OS

IBM Systems Reference Library

IBM System/360 Operating System:
Messages and Codes

OS Release 21.7

This publication lists, explains, and suggests appropriate
responses to the system completion codes, wait state
codes, and messages produced by IBM-supplied components
of the IBM System/360 Operating System. The codes and
messages are presented in alphameric order.
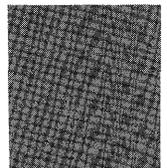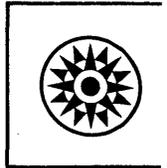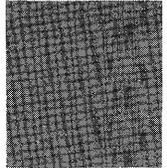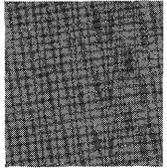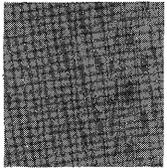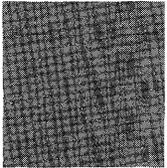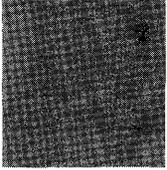
Thirteenth Edition (April, 1973)

This is a major revision of, and obsoletes, GC28-6631-12. See
the Summary of Amendments following the Contents. Changes
or additions to the text and illustrations are indicated by a
vertical line to the left of the change.

This edition with Technical Newsletter GN28-2598 applies to
release 21.7 of IBM System/360 Operating System and to all
subsequent releases until otherwise indicated in new editions or
Technical Newsletters. Changes are continually made to the
information herein; before using this publication in connection
with the lastest IBM System/360 and System/370 Bibliography
GA22-6822, for the editions that are applicable and current.

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IBM System/360 Operating System:
Messages and Codes

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This Technical Newsletter, a part of OS release 21.7, provides replacement pages
for the subject publication. These replacement pages remain in effect for subsequent
releases unless specifically altered. Pages to be inserted and/or removed are:

Front Cover, Edition Notice	299,300
9,10	305,306
25,26	311,312
29,30	329 - 332
39 - 48	339 - 342
51,52	349,350
57 - 60	381,382
89,90	387 - 392
93 - 96	395,396
107,108	405,406
149,150	419,420
159,160	427,428
163 - 182.2	437 - 442
187 - 194	461 - 464
201,202	479 - 484
215,216	581,582
237,238	585,586
243 - 246	603,604
251 - 254	641 - 646
261 - 264	655,656
269,270	713 - 714
281 - 286	

A change to the text or to an illustration is indicated by a vertical line to the left of
the change. Some pages without changes were reprinted in order to decrease the
number of page inserts.

Summary of Amendments

New messages have been added and deletions were made to some of the existing
messages. Updates were made to the routing and descriptor Codes Chart to reflect
the latest changes.

Note: Please file this cover letter at the back of the manual to provide a record
of changes.

This publication lists the system completion codes, wait state codes, and messages produced by IBM-supplied components of the operating system. The causes of the codes and messages are explained, the accompanying actions by the operating system are described, and appropriate responses are suggested. The codes and messages are presented in alphameric order.

ASSOCIATED PUBLICATIONS

This publication contains some messages that appear in other publications and are duplicated in this publication, and some messages that appear in this publication only. Those publications that contain messages or that serve as references to specific messages are listed at the beginning of their appropriate message sections in this publication.

Those publications that introduce concepts and terminology relevant to all messages are:

IBM System/360 Operating System:

Data Management Services, GC26-3746

Job Control Language Reference, GC28-6704

Operator's Procedures, GC28-6692

Operator's Reference, GC28-6691

Programmer's Guide to Debugging, GC28-6670

Supervisor Services and Macro Instructions, GC28-6646

Contents

Figures

**Summary of Amendments
for GC28-6631-13
as updated by GN28-2598
OS Release 21.7**

New messages have been added and deletions were made
to some of the existing messages. Updates were made to
the routing and descriptor Codes Chart to reflect the
latest changes.

**Summary of Amendments
for GC28-6631-13
OS Release 21.7**

TCAM
Support of Level 4 TCAM has caused changes in the
system completion codes, TCAM messages (IED), and
supervisor and data management assembler macro
expansion messages (IHB).

IMAPTFLE
Messages were added to support the generate
function.

Miscellaneous
Minor changes have been made throughout the
book for clarity and accuracy.

Summary of Amendments
for GC28-6631-12
OS Release 21

3410 Tape Subsystem - 3420/3803 Tape Subsystem
Input/Output Supervisor message IEA000I now
contains information for these new tape
subsystems.

3505/3525 Card Reader/Punch
Two new system completion codes and four new
data management (IEC) messages provide support
from the 3505/3525 card reader/punch.

Model 65 - MP Shared DASD (IEE)
The Master Scheduler (IEE) messages contain
support for Model 65 Multiprocessing shared
direct access files.

Open, Close End-of-Volume Repack
System completion codes for the open, close,
end-of-volume Data Management routines will
now be accompanied by messages that indicate
the associated return code, jobname, stepname,
ddname-concatenation number, dsname, and
volume serial number.

Password Protect
The System Utility (IEH) section now includes
the IEHPROGM Password Protect function
messages.

PCP Removal
The Primary Control Program (formerly known as
the Unit Control Program) is not supported for
this release.

Problem Determination
Messages and codes throughout the book contain
additional problem determination information.
A new section has been added to consolidate
common problem determination actions (Part
VI). Messages will now indicate problem
determination actions under the heading
"Problem Determination" and refer the user to
the tables in Part VI.

Service Aids
Three new Service Aid programs have messages
for this release: IHLGTF (the Generalized
Trace Facility), IMCOSJQD (the OS jobqueue
dump service aid), and IMBLIST (the module
list service aid). The IMDPRDMP service aid
message now include the GTF EDIT messages.

Status Display
Master Scheduler (IEE) section now includes
messages for Status Display support.

RMS for System 370/135
The Machine Check Handler and Dynamic Device
Reconfiguration (IGF) section contains RMS/135
messages.

Summary of Amendments
for GC28-6631-11
as updated by GN28-2501
OS Release 20.6

TSO
This technical newsletter includes messages of
the TSO START/STOP/MODIFY function.

IMDPRDMP
This technical newsletter includes messages of
the IMDPRDMP - PRINT SWAP function.

This publication lists, explains, and suggests appropriate responses to the system completion codes, wait state codes, and messages produced by most of the IBM-supplied components of the IBM System/360 Operating System.

Note: Numbered messages for certain programs, such as the compilers, assemblers, and other special application programs (if not listed in this publication) are contained in the associated System Reference Library publication. Where desired, the messages may be moved from their associated programmer's guide and placed behind the appropriate section title page provided in this publication.

Part I contains the system completion codes. These 3-digit hexadecimal codes designate conditions causing abnormal termination of a task or a job step.

Completion codes are intended to be interpreted after execution by the operator, programmer, system programmer, or installation manager. Where possible, action required for resolution of the abnormal termination is indicated in the associated operator or programmer response.

During execution, a completion code may be interpreted and/or handled by the (1) COND parameter of the EXEC or JOB statement, or by (2) an appropriate user-written routine specified in the STAE macro instruction or the ETXR operand of the ATTACH macro instruction.

Part II lists all the system wait state codes. A wait state code is the last 12 bits of the current program status word (expressed in hexadecimal), indicating the reason for the wait state. Unless otherwise specified, the wait state is to be interpreted by the operator and handled according to the operator response given for the code.

Part II also contains diagnostics and corrective actions for uncoded wait states and loops.

Part III contains numbered messages produced by IBM-supplied components of the System/360 Operating System. Numbered messages are grouped by component name and listed in numeric order.

Part IV contains the unnumbered messages produced by IBM-supplied components. They are grouped alphabetically according to issuing component name and are listed alphabetically within their respective groups.

Part V contains the routing and descriptor codes for applicable messages. Messages and their routing and descriptor codes are tabularized and grouped by component name; and within each table, they are listed in alphameric order.

Part VI contains problem determination information. Where applicable, the documentation for messages and codes will identify common problem determination actions by referring to the action lists in Part VI, or by identifying unique actions.

PART I: SYSTEM COMPLETION CODES

Completion Code Summary (Part 1 of 10)

Group	Comple-tion Code	Operation or Macro Instruction	Explanation
BISAM/ BSAM/ QSAM/ BDAM	001	CHECK, GET, PUT	I/O error; terminate specified or no SYNAD specified
BSAM/ QSAM/ BDAM/ ISAM	002		Record is greater than 32,768 bytes; exceeds maximum track length or stated blocksize; could not be contained in one extent; too many tracks specified for cylinder overflow; or BDW or RDW (SDW) invalid.
	003	EOB	3525 associated data set I/O macro sequence error.
	004	OPEN	Invalid FORMAT card or invalid device specified with OMR. Conflicting or invalid DCB parameter. Data protection image not present in SYS1.IMAGELIB.
	008	CHECK while creating direct data set	SYNAD returned to CHECK routine, but save area was destroyed
BDAM	020	OPEN	Invalid DCBMACRF field or data set contained zero extents
	025		Address in DCBSQND field outside task
	026	Processing with exclusive control	Invalid DCBXARG field or exclusive control status not indicated
BISAM/ QISAM	030	OPEN	Invalid DCBMACRF field
	031		I/O error; no SYNAD specified
	032	OPEN	Invalid DCBMACRF field
	033	OPEN	I/O error in reading volume index or in validating last record pointers, or address in DCBMSHI field outside task or under incorrect protection key
	034	OPEN	DCBMSHI and DCBSMSI fields specify area too small for volume index
	035	OPEN	DCBMSWA and DCBSMSW fields specify area too small for one track
	036	OPEN	No prime area specified
	037	OPEN	Invalid buffer specification
	038	OPEN	Index area too small or crosses volumes
	039	Scanning	End of data set; no address in DCBEODAD field
	03A	CLOSE	I/O error in writing updated format 2 DSCB
	03B	OPEN	ISAM data set to be processed, but not created or its DCB not closed after creation
	03E	OPEN	Records to be loaded, but data set previously loaded; attempt to add records with resume load to variable length data set
BISAM/ QISAM/ BDAM	03D	OPEN	No DSORG=IS or ISU in DD or serial numbers in SER in DD not in order or not all present

Group	Comple-tion Code	Operation or Macro Instruction	Explanation
TCAM	040	OPEN	Error in opening a TCAM line group data set.
	041	OPEN	Error in opening a TCAM message queues data set.
	042	Processing	Error in running a TCAM MCP with the telecommunication on-line test executive.
	043	OPEN	Error in opening a TCAM application program data set.
	044	Processing	Error in processing the FE common write subtask.
	045	Message Control Program (MCP)	I/O error or logical read error.
	046	CLOSE	TCAM MCP is scheduled to be terminated, application program data set is active. Completion code is for the application program data set.
Graphics access method (GAM)	056	Graphic attention service routine	ANALYZ or GSERV specified DCB, which pointed to DEB, which pointed to invalid UCB
	057	Graphic attention service routine	ANALYZ or GSERV specified DCB, which pointed to DEB, which pointed to UCB for other than graphic device
	061	CLOSE	CLOSE issued DAR for GACB that was not specified (via SPAR) by the closing task
	062	Graphic Subroutine Package (GSP) for FORTRAN IV, COBOL, and PL/I	Return code equal to or greater than value of null argument produced
	063		2250 operator depressed alphameric keyboard CANCEL key and used light pen to terminate program
BTAM	090	OPEN	UCB for other than communications device
	091	OPEN	UCB specified invalid or unsupported transmission control unit
	092	OPEN	UCB specified invalid or unsupported terminal control or adapter
	093	OPEN	UCB specified invalid or unsupported terminal
	094	OPEN	UCB specified invalid or unsupported optional feature or mode of operation
	095	OPEN	Line group did not have identical terminal types and/or optional features
	096	OPEN	DCBBFTEK field specified dynamic buffer allocation, but DCBBUFCB, DCBBUFNO, and DCBBUFL fields not specified
	097	OPEN	Device I/O directory full
	098	OPEN	Transmission control unit not a 2701 or the Dual Communication Interface, or Dual Code Feature not specified in UCB
QTAM	0A0	OPEN	DCBTRMAD field not filled
	0A1	OPEN	DCBSOWA field not filled
	0A2	OPEN	ddname, in DD or terminal table, not name of process entry in terminal table

Completion Code Summary (Part 3 of 10)

Group	Completion Code	Operation or Macro Instruction	Explanation
QTAM (Cont.)	0A3	Message control program	All available space used in message queues data set
	0A4	Checkpoint data set	Insufficient space allocated when opening data set; I/O error when setting up format of or closing data set
	0A5	OPEN	DCB for main storage process or main storage destination queue previously opened
	0A6	OPEN,CLOSE	DCB for direct access message queue not opened first or not closed last
	0A7	OPEN	DCB for checkpoint data set opened before DCB for direct access message queues data set opened, or uncorrectable disk error
Job scheduler	0B0		I/O error in reading or writing SYS1.SYSJOBQE
	1B0		Invalid TTR for SYS1.SYSJOBQE found by system conversion routine
PROLOGUE	0Cx		Program interruption, not in I/O interruption handler or type 1 SVC routine; no program routine to handle interruption; x = program interruption code
	0F1		Program interruption in I/O interruption handler
	0F2		Program interruption in type 1 SVC routine
	0F3		Machine-check interruption; MCH or SER1 able to abnormally terminate job step to continue operating system
	0F5		Program interruption occurred while loading transient area for type 3 or 4 SVC
EXCP (SVC 00)	200	I/O operation	Invalid ECB, IOB, DCB protect key
	300	I/O operation	Invalid DEB protect key
	400	I/O operation	Invalid DCB pointers
	500	I/O operation	Invalid UCB address
WAIT (SVC 01)	101	WAIT	More events than ECBs
	201	WAIT	Invalid ECB address
	301	WAIT	ECB wait flag already on
POST (SVC 02)	102	POST	Invalid ECB address
	202	POST	Invalid RB address in ECB
Task termination (SVC 03)	103	RETURN or branch to return address in register 14	ECB already posted or RB address in ECB invalid
	A03	RETURN or branch to return address in register 14	Subtasks not yet terminated

