR. Any later updates are not passed on to the remote terminal.
3. If you make an invalid request, CICS lists the keyword options and waits for a valid keyword entry.

CESF—sign off

Use the CESF transaction to sign off from the CICS system.

This transaction:

- Writes the signoff message to your terminal
- Logs the message on the transient data destination CSCS
- Logs any error message on the transient data destination CSMT.

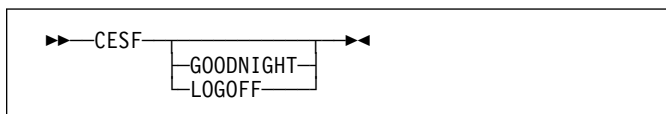
| If you are using CESF to disconnect a terminal and security
| is active, a message will still be sent to the log if the signoff
| fails. However, this will not stop the terminal being
| disconnected if it is a preset terminal or if the terminal is not
| signed on.

You cannot use CESF on:

- Fixed-format terminals (such as the 3608, the 3614, and the 3653)
- Numeric-only terminals.

For these devices, you must code your own transaction using the EXEC CICS SIGNOFF command. For programming information about this command, see the *CICS/ESA Application Programming Reference* manual.

The syntax of the CESF transaction is as follows:



If you simply type CESF by itself, you are signed off the CICS system. Your terminal can still start transactions without you having to request them, and messages can be sent to it. You can sign on again at that terminal at any time.

The effects of typing CESF with the GOODNIGHT value or the LOGOFF value depend on the access method in use, as shown in Table 4:

	VTAM DISCREQ=YES	Otherwise
CESF	TTI	TTI
CESF LOGOFF	Disc, TTI	TTI
CESF GOODNIGHT	Disc, TTI	NOTTI

where:

- Disc** The terminal is disconnected.
- TTI** Terminal transaction initiation is allowed.
- NOTTI** Terminal transaction initiation is not allowed, and your terminal is placed in RECEIVE status so that, the next time a connection is made, it can receive messages.

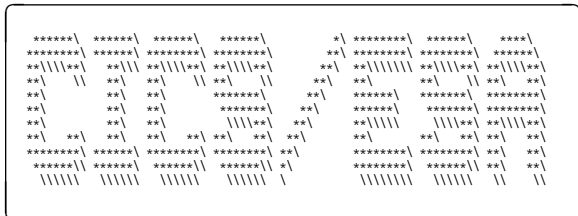
DISCREQ=YES is an operand of the TYPETERM definition associated with the terminal, and means that CICS is to honor a disconnect request. If DISCREQ=NO, a disconnect request (for example, a CESF LOGOFF request) is not honored.

If a CESF GOODNIGHT is given when there are outstanding automatic transaction initiation (ATI) requests, the ATI requests are actioned and the session is reacquired irrespective of the RDO options.

CESF—sign off

CESN—sign on

| By default, intending users of CICS see the CICS
| “good-morning” panel displayed when they logon to CICS as
| a VTAM application (see Figure 93).



| Figure 93. The CICS good-morning panel

| This panel is displayed by the CICS-supplied transaction,
| CSGM. Instead of using CSGM, you can specify your own
| transaction panel on the GMTRAN system initialization
| parameter.

| Users may either press the CLEAR key and type the CICS
| sign-on transaction id, CESN or, if CESN is specified as the
| good-morning transaction, CICS displays the sign-on panel
| shown in Figure 94.

| The user ID specified for this transaction is used in error
| messages and so on, to identify the user.

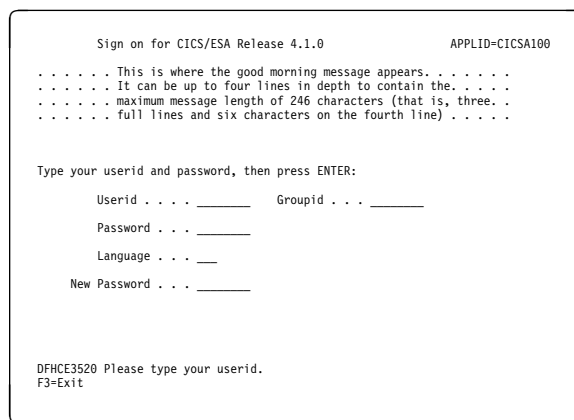
| **Notes:**

- | 1. If you sign on at a terminal that is already signed on,
| CSSN signs off the previous operator. This does not
| happen, however, unless you complete the CESN panel
| before pressing ENTER. For further information, see
| “Signing off with CESN” on page 163.
- | 2. For numeric-only devices or for the IBM 2741
| Communication Terminal, use the signon procedure
| described in “Non-3270 family terminal” on page 162.
- | 3. RACF recognizes only uppercase alphabetic characters.
| Userids and passwords specified in the CESN
| transaction are **only** translated to uppercase if the
| UCTRAN(YES) attribute is specified in the PROFILE
| resource definition or TYPETERM resource definition,
| otherwise data is passed to RACF as entered. See the
| *CICS/ESA Resource Definition Guide* for information on
| defining PROFILE and TYPETERM.
- | 4. Autoinstall of BMS maps is not carried out within the
| CESN transaction. When CESN tries to send out any
| BMS map that is not installed, CESN sends out the
| English BMS map.

5. This dialog does not prompt you for a new password unless your old password has expired. If you wish to change your password before it has expired, you must use another method, such as signing on at a CICS terminal rather than a console.

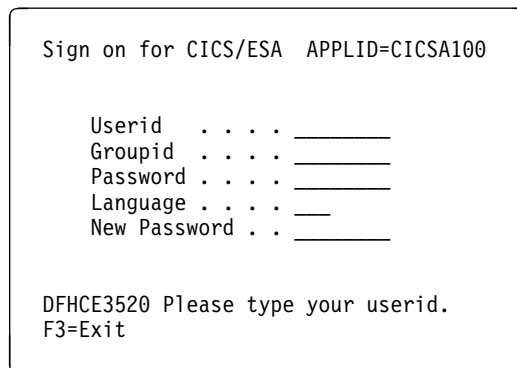
IBM 3270 family display devices

| Clear the screen, and type CESN on the command line of
| the screen. Press ENTER. You get the following display:



| Figure 94. CESN transaction: initial screen

| The panel for 40 x 12 size screens is shown below. There is
| no space for the release number or the good morning
| message.

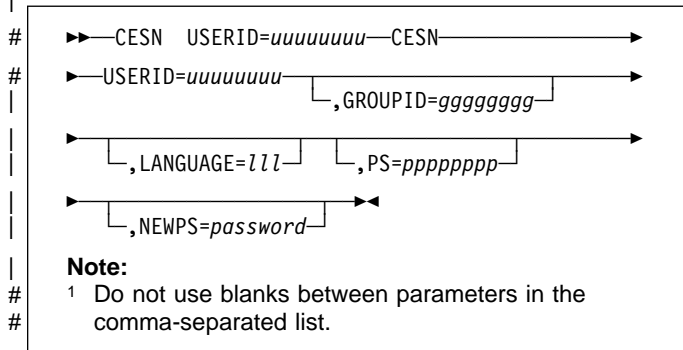


| Enter your user ID. This may be up to 8 characters in
| length.

CESN—sign on

Non-3270 family terminal

A user can also sign on by providing all the user information along with the transaction id, as follows:



This style of input can be used on video display terminals, but is especially useful for sequential terminals and devices not belonging to the IBM 3270 family of terminals.

Command options

GROUPID=gggggggg

is your group userid (up to 8 characters).

#

APARs

#

APAR PQ15449 added the following advice, and APAR PQ23001 extended it.

#

If this parameter is specified, it may be propagated to remote systems along with the userid. (Refer to the CICS/ESA CICS-RACF Security Guide for details, look at the sub-section *Information about remote users* within the sections *Implementing LU62. Security* and *Implementing MRO security*).

LANGUAGE=III

enables you to choose a national language (from those that are available at your installation) for terminal directed messages. "III", the national language identifier, is a standard, three-character IBM code. If the language identifier is omitted, CICS examines the following in this order:

1. Language specified for the user in the signon table
2. Language specified in the installed terminal definition for the terminal at which the signon occurs
3. Language specified on the NATLANG system initialization parameter.

If you enter a code other than the range of IBM codes, you get the following message:

DFHCE3537 Language is invalid. Please retype.

NEWPS=password

"password" is your new password (up to 8 characters). A 'password' value that consist entirely of space characters is not interpreted as a password update request. The user is not prompted for verification.

| **PS=pppppppp**
| is your password (up to 8 characters).

APAR PQ10606
added the following note

If the password is required but omitted, then RACF
reports a security violation via message ICH408I before
CICS prompts for the password.

| **USERID=uuuuuuuu**
| is your user ID (up to 8 characters).

| **Signing off with CESN**

| When a user starts the CESN transaction, CICS verifies
| userids and password by calling RACF. If the terminal user
| sign-on is valid, the CICS user domain keeps track of the
| signed-on user. Thereafter, CICS uses the information about
| the user when calling RACF to make authorization checks. If
| a user was signed on before the call to RACF, this signed-on
| user is signed off by CICS whether the returns from RACF
| are valid or invalid.

| If users enter the CESN transaction when they are already
| signed on, the transaction may or may not sign them off. For
| example, a user is not signed off by entering CESN, and
| then pressing F3 when the signon panel is displayed.

| In CICS/ESA 4.1, CESN signs off any signed-on user only
| when a new signon attempt is made. A signed-on user is
| signed off when a userid is entered on the signon panel and
| the ENTER key is pressed. Alternatively, the signed-on user
| is signed off if the CESN transaction identifier is entered with
| operands (for example USERID=userid), and the ENTER key
| is pressed.

| Unsuccessful sign-on and sign-off errors cause DFHCEnnnn
| messages to be issued.

| RACF OIICARD users can use CESN to sign on if the card
| reader supports the DFHOPID attention identifier (AID). If it
| does not, you need to write your own sign-on program using
| the EXEC CICS SIGNON command. For programming
| information see the *CICS/ESA Application Programming*
| *Reference*.

CESN—sign on

CEST—supervisory terminal

Use CEST to invoke a subset of the master terminal (CEMT) transaction. The CEST INQ|SET commands allows you to inquire about and alter some of the values of lines, netnames, tasks, and terminals.

CEST can be invoked from 3270 family display devices, or from equivalent terminals, or from the operating system console.

All of the CEST commands require the SUPRID keyword to be specified. SUPRID identifies the supervisor invoking the transaction, and its value is the 1-or 2-character suffix of a terminal list table (TLT). For information about the TLT, see the *CICS/ESA Resource Definition Guide*.

Many of the request formats contain the ALL option. For CEST INQUIRE requests, this is the default value. For example, if you enter just CEST INQUIRE TERMINAL, you get information about all terminals.

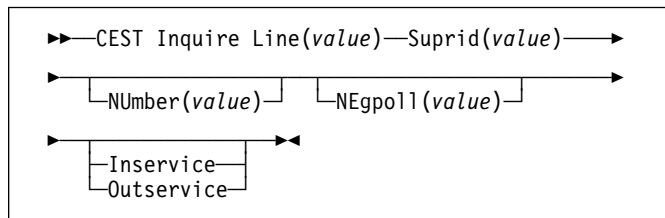
CEST INQUIRE LINE

Function: Retrieve information about lines connected to terminals. This request is valid only for non-VTAM terminals.

Input: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEST INQUIRE LINE(value) SUPRID(xx) (the minimum abbreviation is CEST I L(value) S(xx)). You get a display that lists the current status of the named line.
- Type CEST INQUIRE LINE(termid) SUPRID(xx) (CEST I L(termid) S(xx)) followed by as many of the other attributes as are necessary to limit the range of information that you require.

You can specify a list of identifiers (see “List of resource identifiers” on page 51), but you cannot use the symbols * and + to specify a family of identifiers. You can then tab to the highlighted or blank fields and overwrite them with the required values.



Displayed fields

Line

indicates that this panel relates to a LINE inquiry.

(value)

displays the identifier of a terminal on the line. This request is valid only for non-VTAM terminals.

Suprid(value)

displays the 1- or 2-character suffix of a terminal list table, identifying the supervisor invoking the transaction.

Number(value)

displays the relative line number of a pooled line. For information about pooled lines, see the *CICS/ESA Resource Definition Guide*.

Negpoll(value)

displays the negative poll delay interval (0–20000 milliseconds). For a TCAM line, this specifies the interval before control is passed to the terminal error program (DFHTEP) when a CICS task is not ready to accept a record from an input process queue.

CEST INQUIRE NETNAME

If the CICS task issues a read before the interval expires, processing continues normally and DFHTEP is not notified. The default value is zero.

Inservice|Outservice

displays whether the line is available for use. The values are:

Inservice

The line is available for use. Changing the status of the line does not affect the equivalent status of the terminals on it.

Outservice

The line is not available for use. Changing the status of the line does not affect the equivalent status of the terminals on it.

CEST INQUIRE NETNAME

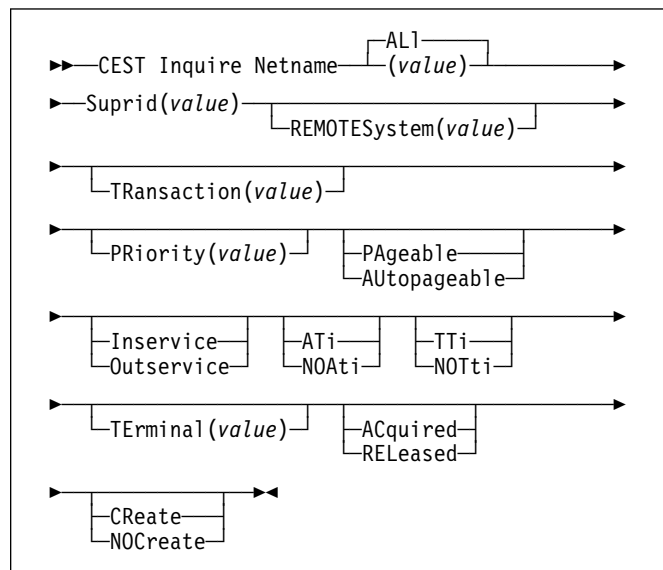
Function: Retrieve information about a network.

Description: If you are familiar with network names, you may prefer to use this command as an alternative to CEST INQUIRE TERMINAL.

Input: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEST INQUIRE NETNAME SUPRID(xx) (the minimum abbreviation is CEST I N S(xx)). You get a display that lists the current status.
- Type CEST INQUIRE NETNAME SUPRID(xx) (CEST I N S(xx)) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter `cem i n ins ati`, the resulting display will show you the details of only those netnames that are in service and available for use.

You can then tab to the highlighted or blank fields and overwrite them with the required values.



ALL

is the default. For example, if you inquire about terminals, you receive information about all terminals, unless you specify a terminal identifier, a terminal class identifier, or a system identifier.

(value) (VTAM only)

is the name by which the remote system or terminal is known to the network. Netnames need not be unique, and you cannot specify a list of names.

The remaining operands for NETNAME are identical to those for CEST INQUIRE TERMINAL.

Sample screen

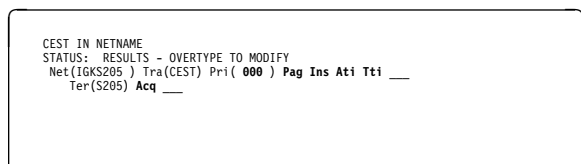


Figure 95. CEST INQUIRE NETNAME screen

Note: The underscores on the sample screen indicate the positions of 'negative' attributes (blank fields).

Displayed fields

Netname

indicates that this panel relates to a NETNAME inquiry.

(value) (VTAM only)

displays an 8-character string indicating the name by which this terminal or session is known to VTAM. This field is blank if the access method is not known to VTAM.

Suprid(value)

displays the 1- or 2-character suffix of a terminal list table, identifying the supervisor invoking the transaction.

Transaction(value)

displays a 4-character string indicating the name of the transaction currently being processed with this terminal as its principal facility or as a secondary facility.

Priority(value)

displays a 3-character string indicating the priority of this terminal relative to other terminals. The priority of a task is the sum of the transaction priority, the terminal priority, and the operator priority. Priority has no meaning for terminals that are ISC sessions being used as alternative facilities. The value is in the range 0–255, where 255 is the highest priority.

Note: You can reset this value by overtyping it with a different value.

Pageable|Autopageable

displays whether pages after the first in a series are written to the terminal on request from the operator or automatically. The values are:

Pageable

Pages are written on request.

Autopageable

Pages are written automatically.

Note: You can reset this value by overtyping it with a different value.

Inservice|Outservice (not MRO or APPC)

displays whether the terminal is available for use. The values are:

Inservice

The terminal is available for use. For VTAM, INSERVICE means that the terminal can be ACQUIRED.

Outservice

The terminal is not available for use. Setting a terminal OUTSERVICE means that the terminal can no longer be used by transactions. If PURGE or FORCEPURGE is also specified, any transaction using the terminal is terminated abnormally. If PURGE or FORCEPURGE is not specified, the transaction is allowed to terminate normally, but no further transactions are allowed to use the terminal. For VTAM, setting a terminal OUTSERVICE also causes it to be released and the operator to be signed off, either immediately or when the current transaction has terminated.

In an LU6.1 ISC session, the connection is set OUTSERVICE if there are no allocatable sessions left.

Note: You can reset this value by overtyping it with a different value.

Ati|Noati

displays whether the terminal is available for use by transactions that are automatically initiated from within CICS or, if the terminal is an ISC session, by transactions that are using this session as an alternate facility to communicate with another system. The values are:

Ati The terminal is available for use.

Noati

The terminal is not available for use.

Note: Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.

Notes:

1. You can reset this value by overtyping it with a different value.
2. A terminal cannot be defined with both NOATI and NOTTI.

Tti|Notti

displays whether the terminal can be used by the transactions that are initiated from this terminal. The values are:

Tti This terminal can be used by transactions.

Notti This terminal cannot be used by transactions.

Note: Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.

CEST INQUIRE NETNAME

Notes:

1. You can reset this value by overtyping it with a different value.
2. TTI/NOTTI cannot be specified for APPC terminals or IRC sessions.
3. A terminal cannot be defined with both NOATI and NOTTI.

Purge|Forcepurge

displays whether the transactions running with the named terminal can be purged. The values are:

Purge

Transactions can be terminated only if system and data integrity can be maintained. A transaction is to be purged if its definition specifies SPURGE=NO.

Forcepurge

Transactions are to be purged immediately. This can lead to unpredictable results and should be used only in exceptional circumstances.

Terminal(value)

displays a 4-character terminal identifier (1–4 characters) as specified in an installed terminal definition.

Acquired|Coldacquired|Released

displays whether CICS is in session with the logical unit represented by this terminal. The values are:

Acquired

CICS is in session with the logical unit represented by the terminal.

Coldacquired

CICS is in session with the logical unit represented by the terminal, where no resynchronization is required.

Released

CICS is not in session with the logical unit represented by the terminal. If you set this option to RELEASED, a session is terminated immediately if you also specify the PURGE option, otherwise the session is terminated when the current active transaction finishes.

Note: You can reset this value by overtyping it with a different value.

Create|Nocreate

displays whether the terminal can be acquired automatically by ATI transactions. This cannot be specified for IRC sessions. The values are:

Create (VTAM only)

If the terminal is not in session, CICS acquires it if it is needed to satisfy an ATI request.

Nocreate (VTAM only)

If the terminal is not in session, CICS does not acquire it to satisfy an ATI request. A session must be started by, for example, a logon request or a CEST SET TERMINAL ACQUIRED command before the ATI request can be satisfied.

If NOCREATE is set for an LU6.1 ISC session and there are no allocatable sessions left, the connection is placed OUTSERVICE.

Note: Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.

Note: You can reset this value by overtyping it with a different value.

CEST INQUIRE TASK

Function: Retrieve information about user tasks.