Group	Completion Code	Operation or Macro Instruction	Explanation
Task termination (SVC 03) (Cont.)	C03	RETURN or branch to return address in register 14	TCBDEB points to DEB that is associated with an invalid DCB Warning: Not all data sets closed
	D03	RETURN or branch to return address in register 14	ENQ resources not yet released
GETMAIN (SVC 04)	104	GETMAIN for program in supervisor mode	Not enough available storage in local system queue area.
	504	GETMAIN with LA and A operands	Length and address lists overlap
	604	GETMAIN	Invalid address or length in free area queue element, or inactive program specification; address in A or LA operand is outside task or is not multiple of 4; address of parameter list erroneous
	704	GETMAIN	List request; MVT not in system
	804	GETMAIN or language processor	Request for zero bytes of main storage or not enough main storage available
	B04	GETMAIN	Subpool number greater than 127
	C04	GETMAIN	Invalid storage hierarchy specification
	E04	GETMAIN for program in supervisor mode	Not enough main storage available
FREEMAIN (SVC 05)	305	FREEMAIN	Area to be released not within correct subpool or not described by DQE
	505	FREEMAIN with LA and A operands	Length and address lists overlap
	605	FREEMAIN	Invalid address or length in free area queue element; address in A or LA operand is outside task or is not multiple of 4; address of parameter list erroneous
	705	FREEMAIN	List request; MVT not in system
	905	FREEMAIN	Address of area to be released not multiple of 8
	A05	FREEMAIN	Area to be released overlaps an existing free area
	B05	FREEMAIN	Subpool number greater than 127
	D05	FREEMAIN	Attempt to free system queue space storage not owned by task
FETCH (SVC 06)	106	LINK, LOAD, ATTACH, XCTL	Error while loading module into main storage: scatter data invalid (MVT), invalid record type (MFT), invalid address (MFT, or MVT), I/O error (MFT or MVT)

Completion Code Summary (Part 5 of 10)

Group	Comple-tion Code	Operation or Macro Instruction	Explanation
FETCH (SVC 06) (Cont.)	406	LINK, ATTACH, XCTL	Module was only loadable; module specified by entry point defined by IDENTIFY macro instruction in system with option 3, but not MVT
	506	LINK, LOAD, ATTACH, XCTL	Not enough main storage for module and overlay supervisor or TESTRAN interpreter
	606	LINK, LOAD, ATTACH,	Not enough main storage for module
	706	LINK, LOAD, ATTACH, XCTL	Module marked "not executable"
	806	LINK, LOAD, ATTACH, XCTL	BLDL detected error: module not found or I/O error during directory search
	906	LINK	Tasks waiting for reenterable or serially reusable module exceed 255
	A06	LINK	Task already waiting for serially reusable module
	B06	I/O activity	Abnormally terminating system error task reinstated, and user task abnormally terminated
	C06	XCTL	Abnormally terminating transient area task reinstated, and user task abnormally terminated
XCTL (SVC 07)	207	XCTL	Asynchronous exit routine attempted to execute XCTL
LOAD (SVC 08)	308	LOAD	Module specified by entry point defined by IDENTIFY macro instruction
GETMAIN, FREEMAIN with R operand (SVC 0A)	10A	GETMAIN for program in supervisor mode	Not enough available storage in local system queue area.
	20A	Getting, freeing, or replacing region for new job step	Storage still allocated to previous step; new step
	30A	FREEMAIN	Area to be released not within correct subpool or not described by DQE
	40A	FREEMAIN	Attempt to release all of subpool zero
	60A	GETMAIN, FREEMAIN	Invalid address or length in free area queue element or inactive program specification; address of area to be released (in register 1) not multiple of 8
	80A	GETMAIN	Request for zero bytes of main storage or not enough main storage available
	90A	GETMAIN, FREEMAIN	Inactive program address not multiple of 8; address of area to be released not multiple of 8
	A0A	GETMAIN, FREEMAIN	Inactive program overlaps free area; area to be released overlaps an existing free area

Group	Completion Code	Operation or Macro Instruction	Explanation
GETMAIN, FREEMAIN with R operand (SVC 0A) (Cont.)	B0A	GETMAIN, FREEMAIN	Subpool number greater than 127
	D0A	FREEMAIN with R operand	Attempt to free system queue space storage not owned by task
ABEND (SVCOD)	D0D	ABEND	Invalid ABEND recursion during abnormal termination of subtask; job step task terminated.
	E0D	ABEND	Insufficient main storage available for ABEND processing of subtask, job step terminated.
OPEN (SVC 13)	013	OPEN	Conflicting or unsupported parameters in DCB; member name specified in DD not found; no directory allocation subparameter in DD
	113	OPEN, OPEN with TYPE=J	I/O error in reading or writing JFCB or in reading JFCB extension block; no exit code provided
	213	OPEN	DSCB not found; I/O error in reading or writing DSCB
	313	OPEN	I/O error in reading format 3 DSCB
	413	OPEN	INPUT, INOUT, or RDBACK specified but no serial number in SER in DD; I/O error in reading volume label; could not mount volume on device; volumes specified less than devices allocated
	513	OPEN	Attempting to open second DCB for same tape volume
	613	OPEN	I/O error in label processing or tape positioning
	713	OPEN	Expiration date not occurred, but data set to be opened for output and DD contained MOD in DISP
	813	OPEN	Verification error in label processing
	913	Supplying of password	Operator entered incorrect password twice; third byte of 80-byte record for data set not used to indicate read, write, or read and write
	A13	OPEN	File sequence number in LABEL in DD not on volume
	B13	OPEN for UCS printer	Operator canceled UCS load or permanent I/O error detected
	C13	OPEN, OPEN with TYPE=J, OPEN for graphics	I/O error in reading JFCB or DSCB for concatenated data set; JFCB or DSCB not found for one data set in concatenation; graphic DCB already opened by another task
	D13	OPEN for graphics	DCB for other than graphics device
	E13	OPEN for graphics	DCBGNCP field not 1 through 99
CLOSE (SVC 14)	214	CLOSE	I/O error in tape positioning or volume disposition
	314	CLOSE	I/O error in reading DSCB
	414	CLOSE	I/O error in writing updated DSCB
	514	CLOSE	I/O error in reading JFCB
	614	CLOSE	I/O error in writing file mark

Group	Completion Code	Operation or Macro Instruction	Explanation
CLOSE (SVC 14) (Cont.)	714	CLOSE	I/O error in label processing
	A14	CLOSE	I/O error in release of unused direct access space
	B14	CLOSE	STOW unable to store, modify, or delete data from partitioned data set directory because name already in directory, no space available in directory, or I/O error in searching directory
	D14	CLOSE for graphics	Graphic device previously opened by another task
TCLOSE (SVC 17)	117	BSAM CLOSE with TYPE=T	I/O error in tape positioning or writing file mark
	217	BSAM CLOSE with TYPE=T	I/O error in reading JFCB
	317	BSAM CLOSE with TYPE=T	I/O error in reading DSCB
	417	BSAM CLOSE with TYPE=T	I/O error in writing updated DSCB
	717	BSAM CLOSE with TYPE=T	I/O error in label processing
Master scheduler (SVC 22)	122		Operator canceled job, requested dump
	222		Operator canceled job, did not request dump
	322		Execution of job step or cataloged procedure taking longer than time specified
	422		Job required too much queue space for initiation
	622		Initiation of task execution entered from a TSO terminal terminated
	522		All tasks in SVC wait state for 30 consecutive minutes or for time specified in JWT parameter (is systems with SMF)
	722		OUTLIM keyword on SYSOUT DD statement exceeded
WTO/WTOR (SVC 23)	D23	WTO, WTOR	Parameter list does not begin on proper boundary
	E23	REPLY command processing (in response to WTOR)	Invalid ECB address or reply address
SEGLD/ SEGWT (SVC 25)	425	SEGWT	Exclusive segment requested

Group	Completion Code	Operation or Macro Instruction	Explanation
EXTRACT (SVC 28)	128	EXTRACT	Output list not on fullword boundary or not contained in storage assigned to job step
	228	EXTRACT	Input parameter list not on fullword boundary or does not begin in storage assigned to job step
	328	EXTRACT	TCB not for immediate subtask
ATTACH (SVC 2A)	12A	ATTACH	Attempt to give subpool being shared with other subtasks
	22A	ATTACH	Subpool number greater than 127
	32A	ATTACH	Attempt to give job pack queue, which contains active programs, to new task
	42A	ATTACH	Address for ECB to be posted upon subtask termination is not multiple of 4, higher than highest main storage, or does not have same protection key as macro instruction
	52A	ATTACH	Insufficient LSQA storage to propagate the STAI environment
	62A	ATTACH (MFT)	Exceeded maximum number of tasks by this ATTACH
	72A	ATTACH	Issuer specified invalid parameter address
CHAP (SVC 2C)	12C	CHAP	Address for subtask TCB does not point to valid TCB or TCB of immediate subtask, is not multiple of 8, or points to valid task that has terminated
	22C	CHAP	Address of TCB of subtask not multiple of 8, higher than highest main storage, or does not have the same protection key as macro instruction
Overlay supervisor (SVC 2D)	12D		Words 3 and 4 of segment table invalid
	22D		Address in segment table or entry table outside storage for job step
	32D		Wrong length record or I/O error when loading segment
	C2D		Invalid scatter record

Completion Code Summary (Part 9 of 10)

Group	Comple-tion Code	Operation or Macro Instruction	Explanation
Overlay super-visor (SVC 2D) (Cont.)	D2D		Invalid record type found when loading segment
	E2D		Invalid address found when loading segment
DEQ (SVC 30)	130	DEQ without RET=HAVE	DEQ for resource not enqueued by prior ENQ
	230	DEQ	Invalid length specified for name representing resource
	330	DEQ	Reset-must-complete (RMC) specified in problem program state
	430	DEQ	Invalid parameter list
	530	DEQ	Task does not yet control resource specified
TEST OPEN (SVC 31)	331	TEST OPEN	No program entry point specified
	431		Symbol table and control dictionaries unreadable
EOV (SVC 37)	137	End of volume	I/O error in label processing
	237	End of volume	Verification error in label processing; tape label block count not same as DCB block count; interrupt during command chaining
	337	End of data set	No address in DCBEODAD field
	437	End of volume	Protection keys different in TCBPKF field of TCB and DEBDEBID field of DEB
	537	End-of-volume for multiple volumes	Specified volume being used for another data set
	637	End of volume	I/O error in writing tape mark, tape positioning, reading label, sensing for file protection ring; DCB bit does not indicate concatenation of unlike attributes
	737	End of volume or allocation of secondary quantity	I/O error; DSCB not found for multi-volume or concatenated data set
	837	End of volume for sequential data set	I/O error in reading or writing JFCB from or onto direct access
	A37	End of volume	EOV issued against a DCB that was not opened.
	B37	End of volume	Volume must be demounted from a device allocated to the data set, but system unable to dismount volume.
	D37	Output operation	More space needed but no secondary quantity specified in SPACE in DD

Group	Completion Code	Operation or Macro Instruction	Explanation
EOV (SVC 37) (Cont.)	E37	Output operation	More space needed but no more volumes specified in SER, volume count, or REF in DD; more space needed but unavailable in partitioned data set, additional space would require another volume or 17 extents
ENQ (SVC 38)	138	ENQ without RET= TEST, USE, or HAVE	Second ENQ without intervening DEQ
	238	ENQ	Invalid length for resource name
	338	ENQ	Set-must-complete (SMC) specified in problem program state
	438	ENQ	Invalid parameter list
DETACH (SVC 3E)	13E	DETACH	Subtask being detached not yet terminated
	23E	DETACH	Address of subtask TCB is not multiple of 8, is higher than highest main storage, does not have same protection key as macro instruction, or does not point to valid TCB or TCB of immediate subtask
	33E	DETACH	Subtask being detached not yet terminated (STAE=YES was specified)
CHKPT	13F		Error during execution of checkpoint restart
RDJFCB (SVC 40)	140	RDJFCB	I/O error in reading JFCB
	240	RDJFCB	No pointer to JFCB in DCB exit list
SWAP (SVC 55)	155		SVC 85 (in decimal) issued by user's task, but is restricted for use by Dynamic Device Reconfiguration
STATUS (SVC 78)	14F	STATUS	Program issued STATUS macro for other than STOP/START function
	160		Error in scheduling of attention exit routine
System Restart	2F3		Job was being executed when system failure occurred; a system restart was performed
Rollout/ Rollin	2FE		I/O error in rolling in a job step
	2FF		Abnormal termination at request of User Appendage III
Supervisor Call (SVC nn)	Fnn	SVC instruction	Invalid operand, nn, in SVC instruction
ESR (SVCs 109 116, 117)	16D		Invalid ESR code in register 15
Misc	3FE		Task abnormally terminated with teleprocessing I/O requests active or pending
	4FE		Task abnormally terminated with non-teleprocessing I/O requests active or pending

Completion Code	The completion code consists of a system code and a user code. The system code is supplied by the control program and is printed as a 3-digit hexadecimal number; the user code is supplied by the task and is printed as a 4-digit decimal number.
Program Producing Code	Completion codes are issued by the control program or problem program to indicate why a task was abnormally terminated. Abnormal termination occurs when the control program or a problem program issues an ABEND macro instruction. In the first case, the control program detected an error condition serious enough to prevent a task from performing its work. In the second case, the task detected an error that indicated it was not performing its work correctly. For example, a program may be producing a grand total by successive additions to the total. After each addition, the intermediate total could be compared to a value that should never be exceeded. If the intermediate total exceeds the value, the task could request an abnormal termination.
Audience and Where Produced	For programmer· SYSPRINT data set.
Completion Code Format	The system and user codes appear together in the task completion code field (TCBCMP) of the task control block (TCB) for the terminated task. For an abnormal termination by the control program, the system code is one of the codes listed in this publication. The user code is 0000. The system code tells the programmer the nature of the error that the control program found. For abnormal termination by the user, the system code is 000. The user code is the completion code specified in the ABEND macro instruction.
Comments	In systems with MFT, abnormal termination of a task causes abnormal termination of the job step. In systems with MVT, abnormal termination of the highest level task in a job step causes abnormal termination of the job step. Abnormal termination of a subtask terminates only the subtask itself and its subtasks. Subtask termination is indicated by the completion code in the event control block (ECB), specified when the subtask was attached, and the TCBCMP field of the task control block. In systems with MVT, an abnormally terminated subtask at a low level can indirectly cause abnormal termination of a job step. To do so, each subtask in the job step must abnormally terminate itself upon finding a completion code meaning abnormal termination of a lower level subtask; eventually, the highest level task terminates abnormally, thus, abnormally terminating the job step. To terminate the job step with the completion code for the original error in a subtask, each subtask must use its subtask's completion code as its own completion code.
Problem Determination	Refer to the fold-out in part VI of this publication for problem determination instructions.

001 **Explanation:** The error was detected during execution of (1) a BSAM, BISAM, or BDAM CHECK macro instruction, or (2) a QSAM GET or PUT macro instruction.
An input/output error condition was encountered:
- In case (1), the control program found that the data control block (DCB) did not contain the address of a SYNAD routine; therefore, control could not be given to a SYNAD routine and the task was abnormally terminated.
- In case (2), the DCBEROPT field of the data control block contained the terminate (ABE) option; therefore, the task was abnormally terminated. (Possibly the result of a GET after EOD.)

Programmer Response: In case (1), specify the address of an error analysis routine to be given control when an input/output error is detected. (This can be provided by the problem program or by the SYNAD operand of the DCB macro instruction.) Then execute the job step again.

In case (2), if desired, specify ACC or SKP in the EROPT operand of the DCB macro instruction. Then execute the job step again.

Problem Determination: Table I, items 1, 2, 3, 5a, 15, 29.

002 Explanation: The error occurred while the control program was processing a sequential data set with BSAM or QSAM, creating a direct organization data set, or opening an ISAM data set for QISAM load mode:
1. The record to be transferred was greater than 32,768 bytes.
2. If chained scheduling was the selected option, then the record exceeded the maximum track length of the direct access device being used.
3. If the record format specified track overflow, then the record to be written exceeded the stated blocksize.
4. If a direct access data set was being created and the record format specified track overflow, then the block to be written could not be contained in one extent.
5. Too many tracks were specified for cylinder overflow.
6. The record descriptor word (RDW) of a variable length record contains an invalid length.
   The length (including data characters and any control characters) must be less than 32,769 and greater than 4.
7. The Block Descriptor Word or Record (segment) Descriptor Word was invalid. (i.e., BDW less than 9 bytes or RDW less than 4 bytes.)
8. If the record to be transferred is larger than the track capacity and track overflow has not been specified.
9. The accumulated length of a spanned record being assembled in the record area exceeded the LRECL specified in the DCB.
10. Segments of variable spanned records were not in proper sequence when reading with QSAM.

Programmer Response: Probable user error. In the first case, the access methods cannot be used since the record length exceeds the maximum buffer length of the access methods.

In the second case, do not specify chained scheduling in the OPTCD operand of the DCB macro instruction. Then execute the job step again.

In the third case, change the BLKSIZE operand of the DCB macro instruction to reflect the actual blocksize of the data set being processed. Then execute the job step again.

In the fourth case, change the allocation of the data set to ensure that each of the extents is large enough to contain a block of data. (The CONTIG subparameter of the SPACE parameter of the DD statement can be used to

ensure a contiguous extent of requested size.) Then execute the job step again.

In the fifth case, change the CYLOFL operand of the DCB macro instruction to reflect the correct number of tracks. Then execute the job step again.

In the sixth case, check the first word of the variable length record to insure that it contains a valid length.

In the eighth case, do not specify a record size greater than the track capacity for the device unless track overflow has been specified.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

003 Explanation: The error occurred during End of Block processing using either BSAM or QSAM. An input/output error occurred during the processing of a data set associated with a 3525 reader/punch. The contents of register 15 indicate the nature of the errors:

Register 15 Contents in Hexadecimal	Explanation
'01'	The error occurred because of a READ input/output sequence error.
'02'	The error occurred because of a PUNCH input/output sequence error.
'03'	The error occurred because of a PRINT input/output sequence error.

System Action: The system terminates the task.

Programmer Response: Probable user error specify the I/O macro instruction in the proper sequence and rerun the job.

Problem Determination: Table I, items 1, 5a, 15, 16, 29.

004 Explanation: The error occurred during OPEN processing using either BSAM or QSAM because:
• A conflicting or invalid DCB parameter (FUNC or related parameter) is specified. The contents of register 15 indicate the nature of the error:

Register 15 Contents in Hexadecimal	Explanation
'01'	An invalid DCB FUNC parameter is specified.
'02'	An invalid combination of DCB FUNC parameter and CNTRL macro is specified.
'03'	Conflicting data set access methods are specified.
'04'	An invalid DCB is specified for a 3505 or 3525.

- An invalid format card or an invalid device was specified with Optical Mark Read (OMR). Register 15 contains a return code of X'05'.
- A data protection image was not found. This is indicated by a X'06' return code in register 15.

The image was not found because:

1. It is not in the SYS1.IMAGELIB data set.
2. The valume containing SYS1.IMAGELIB is not mounted.
3. The SYS1.IMAGELIB data set is not cataloged.

System Action: In all cases, the system terminates the task.

Programmer Response: Probable user error. In all cases, verify the referenced fields and rerun the job.

Problem Determination: Table I, items 1, 5a, 15, 16, 29.

008 Explanation: The error occurred during execution of a SYNAD routine. The routine was given control following execution of a BSAM CHECK macro instruction while creating a direct organization data set.

The SYNAD routine attempted to terminate by returning control to the control program routine for the CHECK macro instruction, but found that the save area, pointed to by register 13, was destroyed.

Programmer Response: Probable user error. Correct the SYNAD routine so that the control program save area is not destroyed. Then execute the job step again.

Problem Determination: Table I, items 1, 3, 5b, 15, 29.

013 Explanation: The error occurred during execution of an OPEN macro instruction. This system completion code is accompanied by message IEC141I. Refer to the explanation of message IEC141I in this publication for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated in message IEC141I.

Problem Determination: Table I, items 1, 3, 5b, 15, 29.

020 Explanation: The error occurred during execution of a BDAM OPEN macro instruction.

The control program found that the DCBMACRF field of the data control block did not contain an A, K, or I, or an attempt was made to open a BDAM data set which contained zero extents.

System Action: The system terminated the task.

Programmer Response: Probable user error. In the first case, make sure that A, K, or I is specified in the MACRF operand of the DCB macro instruction. Verify that the DCBMACRF field was not incorrectly modified by the problem program before the opening process. After making corrections, reassemble the program and execute the job step again.

In the second case, create the data set before attempting to open it as a BDAM file.

Problem Determination: Table I, items 1, 3, 5b, 15, 29.

025 Explanation: The error occurred during processing using BDAM.

The control program found an invalid address in the data control block (DCB). The invalid address specified a location outside the boundaries of the main storage assigned to the task.

The data control block address field that is in error is DCBSQND, which contains the address of the last or only input/output block (IOB) in the queue.

System Action: The system terminated the task, but did not produce a dump.

Programmer Response: Probable user error. Locate and correct the problem program error that incorrectly modified the data control block field. Then execute the job step again.

Problem Determination: Table I, items 1, 3, 15, 19, 29.

026 Explanation: The error occurred during a BDAM input/output operation for which exclusive control of a block was requested.

The control program found that control information associated with the exclusive control of blocks was incorrectly modified:
- The DCBXARG field of the data control block (DCB) did not specify the address of the READ exclusive module.
- The Read exclusive module, built by the Open routine, did not indicate the exclusive control status of the data control block.

Programmer Response: Verify that the DCBXARG field or the Read exclusive module was not modified by the problem program.

After making corrections, reassemble the program and execute the job step again.

Problem Determination: Table I, items 1, 3, 5a, 7ab, 15, 29.

030 Explanation: The error occurred during execution of a BISAM or QISAM OPEN macro instruction.

The control program found that the DCBMACRF field of the data control block (DCB) did not indicate a valid mode of operation for BISAM or QISAM. The DCBMACRF field is set up by the MACRF operand of the DCB macro

instruction or by the problem program before
the data control block is opened.

Programmer Response: Probable user error.
Make sure that a valid mode of operation is
specified in the MACRF operand of the DCB
macro instruction. Verify that the DCBMACRF
field was not incorrectly set up or modified
by the problem program. After making
corrections, reassemble the program and
execute the job step again.

Problem Determination: Table I, items 1, 3,
5b, 15, 29.

031 Explanation: An input/output error occurred
during processing using QISAM. The control
program attempted to pass control to an error
analysis (SYNAD) routine, but found that the
DCBSYNAD field of the data control block did
not contain the address of a valid SYNAD
routine. The task was abnormally terminated.

The DCBEXCD1 and DCBEXCD2 fields of the data
control block indicate the possible causes of
the original error:

DCBEXCD1:

Bit	Meaning
0	Lower key limit not found.
1	Invalid device address for lower limit.
2	Space not found.
3	Invalid request.
4	Uncorrectable input error.
5	Uncorrectable output error.
6	Block could not be reached (input).
7	Block could not be reached (update).

DCBEXCD2:

Bit	Meaning
0	Sequence check.
1	Duplicate record.
2	DCB closed when error detected.
3	Overflow record.
4	PUT: length field of record greater than length indicated in DCBLRECL field of the data control block.
5-7	(Reserved bits)

Programmer Response: Examine the DCBEXCD1
and DCBEXCD2 fields of the data control block
to determine the cause of the error. Specify
the address of an error analysis routine to
be given control when an input/output error
is detected. (This can be provided by the
problem program or by the SYNAD operand of
the DCB macro instruction.) Then execute the
job step again.

Problem Determination: Table I, items 1, 3,
5a, 15, 29.

032 Explanation: The error occurred during
execution of a BISAM or QISAM OPEN macro
instruction.

The control program found that the DCBMACRF
field of the data control block (DCB) did not
contain valid information for ISAM.

Programmer Response: Probable user error.
Make sure that valid information is specified
in the MACRF operand of the DCB macro

instruction. Verify that the DCBMACRF field
was not incorrectly modified by the problem
program before the opening process.

After making corrections, reassemble the
program and execute the job step again.

Problem Determination: Table I, items 1, 3,
5b, 15, 29.

033 Explanation: The error occurred during
execution of an OPEN macro instruction for an
indexed sequential data set:
• An input/output error occurred while
  reading the highest level index.
• An input/output error occurred while
  searching for the end-of-file mark
  following the last data record in the prime
  and independent overflow areas. The
  DCBLPDA and DCBLIOV fields of the data
  control block (DCB) contain, respectively,
  the addresses of the last records in the
  prime and independent overflow areas.
• The DCBMSHI field of the data control block
  contained an address that either specified
  a location outside the boundaries of the
  main storage assigned to the task or had a
  storage protection key other than that
  specified in the task control block (TCB).

Programmer Response: Verify that the
DCBLPDA, DCBLIOV, and DCBMSHI fields were not
incorrectly specified or modified by the
problem program. After making corrections,
reassemble the program and execute the job
step again.

Problem Determination: Table I, items 1, 3,
5b, 15, 29.

034 Explanation: The error occurred during
execution of a BISAM OPEN macro instruction.

The control program found that the DCBSMSI
and DCBMSHI fields of the data control block
(DCB) indicated a main storage area too small
to contain the highest level index for the
data set.

The size of the main storage area that should
be reserved for the highest level index is
placed in the DCBNCRHI field of the data
control block when the data set is created
for QISAM load mode.

Programmer Response: Probable user error.
The error can be corrected by one of the
following:
• Provide a sufficient main storage area by
  proper specification of the DCBSMSI and
  DCBMSHI fields.
• Provide no main storage area and either do
  not specify the contents of the DCBSMSI and
  DCBMSHI fields or set the fields to zero.
  The highest level index can then be
  processed without being loaded into main
  storage.

After making corrections, reassemble the
program and execute the job step again.

Problem Determination: Table I, items 1, 3,
5b, 15, 29.

035 **Explanation:** The error occurred during execution of a BISAM OPEN macro instruction.

The control program found that new records were to be added to the data set, but the DCBMSWA and DCBSMSW fields of the data control block (DCB) indicated a main storage area too small to contain one track from the prime area.

Programmer Response: Probable user error. The error can be corrected by one of the following:
• Provide a sufficient area by proper specification of the DCBMSWA and DCBSMSW fields. The minimum DCBSMSW field must indicate one track capacity plus one record.
• For fixed-length records, provide no main storage area and either do not specify the contents of the DCBMSWA and DCBSMSW fields or set the fields to zero. A main storage work area is required only for variable-length records.

After making corrections, reassemble the program and execute the job step again.

Problem Determination: Table I, items 1, 3, 5b, 15, 29.

036 **Explanation:** The error occurred during execution of a BISAM or QISAM OPEN macro instruction.

The control program found that no space was allocated on a direct access device as the prime area for the data set:
• In QISAM load mode, during data set generation, the SPACE parameter of the DD statement did not specify a primary quantity.
• The data set control block (DSCB) for the data set was incorrectly modified by the problem program.

Programmer Response: Probable user error. In the first case, the data set should be dumped sequentially and recreated using QISAM load mode. The job should be restarted with a primary quantity specified in the SPACE parameter of the DD statement. If the prime area is to span more than one volume, the number of volumes and the number of units required should be specified.

In the second case, verify that the data set control block was not incorrectly modified by the problem program. After making corrections, reassemble the program and execute the job step again.

Problem Determination: Table I, items 1, 3, 5b, 15, 29.

037 **Explanation:** The error occurred during execution of a BISAM or QISAM OPEN macro instruction.

The control program found that the buffers supplied by the programmer were inadequate for the records to be processed:
• If the buffers were acquired by use of the BUILD macro instruction, either the BUFNO operand of the DCB macro instruction was

not specified or the BUFL operand specified too small a value.
• If the buffers were acquired by use of the GETPOOL macro instruction, the buffer length operand specified too small a value.