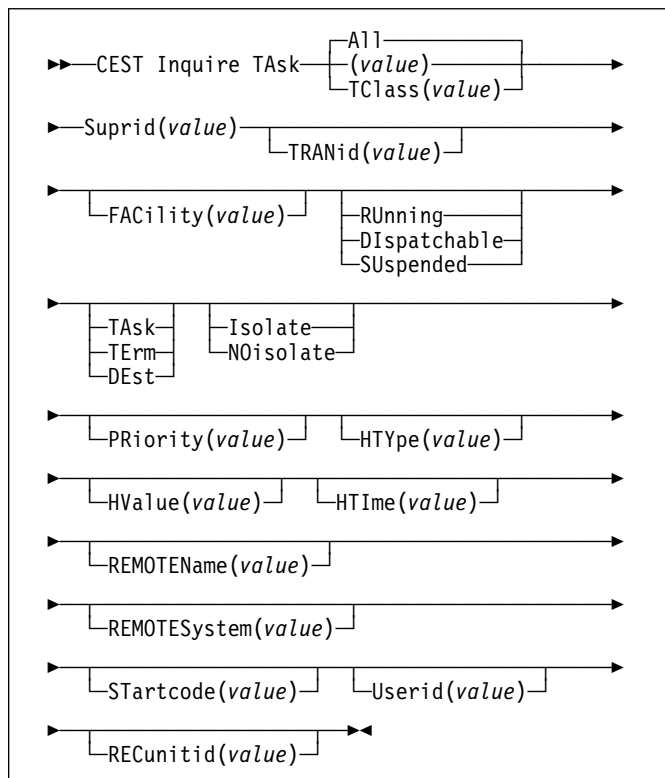
Description: INQUIRE TASK returns information about user tasks. Only information about user tasks can be displayed or changed; information about CICS-generated system tasks or subtasks cannot be displayed or changed. System tasks are those tasks started (and used internally) by CICS, and not as a result of a user transaction.

Input: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEST INQUIRE TASK SUPRID(xx) (the minimum abbreviation is CEST I TA S(xx)). You get a display that lists the current status.
- Type CEST INQUIRE TASK SUPRID(xx) (CEST I TA S(xx)) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter `cemt i ta s(xx) ru i`, the resulting display will show you the details of only those tasks that are running and for which the data is not shared with other tasks (isolated).

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see “Overtyping a display” on page 51).
- Use the CEST SET TASK command.



ALL

is the default.

TClass(value)

is the 8-character transaction class name to which the transaction belongs.

(value)

is the CICS-generated task number, in the range 1–99999.

You cannot specify a list of identifiers, nor can you use the symbols * and + to specify a family of tasks.

Sample screen

```

CEST IN TASK
STATUS: RESULTS - OVERTYPE TO MODIFY
Tas(0000073) Tra(CEST) Fac(S205) Run Ter Iso Pri( 255 ) ___
    
```

Figure 96. CEST INQUIRE TASK screen

Note: The underscore on the sample screen indicates the position of a ‘negative’ attribute (blank field).

The full range of keywords associated with this command is always displayed if the request is made from the MVS console. For other terminals, because of the large number of keywords supported, only one line of information for each result is displayed. The full set of keywords usually requires 3 lines on a screen and is only displayed if you specifically select them by typing a ? in front of the chosen result. You get a display of all the keyword information in addition to the expanded SET syntax. However, the following keywords are not shown: USERID, if the user is not signed on, and HTIME, HTYPE, and HVALUE if the task is not suspended at the time of the inquiry. When shown, they are abbreviated: Hva for HVALUE and Hty for HTYPE, for example. Only one ? is honored for each ENTER input.

```

IN TA
SYNTAX OF SET COMMAND
Tas(0000029) Tra(CEST) Fac(S202) Run Ter Iso Pri( 255 ) ___
Sta(TO)
Use(CICSUSER) Rec(X'A7C562C66585B122')
CEST Set TASK() | < All >
< Priority >
< Purge | F0rcepurge >
    
```

Figure 97. CEST INQUIRE TASK screen—full keywords

Displayed fields

Task

indicates that this panel relates to a TASK inquiry.

(value)

displays a CICS-generated task number in the range 1–99999.

CEST INQUIRE TASK

Tranid(value)

displays a 4-character string identifying the transaction name associated with the task.

Facility(value)

displays a 4-character string identifying the name of the terminal or queue that initiated the task. If no FACILITY value is displayed, the task was started without a facility.

Running|Dispatchable|Suspended

displays the status of this task. The values are:

Running

The task is running.

Dispatchable

The task is dispatchable.

Suspended

The task is suspended.

Taskx|Term|Dest

displays the type of facility that initiated this task. The values are:

Taskx

The task was initiated from another task.

Term

The task was initiated from a terminal.

Dest The task was initiated by a destination trigger level as defined in the destination control table (DCT).

| Isolate|Noisolate

| displays the status of the user-key task-lifetime storage.
| The values are:

| Isolate

| The user-key task-lifetime storage is accessible
| only by the user-key programs of its own task.
| The user-key task-lifetime storage is isolated from
| all the user-key programs of all other tasks.

| Noisolate

| The user-key task-lifetime storage is accessible by
| its own programs, and also by user-key programs
| of other transactions defined with the
| ISOLATE(NO) option.

Priority(value)

displays the priority of the task, in the range 0–255 where 255 is the highest priority.

Purge|Forcepurge

is an input field for purging or forcepurging a task. The values are:

Purge

The task is to be terminated. Termination occurs only when system and data integrity can be maintained.

Forcepurge

The task is to be terminated immediately. System integrity is not guaranteed. In some extreme

cases, for example if a task is forcepurged during backout processing, CICS terminates abnormally. If you want to terminate a task but do not want to terminate CICS, you should use PURGE instead of FORCEPURGE.

In some BTAM situations, further user action is required to complete the purging of the task. If a task is in a terminal read on a BTAM nonlocal terminal and that task is canceled, it can require input from another terminal on the same line before the cancel operation completes.

Htype(value)

displays the reason why the task is suspended. A null value indicates that there is no hold-up, except for the necessity of reaching the head of the queue.

For information about the resource types that can appear in this option, and how they can be used as an aid to problem determination, see the *CICS/ESA Problem Determination Guide*.

Hvalue(value)

displays HTYPE. HVALUE can be a resource name, such as a file name, or a value such as a TCLASS value.

For information on the values that can appear in this operand, and how they can be used as an aid to problem determination, see the *CICS/ESA Problem Determination Guide*.

Htime(value)

displays the time (in seconds) that the task has been in the current suspended state.

Startcode(value)

displays how this task was started. The values are:

- D** A distributed program link (DPL) request. The program cannot issue I/O requests against its principal facility or any syncpoint requests.
- DS** A distributed program link (DPL) request, as for code D, with the exception that the program can issue syncpoint requests.
- QD** A transient data trigger level was reached.
- S** Start command (no data)
- SD** Start command (with data)
- TO** The operator typed a transaction code at the terminal.
- TP** The transaction was started by presetting the transaction ID for the terminal.
- U** User-attached task.

Userid(value)

displays the user currently associated with the task.

Recunitid(value)

displays a unique identifier for the current unit of recovery. This identifier is passed as a token to IMS when DBCTL is being used, and is the means of synchronizing DL/I and CICS transactions. The identifier takes the form of an 8-byte clock value and is displayed in hexadecimal format. Background information on recovery tokens is given in the *CICS/ESA CICS-IMS Database Control Guide*.

CEST INQUIRE TERMINAL

Function: Retrieve information about terminals.

Description: INQUIRE TERMINAL returns information about a named terminal defined in the terminal control table (TCT).

In an SNA environment, a terminal is the CICS representation of an SNA logical unit with which CICS can be in communication. (SNA environment means that CICS is using VTAM or ACF/TCAM GSA as the access method for communication with SNA logical units.)

This logical unit can be:

- A physical terminal (such as a 3277)
- A function of a cluster controller (such as a 3790 Type 2 batch function)
- An intersystem communication (ISC) or interregion communication (IRC) session that has been generated by the CEDA transaction.

If you are familiar with network names, you may prefer to use the command that uses these names. See "CEMT INQUIRE NETNAME" on page 79.

The message "TEMP OUT SERVICE" can be displayed if recovery is in progress for the terminal. The "TEMP OUT SERVICE" indicator is reset by simply refreshing the screen, or by overtyping the "INS" field with "INS" or "OUT". If "TEMP OUT SERVICE" continues to be displayed, the cause of the indicator should be investigated.

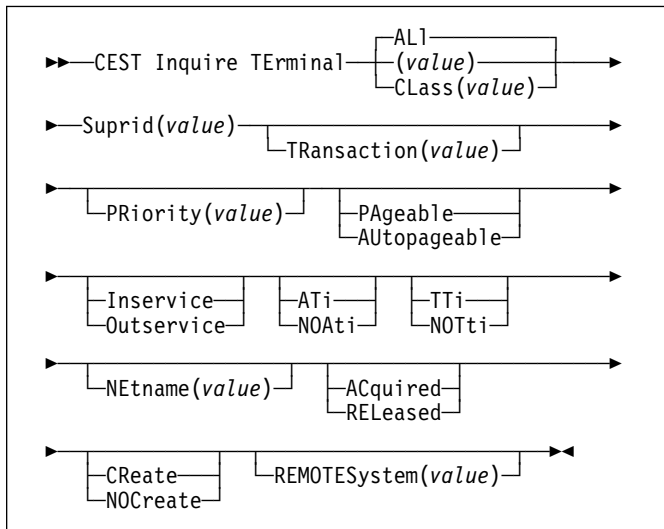
Input: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEST INQUIRE TERMINAL SUPRID(xx) (the minimum abbreviation is CEST I TE S(xx)). You get a display that lists the current status.
- Type CEST INQUIRE TERMINAL SUPRID(xx) (CEST I TE S(xx)) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter `cemt i te i at`, the resulting display will show you the details of only those terminals that are in service and available for use.

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see "Overtyping a display" on page 51).
- Use the CEST SET TERMINAL command.

CEST INQUIRE TERMINAL



ALL

is the default. For example, if you inquire about terminals, you receive information about all terminals, unless you specify a terminal identifier, a terminal class identifier, or a system identifier.

(value)

is a terminal identifier (1–4 characters) as specified in an installed terminal definition.

If the terminal name is, for example, S201, this option is coded thus:

```
CEST INQUIRE TERMINAL(S201)
```

Class(value)

is the 1- or 2-character suffix of a terminal list table (TLT).

| If you do not specify a termid or class identifier, by default
| you receive information about all the terminals.

Sample screen

```

CEST IN TERMINAL
STATUS: RESULTS - OVERTYPE TO MODIFY
Ter(CERR) Pri( 000 ) Pag Ins Tti
Ter(S205) Tra(CEST) Pri( 000 ) Pag Ins ATi Tti
Net(IGKS205 ) Acq
  
```

Figure 98. CEST INQUIRE TERMINAL screen

Note: The underscores on the sample screen indicate the positions of 'negative' attributes (blank fields).

Displayed fields

Terminal

indicates that this panel relates to a TERMINAL inquiry.

(value)

displays a 4-character terminal identifier as defined in an installed terminal definition. This includes all terminals

and sessions, but not logical device codes (LDCs), model TCTTEs, mode groups, or system entries. See also **Netname**.

Transaction(value)

displays a 4-character string identifying the name of the transaction currently being processed with this terminal as its principal facility or as a secondary facility.

Suprid(value)

displays the 1- or 2-character suffix of a terminal list table, identifying the supervisor invoking the transaction.

Priority(value)

displays a 3-character string identifying the priority of a terminal relative to other terminals. The priority of a task is the sum of the transaction priority, the terminal priority, and the operator priority. Priority has no meaning for terminals that are ISC sessions being used as alternative facilities.

Note: You can reset this value by overtyping it with a different value.

The value is in the range 0–255, where 255 is the highest priority.

Pageable|Autopageable

displays whether pages after the first in a series are written to the terminal on request from the operator or automatically. The values are:

Pageable

Pages are written on request.

Autopageable

Pages are written automatically.

Note: You can reset this value by overtyping it with a different value.

Inservice|Outservice (not MRO or APPC)

displays whether the terminal is available for use. The values are:

Inservice

The terminal is available for use. For VTAM, Ins(ervice) means that the terminal can be ACQUIRED.

Outservice

The terminal is not available for use. Setting a terminal Out(service) means that the terminal can no longer be used by transactions. If PURGE or FORCEPURGE is also specified, any transaction using the terminal is terminated abnormally. If PURGE or FORCEPURGE is not specified, the transaction is allowed to terminate normally, but no further transactions are allowed to use the terminal. For VTAM, setting a terminal Out(service) also causes it to be released and the operator to be signed off, either immediately or when the current transaction has terminated.

In an LU6.1 ISC session, the connection is set Out(service) if there are no allocatable sessions left.

Note: You can reset this value by overtyping it with a different value.

Ati|Noati

displays whether the terminal is available for use by transactions that are automatically initiated from within CICS or, if the terminal is an ISC session, by transactions that are using this session as an alternate facility to communicate with another system. The values are:

Ati The terminal is available for use.

Noati

The terminal is not available for use.

Note: Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.

Notes:

1. You can reset this value by overtyping it with a different value.
2. A terminal cannot be defined with both NOATI and NOTTI.

Tti|Notti

displays whether the terminal can be used by the transactions that are initiated from this terminal. The values are:

Tti This terminal can be used by transactions.

Notti This terminal cannot be used by transactions.

Note: Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.

Notes:

1. You can reset this value by overtyping it with a different value.
2. TTI/NOTTI cannot be specified for APPC terminals or IRC sessions.
3. A terminal cannot be defined with both NOATI and NOTTI.

Purge|Forcepurge

is an input field that allows you to purge transactions running with the named terminal. The values are:

Purge

Transactions will be terminated only if system and data integrity can be maintained. A transaction is purged if its definition specifies SPURGE=NO.

Forcepurge

Transactions are to be purged immediately. This can lead to unpredictable results and should be used only in exceptional circumstances.

Netname(value)

displays an 8-character string indicating the name by which this terminal or session is known to VTAM. This is blanks if the access method is not VTAM.

For parallel sessions, the Net(name) is not unique, so CICS returns the name of the first session that it finds into the Ter(minal) field.

Acquired|Coldacquired|Released

displays whether CICS is in session with the logical unit represented by this terminal. The values are:

Acquired

CICS is in session with the logical unit represented by the terminal.

Coldacquired

CICS is in session with the logical unit represented by the terminal, where no resynchronization is required.

Released

CICS is not in session with the logical unit represented by the terminal. If you set this option to RELEASED, a session is terminated immediately if you also specify the PURGE option, otherwise the session is terminated when the current active transaction finishes.

Note: You can reset this value by overtyping it with a different value.

Create|Nocreate

displays whether the terminal can be acquired automatically by ATI transactions. This cannot be specified for IRC sessions. The values are:

Create (VTAM only)

If the terminal is not in session, CICS acquires it if it is needed to satisfy an ATI request.

Nocreate (VTAM only)

If the terminal is not in session, CICS does not acquire it to satisfy an ATI request. A session must be started by, for example, a logon request or a CEST SET TERMINAL ACQUIRED command before the ATI request can be satisfied.

If NOCREATE is set for an LU6.1 ISC session and there are no allocatable sessions left, the connection is placed OUTSERVICE.

CEST SET LINE

Remotesystem(value)

displays a 4-character system identifier specified in the CICS terminal definition. This limits the terminals referred to by the request to those ISC or IRC sessions connected to the specified system. Batch regions currently connected to the CICS system through IRC can be addressed by the system identifier "@BCH". For example:

```
CEST SET TERMINAL REMOTESYSTEM(@BCH) INSERVICE
enables communication between CICS and all batch
regions.
```

CEST SET LINE

Function: Change the status of a line.

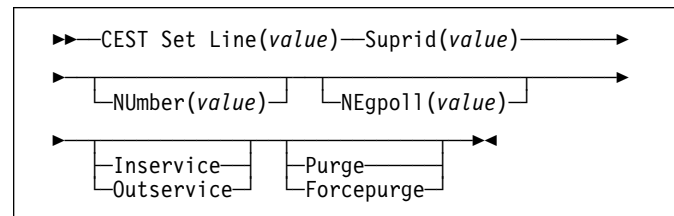
Description: The SET LINE command allows you to purge or forcepurge a line, to put the line in or out of service, and to adjust the relative line number.

You can specify a list of identifiers (see "List of resource identifiers" on page 51), but you cannot use the symbols * and + to specify a family of identifiers.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEST SET LINE SUPRID(xx) (the minimum abbreviation is CEST S L S(xx)) with a terminal identifier. You get a display that lists the current status, similar to that obtained by CEST INQUIRE LINE. You can then tab to the highlighted or blank fields and overtype them with the required values.
- Type CEST SET LINE SUPRID(xx) (CEST S L S(xx)) with a terminal identifier, followed by one or more attribute settings that you wish to change. For example, `cent s l (value) s(xx) i` will make the line available for use (inservice).

Typing ? at the beginning of either the first or second line gives a syntax prompt. Resetting the values takes effect immediately.



Options

(value)

specifies the identifier of a terminal on the line. This request is valid only for non-VTAM terminals.

Suprid(value)

specifies the 1- or 2-character suffix of a terminal list table, identifying the supervisor invoking the transaction.

Number(value)

specifies the relative line number of a pooled line. It is mandatory when inquiring about pooled lines. For guidance about pooled lines, see the *CICS/ESA Resource Definition Guide*.

NEgpoll(value)

specifies the negative poll delay interval (00000–20000 milliseconds). For a TCAM line, this specifies the interval before control is passed to the terminal error program (DFHTEP) when a CICS task is not ready to accept a record from an input process queue.

If the CICS task issues a read before the interval expires, processing continues normally and DFHTEP is not notified. The default value is zero.

Inservice|Outservice

specifies the status of the line. The values are:

Inservice

The line is available for use. Changing the status of the line does not affect the equivalent status of the terminals on it.

Outservice

The line is not available for use. Changing the status of the line does not affect the equivalent status of the terminals on it.

Purge|Forcepurge

specifies the status of tasks running on terminals associated with the line. The values are:

Purge

Tasks running on terminals associated with the line are abnormally terminated, but task termination occurs only if system and data integrity can be maintained.

Forcepurge

All transactions running with terminals on the line are immediately terminated abnormally. Data integrity is not guaranteed. In some extreme cases (for example, if an error occurs during backout processing), CICS might terminate abnormally.

CEST SET NETNAME

Function: Change the status of networks.

Description: If you are familiar with network names, you may prefer to use this command as an alternative to CEST SET TERMINAL (described under “CEMT SET TERMINAL” on page 148).

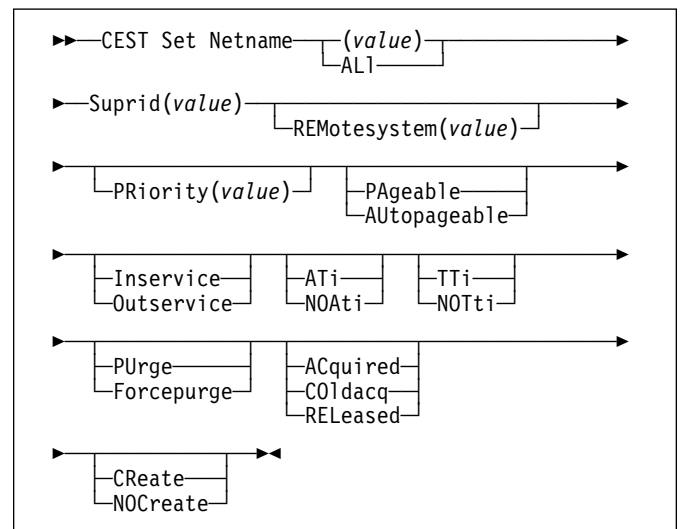
“netname” (VTAM only) is the name by which the remote system or terminal is known to the network. The remaining operands for NETNAME are identical to those for TERMINAL.

Netnames need not be unique, and you cannot specify a list of names.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEST SET NETNAME SUPRID(xx) (the minimum abbreviation is CEST S N S(xx)) with netname or ALL. You get a display that lists the current status, similar to that obtained by CEST INQUIRE NETNAME. You can then tab to the highlighted or blank fields and overtype them with the required values.
- Type CEST SET NETNAME SUPRID(xx) (CEST S AUTO S(xx)) with netname or ALL, followed by one or more attribute settings that you wish to change. For example, `cemt s n(netname) s(xx) i at` will reset the named remote system or terminal to inservice and available for use.

Typing ? at the beginning of either the first or second line gives a syntax prompt. Resetting the values takes effect immediately.



CEST SET NETNAME

Options

(value) (VTAM only)

specifies the name by which the remote terminal is known to the network.

ALI

specifies that any changes you request are made to all resources of the specified type that you are authorized to access.

Suprid(value)

specifies the 1- or 2-character suffix of a terminal list table, identifying the supervisor invoking the transaction.

REMOtesystem(value)

specifies an identifier (1–4 characters) defined in the CICS terminal definition. This limits the terminals referred to by the request to those ISC or IRC sessions connected to the specified system. Batch regions currently connected to the CICS system through IRC can be addressed by the system identifier "@BCH". For example:

```
CEST SET TERMINAL REMOTESYSTEM(@BCH) INSERVICE
```

enables communication between CICS and all batch regions.