Programmer Response: Probable user error. Specify the buffers correctly. Then execute the job step again.

Problem Determination: Table I, items 1, 3, 5b, 15, 29.

038 **Explanation:** The error occurred during execution of an OPEN macro instruction for QISAM load mode.

The control program found that the space on a direct access device which had been allocated for the index area was either exhausted or occupied more than one volume. The index for an ISAM data set must reside on one volume.

Programmer Response: Probable user error. If a new data set is being created, the job must be restarted with larger space allocation specified in the SPACE parameter of the DD statement.

If an old data set is being updated, the data set should be dumped sequentially, the old data set scratched, and the data set recreated from the sequential data set using QISAM load mode. The job should be restarted with larger space allocation specified in the SPACE parameter of the DD statement.

Problem Determination: Table I, items 1, 3, 5b, 15, 29.

039 **Explanation:** The error occurred in scanning a data set using QISAM.

The end of the data set (EOD) was reached. The control program found that the DCBEODAD field of the data control block (DCB) did not contain an end-of-data-set exit routine address.

Programmer Response: Probable user error. Make sure that the address of a routine to be given control when the end of the data set is reached is specified either in the EODAD operand of the DCB macro instruction or in the problem program before the end of the data set is reached. Then reassemble the program and execute the job step again.

Problem Determination: Table I, items 1, 3, 5b, 15, 29.

03A **Explanation:** The error occurred during execution of a BISAM or QISAM CLOSE macro instruction.

A format 2 data set control block (DSCB), read from a direct access device into main storage, was updated from various fields of the data control block (DCB). When an attempt was made to write the updated data set control block back to the direct access device, an input/output error occurred.

Programmer Response: Rerun the job.

Problem Determination: Table I, items 1, 3, 5a, 15, 25b, 29.

03B **Explanation:** The error occurred during execution of an OPEN macro instruction for an indexed sequential data set. No records could be processed for one of the following reasons:
1. The format 2 data set control block (DSCB) indicated that the data set had not been created.
2. The format 2 DSCB indicated that the data control block had not been closed after the data set had been created.
3. The DCBRKP field of the data control block was not valid.
4. The DCBKEYLE field of the data control block was zero.
5. A QISAM data control block was being opened in preparation for a PUT operation, but the OPEN macro instruction had not been issued for output.
6. There is an error in the specification of LRECL or BLKSIZE. An ISAM data set is being opened with DISP=SHR indicated. Either:
   a. The block size (DCBBLKSI) is less than the logical record length (DCBLRECL).
   b. The logical record length (DCBLRECL) is zero.
   c. The block size (DCBBLKSI) is not a multiple of the logical record length (DCBLRECL).

Programmer Response: In 1 and 2 above, make sure that the data set has been properly created and that the creating task closes the data control block.

In 3, make sure that the value of the DCBRKP field of the data control block, when added to the value in the DCBKEYLE field, does not exceed the value in the DCBLRECL field. If variable length records are used, make sure that the value of the DCBRKP field is not less than 4.

In 4, make sure that the DCBKEYLE field in the data control block does not contain zero.

In 5, make sure that OUTPUT is specified as option 1 in the OPEN macro instruction. In case 6, change the DISP parameter in the DD card to NEW, OLD or MOD.

In 6, make sure that the block size (BLKSIZE) and logical record length (LRECL) have been specified correctly and that they are compatible.

In all cases, execute the job step again.

Problem Determination: Table I, items 1, 3, 5b, 15, 29.

03D **Explanation:** The error occurred during execution of (1) a QISAM or BISAM OPEN macro instruction or (2) a BDAM OPEN macro instruction:

One of the following occurred:
• In case (1), the DD statement did not specify an indexed sequential organization (which can be specified by a DSORG=IS or DSORG=ISU subparameter of the DCB parameter).

• In case (1), if the data set resides on multiple volumes, either the volume serial numbers in the SER subparameter of the VOLUME parameter of the DD statement were not in proper sequence, or not all volume serial numbers were specified. The serial number of the volume containing the index must be listed first. The number of volumes and the number of units allocated must be the same, and all volumes must be mounted.
• In case (2), the volume serial numbers in the SER subparameter of the VOLUME parameter of the DD statement were not in proper sequence.

This system completion code is sometimes accompanied by message IEC156I. If so, refer to the explanation of message IEC156I in this publication for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Probable user error. Correct the DCB parameter or SER subparameter, as necessary, and execute the job step again.

If this system completion code is accompanied by message IEC156I, respond as indicated in the message.

Problem Determination: Table I, items 1, 3, 5b, 15, 29.

03E **Explanation:** The error occurred during execution of a QISAM OPEN macro instruction with resume load. The position of the last prime data record indicated that there was not enough space to add records with resume load.

The loading of an indexed sequential data set must be completed during the initial OPEN/PUT/CLOSE cycle for that data set. An indexed sequential data set which has been opened and closed for loading may be subsequently loaded if no data was created.

Possibly, an attempt was made to add records to the prime area of an ISAM data set with resume load; no space was available for additional records.

Programmer Response: Either load the data set again with a larger space allocation or add records using BISAM.

After making corrections, execute the job step again.

Problem Determination: Table I, items 1, 3, 5b, 15, 29.

040 **Explanation:** The error occurred during execution of an OPEN macro instruction for a TCAM line group data set.

If the user has coded an address in the DCBEXLIST operand of the DCB, the error code is in register 0. The exit routine may examine the code in register 0. If no user exit routine is specified, the type of error is indicated by message IED008I.

The contents of register 0 indicate the nature of the error:

Note: If no asynchronous error routine is provided, the value in register 0 following this ABEND will be meaningless.

Register 0
Contents in
Hexadecimal	Explanation
01	There is not enough main storage to build a data extent block (DEB) for a line group data set.
02	Incompatible stations are specified in the same line group.
13	The Device Class field of the first unit control block (UCB) for a station in the line group specifies something other than telecommunications or graphics.
04	An unsupported control unit is specified for this line group.
05	The adapter-type and model-code bits in a unit control block (UCB) specify something other than those devices supported by TCAM.
06	The device characteristics specified for stations in this line group are not consistent with the devices specified on the DD statement.
07	There is not enough main storage to build a line control block (LCB) for a line group.
08	There is not enough main storage to build a station control block (SCB) for a switched line.
09	The binary synchronous interface specified in the data control block does not agree with that specified in a unit control block (UCB) for a line in this line group.
11	No valid unit control block (UCB) addresses were found for this line group; all UCB addresses checked were zero.
12	The sum of the header prefix size plus the number of bytes reserved in the first buffer of each message by the RESERVE= operand in the line group DCB macro instruction is equal to, or greater than, the size of the buffers assigned to the lines in the group for input; thus, there is no room in the buffers for data.
13	There is no data set for the type of queuing specified by the terminal table entry for a line or line group.
14	The QUEUES= operand of a TERMINAL macro specified an unopened data set because each terminal entry for each line in this line group specified an unopened data set. The data set for this line group cannot be opened.
15	A queue control block (QCB) was found that specified a relative line number of zero.
16	The optional features specified in the unit control block (UCB) do not agree with those reflected in the device characteristics entry for this line.
17	There was not enough main storage to satisfy a GETMAIN request to build a TCAM control area in the subpool.
18	An invitation list is not specified for each line in the line group.

System Action: If a user ABEND exit is provided in the EXLST= operand of the DCB macro instruction for the data set, the routine is given control. If it returns, or if no user ABEND exit is provided, the task is terminated.

Programmer Response: Probable user error. No action is required if a user ABEND exit has been provided in the EXLST= operand of the DCB macro instruction for the line group data set. When the program is next reassembled, a user completion code should be supplied in register 15. For a more immediate fix, the contents of register 0 indicate the action to be taken:

Contents of
Register 0 in
Hexadecimal	Response
01	Specify a larger region or partition size on the JOB statement for the MCP.
02	Specify similar stations in the line group; reassemble and rerun the MCP.
03	Check the addresses specified in the line group DD statements to be sure that the line addresses are valid.
04	Check the addresses specified in the line group DD statements to be sure that the line addresses are valid.
05	Check the addresses specified in the line group DD statements to be sure that the line addresses are valid.
06	Check the addresses specified in the line group DD statements to be sure that the line addresses are valid.
07	Specify a larger region or partition size on the JOB statement for the MCP.
08	Specify a larger region or partition size on the JOB statement for the MCP.
09	Check the type of interface specified in the INVLIST= operand of the DCB macro against the bit settings specified in the UCBs for each line in this line group.
11	Specify DD statements with valid UNIT= operands.
12	Specify a larger buffer size for input on the BUFSIZE= and BUFIN= operands of the line group DCB macro, reassemble, and rerun the job. (If a DD

statement is used instead of specifying the RESERVE= operand, a reassembly is not required.)

13   If main-storage queuing is being used, verify that data sets were provided at INTRO execution time; if disk queuing is being used, ensure that the disk message queues data sets are opened before opening any line groups.

14   If main-storage queuing is being used, verify that data sets were provided at INTRO execution time; if disk queuing is being used, ensure that the disk message queues data sets are opened before opening any line groups.

15   Each TERMINAL macro must specify an unframed decimal integer between 1 and 255, inclusive (zero is invalid).

16   Verify that all DD statements specify the correct type of UCB for the lines being opened.

17   Specify a larger region or partition size on the JOB statement for the MCP.

18   Either remove excessive DD cards or reassemble the MCP with an invitation list included for each line in the group.

041   **Explanation:** The error occurred during execution of an OPEN macro instruction for a TCAM message queues data set.

If the user has coded an address in the DCBEXLIST operand of the DCB, the error code is in register 0. The exit routine may examine the code in register 0. If no user exit routine is specified, the type of error is indicated by message IED008I.

The contents of register 0 indicate the nature of the error:

Note: If no asynchronous error routine is provided, the value in register 0 following this ABEND will be meaningless.

Register 0 Contents in Hexadecimal	Explanation
0A	An incorrect length is specified for the address vector table (AVT) in order to support switched message queuing. Disk queuing is specified in a DCB macro defining a message queues data set, but the INTRO macro that generates the AVT specifies DISK=NO.
0B	The key length specified by the KEYLEN= operand of the INTRO macro does not agree with the key length specified in the IEDQDATA DD statement of the IEDQXA utility used to format the message queues data set.
0C	Dissimilar disk types are defined for message queuing.
0D	The OPTCT= operand for this DCB specifies something other than reusable or nonreusable queuing.
0E	A GETMAIN macro was issued by TCAM to obtain main storage to build a data extent block (DEB) for a message queues data set, but there was not enough main storage to satisfy the request.
0F	A GETMAIN macro was issued by TCAM to obtain main storage to build input/output blocks (IOBs) for a message queues data set, but there was not enough main storage to satisfy the request.
10	The message queues data set was allocated but not formatted correctly; the last record number written on a track is zero.
17	There was not enough main storage to satisfy a GETMAIN request to build a TCAM control area in the subpool.

System Action: If a user ABEND exit is provided in the EXLST= operand of the DCB macro instruction for the data set, the routine is given control. If it returns, or if no user ABEND exit is provided, the task is terminated.

Programmer Response: Probable user error. No action is required if a user ABEND exit has been provided in the EXLST= operand of the DCB macro instruction for the message queues data set. When the program is next reassembled, a user completion code should be supplied in register 15. For a more immediate fix, the contents of register 0 indicate the action to be taken:

Contents of Register 0 in Hexadecimal	Response
0A	Specify DISK=YES in the INTRO macro, reassemble, and execute again.
0B	Reassemble the job with the proper length specified in the KEYLEN= operand of the INTRO macro and rerun the MCP, or restart the TCAM job and override the KEYLEN= value by entering REPLY XX,'K=nn U' to message IED002A, or reformat the disk to the proper key length using the IEDQXA utility and rerun the MCP.
0C	Ensure that the disk types specified for message queuing are similar.
0D	Check and correct the contents of the DCB field.
0E	Specify a larger region or partition size on the JOB statement for the MCP.
0F	Specify a larger region or partition size on the JOB statement for the MCP.
10	Reformat the data set using the IEDQXA utility and rerun the MCP job.

17	Specify a larger region or partition size on the JOB statement for the MCP.

042 **Explanation:** An error occurred while running with the telecommunications on-line test executive (TOTE). The TOTE subtask has terminated.

Programmer Response: The MCP should be run without TOTE.

Problem Determination: Table I, items 5a, 10, 29.

043 **Explanation:** The error occurred during execution of an OPEN macro instruction for a TCAM application program data set. The contents of register 0 indicate the nature of the error:

Register 0 Contents in Hexadecimal	Explanation
01	An OPEN macro for a TCAM application program data set has been issued but there is no Message Control Program (MCP) active in the system.
02	The QNAME= parameter of the DD statement associated with an input or output DCB for an application program is not the name of a process entry defined in the terminal table.
03	A process entry named by the QNAME= parameter of a DD statement associated with an application program is currently being used by another application program.
04	Insufficient main storage was available in the MCP to build internal control blocks associated with the application program interface.
05	Insufficent main storage was available in the application program work area to build internal control blocks.

System Action: If a user ABEND exit is provided in the EXLST= operand of the DCB macro for the data set, the routine is given control. If it returns, or if no user ABEND exit is provided, the task terminates.

Programmer Response: Probable user error. No action is required if a user ABEND exit has been provided in the EXLST= operand of the DCB macro for the application program data set. The contents of register 0 indicate the action to be taken:

Contents of Register 0 in Hexadecimal	Response
01	Verify that an MCP is active before attempting to start an application program.
02	Recode the QNAME= parameter specifying the name of a valid process entry.
03	Specify a larger region or partition size on the JOB statement for the MCP.

04	Recode the QNAME= parameter specifying another valid process entry.
05	Specify a larger region or partition size on the JOB statement for the application program.

044 **Explanation:** The error occurred during execution of the FE Common Write (COMWRITE) task. The COMWRITE task has been terminated.