PRiority(value)

specifies the priority of a terminal relative to other terminals. The priority of a task is the sum of the transaction priority, the terminal priority, and the operator priority. Priority has no meaning for terminals that are ISC sessions being used as alternative facilities. The value must be in the range 0–255, where 255 is the highest priority.

PAgeable|AUtopageable

specifies whether pages after the first in a series are to be written to the terminal on request from the operator or automatically. The values are:

PAgeable

Pages after the first in a series are to be written to the terminal only if you request them to be.

AUtopageable

Pages after the first in a series are to be written to the terminal automatically.

Inservice|Outservice (not MRO or APPC)

specifies whether the terminal is available for use. The values are:

Inservice

The terminal is available for use. For VTAM, INSERVICE means that the terminal can be ACQUIRED.

Outservice

The terminal is not available for use. Setting a terminal OUTSERVICE means that the terminal can no longer be used by transactions. If PURGE or FORCEPURGE is also specified, any transaction using the terminal is terminated abnormally. If PURGE or FORCEPURGE is not specified, the transaction is allowed to terminate normally, but no further transactions are allowed to use the terminal. For VTAM, setting a terminal OUTSERVICE also causes it to be released and the operator to be signed off, either immediately or when the current transaction has terminated.

In an LU6.1 ISC session the connection is set OUTSERVICE if there are no allocatable sessions left.

ATi|NOAti

specifies whether the terminal is available for use by transactions that are initiated automatically from within CICS or, if the terminal is an ISC session, by transactions that are using this session as an alternative facility to communicate with another system. The values are:

ATi The terminal is available for use.

NOAti

The terminal is not available for use.

Note: A terminal cannot be defined with both NOATI and NOTTI.

TTi|NOTti

specifies whether the terminal can be used by the transactions that are initiated from this terminal. The values are:

TTi This terminal can be used by transactions.

NOTti

This terminal cannot be used by transactions.

Note: A terminal cannot be defined with both NOATI and NOTTI.

PUrge|Forcepurge

purges the transaction running with this terminal. The values are:

PUrge

Tasks running on this terminal are abnormally terminated, but task termination occurs only if system integrity can be maintained.

Forcepurge

All transactions running with this terminal are immediately terminated abnormally. Data integrity is not guaranteed. In some extreme cases (for example, if an error occurs during backout processing), CICS might terminate abnormally.

ACquired|COldacq|RELEased (VTAM only)

specifies whether CICS is in session with the logical unit represented by this terminal. The values are:

ACquired

CICS is in session with the logical unit represented by the terminal.

COldacq

This is a special form of ACQUIRED, where no resynchronization is required. If the previous session abended, the use of COLDACQ overrides CICS integrity control. This could lead to integrity problems. Also, you should check the CSMT log for an activity keypoint after the restart of a session following a CICS failure. If there is no activity keypoint, you should issue COLDACQ again after the next emergency restart.

RELEased

CICS is not in session with the logical unit represented by the terminal. Setting a terminal RELEASED causes the session to be terminated. Running transactions are allowed to finish unless PURGE or FORCEPURGE is also specified.

CReate|NOCreate (VTAM only)

specifies whether the terminal can be acquired automatically by ATI transactions. This cannot be specified for IRC sessions. The values are:

CReate

If the terminal is not in session, CICS is to acquire it if it is needed to satisfy an ATI request.

NOCreate

If the terminal is not in session, CICS is not to acquire it to satisfy an ATI request. A session must be started by, for example, a logon request or a CEST SET TERMINAL ACQUIRED command before the ATI request can be satisfied.

If NOCREATE is set for an LU6.1 ISC session and there are no allocatable sessions left, the connection is placed OUTSERVICE.

CEST SET TASK

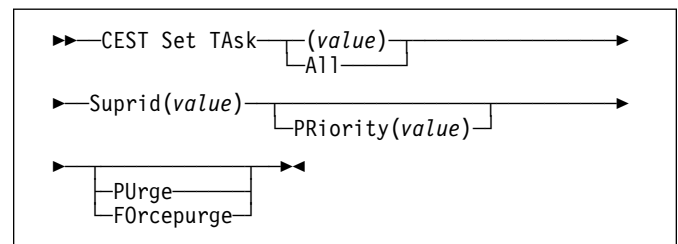
Function: Change the status of tasks.

Description: You cannot specify a list of identifiers, nor can you use the symbols * and + to specify a family of tasks.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEST SET TASK SUPRID(xx) (the minimum abbreviation is CEST S TA S(xx)) with (value) or ALL. You get a display that lists the current status, similar to that obtained by CEST INQUIRE TASK. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEST SET TASK SUPRID(xx) (CEST S TA S(xx)) with number or ALL, followed by one or more attribute settings that you wish to change. For example, cemt s ta(value) s(xx) pu will make the specified task purgeable in system-stall conditions.

Typing ? at the beginning of either the first or second line gives a syntax prompt. Resetting the values takes effect immediately.



Options

(value)|All

specifies the identifier(s) of the task(s) for which the status is to be changed. The values are:

(value)

The CICS-generated task number. This is in the range 1-99999.

ALL Any changes you request are made to all resources of the specified type that you are authorized to access.

Suprid(value)

specifies the 1- or 2-character suffix of a terminal list table, identifying the supervisor invoking the transaction.

PRiority(value)

specifies the priority of the task, in the range 0-255 where 255 is the highest priority.

CEST SET TERMINAL

PUrge|FOrcepurge

purges the task in system stall conditions. The values are:

PUrge

The task is terminated. Task termination occurs only when system and data integrity can be maintained.

FOrcepurge

The task is terminated immediately. System integrity is not guaranteed. In some extreme cases, for example if a task is forcepurged during backout processing, CICS terminates abnormally. If you want to terminate a task but do not want to terminate CICS, you should use PURGE instead of FORCEPURGE.

CEST SET TERMINAL

Function: Change the attributes of named terminals.

Description: The SET TERMINAL command changes some of the values of a named terminal defined in the terminal control table (TCT). It cannot be used for APPC sessions.

In an SNA environment, a terminal is the CICS representation of an SNA logical unit with which CICS can be in communication. (SNA environment means that CICS is using VTAM or ACF/TCAM GSA as the access method for communication with SNA logical units.)

This logical unit can be:

- A physical terminal (such as a 3277)
- A function of a cluster controller (such as a 3790 Type 2 batch function)
- An intersystem communication (ISC) or interregion communication (IRC) session that has been generated by the CEDA transaction.

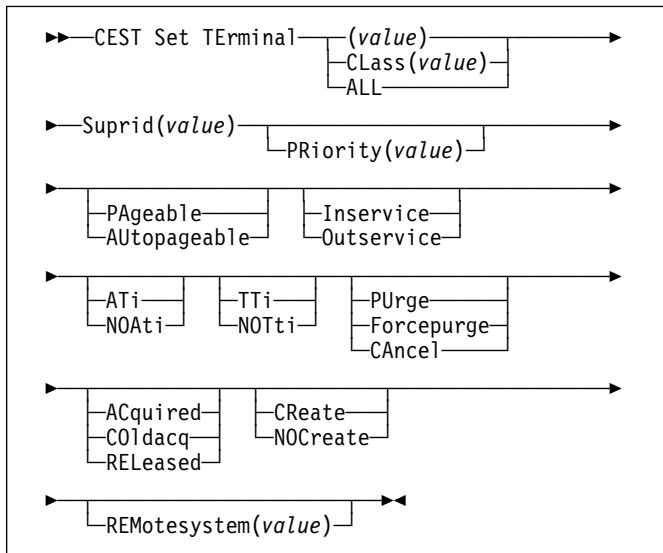
If you are familiar with network names, you may prefer to use the command that uses these names. See "CEMT SET NETNAME" on page 136.

The message "TEMP OUT SERVICE" can be displayed if recovery is in progress for the terminal. The "TEMP OUT SERVICE" indicator is reset by simply refreshing the screen, or by overtyping the "INS" field with "INS" or "OUT". If "TEMP OUT SERVICE" continues to be displayed, the cause of the indicator should be investigated.

Syntax: Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEST SET TERMINAL SUPRID(xx) (the minimum abbreviation is CEST S TE S(xx)) with (value), CLASS(value), or ALL. You get a display that lists the current status, similar to that obtained by CEST INQUIRE TERMINAL. You can then tab to the highlighted or blank fields and overtype them with the required values.
- Type CEST SET TERMINAL SUPRID(xx) (CEST S TE S(xx)) with (value), CLASS(value), or ALL, followed by one or more attribute settings that you wish to change. For example, `cent s te(value) s(xx) i cr` specifies that a named terminal is available for use (inservice) and that it can be acquired automatically by ATI transactions (create).

Typing ? at the beginning of either the first or second line gives a syntax prompt. Resetting the values takes effect immediately.



Options

(value)|Class(value)|ALL

specifies the identifier(s) of the terminal(s) for which the status is to be changed. The values are:

(value)

A terminal identifier (1–4 characters) as specified in an installed terminal definition.

If the terminal name is, for example, S201, this option is coded thus:

CEST SET TERMINAL(S201)

Class(value)

The 1- or 2-character suffix of a terminal list table (TLT).

ALL Any changes you request are made to all resources of the specified type that you are authorized to access.

Suprid(value)

specifies the 1- or 2-character suffix of a terminal list table, identifying the supervisor invoking the transaction.

PRiority(value)

specifies the priority of a terminal relative to other terminals. The priority of a task is the sum of the transaction priority, the terminal priority, and the operator priority. Priority has no meaning for terminals that are ISC sessions being used as alternative facilities. The value must be in the range 0–255, where 255 is the highest priority.

PAgeable|AUtopageable

specifies whether pages after the first in a series are to be written to the terminal on request from the operator or automatically. The values are:

PAgeable

Pages after the first in a series are to be written to the terminal only if you request them to be.

AUtopageable

Pages after the first in a series are to be written to the terminal automatically.

Inservice|Outservice (not MRO or APPC)

specifies whether the terminal is available for use. The values are:

Inservice

The terminal is available for use. For VTAM, INSERVICE means that the terminal can be ACQUIRED.

Outservice

The terminal is not available for use. Setting a terminal OUTSERVICE means that the terminal can no longer be used by transactions. If PURGE or FORCEPURGE is also specified, any transaction using the terminal is terminated abnormally. If PURGE or FORCEPURGE is not specified, the transaction is allowed to terminate normally, but no further transactions are allowed to use the terminal. For VTAM, setting a terminal OUTSERVICE also causes it to be released and the operator to be signed off, either immediately or when the current transaction has terminated.

In an LU6.1 ISC session the connection is set OUTSERVICE if there are no allocatable sessions left.

ATi|NOAti

specifies whether the terminal is available for use by transactions that are initiated automatically from within CICS or, if the terminal is an ISC session, by transactions that are using this session as an alternative facility to communicate with another system. The values are:

ATi The terminal is available for use.

NOAti

The terminal is not available for use.

Note: A terminal cannot be defined with both NOATI and NOTTI.

TTi|NOTti

specifies whether the terminal can be used by the transactions that are initiated from this terminal. The values are:

TTi This terminal can be used by transactions.

NOTti

This terminal cannot be used by transactions.

Note: A terminal cannot be defined with both NOATI and NOTTI.

CEST SET TERMINAL

PUrge|Forcepurge|CAnceL

purges the transactions running with this terminal. The values are:

PUrge

Any transaction running with this terminal is purged only if system and data integrity can be maintained.

Forcepurge

Any transaction running with this terminal is immediately terminated abnormally. Data integrity is not guaranteed. In some extreme cases (for example, if an error occurs during backout processing), CICS might terminate abnormally.

CAnceL

AIDs queuing for the specified connection are canceled.

AIDs representing scheduled and allocated requests waiting in the local CICS system for the specified connection are canceled. However, TD AIDs with an associated triggered task already started are not canceled. Message DFHTF0100 is written to CSMT to indicate how many AIDs have been deleted for the terminal and how many remain.

ACquired|COldacq|RELeased (VTAM only)

specifies whether CICS is in session with the logical unit represented by this terminal. The values are:

ACquired

CICS is in session with the logical unit represented by the terminal.

COldacq

This is a special form of ACQUIRED, where no resynchronization is required. If the previous session abended, the use of COLDACQ overrides CICS integrity control. This could lead to integrity problems. Also, you should check the CSMT log for an activity keypoint after the restart of a session following a CICS failure. If there is no activity keypoint, you should issue COLDACQ again after the next emergency restart.

RELeased

CICS is not in session with the logical unit represented by the terminal. Setting a terminal RELEASED causes the session to be terminated. Running transactions are allowed to finish unless PURGE or FORCEPURGE is also specified.

CRreate|NOCreate (VTAM only)

specifies whether the terminal can be acquired automatically by ATI transactions. This cannot be specified for IRC sessions. The values are:

CRreate

If the terminal is not in session, CICS is to acquire it if it is needed to satisfy an ATI request.

NOCreate

If the terminal is not in session, CICS is not to acquire it to satisfy an ATI request. A session must be started by, for example, a logon request or a CEST SET TERMINAL ACQUIRED command before the ATI request can be satisfied.

If NOCREATE is set for an LU6.1 ISC session and there are no allocatable sessions left, the connection is placed OUTSERVICE.

REMotesystem(value)

specifies an identifier (1–4 characters) defined in the CICS terminal definition. This limits the terminals referred to by the request to those ISC or IRC sessions connected to the specified system. Batch regions currently connected to the CICS system through IRC can be addressed by the system identifier "@BCH". For example:

```
CEST SET TERMINAL REMOTESYSTEM(@BCH) INSERVICE
```

enables communication between CICS and all batch regions.

CETR—trace control

Use CETR to control CICS tracing activity.

Start the transaction by typing CETR on the command line of your display, as follows:

CETR

Press the ENTER key.

You get the following display, with the values of your own system in each of the fields.

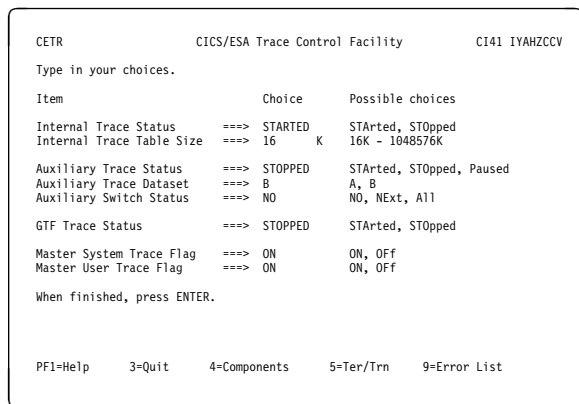


Figure 99. CETR transaction: initial screen

Any of the input fields can be overtyped with the new values that you require. When you press ENTER, CETR issues the necessary commands to set the new values. If there are any errors, PF9 can be pressed to display the error messages. If there is only one short error message, it appears near the bottom of this display.

The following table shows the relationships between the auxiliary trace status, trace flag, and trace data set.

Table 5. The meanings of auxiliary trace status values

Auxiliary tracing status	Auxiliary trace flag	Auxiliary trace data set
Started	On	Open
Paused	Off	Open
Stopped	Off	Closed

Two other main functions of CETR are:

1. Setting the component trace options (press PF4)
2. Setting the transaction and terminal trace options (press PF5).

For information about the use of the various CETR options as an aid to problem determination, see the *CICS/ESA Problem Determination Guide*.

Component trace options

The “Component Trace Options” display is produced by pressing PF4 on the main CETR display. You get the following display, with the values of your own system in each of the fields.

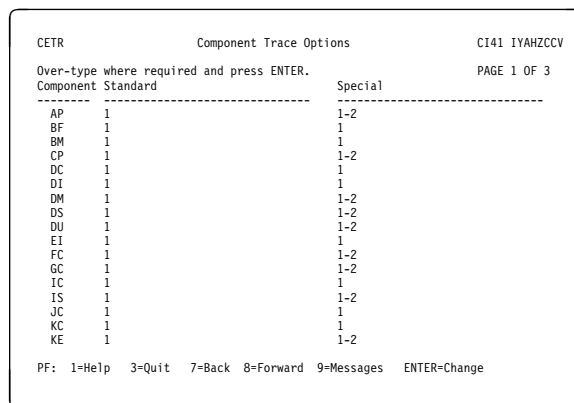


Figure 100. CETR transaction: component trace options screen

PF7 and PF8 can be used to scroll backward and forward through the list of components. PF9 gives the error message list.

The trace levels for a particular component are represented by two values. One gives the active level of tracing for standard tracing; the other gives the level for special tracing. From the list of components, you can set the active level of tracing for standard and/or special tracing for each individual component. See the *CICS/ESA Problem Determination Guide* for an explanation of standard and special tracing, and of tracing levels.

The values are in the range 1 through 32 for most components. In practice, you will normally want to use an active level of ‘1’ for any component, and you do this by overtyping (if necessary) the displayed value under the relevant heading for the required component.

In certain circumstances, if you have referred a problem to the IBM System Support Center staff, they may ask you to get a level ‘2’ trace. You will need to specify both level 1 and 2 to get all of the trace points that are needed.

You can specify a range of tracing levels—normally levels ‘1’ and ‘2’. You do this by overtyping the displayed value with ‘1-2’ or ‘1,2’.

Alternatively, you can type ‘ALL’ in upper or lower case under the relevant heading. Similarly, you can type ‘OFF’ to turn off the tracing for a particular component under either the ‘special’ or ‘standard’ heading.

CETR—trace control

The equal sign “=” can be used, when changing several fields, to indicate that a particular field should be changed to the same value as the one above.

The complete list of components is:

Component	Title
AP	Application domain
BF*	Built-in function support
BM*	BMS
CP*	Common Programming Interface
DC*	Dump macro-compatibility
DD	Directory manager domain
DI*	Data interchange
DM	Domain manager domain
DS	Dispatcher domain
DU	Dump domain
EI*	Exec interface
FC*	File control and DL/I
GC	Global catalog domain
IC*	Interval control
IS*	Intersystems communication and MRO
JC*	Journal control
KC*	Task control macro-compatibility
KE	Kernel
LC	Local catalog domain
LD	Loader domain
LM	Lock manager domain
ME	Message domain
MN	Monitoring domain
PA	Parameter manager domain
PC*	Program control
PG	Program manager domain
SC*	Storage control macro-compatibility
SM	Storage manager domain
SP*	Syncpoint
ST	Statistics domain
SZ	Front End Programming Interface
TC*	Terminal control
TD*	Transient data
TI	Timer domain
TR	Trace domain
TS*	Temporary storage
UE*	User exit control
US	User domain
XM	Transaction manager
XS	Security manager domain

Notes:

1. Components marked * are subcomponents of the AP domain, and the trace entries for these components are produced with a trace point ID of AP nnnn.
 2. The SZ component can be used only if the Front End Programming Interface feature (FEPI) is installed. For information, see the *CICS/ESA Front End Programming Interface User's Guide*.
- + 3. If CETR is used to turn on tracing for a particular component, CICS does not save modifications to the component trace flags across any kind of CICS restart.

For information about the use of trace for problem determination, and for information about the format of trace entries, see the *CICS/ESA Problem Determination Guide*.

Transaction and terminal-related trace options

The “Transaction and Terminal Trace” display is produced by pressing PF5 on the main CETR display. It can be used to set STANDARD, SPECIAL, or SUPPRESSED tracing for particular CICS tasks. This is done by setting the appropriate value for the transaction ID used to start the task, or for the terminal from which the task is to be run. Note that SUPPRESSED cannot be set for terminals, only for transaction IDs. The required terminal can also be specified by using its netname.

Setting SPECIAL tracing for a particular transaction means that the SPECIAL flags for each component (as defined on the “Component Trace Options” display) is used to decide whether a particular trace entry is to be made at any given point in the process of the task.

The display layout is as follows:

```

CETR                Transaction and Terminal Trace                CI41 IYAHZCCV
Type in your choices.
Item                Choice                Possible choices
Transaction ID      ==>                    Any valid 4 character ID
Transaction Status  ==>                    SStandard, SPecial, SUPpressed
Terminal ID        ==>                    Any valid Terminal ID
Netname            ==>                    Any valid Netname
Terminal Status    ==>                    SStandard, SPecial
Terminal VTAM Exit Trace ==>                ON, OFF
Terminal ZCP Trace ==>                ON, OFF
VTAM Exit override ==> NONE                All, System, None
When finished, press ENTER.
PF1=Help    3=Quit    6=Cancel Exits    9=Error List
  
```

Figure 101. CETR transaction: transaction and terminal trace screen

A common way of using this display is to set the terminal trace status for a particular terminal to SPECIAL, to have all of the STANDARD component trace flags as level-1 only, and the SPECIAL component trace flags as level-1 and level-2. In this way, all tasks run from the SPECIAL terminal have level-1 and level-2 tracing. All other tasks have level-1 tracing only.