The contents of register 3 indicate the nature of the error:

Register 3 Contents in Hexadecimal	Explanation and Technical Information
01	Permanent I/O error on output device. Register 7 contains user ID; register 8 contains address of failing DECB.
02	STAE routine failed. Register 15 contains the return code.
03	User parameter list is incorrect, and output required was specified. Register 7 contains the address of the parameter list saved in COMWRITE. Register 11 contains the address of the error message.
05	OPEN failed on the output DCB.

Programmer Response: Response depends upon the contents of register 3:

Register 3	Response
01	Check the status of the recording medium. If it is valid, call IBM for hardware support.
02	Call IBM for hardware support.
03	Probable user error. Verify the parameter list.
04	Probable user error. Invalid device specified. Correct the specification.
05	Probable user error. Missing DD statement. Include the DD statement and rerun the job.

045 **Explanation:** The error occurred during execution of a TCAM Message Control Program (MCP). The MCP is terminated.

The contents of the low-order byte of register 15 indicate the nature of the error.

Register 15 Contents in Hexadecimal	Explanation
01	I/O has been requested on a non-reusable disk record that is beyond the capacity of the data set. The non-reusable disk data set cannot be wrapped.
02	Logical read error caused by the reusable disk receiving a heavy burst of new traffic, causing unsent messages to be overlaid before they can be copied to the alternate destination queue.

03	Logical read error while trying to fetch a message for transmission to a terminal.
04	The copy subtask needed to copy messages from one data set to another has not been loaded by the disk open. A multiple-route or distribution list message has been enqueued to go to dissimilar message queue types. The copy subtask is needed to put the message on the queue. Caused by failure to open successfully a disk message queue DCB.
05	I/O has been requested on an unopened disk message queues data set.
06	FEATURE=(,,NOTIMER) has been specified on the INTRO macro instruction, but a function requiring the system timer has been called.
07	A message longer than the reusable disk data set has been entered.
08	A disk hardware error occurred, not a logical read error.
09	An error occurred because not enough space was allocated for the checkpoint data set, or a read error occurred while trying to read records from the checkpoint data set during a restart.

Programmer Response: Except for 08, probable user error. To determine the action for a specific reason code, follow these procedures based on the contents of the low-order byte of register 15.

Register 15	Response
01	Either specify a larger data set or request that closedown occur at an earlier point.
02,03,07	Specify a larger data set or one that occupies more than one extent. For further suggested corrections, refer to the publication IBM System/360 Operating System: TCAM Programmer's Guide and Reference Manual, GC30-2024.
04,05	Before issuing the line opens, test for successful open of the message queues data set.
06	Specify FEATURE=(,,TIMER), reassemble and rerun the MCP.
09	Determine the exact cause of the failure by the message written to the operator just before this ABEND and refer to the explanation and programmer response for that particular message.

Problem Determination: For a return code of 08, Table I, items 1, 2, 4, 5a, 18, 30. For all other return codes, Table I, items 5a, 10, 29; obtain a listing of the message queues data set.

046 Explanation: The TCAM MCP has been terminated but an application program data set is still open. The application program data set is scheduled to be terminated with a system completion code cf 046.

System Action: The application program is terminated.

Programmer Response: Follow the programmer response for the system completion code provided with the termination of the MCP.

056 Explanation: The error occurred during execution of the graphic attention service routine for the IBM 2250 Display Unit, Model 1, or the IBM 2260 Display Station.

The routine referred to an invalid unit control block (UCB). The routine obtained the reference to the unit control block through a data control block (DCB).

The user gives the routine the addresses of data control blocks through the poll list address in the first operand of the ANALYZ macro instruction or the address of one data control block through the list item address in the first operand of the GSERV macro instruction. The DCBDEBAD field in the data control block points to a data extent block (DEB), which in turn points to the unit control block.

The unit control block is used by the control program to obtain information about an input/output device; each unit control block is associated with one input/output device.

Programmer Response: Probable user error. Check the first operand in the ANALYZ or GSERV macro instruction to make sure that it specified the poll list address or list item address correctly. If the first operand was correct, make sure that the macro-expansion and the data control block were not incorrectly modified by program errors. After correcting the error, execute the job step again.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

057 Explanation: The error occurred during execution of the graphic attention service routine for the IBM 2250 Display Unit, Model 1, or the IBM 2260 Display Station.

The routine referred to a unit control block (UCB) that was associated with other than a graphic device. The routine obtained the reference to the unit control block through a data control block (DCB).

The user gives the routine the addresses of data control blocks through the poll list address in the first operand of the ANALYZ macro instruction or the address of one data control block through the list item address in the first operand of the GSERV macro instruction. The DCBDEBAD field in the data control block points to a data extent block (DEB), which in turn points to the unit control block.

The unit control block is used by the control program to obtain information about an input/output device; each unit control block is associated with one input/output device.

Programmer Response: Probable user error. Check the first operand in the ANALYZ or GSERV macro instruction to make sure that it specified the poll list address or list item address correctly. If the first operand was correct, make sure that the macro-expansion and the data control block were not incorrectly modified by program errors. After correcting the error, execute the job step again.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

061 **Explanation:** The error was detected during execution of a CLOSE macro instruction for a graphic data control block.

The graphic CLOSE executor issued a DAR macro instruction for a graphic attention control block (GACB) which was not specified (via a SPAR macro instruction) by the closing task.

System Action: Abnormal termination occurred for the task that issued the SPAR macro instruction for the graphic attention control block.

Programmer Response: Probable user error. Issue a DAR macro instruction for the graphic attention control block in the task which issued the SPAR macro instruction before the closing task issues the CLOSE macro instruction. Then execute the job step again.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

062 **Explanation:** The error occurred during execution of a routine of the graphic subroutine package (GSP) for FORTRAN IV, COBOL, and PL/I.

A condition was encountered that produced a return code equal to or greater than the value specified by the programmer as the "null" argument in the call to the INGSP subroutine. The GSPARRAY field in the GSPCB identifies the return code produced, register 2 contains the address of the status table entry last invoked, and register 3 contains the address of the GSPARRAY field.

Programmer Response: Determine the condition that caused the job step to be abnormally terminated and alter the program accordingly. Then, execute the job step again.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

063 **Explanation:** During execution of a problem program, the 2250 operator depressed the alphameric keyboard CANCEL key causing the Graphic Cancel Routine to be activated. Then, as a response to a display produced by the routine, the 2250 operator used the light pen to terminate the program, either with or without an abnormal termination dump.

Programmer Response: Determine from the 2250 operator the condition that caused him to terminate the program, and respond accordingly.

090 **Explanation:** The error occurred during execution of a BTAM OPEN macro instruction.

An OPEN routine found that a device other than a communications device was allocated to the data control block (DCB) being opened; that is, the device class code in the unit control block (UCB) for the device allocated to the data control block was not equal to hexadecimal 40.

Programmer Response: Either the UNIT parameter of the DD statement for the communications device is incorrect or the unit control block generated during system generation is invalid. Check for improper specification of the UNIT parameter or the IODEVICE macro instruction used in generating the system. Also, check for program errors that could have improperly modified control information. After correcting the error, execute the job step again.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

091 **Explanation:** The error occurred during execution of a BTAM OPEN macro instruction.

An OPEN routine found an invalid or unsupported type of transmission control unit specified in the unit control block (UCB) for the device allocated to the data control block (DCB) being opened.

Programmer Response: Check for improper specification of the IOCONTRL macro instruction used in generating the system. Also, check for program errors that could have improperly modified control information. After correcting the error, execute the job step again.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

092 **Explanation:** The error occurred during execution of a BTAM OPEN macro instruction.

An OPEN routine found an invalid or unsupported type of terminal control or terminal adapter specified in the unit control block (UCB) for the device allocated to the data control block (DCB) being opened.

Programmer Response: Check for improper specification of the ADAPTER parameter in the IODEVICE macro instruction used in generating the system. Also, check for program errors that could have improperly modified control information. Correct the error, and execute the job step again.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

093 **Explanation:** The error occurred during execution of a BTAM OPEN macro instruction.

An OPEN routine found an invalid or unsupported type of terminal specified in the unit control block (UCB) for the device allocated to the data control block (DCB) being opened.

Programmer Response: Check for improper specification of the UNIT parameter in the IODEVICE macro instruction used in generating the system. Also, check for program errors that could have improperly modified control information. Correct the error, and execute the job step again.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

094 **Explanation:** The error occurred during execution of a BTAM OPEN macro instruction.

An OPEN routine found an invalid or unsupported optional feature or mode of operation specified in the unit control block (UCB) for the device allocated to the data control block (DCB) being opened.

Programmer Response: Check for improper specification of the FEATURE parameter in the IODEVICE macro instruction used in generating the system. Also, check for program errors that could have improperly modified control information. Correct the error, and execute the job step again.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

095 **Explanation:** The error occurred during execution of a BTAM OPEN macro instruction.

An OPEN routine found that the lines allocated to the line group did not have identical terminal types and/or optional features.

Programmer Response: Determine which line group contains different terminals and redefine its lines through DD statements or a new system generation.

Problem Determination: Table I, items 1, 3, 5a, 29.

096 **Explanation:** The error occurred during execution of a BTAM OPEN macro instruction.

An OPEN routine found that dynamic buffer allocation had been specified in the DCBBFTEK field of the data control block (DCB). However, the OPEN routine could not dynamically allocate buffers because the data control block specified neither the address of a buffer pool control block (in the DCBBUFCB field) nor the number and length of the buffers (in the DCBBUFNO and DCBBUFL fields).

Programmer Response: Correct the error by (1) providing a buffer pool and specifying the address of its control block in the DCBBUFCB field, (2) specifying the number and length of the buffers in the DCBBUFNO and DCBBUFL fields, or (3) handling buffering in the program and deleting the BFTEK=D operand in the DCB macro instruction or DCB parameter

of the DD statement. Then execute the job step again.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

097 **Explanation:** The error occurred during execution of a BTAM OPEN macro instruction.

The open routine required an additional entry in the device I/O directory; however, the directory was already full. Since the last system start, the maximum number of device types have already been opened. Normally, the maximum number of device types is 16.

Programmer Response: Additional space in the device I/O directory can be provided by changing one statement in the Read/Write routine. The statement following the one labeled IOD must be changed. The duplication factor must be increased to correspond to the number of different device types being used. The new Read/Write routine must be reassembled and link edited to SVCLIB with RENT, NE, and DC as parameters. The IEHIOSUP program must then be executed.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

098 **Explanation:** The error occurred during execution of a BTAM OPEN macro instruction. Dual Communication Interface B or Dual Code Feature B was specified. However, the transmission control unit was not a 2701, the transmission control unit was not the Dual Communication Interface, or the Dual Code Feature was not specified in the unit control block (UCB).

Programmer Response: Probable user error. Correct program errors and execute the job step again.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

0A0 **Explanation:** The error occurred during execution of a QTAM OPEN macro instruction. The DCBTRMAD field in the data control block (DCB) had not been filled before the system attempted to open the block. (Register 2 contains the address of the data control block in error.)

System Action: The system terminated the task, but did not produce a dump.

Programmer Response: Reassemble the program, specifying the TRMAD parameter in the DCB macro instruction or filling the DCBTRMAD field in the data control block before the OPEN macro instruction is executed. Then execute the job step again.

Problem Determination: Table I, items 3, 15, 29.

0A1 **Explanation:** The error occurred during execution of a QTAM OPEN macro instruction that specified the data control block (DCB) for the main storage-process queue.

The DCBSOWA field in the data control block had not been filled before the system attempted to open the block. (Register 2 contains the address of the data control block in error.)

System Action: The system terminated the task, but did not produce a dump.

Programmer Response: Reassemble the program, specifying the SOWA parameter in the DCB macro instruction or filling the DCBSOWA field in the data control block before the OPEN macro instruction is executed. Then execute the job step again.

Problem Determination: Table I, items 3, 15, 29.

0A2 Explanation: The error occurred during execution of a QTAM OPEN macro instruction that specified the data control block (DCB) for the main storage-process queue.

The data definition name specified in the name field of the DD statement or as an entry in the terminal table is not the name of the process entry in the terminal table. (Register 2 contains the address of the data control block in error.)

System Action: The system terminated the task, but did not produce a dump.

Programmer Response: Reassemble the program, specifying the correct data definition name in the DD statement or terminal table. Then execute the job step again.

Problem Determination: Table I, items 3, 15, 29.

0A3 Explanation: The error occurred during execution of the QTAM message control program.

QTAM used all available space in the message queues data set.

Programmer Response: Execute the job again.

Problem Determination: Table I, items 3, 15, 29.

0A4 Explanation: The error occurred in using the checkpoint data set during QTAM processing.

The contents of register 15 indicate the nature of the error:

Register 15 Contents in Hexadecimal	Interpretation
04	The error occurred during an attempt to open the checkpoint data set. Insufficient space was allocated for the data set.
08	An uncorrectable input/output error occurred during an attempt either to set up the format of the checkpoint data set or to close the checkpoint data set.

Programmer Response: If insufficient space was allocated for the data set, increase the size of the SPACE parameter on the DD statement describing the checkpoint data set. Then execute the job step again.

Problem Determination: If an uncorrectable input/output error occurred, see Table I, items 3, 15, 29.

0A5 Explanation: The error occurred during execution of a QTAM OPEN macro instruction issued by a message processing program.

The open routine attempted to open a data control block (DCB) for a main-storage process queue or a main-storage destination queue that had previously been opened. (Register 2 contains the address of the data control block in error.)

System Action: The message processing program was terminated with a dump.

Programmer Response: Make sure that a message processing program does not attempt to open a data control block for a main storage queue which had previously been opened either by itself or by another message processing program.

Problem Determination: Table I, items 19, 29. Save the message processing program listings.

0A6 Explanation: The error occurred during execution of (1) a QTAM OPEN macro instruction or (2) a QTAM CLOSE macro instruction.

This error condition occurred for either of 2 reasons:
• In case (1), the data control block (DCB) for the direct access message queues data set was opened after a data control block for another QTAM data set was opened.
• In case (2), the data control block for the direct access message queues data set was closed while a data control block for a main-storage process queue or a main-storage destination queue was still open.

System Action: Either the message control program or the message processing program was terminated with a dump.