- + For example, you can use SPECIAL tracing to trace a single transaction. You can do this by setting the “master system trace flag” OFF on the main CETR display. This turns + STANDARD tracing OFF. (STANDARD tracing can also be + turned off by coding SYSTR=OFF at system initialization.)
- + You can then press PF4 for the “components trace options” + screen, shown in Figure 100 on page 181, where you select + the levels of tracing for the required components under the + heading “Special”. Finally, on the “transaction and terminal + trace” screen, shown in Figure 101, specify the transaction + ID and a transaction status of SPECIAL.

This display can also be used to enable VTAM exit tracing and ZCP trace for specified terminal IDs or netnames. For example, to set VTAM exit tracing in an AOR, enter the applid of the TOR as Netname and enter ON for the Terminal VTAM Exit Trace.

There are also fields that allow enabling of all nonterminal VTAM exits, and PF6 can be used to cancel all exit tracing.

HELP panels

If you press the help key (PF1), the following panels are displayed:

```

CETR                      Help: CICS Trace control facility

FUNCTION OF THE MAIN PANEL.

This panel displays the current state of CICS Internal, Auxiliary
and GTF trace and the settings of the master system and user trace
flags. The current values are obtained from the system on initial
entry and subsequently every time ENTER or a PF key is pressed.
The values can be altered by over-typing and pressing ENTER.

The APPLID of the CICS system being queried is displayed in the top
right corner of the screen.

Further help information follows:

    1. Data entry and alteration.
    2. Description of fields.
    3. Function key use on the main panel.

PF 3=End  8=Next  ENTER=End

```

Figure 102. CETR transaction: HELP panel (1)

```

CETR                      Help: CICS Trace control facility

(1) DATA ENTRY AND ALTERATION.

This is achieved by simply over-typing the existing data, and then
pressing ENTER.

Abbreviations may be used, provided they are not ambiguous. The minimum
possible abbreviations are listed in capitals to the right hand side of
the input fields. For example STO may be entered for STOPPED, but ST
would not be allowed as it could mean STARTED or STOPPED.

Erased or blank fields will redisplay the current level settings as
known to CICS. These will be the levels current when ENTER was last
pressed. They may have been changed from the previously displayed
values by other activity in the system.

All input will be validated when ENTER is pressed, and no internal
settings will be made until all errors have been removed.

PF 3=End  7=Back  8=Next  ENTER=End

```

Figure 103. CETR transaction: HELP panel (2)

```

CETR                      Help: CICS Trace control facility

(2) DESCRIPTION OF FIELDS.

The values that can be set from the main panel are:-

Internal Trace Status      - Whether tracing to the main storage trace
                             table is required.
Internal Trace Table Size - The size of the main storage trace table.
Auxiliary Trace Status     - Whether tracing to the current auxiliary trace
                             data set is required.
Auxiliary Trace Dataset   - The current data set. A - DFHAUXT, B - DFHBUXT.
Auxiliary Switch Status   - Whether a switch to the alternate extent is
                             required at next or all end-of-extends.
GTF Trace Status          - Whether CICS is writing its trace data to GTF.
                             Note that GTF must have been started to MVS.
Master System Trace Flag  - This flag must be on if CICS system-requested
                             entries are to be written for STANDARD tracing
                             tasks.
Master User Trace Flag    - This flag must be on if user-requested trace
                             entries are to be produced.

PF 3=End  7=Back  8=Next  ENTER=End

```

Figure 104. CETR transaction: HELP panel (3)

CETR—trace control

```

CETR                Help: CICS Trace control facility

(3) FUNCTION KEY USE ON THE MAIN PANEL.

   Key   Name      Function
  -----
  ENTER  Change     Execute any changes.
  PF1    Help       Display this help information.
  PF3    Quit       Terminate the transaction.
  PF4    Components Display or set STANDARD or SPECIAL trace levels
          for individual CICS components.
  PF5    Ter/Trn   Query or set current trace status for terminal
          or transaction.
  PF9    Messages  Display any messages created, these can be
          warning (informative) messages, or errors.

PF 3=End 7=Back ENTER=End
  
```

Figure 105. CETR transaction: HELP panel (4)

```

CETR                Help: CICS Component Trace

(2) DATA ENTRY AND ALTERATION 2

The level settings may be changed by simply over-typing the existing
data and then pressing ENTER.

To set a single level enter the number. To set consecutive levels
enter the first and last levels separated by a hyphen.

Erased or blank fields will redisplay the current level settings as
known to CICS. These will be the levels set when ENTER was last pressed.

All levels may be set by entering ALL and none by entering OFF.

To provide identical level settings for more than one component:
- type the setting(s) for the first component, do not press ENTER.
- type = in fields where you want this setting duplicated.

NOTE: Although levels up to 32 may be set for most components, only
levels 1,2 and 3 are currently used.

PF 3=End 7=Back 8=Next ENTER=End
  
```

Figure 108. CETR transaction: Component trace HELP panel (3)

HELP panels for components

If you press the help key (PF1) while viewing the component trace options screen, the following panels are displayed:

```

CETR                Help: CICS Component Trace

FUNCTION OF THE COMPONENT TRACE PANEL

The component trace panel is used to inquire and set the STANDARD and
SPECIAL trace levels for the individual components of the CICS system.

Every component of CICS has a number of trace points. Associated with
each is a trace level. These levels are numbers from one to thirty-two.
For the trace entry associated with the trace point to be made, the
associated level must be active (except for exception traces).

Each CICS task is either a STANDARD tracing task or a SPECIAL tracing
task. This distinction is made at task attach time when the STANDARD or
SPECIAL attributes of the terminal id and transaction id are examined.
These can be set on the Terminal and Transaction Trace panel of CETR.

Further help information follows:
1. Data entry and alteration 1
2. Data entry and alteration 2
3. Meanings of Component abbreviations.
4. Function key use on the component trace panels.

PF 3=End 8=Next ENTER=End
  
```

Figure 106. CETR transaction: Component trace HELP panel (1)

```

CETR                Help: CICS Component Trace

(3) MEANINGS OF COMPONENT ABBREVIATIONS.

AP . . . Application domain          LC . . . Local Catalog domain
BF . . . Built-in function          LD . . . Loader domain
BM . . . Basic Mapping Support      LM . . . Lock manager
CP . . . CPI-C interface            ME . . . Message domain
DC . . . Dump compatibility layer   MM . . . Monitoring domain
DD . . . Directory manager          PA . . . Parameter manager domain
DI . . . Batch data interchange     PC . . . Program control
DM . . . Domain manager domain      PG . . . Program manager
DS . . . Dispatcher domain          SC . . . Storage control
DU . . . Dump domain                SM . . . Storage Manager domain
EI . . . Exec interface             SP . . . Sync point
FC . . . File control               ST . . . Statistics domain
GC . . . Global Catalog domain      SZ . . . Front End Prog Interface
IC . . . Interval control           TC . . . Terminal control
IS . . . ISC                        TD . . . Transient data
JC . . . Journal control            TI . . . Timer domain
KC . . . Task control               TR . . . Trace domain
KE . . . Kernel                     TS . . . Temporary storage

PF 3=End 7=Back 8=Next ENTER=End
  
```

Figure 109. CETR transaction: Component trace HELP panel (4)

```

CETR                Help: CICS Component Trace

(1) DATA ENTRY AND ALTERATION 1

From this panel detailed tracing levels can be set for each component.
Each level is specified by a number between one and three, the
presence of the number indicates that the level is set, the omission
of a number indicates that the level is not set.

Multiple consecutive levels are displayed as xx-yy, where xx is the
lower of the consecutive values, and yy is the higher. For example,
if 1-3 was displayed, then trace levels 1,2 and 3 would all be set.

There is more than one page of components. Function keys PF7 and PF8
can be used in the usual way to switch pages. The page may only be
switched when the displayed page contains no errors.

Changes to the level settings are automatically validated when the
current page is changed, but these levels are only set within CICS when
ENTER is pressed. Until this time it is possible to quit from the
program (PF3) without altering internal values.

PF 3=End 7=Back 8=Next ENTER=End
  
```

Figure 107. CETR transaction: Component trace HELP panel (2)

```

CETR                Help: CICS Component Trace

(4) MEANINGS OF COMPONENT ABBREVIATIONS.

UE . . . User exit interface
US . . . User domain
XM . . . Transaction manager
XS . . . Security domain

PF 3=End 7=Back 8=Next ENTER=End
  
```

Figure 110. CETR transaction: Component trace HELP panel (5)


```

CETR                Help: CICS Component Trace
(5) FUNCTION KEY USE ON THE COMPONENT TRACE PANELS.

Key   Name      Function
-----
ENTER Change      Execute any Changes.
PF1   Help       Display this help information.
PF3   Quit       Return to main Trace Control panel.
PF7   Backward  Scroll backward one page.
PF8   Forward   Scroll forward one page.
PF9   Messages  Display any messages created,
                    these can be warning
                    (informative) messages, or errors.

PF 3=End  7=Back  ENTER=End
    
```

Figure 111. CETR transaction: Component trace HELP panel (6)

```

CETR                Help: CICS Terminal and Transaction Trace
(1) VTAM EXIT trace.

CICS VTAM EXIT tracing consists of entries on GTF made by the CICS
supplied VTAM exits that run asynchronously with the rest of CICS.
The exits that are related directly to a particular terminal have their
tracing activated by specifying the terminal id and/or netname and
setting ON in the Terminal VTAM Exit Trace field.

There are also non-terminal related exits for which tracing is enabled by
specifying SYSTEM in the VTAM Exit override field. A setting of ALL in
the exit override field will turn on exit tracing for all non-terminal
exits, and for all terminal exits for all terminals.

NOTES:
(a) Setting trace for any terminal related exit will also turn on trace of
all non-terminal related exits.
(b) CICS GTF tracing need not be STARTED (main panel) to use this facility.
(c) An unknown netname is assumed to be an autoinstall terminal.
(d) Pressing PF6 cancels all tracing from all exits.
(e) Connection name in the termid field causes setting of all sessions.

PF 3=End  7=Back  8=Next  ENTER=End
    
```

Figure 113. CETR transaction: Terminal and transaction HELP panel (2)

HELP panels for terminal and transaction trace

If you press the help key (PF1) while viewing the terminal and transaction trace screen, the following panels are displayed:

```

CETR                Help: CICS Terminal and Transaction Trace
FUNCTION OF THE TERMINAL AND TRANSACTION PANEL.

This panel has two main functions.

(1) To allow STANDARD/SPECIAL tracing to be set for tasks to be run from
particular terminals or with particular transaction ids. It is also
possible to suppress tracing for particular transaction ids.
STANDARD tracing tasks use the STANDARD component flags.
SPECIAL tracing tasks use the SPECIAL component flags.
See the help information for the component panel for more detail.

(2) To allow the setting of VTAM EXIT and ZCP tracing.

The current settings will be displayed if transaction id, terminal id
or netname are specified without other values.

Further help information follows:
1. VTAM EXIT trace.
2. ZCP trace.
3. Function key use on the terminal and transaction panel.

PF 3=End  8=Next  ENTER=End
    
```

Figure 112. CETR transaction: Terminal and transaction HELP panel (1)

```

CETR                Help: CICS Terminal and Transaction Trace
(2) ZCP TRACE

ZCP trace is the activate scan trace facility. Turning it on
for a particular terminal means that the activate scan routine
of the terminal control program (DFHZCP) will start to monitor
the activate scan queue for the Terminal Control Table Terminal
Entry (TCTTE) for that terminal.

When the TCTTE is found, indicating that there is activity on the
terminal, a trace entry is made for the activate scan ZCP routine.

PF 3=End  7=Back  8=Next  ENTER=End
    
```

Figure 114. CETR transaction: Terminal and transaction HELP panel (3)

```

CETR                Help: CICS Terminal and Transaction Trace
(3) FUNCTION KEY USE ON THE TERMINAL AND TRANSACTION PANEL.

Key   Name      Function
-----
ENTER Change      Execute any Changes.
PF1   Help       Display this help information.
PF3   Quit       Return to main Trace Control panel.
PF6   Cancel     Cancel all exit tracing. This turns off
                    VTAM EXIT tracing for all terminals and
                    for all the non-terminal EXITS.
PF9   Messages  Display any messages created.

PF 3=End  7=Back  ENTER=End
    
```

Figure 115. CETR transaction: Terminal and transaction HELP panel (4)

CMAC—messages and codes display

Use CMAC to give you individual message information as provided in the *CICS/ESA Messages and Codes* manual.

To use the CMAC transaction:

- Add the DFHCMAC group on the CICS system definition (CSD) file to your initialization list (DFHLIST)
- Add the data set name of the CICS messages file to the definition of the DFHCMACD file within the DFHCMAC group.

For information about how to carry out these actions, see the *CICS/ESA Resource Definition Guide* manual.

Notes:

1. This transaction is not valid for the MVS console.
2. The information is available only in English.

You start the transaction by typing one of the following:

1. **CMAC**
2. **CMAC abcd**
where 'abcd' is the abend code.
3. **CMAC xxxx**
where 'xxxx' is the message number only.
4. **CMAC yyxxxx**
where 'yy' is the component id and 'xxxx' is the message number.
5. **CMAC DFHxxxx**
where 'xxxx' is the message number.
6. **CMAC DFHyxxxx**
where 'yy' is the component id and 'xxxx' is the message number.

If you use method 1, you get the following display:

```
DFHCMC01          Display On-line Messages and Codes

Type the required message identifier, then press Enter.

Component ID ==>> (for example, TC for Terminal Control
                  FC for File Control, etc.)
                  This field is required for Messages in the
                  form DFHxxxxxx, Where xx is the Component ID.

Message Number => (for example, 1060, 5718, or Abend Code
                  such as ASRA, etc.)

F3=Exit to CICS
```

Figure 116. CMAC transaction: initial screen

You tell CICS which message you want by typing the component ID and the message number. If the message does not have a component ID, leave that field blank.

The display then gives information under the headings:

Explanation

An explanation of the cause of the message.

System action

The actions the system is taking.

User response

What actions you can or cannot take.

Destination

Where to see the message. This can be the console, the end-user terminal, or a transient data queue.

Module

The name of the module reporting the error.

To display information about message DFH5130, which does not have a component ID, type 5130 as the message number. You get the following display:

```
DFH5130  UNABLE TO LOCATE MODULE DFHCICS. PRIMARY
        CSD NOT INITIALIZED.
EXPLANATION: The DFHCICS module is missing from the library.
SYSTEM ACTION: Processing of the INITIALIZE command is
terminated.
USER RESPONSE: Ensure that the DFHCICS module is present in
the library.
DESTINATION: SYSPRINT
MODULE(S): DFHCSDUP
F3=CANCEL
```

Figure 117. CMAC transaction: 1st example screen

CMAC—messages and codes display

To display the message CE3528, type a component ID of CE and a message number of 3528. You get the following display:

```
DFHCE3528 Signon failed during SECLABEL checking.

EXPLANATION: The signon request has failed because the
external security manager (ESM) detected a critical error.

SYSTEM ACTION: The signon transaction terminates.

USER RESPONSE: Refer to message DFHSN0108 on the CICS log
for the information and actions necessary to resolve this
problem.

DESTINATION: Terminal End User

MODULE(S): DFHSNP

F3-CANCEL
```

Figure 118. CMAC transaction: 2nd example screen

If you use methods 2 through 6 (listed above), the initial screen is bypassed and you move directly to the message information screen.

CMSG—message switching

Use CMSG to send messages from your terminal to one or more destinations.

The destination may be:

- Another terminal
- Another terminal, but only when a specified operator is signed on at that terminal
- Another terminal, but only when the operator signed on at that terminal is in a specified class
- Another operator (CICS locates the operator, if currently signed on, and sends the message to that operator's terminal)
- All terminals
- All terminals with operators signed on in specified classes
- Any combination of these destinations.

You can specify that the message is to be sent at some future time. If the message cannot be sent, your terminal is notified.

In addition, standard routing lists can be provided using the terminal list table (TLT), which can include terminal and operator identifiers. Multiple routing lists can be specified at the time the message is entered, and individual destinations can be deleted from, or added to, the lists at this time.

CICS message switching is provided by a service program invoked by a user-defined transaction identifier that must be defined to CICS. This transaction identifier can be CMSG or any user-defined 4-character transaction identifier. CMSG is the transaction identifier assumed throughout this book.

You can extend message switching to include predefined messages and even complete message-switching transaction input formats.

The terminals from which message switching is initiated, and all terminals of message destinations, must support BMS.

Routed messages can be directed to a terminal, including the transaction terminal, that supports partitions. However, such messages reset the terminal to "base" state.

Sending a message

To send a message to another terminal or terminals, enter the transaction identifier, CMSG, followed by the applicable options, as shown in the syntax diagram on page 192.

Full details of the options are given under "CMSG command options" on page 192.

After entering CMSG, you must include at least the message text, a destination (ROUTE, or OPCLASS, or both), and the option SEND (which you can abbreviate to S). For example:

```
CMSG 'GOOD MORNING',R=ALL,S
```

sends the message 'GOOD MORNING' to all terminals.

If all is well, your message is sent, and the response

```
MESSAGE HAS BEEN ROUTED
```

is returned to your terminal.

This response is received for the normal completion of a message-switching transaction. It means that the message has been successfully routed to its destination but does not reflect any delivery status.

You can use backspace characters in your input.

New-line characters (or carriage returns on a hard-copy terminal) that are not part of the message are changed to commas, unless they appear at the beginning or end of the input, in which case they are deleted. In this way, you can use NL characters as option separators, instead of commas. For example, on a display device, you could enter:

```
CMSG R=(T001,T002)#
T=1500#
'THE TIME IS 1500 HOURS'#
S@
```

where # represents a new-line (NL) character, and @ represents the ENTER key.

You can enter the options, except SEND and CANCEL (one of which must be entered last), in any order after CMSG and one or more spaces. You can abbreviate every option, except CANCEL, to a single character, and you can include one or more options in a single input. If you specify two or more options, you must follow each by a comma, except the last, which must be followed by a space or by an end-of-data (EOD) condition indicating the end of your input. Any data following a space in the same input is ignored.

To mark the end of a single input:

- Press the ENTER key on display devices such as the IBM 3270
- Press carriage return for hardcopy terminals such as the IBM 2741.

To maintain the conversation with a terminal, the status of all inputs, except the final input which includes the SEND option, is saved in a single temporary-storage record.

A message-switching transaction remains conversational until ended. This means that all input (even other transaction identifiers) is passed to the message-switching program. You must end a message-switching transaction (possibly

CMMSG—message switching

involving multiple inputs) before you can start a different transaction.

Canceling a message

You can cancel your current message-switching transaction by entering:

- CANCEL as the last 6 characters of your input. You get the response:

```
TERMINATED BY OPERATOR.
```

- CMMSG as your first 4 characters, followed by end-of-data (EOD). You get the response:

```
NO INPUT - REENTER.
```

- CMMSGx as your first 5 characters, where x is any character other than a space or a C. You get the response:

```
SPACE MUST FOLLOW TRANSID.
```

- CMMSG as your first 4 characters followed by a space and EOD. This starts a new message-switching transaction. You get the response:

```
CONTINUE INPUT.
```

The first three examples in this list terminate the conversation and allow you to enter other transactions.

Message-switching continuation

The message-switching transaction appears to be conversational. Internally, a new task is created to process each message switching input.

If a task requires more information to complete the transaction, the current status of the transaction is saved in temporary storage, a response is sent to your terminal, and the task terminates with a requirement that the next task started be a message-switching task.

The saving of status replaces any previously saved status for any message-switching transaction from that terminal.

If a message-switching transaction completes successfully, or you have canceled it, an appropriate response is sent to your terminal, the status of the transaction is not saved, and the task terminates with no transaction restart specified. The saved status is always used by a message-switching task to continue a conversational input from your terminal. You can recall the saved status by entering the transaction identifier to which you have added C (for example CMMSGC). You can include additional input, but it must follow CMMSGC with no intervening spaces.

This method is useful because you can enter CANCEL to bypass errors in the current input and yet not allow the conversation to continue. You can then enter, for example CMMSGC and then enter EOD, which puts the terminal in the conversation that prevailed at the time of the most recent

input that has not been canceled or has not resulted in a message being routed. At this point you could also add an option if desired, for example CMMSGCT=1030. (Note that there are no spaces between the transaction identifier, the C, or the following data.)

For example, enter:

```
CMMSG R=(T40,T41)
```

and you receive:

```
R OK CONTINUE INPUT,  
T=1500  
RT OK CONTINUE INPUT  
'THERE WILL BE ..... AT THE  
RT OK CONTINUE MSG  
MAIN NIO;FOMH PM VS;OGPTMOS SBR, CANCEL (see Note)  
TERMINATED BY OPERATOR  
CMMSGCMAIN BUILDING ON CALIFORNIA AVENUE  
RT OK CONTINUE MSG  
IN ROOM 407',SEND  
MRTS OK MESSAGE HAS BEEN ROUTED
```

Note: You can cancel and reenter instead of trying to correct the input. This terminates the entire transaction. To save the previously entered input, enter CMMSGC to restart at the previously saved status point and continue the message.

Your terminal is free between a message-switching response and the next input, and if it is in TRANSCEIVE status, an automatically initiated task can be started on your terminal before you can continue the message-switching transaction.

Upon completion of this new task, even if it required a response from you, the message-switching transaction continues as if nothing had intervened. However, if you receive a response indicating that the intervening task has issued a RETURN, you must enter the transaction identifier followed by C to force continuation of the previous message-switching transaction.

Message delivery

You can deliver a message to a destination if the following conditions are met:

- The specified delivery time has been reached
- The terminal is INSERVICE, and either:
 - The opid of the operator signed-on matches the requested opid if specified in the ROUTE option
 - or
 - The class of the operator signed-on matches any class specified by the OPCLASS option.

The processing and paging status of a terminal, which also affects delivery of eligible messages, is initially specified on the CEDA DEFINE TYPETERM command. You can change the status using the CEMT, CEST, and CEOT transactions.

When the processing status is RECEIVE or TRANSCEIVE, a message is sent automatically to the terminal when no transaction is attached to it.

When the processing status is TRANSACTION, you must request message delivery by entering a paging command, see “CSPG—page retrieval” on page 211.

A message is formed into one or more “pages”, the size of which is predefined for a destination by the system programmer. The terminal processing status determines the delivery of the first or only page of a message. Succeeding pages, if any, are sent according to the paging status of the terminal as defined by the system programmer.

When the terminal is in PAGE status, you must request succeeding pages through a paging command.

When the terminal is in AUTOPAGE status, the complete message is printed.

Subsystems and terminal systems

With the exception of any specific details relating to the ROUTE option (see page 195), all other information on the use of the following subsystems in message switching is given in the appropriate IBM subsystem guides:

- IBM 3600 Finance Communication System (VTAM), SC33-0233
- IBM 3650 Retail Store System, SC33-0234
- IBM 3770 Data Communication System, SC33-0235
- IBM 3790 Communication System, SC33-0236.

IBM 3270 display devices

The responses to 3270 family display devices are designed to fit on a single 40-character line of a Model 1 display. To provide more space for the response, the indicators that precede the response do not have the spaces between them that appear on non-3270 terminals.

Responses to the 3270 family display devices do not erase what is displayed on the screen and are displayed in the last 40 character positions of the line.

After a message-switching transaction has been started, you can press the CLEAR key if you want to continue from an empty screen. A CLEAR/CANCEL OR CONT xxxxx response is displayed, where xxxxx is either INPUT, ROUTE, or MSG. You can continue the transaction or, if you press the CLEAR key a second consecutive time, you can cancel the transaction. A better method of erasing the screen is to press the ERASE INPUT key, because this does not cause an interaction with the processor.

Because positions on the screen that are not keyed are not received, you can position and display data on the screen in various ways. For example, you can start each option on a new line of the display screen. You must include a comma between consecutive options. Also, if you want to start a new line within the message text you should enter a field mark character to indicate the end of the current line. All field mark characters within a message (including the first character of the message) are interpreted as NL characters (there is no corresponding key on 3270 family display devices) and cause correct positioning of the message on all other terminals.

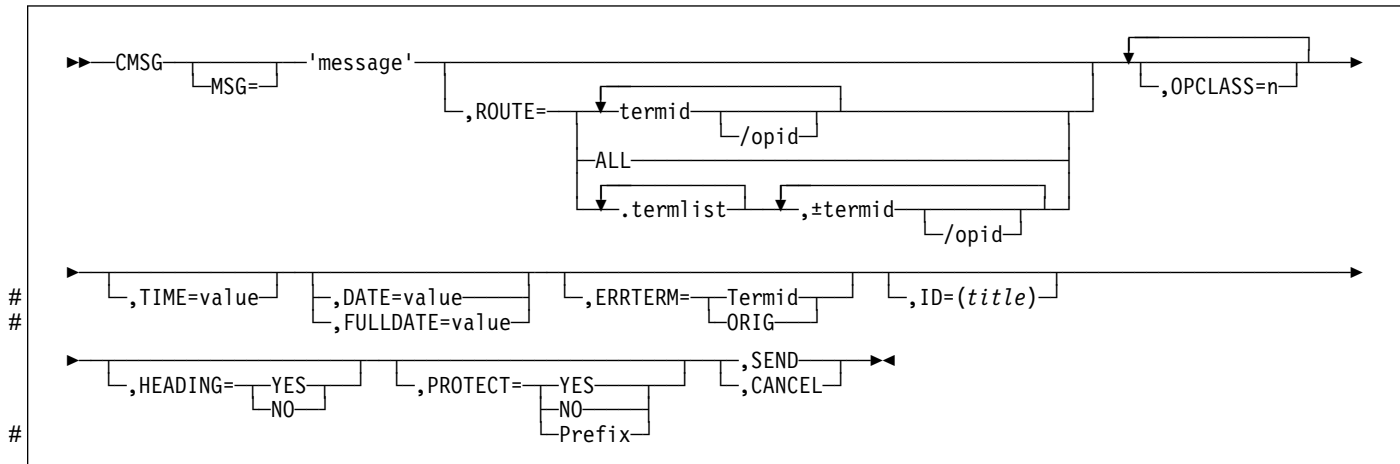
IBM 3767 Communication Terminal

The keyboard/printer unit of the 3767 is eligible for entering and receiving messages.

Sequential terminal

On a sequential (BSAM) terminal, the CMSG message-switching facility remains conversational until a message-switching transaction is completed or canceled. Variable conditions requiring a response, such as operators not being signed on, can be handled easily from an interactive terminal. These conditions, however, cannot always be anticipated, and the message-switching task continues reading input and issuing error messages until a valid response is received. It is possible that an entire sequential input stream could be consumed in such a process. You are advised to ensure that a CMSG CANCEL record appears in the sequential input following each message-switching transaction that could possibly require an unanticipated reply. This is strongly recommended following the final message-switching transaction.

Command syntax



CMSG command options

The message-switching options are listed below. Except for CANCEL, you can specify the first letter of each option instead of the entire option.

CANCEL

Specifies that the current input is to be ignored and institutes a **non**-conversational status between the terminal and the message-switching transaction. CANCEL must be the last 6 characters of the input. CANCEL is also effective within a message.

DATE=value

The date on which you want your message to be delivered. It can be specified in any of the following forms:

yy.ddd year (00–99) and day (001–366).

mm/dd/yy month (01–12), day (01–31), and year (00–99).

mm/dd month (01–12) and day (01–31).

+d number of days (0–4).

The first three of these forms provide ways of specifying absolute dates, with the year (where used) in a 2-digit format. For example, if the current system¹ date is in the year 1997, January 31 1997 could be specified as 97.031, 01/31/97, or 01/31. In this last case, the year of the current system¹ date is assumed to be the year for delivery of the message.

(If DATFORM=DDMMYY was specified in the CICS system initialization parameters, enter the second and third of these as dd/mm/yy or dd/mm).

• If you want to specify an absolute date with the year in a 4-digit format, then use the FULLDATE parameter.

The fourth form allows you to specify a number of days from today. For example, a value of DATE=+3 means that the message is to be transmitted 3 days from today. The number must be in the range 0–4. DATE=+d entries are not accepted when the system¹ time is between 2330 and 0030, (to avoid confusion at or near midnight). If you use this form of the command within 30 minutes of midnight, the following error message is issued:

```
+DATE INVLD FROM 2330 to 0030
```

You can also specify a time for message delivery using the TIME= option, which is described on page 196. The effects of TIME= and DATE= together are as follows:

- If you specify neither a time nor a date, the message is transmitted as soon as the receiving terminal is free.
- If you specify a time but no date, the message is transmitted at the specified time today. For example, if the time now is 09.00 and you specify TIME=0930, or TIME=+30, the message is transmitted at 09.30 today.
- If you specify a date but no time, the message is transmitted at the current system¹ time on the specified date. For example, if the time now is 10.30 and you specify DATE=+2, the message is transmitted at 10.30 in two days' time.
- If you specify both a date and a time, the message is transmitted at the specified time on the specified date. For example, if you specify DATE=07/29/94

¹ References to "system date", "system time", "system year" and so on mean the date time or year as would be returned by EXEC CICS ASKTIME.

and TIME=1130, the message is transmitted at 11.30 on 07/29/94.

Notes:

1. In all cases, the delivery time that you request must be less than 100 hours from the beginning of the current day. This means that the delivery time can never be later than 03.59 on the fourth day from the current day.

2. When processing date options entered in the form yy.ddd, mm/dd/yy and dd/mm/yy, CMMSG operates a 'sliding 50 year window' to establish whether the year is in this century, the previous century or the next century. The two digit year is initially assumed to be in the same century as the current date. If this assumed year is more than 50 years in the past or more than 50 years ahead, it is adjusted accordingly. For example, if today's date is the 31st December 1997, the following DATE options are handled as follows:

- DATE=99.001 is initially assumed to be the year 1999. Since it is within 50 years of the system¹ year, the year 1999 is determined to be the delivery date for the message.
- DATE=00.001 is initially assumed to be the year 1900. Since this year is more than 50 years ago, the delivery date is established as the year 2000.

In both of these examples above, the delivery date is not accepted and the message 'DATE TOO FAR IN FUTURE' is displayed.

Note that the FULLDATE operand allows a four digit year to be specified, and removes any possible ambiguity when using the DATE operand.

ERRTERM

"termid" is the identifier of the terminal to which notification is to be sent if the message is purged because it is undeliverable.

ORIG is a way of specifying the identifier of the originating terminal.

Note: A message is considered undeliverable to a destination if it cannot be delivered within a specified interval after the requested delivery time. This interval is specified by the system programmer. If no interval is specified, no action is taken for undelivered messages, and the ERRTERM option has no effect.

If PRGDLAY is specified in the system initialization table (DFHSIT), the transient data destination CSMT is notified of the number of undeliverable messages purged for a terminal. In addition, if ERRTERM is entered, the

specified terminal is notified of the message number, title identifier, and destination of the message.

FULLDATE=value

The FULLDATE option is similar to the DATE option, but it requires a four-digit year to be entered. It specifies the date on which you want your message to be delivered. It can be specified in any of the following forms:

- # **yyyy.ddd** year (0000–9999) and day (001–366).
- # **mm/dd/yyyy** month (01–12), day (01–31), and year (0000–9999).
- # **mm/dd** month (01–12) and day (01–31).
- # **+d** number of days (0–4).

The first three of these forms provide ways of specifying absolute dates, with the year (where used) in a 4-digit format. For example, if the current system¹ date is in the year 1997, December 31 1997 could be specified as 1997.365, 12/31/1997 or 12/31. In this last case, the year of the current system¹ date is assumed to be the year for delivery of the message.

(If DATFORM=DDMMYY was specified in the CICS system initialization parameters, enter the second and third of these as dd/mm/yyyy or dd/mm).

The fourth form allows you to specify a number of days from today. For example, a value of FULLDATE=+3 (or F=+3) means that the message is to be transmitted 3 days from today. The number must be in the range 0–4. FULLDATE=+d entries are not accepted when the system¹ time is between 2330 and 0030, (to avoid confusion at or near midnight). If you use this form of the command within 30 minutes of midnight, the following error message is issued:

+DATE INVLD FROM 2330 to 0030

You can also specify a time for message delivery using the TIME= option, which is described on page 196. The effects of TIME= and FULLDATE= together are as follows:

- # • If you specify neither a time nor a date, the message is transmitted as soon as the receiving terminal is free.
- # • If you specify a time but no date, the message is transmitted at the specified time today. For example, if the time now is 09.00 and you specify TIME=0930, or TIME=+30, the message is transmitted at 09.30 today.
- # • If you specify a date but no time, the message is transmitted at the current system¹ time on the specified date. For example, if the time now is 10.30 and you specify FULLDATE=+2, the message is transmitted at 10.30 in two days' time.

¹ References to "system date", "system time", "system year" and so on mean the date time or year as would be returned by EXEC CICS ASKTIME.

CMSG—message switching

• If you specify both a date and a time, the message
is transmitted at the specified time on the specified
date. For example, if you specify
FULLDATE=07/29/1998 and TIME=1130, the
message is transmitted at 11.30 on 07/29/1998.

Note: In all cases, the delivery time that you request
must be less than 100 hours from the beginning of the
current day. This means that the delivery time can
never be later than 03.59 on the fourth day from the
current system¹ date.

HEADING

Specifies heading information. You can use H or
HEADING in place of HEADING=YES.

YES

specifies that the current time, date, and identifier
of the originating terminal is to precede the
message text.

NO

causes a previous heading request to be ignored.

ID=(title)

"title" specifies the title (maximum length 62 characters)
to be associated with the message.

See "CSPG—page retrieval" on page 211 for
commands to request a display of the titles of all
messages queued for immediate delivery to that
terminal.

MSG=message

"message" is the text of the message to be sent. The
keyword MSG and the equal sign are optional. You
must enclose the text within single quotation marks. A
single quotation mark to be included as part of the
message must be represented by a pair of single
quotation marks. The message may be continued
across multiple consecutive inputs.

If the ending single quotation mark is omitted, the entire
input is treated as part of the message and a request to
continue the message is sent to the terminal. The entire
transaction may be canceled, or alternatively, options
previously entered for this transaction may be saved by
entering a single quotation mark followed by a comma to
terminate the MSG option. The correct message can
then be reentered; the previous incorrect message being
ignored.

A single quotation mark at the end of data in a MSG
option means either the end of the MSG option, or the
first of a pair of single quotation marks indicating that a
single quotation mark is to be included as part of the
message.

In this situation, the response to the terminal is:

```
CONTINUE INPUT OR MSG
```

If the first character of the next input is a single
quotation mark, it is treated as the second of a pair of
single quotation marks and the message is continued.
Any character other than a single quotation mark causes

the message to be complete, and that character is
treated as the first character of a new option.

New-line (NL) characters within the message are kept.
(If the first character is a new-line character, it is
deleted.) This allows the operator to enter M=' and then
carriage return (CR) or the equivalent of CR, to begin
entering the message text at the left margin. The first
CR is deleted. Additional CRs may be entered if blank
lines are desired at the top of the transmitted message.

Note: If the HEADING option is specified, these blank
lines appear between the heading (time, date, and
originator's terminal identifier) and the message.

With NL processing, the delivered message is positioned
at the left margin. If an unformatted message, or a line
within a formatted message, exceeds the line width
defined for the receiving terminal, sentences are split
between words for any line exceeded.

OPCLASS

One or more numbers, each of which can be in the
range 1–24, that define the operator classes that must
be signed on before a message can be delivered. If
more than one number is specified, the list must be
enclosed within parentheses. For example,
OPCLASS=(8,2) causes the message to be sent to all
terminals that currently have an operator of class 8 or 2
signed on, and to all terminals that have that operator
security value specified in their installed definitions. If
OPCLASS=1 is specified, the message is routed to all
terminals that are in service, regardless of whether an
operator is signed on or not.

If ROUTE is specified as well, the message is routed to
all requested destinations, but is not eligible for delivery
to a terminal unless the class of the operator signed on
matches one of the numbers specified by OPCLASS.
However, if a ROUTE destination is qualified by an
operator identifier, OPCLASS is ignored for that
destination. For more information about how ROUTE=
and OPCLASS= are used together, see the description
of the ROUTE option.

PROTECT

Specifies message recovery for a CICS emergency
restart. You can use P or PROTECT in place of
PROTECT=YES.

YES

specifies that \$\$ is to be prefixed to the
temporary storage data identifier of the stored
message.

NO

specifies that a previous protect request is to be
ignored. This is done by using the default prefix
of **. The same method is used to omit the
option altogether.

prefix

specifies a 1-or 2-character prefix to be used for
the temporary-storage data identifier of the stored

message. If a single character only is specified, a \$ is provided as the second character. (For example, PROTECT=T causes a prefix of T\$.)

If this option is omitted, a default prefix of ** is used. ** is also the default for user application programs issuing BMS message requests where no protection is specified (REQID option omitted).

A temporary-storage table (TST) entry is needed for each prefix specified in the PROTECT option so that message recovery is effective for that prefix.

ROUTE

Specifies the destinations to receive the message. For routing messages to 3600, 3770 (batch), or 3790 (batch) terminals, see "Examples of 3600 and 3770 batch destinations" on page 198.

termid

is the identifier or identifiers of the terminals to which the message is to be routed. For example, ROUTE=(LA04,OL,SF2) routes the message to the three terminals with the identifiers LA04, OL, and SF2. If routing is performed to several terminals of the same device and map suffixes, CICS processes the message identically for all of them and the most restricting page size prevailing is used.

The length of the terminal identifier specified in a message-switching transaction must be in the range 1–4 characters, and must not contain any of the following characters:

- / slash
- , comma
-) right parenthesis
- (left parenthesis
- + plus sign
- minus sign
- * asterisk
- blank.

Note: A single message can be delivered more than once to the same terminal. For example, the instruction ROUTE=(T001,T001) causes two transmissions of a single message to terminal T001. If the destination terminal is in TRANSCEIVE status, the message appears consecutively at the terminal. If the terminal is in TRANSACTION status, the operator must request delivery of the message.

/opid

is a 1-to 3-character operator identifier preceded by a slash. The message is routed to the first terminal at which an operator with that identifier is currently signed on. For example, ROUTE=/PJ routes the message to the first terminal found (and only the first) with the operator identifier PJ currently signed on. If no such terminal is found, the sending

operator is notified. The operator identifier that you specify must not contain any of the following characters:

- , comma
-) right parenthesis
- space.

termid/opid

is a terminal identifier qualified by an operator identifier to restrict the message delivery to the specified operator at the terminal location. For example, ROUTE=(LA04,OL/LBS,SF2) routes the message to terminals LA04 and SF2. The message is routed to terminal OL only if the operator whose identifier is LBS is signed on at that terminal.

ROUTE=(T001,T001/OP1,/OP1) causes the same message to be delivered three times to the same destination if the operator OP1 is signed on at T001.

ALL

causes the message to be broadcast to all terminals.

There is a variable limit on the number of terminals to which a message can be sent. This limit depends on a combination of factors. Significant factors are the types of terminal in use, the number of each type, and the length of message sent. The CMMSG transaction is abended with an abend code of ABMC if the limit is exceeded.

Note: If a CMMSG ROUTE=ALL is issued to a large number of terminals, a task for each terminal is initiated up to the MAXTASK value. Because the tasks are single threaded, they are suspended and can give rise to an SOS condition. For guidance about avoiding this, see the *CICS/ESA Performance Guide*.

.termlist

is a 1-or 2-character terminal list table (TLT) suffix preceded by a period. For example, .H3 identifies the terminal list table DFHTLTH3. A maximum of 10 terminal lists can be specified, and the terminal lists that you specify are merged together. The entries in the terminal lists contain terminal identifiers, or operator identifiers, or both. Duplicate entries within a single TLT are kept, though entries that are duplicated among the lists are deleted. (Entries are considered duplicate if each has the same terminal identifier and operator identifier.)

Here are two examples that show the effects of merging TLTs that contain duplicate entries. For these examples, assume that terminal list table DFHTLTL1 contains T001 twice, and that DFHTLTL2 contains T001 and T001/OP1.

- If you specify ROUTE=(.L1,.L2), all entries from DFHTLTL1 are included as destinations. Duplicate entries within DFHTLTL1 are kept.

All entries from DFHTLTL2 are checked for duplicates against the entries in the previously specified DFHTLTL1 and, if a duplicate is found, it is not repeated.

The resulting destination list is T001, T001, T001/OP1.

- The order in which you specify the TLTs is significant. If you specify R=(.L2,.L1), the DFHTLTL2 entries T001 and T001/OP1 are included in the destination list. However, the two entries for T001 in DFHTLTL1 are not included because T001 is already in DFHTLTL2. In this case, the resulting destination list is T001, T001/OP1.