Programmer Response: The error, in case (1), can be corrected by one of the following:
• Correcting an invalid DD statement for the direct access device.
• Changing the message control program to open the data control block for the direct access message queues data set before opening any other data control block in that program.
• Opening the data control block for the direct access message queues data set before any message processing program opens any QTAM data control block. Then execute the job step again.

The error, in case (2), can be corrected by closing all the data control blocks in the message processing programs before closing the data control block for the direct access

message queues data set in the message control program. Then execute the job step again.

Problem Determination: Table I, items 15, 16, 29.

0A7 Explanation: The error occurred during execution of a QTAM OPEN macro instruction:
• The data control block (DCB) for the checkpoint data set was opened before the data control block for the direct access message queues data set was opened.
• An uncorrectable disk error occurred when rewriting canceled header labels on the disk as part of the restart function.

System Action: The message control program was terminated with a dump.

Programmer Response: In the first case, correct an invalid DD statement for the direct access devices or change the message control program to open the data control block for the direct access message queues data set before opening the data control block for the checkpoint data set. Then execute the job step again.

Problem Determination: Table I, items 18, 29.

0B0 Explanation: An uncorrectable input/output error occurred when the job scheduler attempted to read from or write in the SYS1.SYSJOBQE data set on a direct access device.

Possibly, the SYS1.SYSJOBQE data set resided on a bad track.

System Action: The system terminated the task, but did not produce a dump.

Programmer Response: Use another volume or change units.

Problem Determination: Table I, items 2, 8a, 29.

0Cx Explanation: A program interruption occurred during execution of any instruction other than those listed under completion codes 0F1 and 0F2. When the interruption occurred, the program had not specified a routine to handle this type of program interruption.

The last digit of this completion code is a hexadecimal number that indicates the cause of the program interruption:

Last Digit	Program Interruption Cause
0	Imprecise or multiple-imprecise program interruption: on the Model 91 or the Model 195, a program exception (or series of program exceptions) was detected during execution of an instruction that cannot be precisely identified by the instruction address in the current program status word (PSW).

(The instruction-length code is 0.)

The first three positions of the user completion code field contain the mask bits from the imprecise interrupt, in hexadecimal. These bits correspond to bits 16 to 31 of the PSW of the Model 91 or Model 195. The last position of the user completion code field will always be zero.

1   Operation exception: an operation code is not assigned or the assigned operation is not available on the particular model.

(The operation is suppressed. The instruction-length code is 1, 2, or 3.)

2   Privileged-operation exception: a privileged operation is encountered in the problem state.

(The operation is suppressed. The instruction-length code is 1 or 2.)

3   Execute exception: the subject instruction of EXECUTE is another EXECUTE.

(The operation is suppressed. The instruction-length code is 2.)

4   Protection exception: the key of an instruction halfword or an operand in storage does not match the protection key in the PSW.

(The operation is suppressed on a store violation, except in the case of STORE MULTIPLE, READ DIRECT, TEST AND SET, and variable-length operations, which are terminated. Except for EXECUTE, which is suppressed, the operation is terminated on a fetch violation. The instruction-length code is 0, 2, or 3.)

5   Addressing exception: an address specifies any part of data, an instruction, or a control word outside the available storage for the particular installation.

(In most cases, the operation is terminated for an invalid data address. Data in storage remain unchanged, except when designated by valid addresses. In a few cases, an invalid data address causes the instruction to be suppressed - AND (NI), EXCLUSIVE OR (XI), OR (OI), MOVE (MVI), CONVERT TO DECIMAL, DIAGNOSE, EXECUTE, and certain store operations (ST, STC, STH, STD, and STE). The operation is suppressed for an invalid instruction address. The instruction-length code normally is 1, 2, or 3; but may be 0 in the case of a data address.)

6   Specification exception: one of the following occurred:
- A data, instruction, or control-word address does not specify an integral boundary for the unit of information.
- The R_1 field of an instruction specifies an odd register address for a pair of general registers that contains a 64-bit operand.
- A floating-point register address other than 0, 2, 4, or 6 is specified.
- The multiplier or divisor in decimal arithmetic exceeds 15 digits and sign.
- The first operand field is shorter than or equal to the second operand field in decimal multiplication or division.
- The block address specified in SET STORAGE KEY or INSERT STORAGE KEY has the four low-order bits not all zero.
- A PSW with a nonzero protection key is encountered when protection is not installed.

(The operation is suppressed. The instruction-length code is 1, 2, or 3.)

7   Data exception: one of the following occurred:
- The sign or digit codes of operands in decimal arithmetic or editing operations or in CONVERT TO BINARY are incorrect.
- Fields in decimal arithmetic overlap incorrectly.
- The decimal multiplicand has too many high-order significant digits.

(The operation is terminated. The instruction-length code is 2 or 3.)

8   Fixed-point-overflow exception: a high-order carry occurs or high-order significant bits are lost in fixed-point add, subtract, shift, or sign-control operations.

(The operation is completed by ignoring the information placed outside the register. The interruption may be masked by PSW bit 36. The instruction- length code is 1 or 2.)

9   Fixed-point-divide exception: a quotient exceeds the register size in fixed-point division, including division by zero, or the result of CONVERT TO BINARY exceeds 31 bits.

(Division is suppressed. Conversion is completed by ignoring the information placed outside the register. The instruction-length code is 1 or 2.)

A   Decimal-overflow exception: the destination field is too small to contain the result field in a decimal operation.

(The operation is completed by ignoring the overflow information. The interruption may be masked by PSW bit 37. The instruction-length code is 3.)

B   Decimal-divide exception: a quotient exceeds the specified data field size.

(The operation is suppressed. The instruction-length code is 3.)

C   Exponent-overflow exception: the result characteristic in floating-point addition, subtraction, multiplication, or division exceeds 127 and the result fraction is not zero.

(The operation is completed. The fraction is normalized, and the sign and fraction of the result remain correct. The result characteristic is made 128 smaller than the correct characteristic. The instruction-length code is 1 or 2.)

D   Exponent-underflow exception: the result characteristic in floating-point addition, subtraction, multiplication, halving, or division is less than zero and the result fraction is not zero.

(The operation is completed. The setting of the exponent-underflow mask (PSW bit 38) affects the results of the operation. When the mask bit is zero, the sign, characteristic, and fraction are set to zero, making the result a true zero. When the mask bit is one, the fraction is normalized, the characteristic is made 128 larger than the correct characteristic, and the sign and fraction remain correct. The instruction-length code is 1 or 2.)

E   Significance exception: the result of a floating-point addition or subtraction has an all-zero fraction.

(The operation is completed. The interruption may be masked by PSW bit 39. The manner in which the operation is completed is determined by the mask bit. The instruction-length code is 1 or 2.)

F   Floating-point-divide exception: division by a floating-point number with zero fraction is attempted.

(The operation is suppressed. The instruction-length code is 1 or 2.)

If bit 15 of the old program PSW (PSW at entry to ABEND) is on, the problem program had control when the interruption occurred. The correct register contents are reflected under the heading "REGS AT ENTRY TO ABEND" in an ABEND/SNAP dump. In a stand-alone dump, register contents can be found in the register save area for ABEND's SVRB.

Programmer Response: Probable user error.
Determine if the problem program or control
program was in error. If the problem program
contained an error, correct it and execute
the job step again.

Problem Determination: Table I, items 5a,
16, 23, 29.

0F1 Explanation: A program interruption occurred
during execution of an instruction in the
input/output interruption handler of the
control program. The applicable program
status word (PSW) can be found at hexadecimal
location 28. (In systems with MFT, this
program status word is valid only if the
first four digits are 0004.)

The interruption was caused by the problem
program if:
* An access method routine in the problem
  program storage area was overlaid.
* An input/output block (IOB), data control
  block (DCB), or data extent block (DEB) was
  modified after an EXCP macro instruction
  was issued, but prior to the completion of
  an event.

Programmer Response: Determine if the
parameters supplied by the problem program
were incorrect or if the computer generated
an incorrect address. If incorrect
parameters were supplied, correct them and
execute the job step again.

Problem Determination: Table I, items 5a,
16, 23, 29. Table II, Format 1: trace
option - TRACE=IO.

0F2 Explanation: A program interruption occurred
during execution of an instruction in a Type
I SVC routine. Probably, the interruption
was caused by incorrect parameters passed to
the Type I SVC routine.

Programmer Response: Probable user error.
Determine if the parameters supplied by the
problem program were incorrect or if an SVC
routine was added incorrectly to the control
program.

Problem Determination: Table I, items 1, 5a,
16, 23, 29. If a DAR dump was produced, have
it available. Table II, Format 1: trace
option - TRACE=SVC.

0F3 Explanation: A machine-check interruption
occurred. Either system environment
recording routine SER1 or MCH was specified
during system generation. The control
program was able to abnormally terminate the
job step after this machine-check
interruption and continue processing with
other job steps.

System Action: The system terminated the job
step, but did not produce a dump.

Programmer Response: Probable hardware
error. If the data on external storage
devices is still valid, execute the job step
again.

Problem Determination: Table I, items 2, 18,
30.

0F5 Explanation: A program interruption occurred
while loading the transient area for a type 3
or 4 SVC. Probably, the interruption was
caused by invalid parameters in the work area
used to load the SVC.

Programmer Response: Probable user error.
Ensure that the parameters in the work area,
which resides in unprotected main storage,
have not been incorrectly modified by a
program in the same partition. After making
corrections, execute the job step again.

Problem Determination: Table I, items 5a,
16, 23, 29.

100 Explanation: The control program detected one
of the following:
* A device to be used was not operational.
* An illegal use of a pseudo device was made.
  A pseudo device previously allocated has been
  reallocated.

Programmer Response: If the device was taken
offline, the device should be varied online or
another device used. Then the job step should
be executed again.

If a device was specified that was not
operational, an unallocated device should be
specified in the UNIT parameter of the DD
statement describing the data set to be
processed. Run the job again.

If a pseudo device was illegally used, an
unallocated device should be specified in the
UNIT parameter of the DD statement and the job
run again.

Problem Determination: Table I, items 1, 3, 5a,
15, 29.

101 Explanation: The error occurred during
execution of a WAIT macro instruction.

The problem program specified more events
than there were event control blocks (ECB).

Programmer Response: Probable user error.
Change the number of events specified so that
it is less than or equal to the number of
event control blocks. If the specification
was correct, make sure it was not incorrectly
modified. Correct the error, and execute the
job step again.

Problem Determination: Table I, items 1, 3,
5b, 15, 29.

102 Explanation: The error occurred during
execution of a POST macro instruction.

The control program found an invalid event
control block (ECB) address.

Programmer Response: Probable user error.
Make sure that the event control block
address specified is a valid main storage
address and that it was not incorrectly
modified.

For a system with the storage protection
feature, make sure that the event control
block address is in the same protection area
as the task waiting for the block to be
posted and the task attempting to post the
block. Correct the error and execute the job
step again.

Problem Determination: Table I, items 1, 3,
5a, 15, 29.

103 Explanation: The error occurred when a task
attempted to terminate normally with a RETURN
macro instruction or a branch to the return
address in register 14. The ATTACH macro
instruction that initiated the task specified
that an event control block (ECB) should be
posted at task termination.

The control program found one of the
following:
* The specified event control block was
  already posted.
* The request block (RB) address in the event
  control block was invalid.

Programmer Response: Probable user error.
Correct program errors that incorrectly
modified the event control block. Such an
error could be a POST macro instruction that

erroneously specified the event control block used to indicate task termination. Recompile and execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

104 Explanation: The error occurred during the execution of a GETMAIN macro instruction for a program operating in the supervisor mode. The program requested more bytes of main storage from a local system queue area than were available.

Programmer Response: Probable user error. If this code occurs frequently, installation action is needed to increase the space allowed for a local system queue area. More local system queue area in the TSO user region should be specified at START TS or by using the MODIFY TS command for the TSO region start.

Problem Determination: Table I, items 2, 29.

106 Explanation: The error occurred during execution of a LINK, LOAD, ATTACH, or XCTL macro instruction.

An error was detected by the control program when it attempted to fetch the requested program into main storage.

Technical Information: The contents of register 15 indicate the nature of the error:

Register 15 Contents in Hexadecimal	Interpretation
C	In a system with MVT, the control program found that the scatter data placed by the linkage editor in a table in the load module was invalid.
D	In a system with MFT, the control program found an invalid record type in the load module.
E	In any system, the control program found an invalid address in the load module.
F	In any system, an uncorrectable input/output error occurred. At the time of abnormal termination, the contents of general purpose register 6 plus X'400' is the address of the IOB ECB, the post code of which may prove helpful in isolating the problem. (For discussion of the post codes see IBM System/360 Operating System: Input/Output Supervisor, Program Logic Manual, GY28-6616.) Note: the storage area related to the IOB ECB may be free unless the dump is taken immediately after the ABEND macro instruction is issued.

Programmer Response: If register 15 contains a X'C', process the program by the linkage editor again, and execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29. Table II, Format 1: trace option - TRACE=SYS.

If register 15 contains either a X'D' or X'E', it is a probable user error. Make sure that the load request in the problem was

specified correctly and was not incorrectly modified. After making corrections, execute the job step again.

Problem Determination: Table I, items 1, 5a, 10c, 29. Table II, Format 1: trace option - TRACE=SYS.

If register 15 contains a X'F', resubmit the job.

Problem Determination: Table I, items 30. Table II, Format 1: trace option - TRACE=IO.

10A Explanation: The error occurred during the execution of a GETMAIN macro instruction for a program operating in the supervisor mode. The program requested more bytes of main storage from a local system queue area than were available.

Programmer Response: Probable user error. If this code occurs frequently, installation action is needed to increase the space allowed for a local system queue area. More local system queue area in the TSO user region should be specified at the START TS or by using the MODIFY TS command for the TSO user region start.

Problem Determination: Table I, items 2, 29.

10F Explanation: The error was detected when an input/output operation was requested using ERROR EXCP. The address of the RQE in register 1 was invalid.

Programmer Response: Probable user error. Make sure that the ERROR EXCP SVC (15) was issued correctly. Correct the problem and rerun the job.