(±termid/opid,...)

A +termid/opid adds the specified destination (if not a duplicate) to the destinations contained in the requested TLT. A -termid/opid deletes the specified destination from the requested TLT. A -termid, without an opid, deletes all destinations of that terminal (with or without operator identifier) resulting from the requested TLT. + or -termid/opid parameters affect only those entries that result from requested TLTs, and have no effect on other + or -termid/opid parameters in the same request. All TLT suffixes must be entered before any + or - parameters.

Here are some examples that show the effects of specifying both TLTs that contain duplicate entries and ± entries. For these examples, assume that terminal list table DFHTLTL1 contains T001 twice, and that DFHTLTL2 contains T001 and T001/OP1.

- ROUTE=(.L1,.L2,+T001) has the same effect as R=(.L1,.L2). The entry +T001 is not added, because it is a duplicate of an entry from DFHTLTL1. The resulting destination is T001, T001, T001/OP1.
- ROUTE=(.L1,.L2,+T001/OP1,-T001) does not add +T001/OP1 because it is a duplicate of an entry in DFHTLTL2. The -T001 causes all entries from TLTs that refer to T001 (regardless of whether they are qualified by an operator identifier) to be deleted. The message ALL ROUTE ENTRIES DELETED is issued.

If DFHTLTL2 did not contain the entry T001/OP1, the +T001/OP1 instruction would cause that entry to be added to the destination list. The -T001 instruction would not then delete the T001/OP1 entry from the list, because the effects of the + and - instructions are not cumulative: they act in isolation on the original concatenated TLTs.

- ROUTE=(.L1,.L2,-T001,+T001/OP1); the -T001 causes all entries from the TLTs that refer to

T001 (including the T001/OP1 entry in DFHTLTL2) to be deleted. The +T001/OP1 entry is then added and becomes the only resulting destination. There is no duplicate because it has just been deleted.

A ROUTE option may be divided across multiple consecutive inputs. However, if it refers to a TLT, it must be completed in the same input in which it was started. An individual ROUTE parameter (termid/opid) may not be split across two inputs.

When both ROUTE and OPCLASS are specified together, OPCLASS further restricts the message transmission. For example, ROUTE=(LA04/PJL,/MGK,OL), OPCLASS=4 routes the message to terminal LA04 if the operator whose identifier is PJL is signed on. The message is also sent to the first terminal with the operator whose identifier is MGK signed on. An operator whose class is 4 must be signed on to OL before the message can be routed there. Note that the OPCLASS value is acted on only when no operator identifier is specified.

SEND

Specifies that all of the options have been entered and that the message is to be routed. SEND is the final option and must be followed by a space or an end-of-data.

TIME=value

“value” is the time at which you want the message to be delivered. You can specify the time in one of the following four ways:

hhmm where “hhmm” is an absolute time in the range 0001–2400. For example, TIME=1145 causes the message to be transmitted at 11.45 am. The minutes value must be less than 60.

+hhmm where “hhmm” is the number of hours and minutes from the current time. The minutes value must be less than 60. For example, TIME=+0720 means that the message is to be transmitted in 7 hours and 20 minutes from now. A value of TIME=+2400 means the same as DATE=+1.

+mm where “mm” is the number of minutes from the current time. This value must be in the range 0–99. So, for example, a value of TIME=+75 causes the message to be transmitted 1 hour and 15 minutes from now. The values TIME=+90 and TIME=+0130 both cause the message to be transmitted in 90 minutes time.

+m where “m” is the number of minutes from the current time. This value must be in the range 0–9. So, for example, a value of TIME=+5 causes the message to be transmitted 5 minutes from now.

If you specify a delivery time on the current day that falls within the past hour, it is interpreted as a request for immediate delivery. An earlier time than that is considered already passed and is treated as an error. The following message is issued:

TIME ALREADY PASSED

Note that, if the current time is 00.15, T=2345 is interpreted as 23.45 today because there has been a change of date. The message is not therefore transmitted immediately.

Logical unit destinations

This section describes the use of the CMMSG transaction to send messages to logical units. For details of message handling within CICS subsystems, and of the use of the message-switching transaction at subsystem terminals, see the appropriate CICS/OS/VS subsystem guide.

Each logical unit in a CICS-SNA network is identified by a single terminal identifier and, if the logical unit is capable of receiving message text, messages may be routed to it in the same way as they are routed to non-SNA terminals. Routing by operator identifier may also be employed if the logical unit supports operator signon, and SNA and non-SNA destinations may be specified in the same ROUTE option.

The destination for a message sent to a logical unit can be a display or printer device, or it can be a data set or an application program in a subsystem controller. To the message sender, the destination behaves like a "terminal", and any necessary formatting is performed by the CMMSG transaction or within the subsystem controller itself.

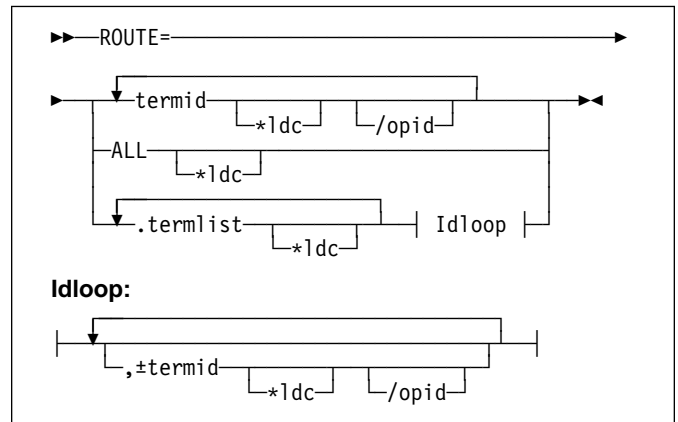
Logical device codes

Some types of logical unit (LU) can be used to get access to more than one resource within a subsystem. For example, data sent to a 3601 LU may be intended for an IBM 3604 Keyboard Display, an IBM 3618 Administrative Line Printer, or some other element of the IBM 3600 Finance Communication System. The facility provided by CICS to permit destination selection within LUs of this type is the logical device code (LDC).

The LUs that support destination selection by LDC are:

- 3601 LU
- 3770 batch LU
- 3770 batch data interchange LU
- 3790 batch data interchange LU.

For the user of the message-switching transaction, the LDC is a 2-character mnemonic code whose meaning is defined by the CICS installation. It may be used to qualify an LU destination by including it in the ROUTE option in the syntax diagram that follows:



where:

*ldc

is a 2-character LDC mnemonic preceded by an asterisk (*) that qualifies the destinations. The *ldc parameter may qualify an LU identifier (termid), a general broadcast (ALL), or a terminal list table specification (.termlist). The *ldc parameter applies only to LUs, not to any start-stop or BSC terminals.

Different LDC mnemonics may be included in one ROUTE option specification; however, all destinations for one message must indicate the same device type.

termid*ldc

associates an LDC mnemonic with an LU identification.

ALL*ldc

is a general broadcast to all terminals with the same LDC mnemonic qualifying all LUs.

.termlist*ldc

qualifies all entries in this terminal list table with the specified LDC mnemonic. This overrides any LDC specified within the terminal list table. This LDC specification does not apply to start-stop or BSC terminals.

Note: This qualification of a TLT occurs before any succeeding TLTs or +/- entries are processed, see example 9 in "Examples of 3600 and 3770 batch destinations" on page 198.

+termid*ldc/opid

adds a destination, if not a complete duplicate to any contained in the requested TLTs.

-termid*ldc/opid

deletes duplicate destinations resulting from the requested TLTs. A -termid*ldc, without an opid, deletes all destinations of that termid*ldc (with or without operator identifiers) resulting from the requested TLTs. A -termid/opid, without an LDC mnemonic, deletes all destinations of that termid/opid (with or without LDC mnemonics) resulting from the requested TLTs.

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If a destination is specified by /opid without termid, it becomes termid/opid, in which termid is the identifier of the first terminal or LU to which an operator with that identifier is currently signed on. If no such terminal or LU is found, the destination is not valid and the operator is notified.

Examples of 3600 and 3770 batch destinations

These examples assume the following:

- Terminal identifiers T36n and T37n are 3600 logical units and 3770 batch logical units respectively; all others are start-stop or BSC terminals.
- LDC mnemonics DS and LP have been defined for the system and T361, T362, and T363 during resource definition.
- LDC mnemonic P1 has been defined for the system and T371, T372, and T373 during resource definition.
You can also use the TYPETERM LDCLIST attribute of RDO to define these mnemonics instead of the DFHTCT TYPE=TERMINAL macro shown.

- Terminal list table DFHTLTL3 contains entries for:

```
T361*DS
T362*DS/OP1
T362*DS/OP2
T363
T371*P1
T372*P1/OP1
T372*P1/OP2
T373
T40.
```

- Terminal list table DFHTLTL4 contains entries for:

```
T361*DS
T362*DS/OP1
T362*DS/OP2
T363
T40.
```

1. R=T361*DS

Route message to terminal identifier T361 qualified by LDC mnemonic DS.

2. R=(T361*DS,T362*DS/OP1,T363,T371*P1,T372*P1/OP1,T373,T40)

Route message to:

```
T361 and T362 qualified by LDC mnemonic DS
T363, using the default LDC
T371 and T372 qualified by LDC mnemonic P1
T373 console keyboard/printer
T40, which is a start-stop or BSC terminal.
```

T362 and T372 require that an operator with identification OP1 be signed on before the message can be sent.

Note: The default LDC mnemonic for T363 must indicate the same device type as LDC mnemonic DS.

3. R=ALL*LP

Route message to all terminals (3600, 3770 batch and interactive logical units, start-stop, and BSC) with all 3600 destinations qualified by mnemonic LP. LP is ignored for start-stop and BSC destinations.

4. R=.L3

Use the terminal list table DFHTLTL3 for message destinations. (This is the same as example 2, plus T362*DS/OP2 and T372*P1/OP2.)

5. R=(.L3,-T362*DS/OP2,-T372*P1/OP2)

This is the same as example 4, but deletes T362*DS/OP2 and T372*P1/OP2, so is the same result as example 2.

6. R=(.L3,-T362*DS)

This is the same as example 4, but deletes all entries for T362*DS (with or without opids). The result is T361*DS, T363, all T37n terminals, and T40.

7. R=(.L3,-T362)

This is the same as example 6. -T362 deletes all entries for T362.

8. R=.L4*LP

LDC mnemonic LP qualifies (overrides) all entries in DFHTLTL4. Resulting destinations are:

```
T361*LP T362*LP/OP1 T362*LP/OP2 T363*LP T40*LP
```

Note: The LP mnemonic has no effect on the start-stop or BSC terminal T40.

9. R=(.L4*LP,-T362*DS)

The -T362*DS causes no action, because the TLT destinations are qualified by LDC mnemonic LP before the additions or deletes are processed, thus causing no matching entry to delete.

10. R=(.L4,+T363*LP)

Cause error message 'INVALID LDC AT T363*LP' to be generated. LDC mnemonic LP has a different device type from LDC mnemonic DS (first 3600 destination encountered is T361*DS). All 3600 destinations for one message must indicate the same device type. All 3770 batch logical unit destinations for one message must indicate the same device type.

11. R=/OP2

Route message to the first terminal or logical unit found in the CICS terminal definition with operator identifier OP2 currently signed on. If OP2 is signed on to T362, the resulting destination is T362/OP2 with the default LDC mnemonic for logical unit T362. The default is DS because it is the first LDC mnemonic defined for T362. The resulting destination is T362*DS/OP2.

Message-switching responses

Every input from the terminal receives a response. Most responses are preceded by indicators where the letters before OK represent the first character of each of the CMMSG options (except CANCEL) as follows:

D	DATE
E	ERRTERM
H	HEADING
I	ID
M	MSG
O	OPCLASS
P	PROTECT
R	ROUTE
S	SEND
T	TIME

These indicators identify the options that have been processed and that are currently in effect.

Errors may occur because of:

- Syntax (for example, misspelled option, unbalanced parentheses, terminal identifier more than 4 characters, invalid option separator, and message and destination not provided).
- Specification (for example, the specified terminal has not been defined to CICS).
- Operation (for example, operator not currently signed on to the system).

Syntax errors within an option cause it to be rejected by the message-switching routine. To correct a known error, reenter the option before typing the SEND keyword.

Syntax errors cause no data to be processed in that input beyond the detected error. All following data must be reentered to be included.

A specification or operation error message may be written to the terminal with an indicator that shows that the option in question has been processed and is still in effect. Two possible error messages are:

1. M OK TERMID GT 4 CHAR AT T004A

This message has been issued because the terminal identifier is greater than 4 characters. The absence of the R indicator preceding the message shows that ROUTE is not currently in effect and that the message must be reentered.

2. MRHS OK INVLD TERMINL ID T004

This message has been issued because the specified terminal is not known to CICS. The R indicator shows that ROUTE is still in effect. Operator action as a result of this type of message is either:

- A space (entry deleted)
- Termid/opid specifying a termid, or operator identifier, or both (entry changed)
- Any option (the route option or another option may be entered).

Note: If an option is entered, the error message is repeated unless a new ROUTE option is entered before SEND. If the incorrect entry is changed or deleted by responding with a space or termid/opid, the message is routed unless other errors are still present. These errors are indicated by another message. If an option is entered, it signifies normal entry mode in which multiple options can be entered requiring another SEND option to end the input.

The following is a list of all possible responses from the message-switching program (DFHMSP). Because of device-dependent considerations, all responses are limited to 25 characters plus the indicators.

ALL ROUTE ENTRIES DELETED

A space entered in reply to a incorrect destination message caused the remaining destinations to be deleted, leaving no destinations to which to route the message. This condition forces a return to normal option mode, and a ROUTE option must be reentered to provide the message destinations.

CANCELED - TEMP STRG ERR N

N has a value in the range 1–4.

- N=1. An error occurred on a temporary storage (TS) request. One cause of this error is that the size of the TS record exceeds the CI (control interval) size of the TS data set.
- N=2. An error occurred on a temporary storage (TS) request. A possible cause of this response, not related to a TS problem, is a request for a TS record that does not exist. This can happen if:
 - The transaction identifier is entered followed by a C. This extended transaction identifier (CMSSGC) normally requests a continuation of a message-switching transaction, but no previous status information exists for this terminal. See “Message-switching continuation” on page 190.
 - The transaction identifier is entered in lowercase on a 3270 family display device that is defined as a dual case keyboard, and for which no previous message-switching transaction status exists.

Note: A CICS cold start of temporary storage causes the loss of any status saved from a previous CICS process.

Note: The transaction identifier in the terminal input/output area (TIOA) is not translated. To correct this problem, enter the transaction identifier in uppercase.

N=2 also occurs when transaction routing is being used and indicates that the transaction identifier used to initiate the task is different to that specified in the CICS system definition.

- N=3. An error (most likely caused by TS) occurred on a DFHBMS TYPE=TEXTBLD request.

CMSG—message switching

- N=4. An error (most likely caused by TS) occurred on a DFHBMS TYPE=PAGEOUT request.

CLEAR/CANCL or CONT INPUT|ROUTE|MSG

An operator on a 3270 family display device pressed the CLEAR key and the message states continue (CONT):

INPUT

The last option in the previous input is complete. Enter an option to continue.

ROUTE

The last option in the previous input is ROUTE and a closing parenthesis cannot be found. Continue entering ROUTE destinations.

MSG

The last option in the previous input is MSG, and a single quotation mark to end the message cannot be found, or a single quotation mark is found as the last character of the input, and might be the first of a pair of single quotation marks. If the previous input does not end with a single quotation mark, continue entering the message. If the previous input ends with a single quotation mark, enter another single quotation mark to continue the message (which causes a single quotation mark to be included), or enter any option that causes the message to be considered complete.

Note: If the operator replies by again pressing the CLEAR key (two consecutive times) it has the same effect as entering CANCEL for the last 6 characters of the input.

CONTINUE INPUT

A SEND option has not been processed, and a ROUTE or MSG option was not being continued. Continue by entering any option.

CONTINUE INPUT OR MSG

The previous input ended with a single quotation mark with the MSG option being processed. This single quotation mark could specify the end of the MSG option or could be the first character of a pair of single quotation marks (signifying that a single quotation mark was to be included within the message).

If the next input starts with a single quotation mark, the message is continued with a single quotation mark included in the message. A nonpaired single quotation mark is required to end the MSG option.

If the next input starts with any character other than a single quotation mark, it is treated as the beginning of a new option and the MSG option is considered complete.

CONTINUE MSG

The previous input ended with the MSG option being processed, but no single quotation mark ended the entered text. Continue the message.

CONTINUE ROUTE OPERAND

The ROUTE option was being processed in the previous input and a space or an EOD was found. Continue the ROUTE option.

DATE ALREADY PASSED

A delivery date before the current day is invalid.

DATE INVALID AT xxxxxxxx

DATE must be in one of the following forms:

yy.ddd	year (00–99) and day (001–366)
mm/dd	month (01–12) and day (01–31)
mm/dd/yy	month (01–12), day (01–31), and year (00–99)
D=+d	day (0–4)

DATE NOT xx/xx AT xxxxx

DATE must start with 2 digits followed by a slash (for month), or a period (for year). This message is issued if the third character of DATE is not a slash or a period.

Notes:

1. September 5, for example, must be specified as 09/05 and not as 9/5.
2. The date must be valid, not 06/31 for example.

DATE TOO FAR IN FUTURE

Future delivery may not be specified after 0359 hours on the fourth day from the current day. The error is either:

1. D=+n, where n is greater than 4, or
2. DATE specified explicitly as being after the fourth day from the current day, or
3. A condition of DATE and TIME that exceeds the stated limit.

If conditions 1 or 2 occur, the DATE option is not in effect (the D status indicator is not present). If condition 3 occurs, both the DATE and TIME options are currently in effect (the D and T status indicators precede the message), and one or both of them must be changed to a valid delivery time or the error occurs again.

ERRTERM INVALID AT xxxxx

An ERRTERM must be 1–4 characters.

ERRTERM INVLD/UNSUPP xxxx

A terminal identifier specified for the ERRTERM option does not have an entry specified in the CICS terminal definition, or it is for a terminal type not supported by BMS, and is therefore invalid. Valid replies by the operator to this are:

1. A terminal identifier or ORIG in the same format as a normal ERRTERM destination (without entering the option ERRTERM or E). The message is routed following this input unless the new ERRTERM specified is invalid. In this case, the message is repeated.

2. A space as the first character (followed by an EOB or comments). This causes the entire ERRTERM specification to be eliminated. The message is routed following this input.
3. Any option that causes a return to normal option processing mode. If another ERRTERM option is not entered to correct this condition, the same error message is repeated after SEND has been reentered.

HEADNG NOT YES/NO AT xxxx

A HEADING option may only be specified as follows:

```
HEADING
HEADING=YES
HEADING=NO
H
H=YES
H=NO
```

ID OPERAND GT 62 CHARS

An ID option must be from 1–62 characters in length, and enclosed within parentheses.

ID OPERAND MISSING (

The ID option requires the identifier to be enclosed within parentheses.

ID PARAM MISSING OR NO)

The ID option must be from 1–62 characters in length and enclosed within parentheses.

INVALID LDC AT xxxxxxxx

The LDC mnemonic is not valid for the logical unit, or a previous entry contained an LDC mnemonic that indicated a different device type.

Note: A missing LDC mnemonic can cause this message if the default mnemonic for that station indicates a different device type than a previously indicated mnemonic (specified or defaulted).

INVALID OPND AT xxxxx

An option xxxxx is invalid (possibly caused by a keying error). No data beyond this point was processed. The status indicators represent the options that are in effect.

INVALID TBL SFX AT xxxxx

A terminal list table suffix must be 1 or 2 characters preceded by a period.

INVLD OPERATR ID AT xxxxx

An operator identifier must be 1, 2, or 3 characters preceded by a slash.

INVLD SEPARATOR AT xxxxx

The end of an option must be followed by a space, a comma (except for SEND), a carriage return (new-line character), or end of data (EOD).

INVLD TERMINL ID xxxxx

There is no entry in the CICS terminal definition for the terminal identifier specified for a ROUTE destination.

The valid operator reply is one of the following:

1. A terminal identifier, or operator identifier, or both, in the same format as a normal termid/opid ROUTE destination (without entering the option ROUTE= or R=) that replaces the invalid destination.
2. A space as the first character, which causes the invalid destination to be deleted.
3. Any option that causes a return to normal option processing mode. If another ROUTE option is not entered, the same condition exists after the SEND option is reentered.

Note: 1 and 2 cause the message to be routed if the resulting destinations are valid; otherwise, another error message is issued.