Problem Determination: Table I, items 1, 3, 5a, 15, 16, 19, 23, 29.

113 Explanation: The error occurred during execution of an OPEN macro instruction or an OPEN macro instruction with a TYPE=J operand. This system completion code is accompanied by message IEC142I. Refer to the explanation of message IEC142I in this publication for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated in message IEC142I.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

117 Explanation: The error occurred during execution of a BSAM CLOSE macro instruction with a TYPE=T operand. This system completion code is accompanied by message IEC218I. Refer to the explanation of message IEC218I in this publication for complete information of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated in message IEC218I.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

122 Explanation: The operator canceled the job and requested a dump. The job may have been canceled because it appeared to be in a loop or because it was waiting for resources that

were not immediately available (e.g., direct access space or devices). Perhaps the job was canceled to correct a system interlock condition (e.g., two tasks enqueued on a resource without an intervening dequeue), or the job may have violated a procedure established for your installation. There are many reasons why an operator might cancel a job. There may be nothing wrong with your program.

System Action: The system terminates the job and produces a dump to the data set described by the SYSABEND or SYSUDUMP DD statement in the canceled job step.

Programmer Response: Find out why the operator canceled your job, make any necessary corrections, and resubmit the job.

Problem Determination: Table I, items 1, 2, 5a or b, 16, 23, 29.

128 Explanation: The error was detected during execution of an EXTRACT macro instruction.

The address of the list in which the control program was to store the task control block (TCB) fields was invalid. The beginning address for the list did not define a fullword boundary, or the list did not begin and end within the storage assigned to the job step. (The beginning address of the list is specified in the first operand of the macro instruction; the length of the list is determined by the number of fields requested.)

Programmer Response: Probable user error. Determine if the first operand of the macro instruction was specified correctly or if program errors had incorrectly modified the EXTRACT macro-expansion. After making corrections, recompile and execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

12A Explanation: The error was detected during execution of an ATTACH macro instruction.

In a GSPV or GSPL operand, the macro instruction specified that a subpool was to be given to the subtask being created. The attaching task owned the subpool, but had previously shared it with other subtasks through SHSPV and/or SHSPL operands. A task is not permitted to give an owned subpool to a subtask if it is sharing the subpool with one or more other subtasks.

Programmer Response: Probable user error. Change the ATTACH macro instruction to specify the subpool in an SHSPV or SHSPL operand. Recompile and execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

12C Explanation: The error was detected during execution of a CHAP macro instruction.

The address of the task control block (TCB) for the subtask whose priority was to be changed was invalid. This address was specified in the second operand of the CHAP macro instruction. The address was invalid for one of the following reasons:
• It was not a valid TCB address.
• The valid task control block at the address was not associated with a subtask of the task issuing the macro instruction.
• It was not a multiple of 4.
• The valid task has terminated.

Programmer Response: Probable user error. Change the address specification and ensure that it and the task control block were not incorrectly modified by the problem program. Recompile and execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

12D Explanation: The error occurred during execution of an overlay program.

The overlay supervisor found that words 3 and 4 of the segment table were incorrect.

Programmer Response: Probable user error. Check for program errors that caused the segment table to be incorrectly modified. Correct the program, linkage edit, and execute the job step again.

Problem Determination: Table I, items 1, 5a, 9, 29.

130 Explanation: The error occurred during execution of a DEQ macro instruction.

The DEQ macro instruction specified a resource not previously specified by an ENQ macro instruction under the same task. That is, the program had not requested control of a resource it was attempting to release. The DEQ macro instruction did not contain a RET=HAVE operand.

Programmer Response: Probable user error. Check the DEQ macro instruction for incorrect qname or rname operands, or specify RET=HAVE in the DEQ macro instruction, or add an ENQ macro instruction before the DEQ macro instruction, or delete the DEQ macro instruction. Recompile and execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

137 Explanation: The error occurred at an end-of-volume on a magnetic tape. This system completion code is accompanied by message IEC022I. Refer to the explanation of message IEC022I in this publication for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated in message IEC022I.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

138   Explanation: The error occurred during execution of an ENQ macro instruction.

Two ENQ macro instructions were issued for the same resource in the same task without an intervening DEQ macro instruction. The second ENQ macro instruction did not specify TEST, USE, or HAVE in its RET operand.

Programmer Response: Probable user error. Specify RET=TEST, RET=USE, or RET=HAVE in the second ENQ macro instruction, or add a DEQ macro instruction between the 2 ENQ macro instructions, or delete one of the ENQ macro instructions. Recompile and execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

13E   Explanation: The error occurred during execution of a DETACH macro instruction. A task created a subtask and issued a DETACH for that subtask (specifying STAE=NO) before the subtask had terminated.

System Action: The subtask is abnormally terminated to force its completion. This may or may not be an error, depending on the intent of the programmer; therefore, the task issuing the DETACH is not terminated.

Note: DETACH gives the issuing task a return code of 00 if its subtask is abnormally terminated with a system completion code of 13E.

Programmer Response: If the subtask must complete processing before being detached, use the ECB or EXTR operand of the ATTACH macro instruction when creating the subtask.

Problem Determination: Table I, items 1, 16, 23, 29.

13F   Explanation: An error occurred during execution of a checkpoint restart.

System Action: The system did not produce a dump.

Programmer Response: Respond as indicated by message IHJ007I, which appears on the console.

140   Explanation: The error occurred during execution of a RDJFCB macro instruction. This system completion code is accompanied by message IEC154I. Refer to the explanation of message IEC154I in this publication for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated in message IEC154I.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

14F   Explanation: The error occurred during execution of the STATUS macro instruction.

The routine attempted to execute the STATUS macro instruction for other than the STOP or START function and was not key zero.

Programmer Response: Probable user error. Correct the program errors making sure that the STATUS macro is not being used for other than the STOP or START function. Then execute the job step again.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

155   Explanation: An SVC 85, which is authorized for use by Dynamic Device Reconfiguration (DDR) only, has been illegally issued by a user's task. DDR has abnormally terminated the user's task.

Programmer Response: Probable user error. Make sure that no program except DDR issues SVC 85.

Problem Determination: Table I, items 5a, 16, 23, 29.

160   Explanation: The error occurred during the processing of a user attention exit for a time sharing task. The control program's record of the attention exit routine was invalid.

System Action: The job step was abnormally terminated.

Programmer Response: Resubmit the job. Abnormal termination of the job step may be intercepted by specifying STAE exit and retry routines to reestablish the failing task. The STAE macro instruction must be reissued in either the STAE exit or retry routines to reestablish to user exit routine to handle attention interruptions.

Problem Determination: Table I, items 1, 2, 5a, 7c, 29. Also, retain the terminal listing or record what is currently displayed on the graphics device. Make sure that a TSO Dump DD statement was included for failing start TSO procedures. Execute the IMDPRDMP service aid, specifying TSO options, after restarting the system. The input to IMDPRDMP is the dump tape from TSO Dump. Save the formatted output.

16D   Explanation: The error occurred during execution of one of the extended SVC routers (ESR), SVCs 109, 116, and 117. An invalid ESR code was detected in register 15.

This error is the result of:
- The function invoked not being included in the system.
- The ESR code passed to SVC 109, 116, or 117 having no related function.

Programmer Response: In the first case, make sure that the item being invoked has been included in the system. In the second case, correct the ESR code, and execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

1B0 **Explanation:** The system conversion routine has encountered an invalid TTR for an address in the SYS1.SYSJOBQE data set.

System Action: The system terminated the task without allowing access to the SYS1.SYSJOBQE data set.

Programmer Response: Attempt to execute the failing job again. At the next convenient time the system should be restarted and the queue reformatted. Make sure the jobqueue size is within the device type limits.

Problem Determination: Table I, items 2, 8a, 16, 29.

200 **Explanation:** The error was detected when an input/output operation was requested and the storage protection keys of the input/output block, the event control block and the data control block were not the same as the protection key field in the data extent block. (This condition is checked for systems with MVT only.)

In MFT and MVT, this system completion code will result if a program check occurs while the DCB, DEB, or UCB is being loaded for IOS EXCP validity checking. Typical causes are premature freeing or overrunning of control blocks.

If an abnormal termination dump with a trace table is available, the address of the applicable input/output block is:
• In register 1 of the EXCP (SVC 0) most recently issued before the abnormal termination occurred.
• In register 2 in the section of the dump labeled REGS AT ENTRY TO ABEND.

Programmer Response: Probable user error. Verify that the blocks were not incorrectly modified by the problem program. If the EXCP access method is being used, make sure that the input/output block and the event control block are correctly built.

After making corrections, execute the job step again.

Problem Determination: Table I, items 1, 3, 5a, 15, 19, 29.

201 **Explanation:** The error occurred during execution of a WAIT macro instruction.

The macro-expansion contained an invalid event control block (ECB) address.

Programmer Response: Probable user error. Make sure that the event control block address specified is a valid main storage address and that it was not incorrectly modified.

For systems with the storage protection feature, make sure that the event control block address is in the same protection area as the task waiting for the block to be posted.

Correct the error and execute the job step again.

Problem Determination: Table I, items 1, 3, 5b, 15, 19, 29.

202 **Explanation:** The error occurred during execution of a POST macro instruction.

The control program found an invalid request block (RB) address in the 3 low-order bytes of the event control block (ECB) specified by the problem program.

The address of the request block is placed in the event control block during execution of a WAIT macro instruction. This address must remain in the event control block until a POST macro instruction places a post code or zeros in the event control block. The request block is a control block used for internal purposes by the control program.

Programmer Response: Probable user error. Make sure that the contents of the event control block were not modified after the WAIT macro instruction and before the POST macro instruction.

For systems with the storage protection feature, make sure that the event control block and the request block are in the same protection area as the task waiting for the block to be posted and the task attempting to post the block.

Correct the error and execute the job step again.

Problem Determination: Table I, items 1, 3, 5a, 15, 19, 29.

207 **Explanation:** In MFT only, the error occurred during execution of an asynchronous exit routine.

The routine attempted to execute an XCTL macro instruction. Such a routine can terminate only by issuing a RETURN macro instruction.

Programmer Response: Probable user error. Rewrite the asynchronous exit routine to terminate correctly. Then execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

20A **Explanation:** While freeing or replacing a region, the main storage supervisor found that storage was still allocated to the requesting task.

Programmer Response: Rerun the job.

Problem Determination: Table I, items 1, 5a, 16, 23, 29. Table II, Format 2: trace option keyword(s) - TRACE=SVCP, event keyword(s) - SVC=0A,END.

213 **Explanation:** The error occurred during execution of an OPEN macro instruction for a data set on a direct access device. This system completion code is accompanied by either message IEC143I or IEF317I. Refer to the explanation of message IEC143I or IEF317I in this publication for complete information about the task that was

terminated and for an explanation of the return code (rc in message IEC143I text) in register 15.

Programmer Response: Respond as indicated in the applicable message.

Problem Determination: Table I, items 1, 3, 5a, 15, 25b, 29.

214 Explanation: The error occurred during execution of a CLOSE macro instruction for a data set on magnetic tape. This system completion code is accompanied by message IEC210I. Refer to the explanation of message IEC210I in this publication for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated in message IEC210I.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

217 Explanation: The error occurred during execution of a BSAM CLOSE macro instruction with a TYPE=T operand. This system completion code is accompanied by message IEC219I. Refer to the explanation of message IEC219I in this publication for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated in message IEC219I.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

222 Explanation: The operator canceled the job. The job may have been canceled because it appeared to be in a loop or because it was waiting for resources that were not immediately available (e.g., direct access space or devices). Perhaps the job was canceled to correct a system interlock condition (e.g., two tasks enqueued on a resource without an intervening dequeue). Or the job may have violated a procedure established for your installation. There are many reasons why an operator might cancel a job. There may be nothing wrong with your program.

System Action: The system terminates the job.

Programmer Response: Find out why the operator canceled your job, make any necessary corrections.

Problem Determination: Table I, items 1, 2, 5a or b, 16, 23, 29. Rerun the job making sure the operator enters the command CANCEL jobname, DUMP.

228 Explanation: The error was detected during execution of an EXTRACT macro instruction.

The location of the input parameter list was invalid. (The input parameter list, ordinarily created through expansion of the standard or MF=L form of the EXTRACT macro instruction, describes the function to be performed.) The starting address provided indicated that the parameter list did not begin either on a fullword boundary or within the area of storage assigned to the job step.

Programmer Response: Probable user error. Correct the program so that the address of the input parameter list is valid, recompile and execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

22A Explanation: The error was detected during execution of an ATTACH macro instruction.

A GSPV, GSPL, SHSPV, or SHSPL operand specified a subpool number greater than 127. The subpools above 127, that is, subpools 128 through 255, are supervisor subpools. A problem program is not permitted to use these subpools.

Programmer Response: Probable user error. Change the macro instruction to specify a problem program subpool (1 through 127). If the macro instruction had been specified correctly, check for program errors that incorrectly modified it. Recompile and execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29. Table II, Format 2: trace option keyword(s) - TRACE=SVCP, event keyword(s) - SVC=42,END.

22C Explanation: The error was detected during execution of a CHAP macro instruction.

The address of the task control block (TCB) for the subtask whose priority was to be changed was invalid. This address was specified in the second operand of the CHAP macro instruction.

The address was invalid for one of the following reasons:
• It was not a multiple of 4.
• It was higher than the highest address in main storage.
• It was not in storage assigned to the job step.

Programmer Response: Probable user error. Change the CHAP macro instruction to specify a valid pointer to the task control block, and ensure that the specification was not incorrectly modified by the problem program. Recompile and execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29. Table II, Format 2: trace option keyword(s) - TRACE=SVCP, event keyword(s) - SVC=44,END.

22D Explanation: The error occurred during execution of an overlay program.

The overlay supervisor found an invalid
address in the segment table or the entry
table. The address pointed to a location
outside the boundaries of the main storage
assigned to the job step.

Programmer Response: Probable user error.
Check for program errors that caused the
segment table or entry table to be
incorrectly modified. Correct the program,
linkage edit, and execute the job step again.