LDC NOT 2 CHARS AT xxxxx

The LDC mnemonic that follows the * in the ROUTE destination must be 2 characters.

MESSAGE HAS BEEN ROUTED

A SEND option has been processed and the message has been routed to its destinations. This is the normal completion of a message-switching transaction.

MSG NOT SENT - NO RECEIVER

This condition is caused by an OPCLASS option specified without a ROUTE option and no operators, with the specified operator class, or classes, currently signed-on to terminal types supported by BMS. To correct this situation, a new destination must be entered by the ROUTE option, or OPCLASS option, or both.

NEED OPCLASS OR ROUTE

The SEND option was entered without specifying any destinations for the message. To correct this situation, a destination must be entered by the ROUTE option, or OPCLASS option, or both.

NO INPUT - REENTER

A transaction identifier was entered followed by end-of-data (EOD), or the number of backspace characters entered caused the deletion of all the data (including the position following the transaction identification, if present). If the input does not start with the transaction identifier, the terminal remains in conversation. Otherwise, it is not in conversation.

NO MESSAGE PROVIDED

The SEND option was entered without specifying the message. To correct the situation, provide the message.

NO MSG STRT QUOT AT xxxxx

A MSG parameter must be enclosed within single quotation marks. A single quotation mark must follow an M or MESSAGE.

NO TRMID FOR LDC AT xxxxx

The destination started with an asterisk *. A logical unit identification must precede the LDC mnemonic.

CMSG—message switching

NO TERM LIST TBL-xx

An entry for a terminal list table with suffix xx (DFHTLTxx) was not found in the CICS system definition.

OPCLASS NOT 1-24 AT xxxxx

An OPCLASS parameter must be in the range 1–24.

OPERATORS NOT SIGNDON nnn

The ROUTE option specified operator identifications without terminal identifiers (that is, ROUTE=/opid). nnn operator identifications are not currently signed on.

The valid reply to this is to enter one of the following:

1. A space as the first character, which deletes the nnn destinations.
2. The character D (or any other character) which causes each of the nnn destinations to be individually displayed through the message OPRTR ID NOT SIGNDON.
3. Any option that causes a return to normal option processing mode. If no further ROUTE options are entered, this same condition exists if an operator does not sign on before the SEND option is reentered.

Note: This message is only issued if nnn is greater than 5; otherwise, each destination is individually displayed. Reply 1 causes the message to be routed if the resulting destinations are valid; otherwise, another error message is issued.

OPRTR ID NOT SIGNDON /xxx

An operator with identifier xxx, specified as a destination (entered either by the terminal operator or included as an entry in a TLT whose suffix was specified), is not currently signed on to any terminal controlled by CICS.

The valid reply to this is to enter one of the following:

- A terminal identifier, or operator identifier, or both in the same format as a normal termid/opid ROUTE destination (without entering the option ROUTE or R), which replaces this /xxx destination.
- A space as the first character, which causes the /xxx destination to be deleted.
- Any option that causes a return to normal option processing mode. If no further ROUTE options are entered, this same condition exists if an operator with identifier xxx does not sign on by the time the SEND option is reentered.

Note: The first two replies cause the message to be routed if the resulting destinations are valid, otherwise, another error message is issued.

PROTECT OPND NOT 1-2 CHAR

The PREFIX option of the PROTECT option must not specify more than 2 characters.

ROUTE INVALID AT xxxxx

A field separator entered before the first ROUTE parameter, or 2 consecutive field separators were found. Reenter a valid ROUTE option.

SPACE MUST FOLLOW TRANSID

One or more spaces must follow the transaction identifier before the first option can start. (The character C causes a continuation from the last input preceding a normal completion or a cancelation.)

TERMID GT 4 CHAR AT xxxxx

A terminal identifier must be 1–4 characters.

TERMID NOT +/- AT xxxxx

All TLT suffixes must be specified before any individual destination (which must be preceded by a + or -) may be entered. A ROUTE option that specifies a TLT suffix may not be continued on a succeeding input. If a ROUTE option includes more than one parameter, it must be enclosed in parentheses.

TERMINATED BY OPERATOR

The operator entered CANCEL as the last 6 characters of the previous input, or pressed the CLEAR key twice in succession on an IBM 3275 (or 3277) display station. The previous input is canceled and the terminal is **not** in conversational mode with CICS message switching.

TIME ALREADY PASSED

A delivery time for the current day, more than one hour before the current time is considered already passed and is invalid.

If the message is for immediate delivery, enter T=+0, to replace the TIME option that is still in effect.

If the message is for delivery at the specified time on a future day, enter the appropriate DATE option. The specified time is still in effect.

If the message is for delivery at a different time, reenter the TIME option.

TIME INVALID AT xxxxx

TIME must be one of the following:

hhmm 0001–2400 (mm<60)
+hhmm 0000–2400 (mm<60)
+mm 00–99
+m 0–9

where hh=hours and mm=minutes.

TIME NOT 4 CHARS AT xxxxx

A TIME parameter must be a 4-digit number if it is not preceded by +.

TOO MANY TBL SFX AT xxxxx

A maximum of 10 TLT suffixes may be specified.

UNBALANCD PARENS AT xxxxx

A ROUTE or OPCLASS option started with a parenthesis but did not have one at the end, or ended with a parenthesis but did not have one at the beginning. xxxxx represents the characters near the relevant end of the option.

UNSUP OPRT TRMNL xxxxxxxx

An operator identifier without a terminal identifier was specified as a ROUTE destination; however that operator is signed on to a terminal that is a type not supported by BMS and is, therefore, an invalid destination.

The valid reply to this is the same as for the message OPRTTR ID NOT SIGNDON.

UNSUP TERMINAL xxxxxxxx

A terminal identifier, specified as a ROUTE destination, is for a terminal type not supported by BMS and is, therefore, an invalid destination.

The valid reply to this is the same as for the message INVLD TERMINL ID.

ZERO LENGTH MSG AT ''

A message must have at least one character enclosed in single quotation marks. A single quotation mark to be included as part of a message must be entered as two separate single quotation mark characters. A message must start with a single quotation mark and may be followed immediately by pairs of single quotation marks.

+DATE INVLD 2330 TO 0030

A DATE=+ option is invalid from 30 minutes before to 30 minutes after midnight.

Examples of complete message-switching transactions

Here are some typical examples of the CMSG transaction.

In all of the examples, # represents a new-line character.

1. CMSG R=ALL,'GOOD MORNING#TODAY IS FRIDAY FEB 1',S

This sends a good morning message to all terminals.

2. CMSG 'GOOD MORNING',R=.G1,T=0900,S

This routes a good morning message to be delivered at 0900 hours to all destinations contained in DFHTLTG1. (Locations in Eastern time zone.)

3. CMSG 'GOOD MORNING',R=(.G2,+CHI4),T=1000,S

This message is for delivery at 10.00 hours to terminals in Central time zone (DFHTLTG2). Also included as a destination is termid CHI4, which was recently added but not yet included in the TLT.

4. CMSG 'SUPERVISORS' 'MEETING IN 5 MINUTES',O=(4,7),S

This routes the message to all supervisors who are assigned operator class 4 or 7 and are currently signed on to CICS.

5. CMSG R=ALL,'NEW PRICE MODEL 402 - \$28.70',S

This sends the price of the new model to all terminals.

6. CMSG 'FRED - WHAT IS CURRENT STOCK ON P/N 4837-LP4# BPK',R=BLD3,H,S

This routes a message to BLD3 asking Fred a question and including the requestor's initials (operator identifier). A heading is included so that Fred also knows the originating termid.

7. CMSG 'PNO 4837-LP4, QTY 26?',R=/BPK,H,S

This shows Fred's answer routed to the terminal at which operator identifier BPK is currently signed on.

8. CMSG 'BRID KADDER ARRIVING 3:15 PST. PLEASE MAKE RESERVATION# M. KRN',R=PADC,H,S

This makes a request for a reservation for a Mr Kadder.

9. CMSG 'SHUTDOWN IN 5 MINUTES',R=ALL,T=1655,S

This sends the shutdown message to all terminals.

Note: Examples 1, 2, 3, and 9 are possible candidates for inclusion in a sequential (BSAM) terminal input stream during startup.

CRTE—remote transactions

Use CRTE to run transactions that reside on a remote system.

Transaction routing in a multiregion operation (MRO) environment or for intersystem communication (ISC) is usually achieved by making entries in the PCT. The entries define the transaction as remote, and name the system on which it is to be processed. Entering the transaction code then causes CICS to route the requests to the named system.

The CRTE transaction provides you with another way of running a transaction on a remote system. Use CRTE, rather than making special PCT entries, for infrequently-used transactions or when using transactions such as CEMT which reside on all systems. You must use CRTE when EDF is used to test a transaction running on a remote system. However, because the session has to be established and canceled explicitly, additional signon operations may be required. CRTE can be invoked from a 3270 terminal, but not on LU6.1 links.

The syntax of the routing transaction is:

```
▶▶—CRTE—SYSID=sysid—┐,TRPROF=trprof┘▶▶
```

where

sysid

is the name of the system that is to process the transaction. This sysid is the same as the 4-character CONNECTION specified, either by using RDO (resource definition online), or the 4-character SYSIDNT specified in the DFHTCT TYPE=SYSTEM definition of the remote system.

trprof

is the 8-character name of the profile to be used for the session that carries the intersystem flows, if that session uses VTAM. If VTAM is used and 'trprof' is not entered, the default profile DFHCICSS is used.

The routing transaction verifies that the specified remote system is known and is available. If it is, a message is displayed confirming that a routing session to the required system has been started.

When you have received this message, you can clear the screen and enter the transaction identifier for the transaction that is to be run on the remote system. In fact, you can use the terminal as if it were connected directly to the remote

system, although you might be asked to sign on to the remote system before being allowed to run any transactions. The transactions that you can invoke include pseudoconversational transactions, BMS paging transactions, and even CRTE itself. However, you cannot use transactions CEOS and CEOT with CRTE, and you cannot use PA or PF keys to invoke transactions under CRTE.

You end a routing session by entering CANCEL. If you have signed on to the remote system, the CANCEL request automatically signs you off.

When a routing session has ended, you get the message:

```
ROUTING SESSION TO SYSTEM system-id HAS BEEN TERMINATED
```

Notes:

1. If you use CRTE to route transactions through more than one system, then, to end the routing session, you must press CANCEL the same number of times as you entered CRTE.
2. While a terminal is in a routing session with another system (that is, during the period between entering CRTE and CANCEL) the terminal cannot receive messages delivered by automatic transaction initiation (ATI).
3. The message cannot be delivered immediately if a transaction:
 - Runs on a remote system using CRTE
 - Builds a message using BMS paging
 - Sends the message using a BMS SEND PAGE command
 - Does not specify either RETAIN or RELEASE.

It is delivered when the routing session ends, but only if the terminal was in TRANSCEIVE status when the routing session commenced. Alternatively, you can retrieve the message (while still routed) using BMS paging commands.
4. There are some restrictions on the use of CRTE with BMS chaining of messages:
 - You cannot use CRTE as a chained transaction without losing the logical message from which CRTE was to be chained.
 - You cannot use chaining within a routing session without purging the logical message currently attached to the terminal.
 - You cannot route transactions back to any system in the chain.

CSFE—terminal and system test

Use CSFE to diagnose terminal problems and software problems. This transaction is mainly intended to be used by system programmers and IBM field engineers.

Use this transaction to:

- Test your terminal
- Activate the system spooling interface trace
- Activate the terminal builder trace
- Activate any of the following: storage freeze, the storage violation trap, and the global trap/trace program exit routine.

For each of these activities, successful completion of the CSFE transaction gives you the following message:

```
DFHFE3301 Transaction complete
```

For information about the use of this transaction, see the *CICS/ESA Problem Determination Guide*.

Terminal test

You can use CSFE to test your terminal, but only if it is one of the terminals supported by CICS.

You cannot use CSFE to test the following:

- IBM 2780 Data Transmission terminals
- IBM 3600 Finance Communication System terminals
- IBM 3614 Consumer Transaction Facility terminals
- IBM 3735 Programmable Buffered terminals
- Output-only printers (for example, printers of the IBM 3270 Information Display System).

You start the transaction by entering CSFE on the command line of the screen, as follows:

```
CSFE
```

Press the ENTER key. You get the following display:

```
DFHFE3304 Enter PRINT for character set, END to
terminate. All other data will be echoed.
```

PRINT

When you enter PRINT, all characters printable or capable of display at the terminal are sent to your terminal.

END

When you type END on the command line of the screen, the test ends.

Any other input is returned to your terminal (that is, it is echoed), unless it is of the form of one of the other CSFE requests.

System spooling interface trace

You can use CSFE to request additional trace and diagnostic facilities for the system spooling interface.

```
▶▶CSFE SPOOLFE=ON▶▶
                OFF
```

ON

specifies that additional trace entries of system type are provided for the system spooling interface.

OFF

switches off the system spooling interface trace and the diagnostic facility.

SPOOLFE

is the system spooling interface trace and diagnostic facility.

Terminal builder trace

You can use the CSFE transaction to activate and deactivate the terminal builder trace.

```
▶▶CSFE ZCQTRACE=termid▶▶
                ,AUTOINSTALL
                ,OFF
```

=termid

Switches tracing on for the terminal or connection identified by termid.

,AUTOINSTALL

Switches tracing on for autoinstalled terminals.

,OFF

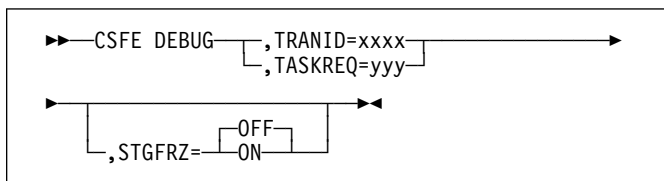
Switches tracing off for individual and autoinstalled terminals.

Debug functions

Storage freeze, the storage violation trap and the global trap/trace exit are all debugging functions that are controlled by the CSFE transaction. These functions are described in the following sections.

Storage freeze

You can use CSFE DEBUG to freeze storage that is normally freed during the processing of a transaction. The frozen storage is not freed until the end of the transaction. This freezing of storage can help you in the subsequent diagnosis of problems that may have occurred during processing.



You must code the options in the order shown in the syntax display above.

TRANID=xxxx

Identifies the transaction for which storage freeze is to apply.

TASKREQ=yyy

This is an alternative method of identifying the transaction. “yyy” is the PA or PF key definition on a 3270 display device which identifies the transaction for which storage freeze is to apply. For example, TASKREQ=PA1.

STGFRZ= ON or OFF

Specifies that you want the storage freeze function to be set on or off. If you omit this option, storage freeze is set to OFF by default. To improve efficiency, storage freeze should be switched OFF when not required.

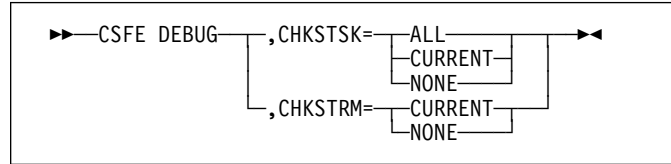
Storage violation trap

Use CSFE DEBUG to activate and deactivate the storage violation trap, which is in the trace program (DFHTRP), the exec interface program (DFHEIP), and the resource manager interface program (DFHERM).

This trap lets you verify the user storage associated with the

currently active task. The storage violation trap is entered before the trace program returns to its caller after making a trace entry.

When a storage violation is detected by the trap, an exception trace entry is made, a CICS system dump is produced (if dumping has not been disabled), and the storage violation trap is switched off.



CHKSTSK={ALL|CURRENT|NONE}

CHKSTSK has the following options:

ALL

specifies that validity checks are to be performed on the user storage (not the CICS storage) for all tasks whenever the trace program is entered.

CURRENT

specifies that validity checks are to be performed on the user storage (not the CICS storage) for the current task whenever the trace program is entered. Validity checks are to be performed for the currently active task, as follows:

- Validity checking of the storage chain for the task
- Validity checking of the addresses and storage accounting areas for all storage areas on the transaction storage chain.

For information on the CSFE options and their actions and uses, see the *CICS/ESA Problem Determination Guide*.

NONE

deactivates the user storage checking function.

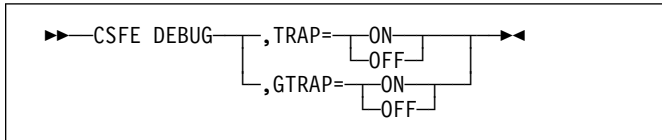
CHKSTRM={CURRENT|NONE}

The terminal subpools, above and below the line, are to be checked for the CURRENT task or for NONE (no tasks).

Global trap/trace program exit and global kernel exit

You can use CSFE DEBUG with the TRAP or GTRAP operand to activate and deactivate the global trap/trace program exit routine or the global kernel exit routine respectively.

These exits are intended to be used only under the guidance of IBM support personnel.



TRAP={ON|OFF}

The global trap/trace program exit routine is to be activated or deactivated.

GTRAP={ON|OFF}

The global kernel exit routine is to be activated or deactivated. On each domain call and return, and each subroutine call and return, the kernel invokes the global kernel exit routine, if it is activated.

TRAP= ON or OFF

specifies that the global/trap exit routine is to be activated or deactivated.

CSPG—page retrieval

Some transactions, especially those performed on screens, produce a response that is too large to be displayed or printed at one time. The whole response is held on direct access storage, and only the first portion (called a page) is displayed. You can manipulate these pages, through basic mapping support (BMS), using the CSPG page retrieval transaction. You can use paging to view all pages of the response, in any order. All the pages produced by a transaction make up a logical message.

A page retrieval session begins when you enter the first page retrieval command, or when the first page is presented by automatic transaction initiation (ATI). During the session, CICS passes commands directly to BMS terminal paging, without following the normal transaction identification procedure.

When using BMS for IBM 3780 Communication Terminal transactions, switch off the SPACE COMPRESS EXPAND (standard feature), TRNSPCY (special feature), and the INHIBIT IRS (special feature) switches.

Pages to be manipulated with paging commands must have been created by BMS, which must be active in the system to service the commands. Paging commands enable you to:

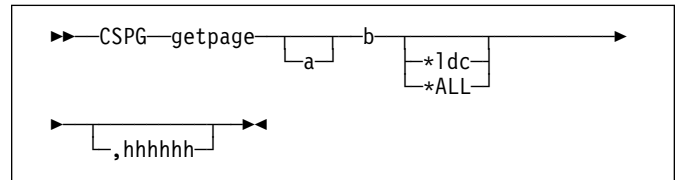
- Retrieve a page.
- Display information about logical messages queued for your terminal.
- Chain a logical message, that is, retain the previous logical message on direct access storage while you enter a new transaction.
- Purge a logical message, that is, erase it from direct access storage; a paging session must be ended by purging the message.
- Copy a page to another terminal.

You select the above functions by entering a unique identification code for each function. This code is 1–7 characters long, and is defined by the PGRET, PGCHAIN, PGPURGE, and PGCOPY system initialization parameters.

Do not use codes that are the same as the leading characters of any transaction defined in the PCT.

Retrieve a page

The page retrieval command allows you to retrieve a specified page. If partitions are in use, the page retrieval command refers to the partition in which it has been entered (see “Page retrieval and partitions” on page 212). The syntax of the command is:



getpage

This is the user-defined identification code for the retrieval transaction, and is 1–7 characters long. This code is defined by the PGRET system initialization parameter. For convenience, make the code as short as possible; for example, P/.

- a** You can ignore this option unless chaining is being used. It is the level, within a chain of logical messages, of the logical message to be retrieved. You must enclose it in parentheses. It can be one of the following:

- n** message is at level n
- +n** message is n levels forward
- n** message is n levels backward
- P** previous level backward
- C** current level (the default)
- N** next level forward
- L** last level.

For more information on levels of messages, see “Message chaining” on page 213.

- b** Defines the next operation to be performed on the logical message at the current level, or at the level specified by the a option. It can be one of the following:

- n** page n
- +n** page n pages forward
- n** page n pages backward
- P** previous page
- C** redisplay current page (after clearing the screen)
- N** next page
- L** last page

A for an autopaging (that is, hard copy) terminal that is temporarily in paging mode: return the terminal to autopaging mode and output all remaining pages.

This is discussed further under “Status of hardcopy terminal” on page 215.

- X** enter data that is not recognized as a paging command.

This is discussed further under “Single keystroke retrieval (SKR)” on page 212.

CSPG—page retrieval

*Idc

Is the LDC for the device to which you want to send the message. (See “Page retrieval for logical devices.”)

*ALL

A special case of *Idc.

hhhhh

Is the 6-digit hexadecimal identifier of an undelivered logical message to be retrieved. You would normally determine this identifier by entering a page query command (see “Display information about logical messages” on page 213).

If you do not specify an identifier, the oldest message is retrieved. After a paging session has started, you can omit hhhhh because all subsequent pages are from the current message.

In the following examples, P/ is the page retrieval transaction identifier:

P/7 Retrieve page 7 of this message.

P/N Retrieve next page (following the one being displayed) of this message.

P/(N)9 Retrieve page 9 of the next message (of several that have been chained).

Single keystroke retrieval (SKR)

If you use a 3270 display device under BTAM or VTAM, you # can use PA or PF keys, as defined in the SKRxxxx system # initialization parameter, to enter page retrieval commands, and greatly reduce the number of keystrokes necessary in a page retrieval session.

After the session has ended, the PA and PF keys can again | be used for initiating transactions in the usual way. The | *CICS/ESA System Definition Guide* gives further information | on this topic.

Page retrieval for logical devices

Your application program can send messages to a communication system such as the IBM 3600. Your application program can also send different pages to each of the logical devices within the system. These pages must be grouped as a single logical message, held in storage.

Each part of a logical message is accompanied by a logical device code (LDC) that identifies its destination. When retrieving the pages for a logical device, you must specify the LDC for that device. However, you do not need to do this if the user-written program in the logical device controller provides a default LDC mnemonic.

If you specify the page number and *Idc, delivery begins with the specified page for that logical device. If the logical device is in AUTOPAGE status, all pages for that logical device, starting with the requested page, are written. If the logical device is in PAGE status, only the specified page is written.

If you omit *Idc, and the application program in the logical device does not provide a default, BMS selects the first page destined for a logical device that is currently in PAGE status. The application program in the logical unit should provide a default LDC, because pages may be delivered to logical devices other than those you originally specified.

In either case, if your request is the first request for a page from a logical message, all pages (within the logical message) destined for logical devices currently in AUTOPAGE status are delivered after the first or specified page is delivered to a device in PAGE status.

The `getpageA` command supports an *Idc specification for nonrouted messages created for a 3601 logical unit. The various forms of `getpageA` are interpreted as follows:

- `getpageA*ALL`—resets to autopaging and delivers all pages for the logical devices that have autopage specified in the terminal definition, but that were temporarily placed in page status by the CICS application programmer.
- `getpageA*Idc`—resets the specified logical device to autopage and delivers the pages for that *Idc. The command is similar to `getpageA*ALL`, except that it operates only for the specified logical device.
- `getpageA`—resets to autopaging and delivers the remaining pages for the logical device for which pages are currently being displayed.

Page retrieval and partitions

The page retrieval commands, including any PA and PF keys used in single keystroke retrieval, refer to the partition in which they are entered. For example, P/N means ‘retrieve the next page for this partition’. The partition in which the last paging command is entered is the *current partition*. A paging command for a partitioned message entered on a nonpartitioned screen (that is, after CLEAR) refers to the current partition.

After a transition from base (unpartitioned) state to partitioned state, or a change of partition set (that is, the initial page display, a page display following CLEAR, or following a change in the level of page chaining), the *current page* is displayed in each partition. The current page is initially the first page for that partition. It is updated by page retrieval commands.

Display information about logical messages

This command displays the message identifiers and titles of logical messages queued for this terminal.

```
getpageQ
```

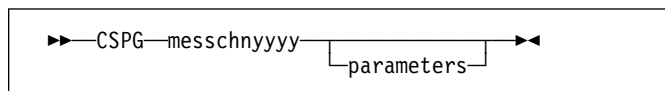
getpage

The user-defined identification code for the retrieval transaction, and is 1–7 characters long. The PGRET system initialization parameter defines this code.

- Q** (Query). The identifiers of all logical messages destined for this terminal are displayed. If the message is security protected (that is, if it has been routed to a specific operator ID or operator class), its identifier is displayed only if the operator ID or class for the operator signed on matches that in the message. The identifier consists of a 6-digit hexadecimal number, a 2-character temporary-storage prefix, and optionally, a title. The 6-digit hexadecimal number can be used as the hhhhhh option in the page retrieval command (see “Retrieve a page” on page 211) to retrieve pages for this display.

Message chaining

Usually, when you have viewed the output pages from a transaction, there is no need to retain the pages. However, you might want to initiate a new transaction and still retain the old pages, so that you can view them again after you have displayed output from the new transaction. This is called *message chaining* and can be done using the following command:



messchn

The installation-defined message-chaining transaction identification code (for example, C/), as defined in the PGCHAIN system initialization parameter.

yyyy

The identifier of a transaction that produces data to be added to the message chain.

parameters

The parameters, if any, required by transaction yyyy.

If the new transaction uses terminal control, or BMS in TERMINAL mode, its output is displayed immediately. When the new transaction terminates, anything else you enter is interpreted as a paging command for the first message. For example:

TRAN The transaction invokes an application program that produces multiple pages of output. The first page is displayed.

P/2 The second page of message is displayed.

C/CEMT INQ TIM CEMT data is displayed.

P/2 The second page of message is redisplayed.

If the new transaction uses BMS in PAGING mode, and RETAIN or RELEASE is specified in the SEND PAGE command in the application program, the output is chained to existing output, and a new level of chaining is created.

If RELEASE is specified, this chaining process can be repeated indefinitely. However, chaining requests must always be made while viewing pages at the highest level of chaining. Otherwise, messages at levels higher than the current level is automatically purged (if OPERPURGE has not been specified in the application program SEND PAGE command), or you are asked to purge them. If RETAIN is specified, no further chaining (in either TERMINAL or PAGING mode) can be performed until the second logical message has been terminated. Further chaining requests are rejected.

If neither RETAIN nor RELEASE is specified, the output from the second transaction is queued as a new message for the terminal, and is not received until all earlier messages have been terminated. It is thus not chained to the current message.

If you enter data that is not a paging command during a message chaining session, all pages on levels higher than the current level are deleted, if no message in the chain has been built using OPERPURGE=YES in the SEND PAGE command.

An example of the use of message chaining under BMS in PAGING mode is a search of a personnel file for people who speak French. Your initial inquiry might turn up three names. Without terminating the page containing the names, you can examine the records of each of the three people named. The chaining transaction could be used to read a record, without erasing the three names.

This would create output at the second level of chaining (the output from the original transaction being first-level output). When you finish viewing a person's record, you enter a paging command to terminate the current level, see “Message termination” on page 214. The message displaying the person's record would be purged, and the original page, containing the three names, redisplayed. Assuming that the message chaining transaction identifier is C/, enter:

```
LANG DEPT=J34,FRENCH
```

Receive:

```
BERESFORD, J.A. 1043
LEVY, A.R. 7121
WALTON, J. 8143
```

To find out more about Beresford, enter:

```
C/PREC 1043
```

CSPG—page retrieval

This finds the personnel record for employee number 1043. PREC is the identifier of a user-written transaction for examining personnel records. Receive:

```
NAME - BERESFORD, JERRY A.  
EMPLOYEE NO - 1043  
(and so on)
```

To go back to the list of names, enter:

```
T/C
```

T/ is the user-defined transaction identifier that terminates the message at the current level of chaining (see “Message termination”). Receive:

```
BERESFORD, J.A. 1043  
LEVY, A.R. 7121  
WALTON, J. 8143
```

You can now examine Levy’s record.

You can also chain a series of messages together and use paging commands to view the series simultaneously. Using the previous example, you can have the summary page as your base message (first level) and each of the personnel records as subsequent chain levels. Assume you are currently displaying the summary: Enter:

```
C/PREC 1043
```

Receive:

```
NAME - BERESFORD...
```

Enter:

```
C/PREC 7121
```

Receive:

```
NAME - LEVY...
```

Enter:

```
C/PREC 8143
```

Receive:

```
NAME - WALTON...
```

There are now four levels of logical messages at the terminal. You can now page back and forth between the personnel records. Enter:

```
P/(2)1
```

Receive:

```
NAME - BERESFORD...
```

Enter:

```
P/(L)1
```

Receive:

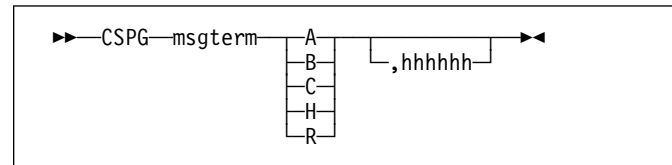
```
NAME - WALTON...
```

You can chain a new transaction only while you are viewing the last logical level. If you have four levels (as in the above example), view the summary page (level one) and then enter C/PREC 3642; the new transaction becomes level two and all other chained messages below that are erased (assuming that they have been built using a SEND PAGE command with the OPERPURGE option omitted).

Messages involving different partition layouts (different partition sets, including unpartitioned) may be chained. The current page in each partition is redisplayed on a change of message level.

Message termination

You can erase a logical message using the message terminate command. If the logical message is security protected, it is terminated only if your identification or class matches that in the message. After an erase, the last message still in the chain is displayed. The format of the message terminate command is as follows:



msgterm

A user-defined transaction identifier (1–7 characters) for the message termination transaction (for example T/) as defined in the PGPURGE system initialization parameter.

- A** Terminates all logical messages destined for and being displayed on that terminal (including routed messages not yet displayed). The following message is received when termination has been completed:
DFHTP4122 Requested purge completed successfully
- B** Terminates the logical message being displayed on that terminal and all logical messages chained to it. This does not include routed messages. Whenever you have finished with all the output from a transaction, you should terminate the base message by entering a command of the form msgtermB. If the message has been built using a SEND PAGE command with the OPERPURGE option omitted, you can terminate the paging session by entering data other than a paging command.
- C** Terminates the current (level) logical message and any messages chained below it.
- H** Terminates all logical messages chained to the base logical message being displayed on that terminal. The page of the base message that was most recently displayed is redisplayed at the terminal.
- R** Terminates all logical messages queued for immediate delivery (routed) to the terminal. The page that was being displayed at the terminal is redisplayed.

hhhhhh

The 6-digit hexadecimal identifier of a specific, undelivered logical message to be erased. (This identifier would have been determined using a page query command.) If the message specified is

security-protected, the operator should have a security code that matches the one in the message.

If a message identifier (hhhhh) is not specified in the termination request and there is no message currently displayed, the oldest message is automatically retrieved.

Copying pages

You can send a copy of the page being displayed, as it appeared when initially transmitted, to another terminal (normally hardcopy).

You do this by entering the page-copy transaction identifier and the identifier of the terminal that is to receive the copy, as follows:

```
msgcopytttt
```

msgcopy

The copy transaction identifier (1–7 characters), for example D/, as defined in the PGCOPY system initialization parameter.

ttt The identifier of the terminal to which the page is to be copied.

You get the message:

```
DFHTP4124 Page copied from terminal tttt
      (message number msgno)
```

Field and character attributes in the copied page that are not supported by the target terminal are ignored. The copied page is reformatted if it does not fit on the target terminal. Field and character attributes are discarded in the reformatting. If partitions are in use, the page copy command copies the displayed page for the partition in which the copy command is entered.

Status of hardcopy terminal

A hardcopy terminal that is not defined as a paging terminal (one that displays pages when you request them) is an autopaging terminal (one that displays all pages without your intervention). An autopaging terminal may be temporarily designated as a paging terminal by the user's application program using the NOAUTOPAGE option of the SEND PAGE command. If this is done at the time the first page is to be displayed on the terminal, the terminal is temporarily treated as a paging terminal for the duration of the message. This condition exists until either of the following occurs:

1. You enter P/A (reset terminal to autopaging status), indicating that all subsequent pages are to be displayed without further intervention.
2. You enter T/C (terminate current message). All pages from that logical message are purged, and the terminal is again put into autopaging status.

P/ is the paging transaction identifier, and T/ is the terminate transaction identifier.

Routed pages displayed at terminal

You can use the message-switching transaction to direct output to a terminal or terminals other than your own. For more information on message switching, see "CMSG—message switching" on page 189. When a terminal to which you have directed a message is in TRANSCEIVE status, and is not involved with a transaction, and is not displaying pages, CICS displays the first page of that message.

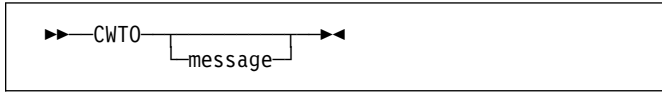
However, if the terminal is in TRANSACTION status, you can display the first page only of a waiting message by entering CSPG, CSPG P/1, or just P/1. Here, you are using P/ as a paging command. If no page is waiting, you get the following message:

```
DFHTP4104 A paging request has been received but
      there are no pages for display
```


CWTO—write to console operator

Use CWTO to send messages to the console operator.

Start the transaction by entering CWTO, optionally followed by the text of your message, on the command line of the screen, as follows:



Press the ENTER key. If the transaction runs successfully, your message is sent to the console, and you get the normal completion response:

```
MESSAGE HAS BEEN SENT
```

If you enter CWTO with no message text, you are prompted for your message as follows:

```
ENTER MESSAGE
```

You can cancel the CWTO transaction by entering CANCEL as the last 6 characters of your message. The transaction is terminated and you get the following response:

```
TERMINATED BY OPERATOR
```

The following are some general points about the format of your messages:

- If your message exceeds the line length of the console, it is divided between words into more than one line. Each part of a divided message is prefixed by your identifier and by that of the originating terminal.
- New-line (NL) characters within your message are kept, although any leading NL character is deleted.
- You can include blank lines at the top of your transmitted message by pressing ENTER (or using carriage returns) the required number of times.
- You can enter any number of backspace characters for deletion. If you enter only blank characters, or if you delete all of the data by entering too many deletion characters, you get the following message:

```
NO INPUT - REENTER
```

CWTO—write to console operator

Appendix. List of CICS transactions

The following table lists all the transactions that are supplied with CICS, except for those that are part of CICS sample programs.

The transactions that have operator interfaces, and which are therefore described in this manual, are marked by an asterisk (*). The remainder therefore have no operator interface.

Tranid is the transaction identifier. **Program** indicates the program that is specified in the supplied transaction definition, and **Group** indicates the supplied resource-definition group that contains the transaction definition. For general information on resource definition and the CICS groups, see the *CICS/ESA Resource Definition Guide*.

Tranid	Program	Group	Description
CATA	DFHZATA	DFHSP1	Autoinstall terminal
CATD	DFHZATD	DFHSP1	Delete autoinstalled terminal
CATR	DFHZATR	DFHSP1	Restart autoinstalled terminal
CBRC*	DFHBRCP	DFHDLI	IMS DBRC interface
CDBC*	DFHDBME	DFHDBCTL	DBCTL connect/disconnect
CDBD	DFHDBDI	DFHDBCTL	DBCTL disable
CDBI*	DFHDBIQ	DFHDBCTL	DBCTL inquiry
CDBM*	DFHDBMP	DFHDBCTL	DBCTL issue commands
CDBN	DFHDBCON	DFHDBCTL	DBCTL issue commands
CDBO	DFHDBCT	DFHDBCTL	DBCTL control
CDBT	DFHDBDSC	DFHDBCTL	DBCTL disconnection
CDTS	DFHZATS	DFHSP1	
CEBR*	DFHEDFBR	DFHEDF	Temporary-storage browse
CEBT*	—	—	Master terminal, alternate CICS
CECI*	DFHECIP	DFHINTER	Command level interpreter
CECS*	DFHECSP	DFHINTER	Command level interpreter
CEDA*	DFHEDAP	DFHSP1	Resource definition online (RDO)
CEDB*	DFHEDAP	DFHSP1	Resource definition online (RDO)
CEDC*	DFHEDAP	DFHSP1	Resource definition online (RDO)
CEDF*	DFHEDFP	DFHEDF	Execution diagnostic facility
CEGN	DFHCEGN	DFHSIGN	Good night transaction stub
CEHP	DFHCHS	DFHISC	CICS/VM request handler
CEHS	DFHCHS	DFHISC	CICS/VM request handler
CEMT*	DFHEMTP	DFHOPER	Master terminal
CEOT*	DFHEOTP	DFHOPER	Terminal status
CESC*	DFHCESC	DFHSIGN	Terminal timeout
CESF*	DFHSFP	DFHSIGN	Sign off
CESN*	DFHSNP	DFHSIGN	Sign on
CEST*	DFHESTP	DFHOPER	Supervisory terminal
CETR*	DFHCETRA	DFHOPER	Trace
CFTS	DFHZATS	DFHSP1	Remote mass flag
CGRP	-	-	Persistent sessions
CHLP	DFHCMAC	DFHCMAC	Alias for CMAC
CITS	DFHZATS	DFHSP1	Remote install
CLS1	DFHZLS1	DFHISC	LU services model
CLS2	DFHLUP	DFHISC	LU services model
CLS3	DFHCLS3	DFHISC	LU services model
CLS4	DFHCLS4	DFHISC	LU services model
CMPX	DFHMXP	DFHISC	Local queuing shipper
CMSG*	DFHMSP	DFHMSWIT	Message switching
CMTS	DFHZATS	DFHSP1	Remote mass delete
COVR	DFHZCOVER	-	CICS open VTAM retry
CPLT	-	-	PLT programs
CPMI	DFHMIRS	DFHISC	Synchronization level 1 mirror
CQRY	DFHQRY	DFHSTAND	ATI query support
+CRMD	DFHZATMD	DFHSP1	Remote terminal delete
+CRMF	DFHZATMF	DFHSP1	Remote terminal flag for delete
+CRSQ	DFHCRQ	DFHISC	ATI purge
CRSR	DFHCRS	DFHISC	Remote scheduler
CRSY	DFHRMSY	DFHRMI	Resource manager resynchronization
CRTE*	DFHRTE	DFHISC	Transaction routing
CRTX	#####	DFHISC	Dynamic transaction routing transaction definition
CSAC	DFHACP	DFHSTAND	Abnormal condition
CSCY	DFHCPY	DFHVTAMP	3270 print support
CSFE*	DFHFEP	DFHFE	Terminal test, trace, storage
CSFU	DFHFUC	DFHOPCLS	File open utility
CSGM	DFHGMM	DFHVTAM	"Good-morning" signon
CSGX	DFHDLG	DFHDLI	Global command processor
CSJC	DFHJCBSP	DFHJRNL	Journal control bootstrap
CSKP	DFHAKP	DFHAKP	Activity keypoint
CSLG	DFHZRLG	DFHRSPLG	Log committed output messages
CSMI	DFHMIRS	DFHISC	Mirror transaction
CSM1	DFHMIRS	DFHISC	SYSMSG model
CSM2	DFHMIRS	DFHISC	Scheduler model
CSM3	DFHMIRS	DFHISC	Queue model
CSM5	DFHMIRS	DFHISC	DL/I model
CSNC	DFHCRNP	DFHISC	IRC connection manager
CSNE	DFHZNAC	DFHVTAM	VTAM node abnormal
CSPG*	DFHTPR	DFHBMS	Terminal paging
CSPK	DFHPRK	DFHVTAMP	3270 print support
CSPP	DFHP3270	DFHHARDC	3270 print support
CSPQ	DFHTPQ	DFHBMS	Terminal page cleanup
CSPS	DFHTPS	DFHBMS	Terminal page scheduling
CSRK	DFHRKB	DFHVTAMP	3270 print support
CSRS	DFHZRSP	DFHRSEND	3614 message resynchronization
CSSF	DFHRTC	DFHISC	CRTE cancel remote transaction
CSSX	DFHDLS	DFHDLI	Status exit procedure (See note)
CSSY	—	—	Terminal abnormal (See note)
CSTE	DFHTACP	DFHSTAND	(See note)
CSTP	—	—	(See note)
CSXM	—	—	(See note)
CSZI	DFHSZRMP	DFHFPEI	Front end programming interface (FEPI), only active if FEPI installed.
CVMI	DFHMIRS	DFHISC	Synchronization level 1 mirror
CWTO*	DFHCWTO	DFHCONS	Write to console operator
CXCU	DFHCXCU	DFHSTAND	XRF catchup transaction
CXRE	DFHZXRE	DFHSTAND	Autoconnect processing
CXRT	DFHCRT	DFHISC	Transaction routing relay

Note: Transactions CGRP, CSSY, CSTP, and CSXM are transaction names that are used by some CICS tasks.

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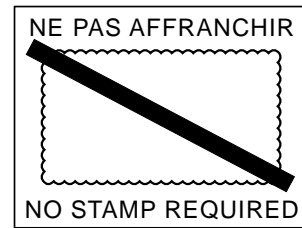
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