Problem Determination: Table I, items 1, 5a,
9, 16, 29.

230   Explanation: The error occurred during
execution of a DEQ macro instruction.

An invalid length was specified for the name
length representing a resource. The length
was specified in the rname length operand of
the DEQ macro instruction, was supplied by
the assembler program, or was contained in
the byte immediately preceding the resource
name.

Programmer Response: Probable user error.
Correct the invalid macro instruction or the
program errors that incorrectly modified the
length. Recompile and execute the job step
again.

Problem Determination: Table I, items 1, 5a,
16, 23, 29.

237   Explanation: The error occurred at an
end-of-volume. This system completion code
is accompanied by message IEC023I. Refer to
the explanation of message IEC023I in this
publication for complete information about
the task that was terminated and for an
explanation of the return code (rc in the
message text) in register 15.

Programmer Response: Respond as indicated in
message IEC023I.

Problem Determination: Table I, items 1, 3,
5a, 15, 19, 29.

238   Explanation: The error occurred during
execution of an ENQ macro instruction. An
invalid length was specified for the name
representing the resource. This length was
specified in the rname length operand of the
ENQ macro instruction, was supplied by the
assembler program, or was contained in the
byte immediately preceding the resource name.

Programmer Response: Probable user error.
Correct the invalid macro instruction or the
program errors that incorrectly modified the
length. Recompile and execute the job step
again.

Problem Determination: Table I, items 1, 5a,
16, 23, 29.

23E   Explanation: The error occurred during
execution of a DETACH macro instruction. One
of the following was detected:
• The parameter passed to DETACH in register

1 was not fullword address.
• The storage key of the address in register
1 does not match that of the issuer of the
DETACH.
• The parameter contained in the addressed
fullword is not the address of a subtask of
the issuer of the DETACH.

System Action: The issuer of the DETACH is
abnormally terminated.

Programmer Response: Probable user error.
Change the DETACH macro instruction to
specify a valid address of the TCB, and
ensure that it was not incorrectly modified
by the problem program. Recompile and
execute the job step again.

Problem Determination: Table I, items 1, 5a,
16, 23, 29.

240   Explanation: The error occurred during
execution of a RDJFCB macro instruction.
This system completion code is accompanied by
message IEC155I. Refer to the explanation of
message IEC155I in this publication for
complete information about the task that was
terminated and for an explanation of the
return code (rc in the message text) in
register 15.

Programmer Response: Respond as indicated in
message IEC155I.

Problem Determination: Table I, items 1, 3,
5a, 15, 29.

2F3   Explanation: In systems with MFT or MVT, the
job was being executed when system failure
occurred. A system restart was performed; a
system job queue entry for the job existed at
the time of failure.

Programmer Response: If results of the job
are unsatisfactory, resubmit the job or job
steps, as desired.

2FE   Explanation: A permanent input/output error
occurred while attempting to rollin a job
step.

System Action: The job step was abnormally
terminated.

Programmer Response: Probable hardware
error. Resubmit the job.

Problem Determination: Table I, items 1, 5a,
16, 23, 29. Table II, Format 1: trace
option - TRACE=IO.

2FF   Explanation: The job step was abnormally
terminated at the request of User Appendage
III (the request for ABEND appendage). No
dump is produced.

Programmer Response: Rerun the job.

Problem Determination: Table I, items 1, 5a,
23, 29.

300   Explanation: The error was detected when an
input/output operation was requested and the
storage protection key of the data extent
block was not zero (MVT) or not the same as

the protection key field in the task control block; or the number of extents as found in the DEB is less than the number of extents as found in the M field of the IOB.

If an abnormal termination dump with a trace table is available, the address of the applicable input/output block is:
• In register 1 of the EXCP (SVC0) most recently issued before the abnormal termination occurred.
• In register 2 in the section of the dump labeled REGS AT ENTRY TO ABEND.

Programmer Response: Probable user error. Verify that the Data Control Block contains the address of the DEB. After making corrections, execute the job step again.

Problem Determination: Table I, items 1, 3, 5a, 15, 19, 29.

301 Explanation: The error occurred during execution of a WAIT macro instruction.

The macro instruction specified an event control block (ECB) whose wait flag was already on. This indicated that a previous WAIT macro instruction was already waiting for posting of the event control block.

Programmer Response: Probable user error. Change the problem program to eliminate a double wait on a single event. If no double wait is found, make sure that the event control block was not incorrectly modified by the program. Then execute the job step again.

Problem Determination: Table I, items 1, 3, 5a, 15, 19, 29.

305 Explanation: The error occurred during execution of a FREEMAIN macro instruction:
• The specified subpool could not be found.
• The SP parameter was specified, but the main storage area to be released was not within the subpool specified.
• The SP parameter was not specified, but the main storage area to be released was not within subpool zero.
• The SP parameter was specified correctly, but the boundaries of the storage area to be freed were not completely described by a descriptor queue element (DQE).

Programmer Response: Probable user error. Determine if the A operand and the LV or LA operand specify an area within the subpool. If the area as specified is within the subpool, check for program errors that incorrectly modified the FREEMAIN macro-expansion. After making corrections, execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

308 Explanation: The error occurred during execution of a LOAD macro instruction.

A problem program specified a program to be loaded by an entry point whose location was given to the control program by an IDENTIFY macro instruction.

Programmer Response: Probable user error. Rewrite the problem program to name an entry point specified during linkage editing as a member name or alias. Then execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

30A Explanation: The error occurred during execution of an R-form FREEMAIN macro instruction:
• The SP=(0) parameter was specified, but the length in the three low-order bytes of register 0 was not zero.
• The specified subpool could not be found.
• The SP parameter was specified, but the main storage area to be released was not within the subpool specified.
• The SP parameter was not specified, but the main storage area to be released was not within subpool zero.
• The SP parameter was specified correctly, but the boundries of the storage area to be freed were not completely described by a descriptor queue element (DQE).

Programmer Response: Probable user error. Determine if the A operand and LV operand specify an area within the subpool. If the area as specified is within the subpool, check for program errors that incorrectly modified the FREEMAIN macro-expansion. After making corrections, execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

313 Explanation: The error occurred during execution of an OPEN macro instruction for a data set on a direct access device. This system completion code is accompanied by message IEC144I. Refer to the explanation of message IEC144I in this publication for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated in message IEC144I.

Problem Determination: Table I, items 1, 3, 5a, 15, 25b, 29.

314 Explanation: The error occurred during the execution of a CLOSE macro instruction for a data set on a direct access device. This system completion code is accompanied by message IEC211I. Refer to the explanation of message IEC211I in this publication for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Repsond as indicated in message IEC211I.

Problem Determination: Table I, items 1, 3, 5a, 15, 25b, 29.

317 Explanation: The error occurred during
execution of a BSAM CLOSE macro instruction
with a TYPE=T operand for a data set on a
direct access device. This system completion
code is accompanied by message IEC220I.
Refer to the explanation of message IEC220I
in this publication for complete information
about the task that was terminated and for an
explanation of the return code (rc in the
message text) in register 15.

Programmer Response: Respond as indicated in
message IEC220I.

Problem Determination: Table I, items 1, 3,
5a, 15, 25b, 29.

322 Explanation: Execution of a job, job step,
or cataloged procedure step took longer than
the time specified in:
• The TIME parameter of the EXEC or JOB
  statement.
• The standard time limit specified in the
  cataloged procedure for the SYSIN reader,
  if the TIME parameter was not specified in
  the EXEC statement.

System Action: The system abnormally
terminated the job, job step, procedure, or
procedure step.

Programmer Response: Check for program
errors, such as endless loops, that would
cause the job step, procedure, or procedure
step to take too long. Correct any such
errors. If no errors are found, specify a
longer time in the TIME parameter. Then
execute the job again.

Problem Determination: Table I, items 1, 5a,
7b, 26d, 29.

328 Explanation: The error was detected during
execution of an EXTRACT macro instruction.

The task control block (TCB) specified in the
second operand of the macro instruction was
not for an immediate subtask of the task
issuing the EXTRACT macro instruction.

Programmer Response: Probable user error.
Change the EXTRACT macro instruction to
specify a task control block for an immediate
subtask. If the macro instruction was
specified correctly, check for program errors
that incorrectly modified the EXTRACT
macro-expansion. After making corrections,
recompile and execute the job step again.

Problem Determination: Table I, items 1, 5a,
16, 23, 29.

32A Explanation: The error occurred during
execution of an ATTACH macro instruction
issued by a program executing in the
supervisor state.

The requesting task attempted to give its job
pack queue, which contained one or more
active programs, to the newly created task.
(A program is considered active if its
contents directory entry (CDE) contains a use
count greater than zero.)

Programmer Response: Probable user error.
Ensure that the job pack queue is not given
to the new task or that the job pack queue
contains only contents directory entries with
a use count of zero. Then execute the job
step again.

Problem Determination: Table I, items 5a,
16, 23, 29. Table II, Format 2: trace
option keyword(s) - TRACE=SVCP, event
keyword(s) - SVC=42,END.

32D Explanation: The error occurred during
execution of an overlay program.

A record of an incorrect length was found or
an uncorrectable input/output error occurred
in loading a segment from the library.

Programmer Response: Linkage edit the
program again and execute the job step again.

Problem Determination: Table I, items 1, 5a,
9, 29.

330 Explanation: The error occurred during
execution of a DEQ macro instruction.

The DEQ macro instruction was issued by a
task in problem state and specified the
reset-must-complete (RMC) option. This
option can be specified only in supervisor
state.

Programmer Response: Probable user error.
Change the DEQ macro instruction so that
reset-must-complete is not specified.
Recompile and execute the job step again.

Problem Determination: Table I, items 1, 5a,
16, 23, 29.

331 Explanation: The error occurred during
execution of the TESTRAN interpreter with a
program that was being tested.

Control was given to a TEST OPEN statement.
The second operand of the statement did not
specify an address in the problem program to
which control could be returned.

System Action: The system terminated the
task, but did not produce a dump.

Programmer Response: Probable user error.
Provide the necessary address.
Alternatively, prevent execution of this
statement, and list the address in the OPTEST
operand of another TEST OPEN statement. Then
execute the job step again.

Problem Determination: Table I, items 1, 3,
4, 5b, 29.

337 Explanation: The error occurred when the end
of a data set was reached. This system
completion code is accompanied by message
IEC024I. Refer to the explanation of message
IEC024I in this publication for complete
information about the task that was
terminated and for an explanation of the
return code (rc in the message text) in
register 15.

Programmer Response: Respond as indicated in
message IEC024I.

Problem Determination: Table I, items 1, 3, 5b, 15, 21, 29.

338 **Explanation:** The error occurred during execution of an ENQ macro instruction.

The ENQ macro instruction was issued by a task in problem program state, and specified the set-must-complete (SMC) option. This option is valid only in the supervisor state.

Programmer Response: Probable user error. Change the ENQ macro instruction so that the set-must-complete option is not specified. Recompile and execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

33E **Explanation:** A DETACH macro instruction specifying STAE=YES has been issued for a subtask that has not completed.

System Action: The subtask is abnormally terminated, but the task issuing the DETACH is not abnormally terminated.

Note: DETACH gives the issuing task a return code of 04 if its subtask is abnormally terminated with a system completion code of 33E.

Programmer Response: This may or may not be an error, depending on the intent of the programmer. If the subtask should complete processing before it is detached, use the ECB or EXTR operand of the ATTACH macro instruction when creating the subtask.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

3FE **Explanation:** The task attempted to end normally but teleprocessing I/O requests were active or pending. This situation usually occurs when the terminating task issued I/O requests to a data set opened by another task in the terminating task's tree structure.

System Action: The outstanding I/O has been halted.

Programmer Response: Correct the program to ensure that all teleprocessing I/O for the terminating task completed prior to that task completing.

Problem Determination: Table I, items 5a, 15, 16, 29.

400 **Explanation:** The error was detected when an input/output operation was requested and the DEBDCBAD field of the data extent block (DEB) did not contain the same data control block (DCB) address as the IOBDCBPT field of the input/output block (IOB).

The control program found that one of the blocks was incorrectly modified or, when using the EXCP access method, the programmer incorrectly built the input/output block or the event control block.

If an abnormal termination dump with a trace table is available, the address of the

applicable input/output block is:
* In register 1 of the EXCP (SVC 0) most recently issued before the abnormal termination occurred.
* In register 2 in the section of the dump labeled REGS AT ENTRY TO ABEND.

Programmer Response: Probable user error. Verify that the blocks were not incorrectly modified by the problem program. If the EXCP access method is being used, make sure that the input/output block correctly built.

After making corrections, execute the job step again.

Problem Determination: Table I, items 1, 3, 5a, 15, 19, 29.

406 **Explanation:** The error occurred during execution of a LINK, ATTACH, or XCTL macro instruction.

This error condition occurred for either of 2 reasons:
* The requested program was marked by the linkage editor as "only loadable." The program was produced by a linkage editor execution for which the EXEC statement contained OL in the PARM parameter field.
* In systems with MFT, problem program specified a program to be loaded by an entry point whose location was given to the control program by an IDENTIFY macro instruction.

Programmer Response: Probable user error. Rewrite the problem program so that it specifies only loading, but not execution, of the "only loadable" program, or so that it names an entry point specified during linkage editing as a member name or alias. Then recompile and execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

40A **Explanation:** The error was detected during execution of an R-form FREEMAIN macro instruction.

The macro instruction specified the release of all subpool zero storage. The entire subpool zero cannot be released by problem programs, that is, programs with storage protection keys other than zero.

Programmer Response: Probable user error. If the FREEMAIN macro instruction was intended to release subpool zero, remove it from the program. The control program automatically releases subpool zero when a job step terminates.

If the FREEMAIN macro instruction was not intended to release subpool zero, correct the macro instruction or program errors that incorrectly modified it.

After making corrections, execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

413 Explanation: The error occurred during execution of an OPEN macro instruction for a data set on magnetic tape or on a direct access device. This system completion code is accompanied by message IEC145I. Refer to the explanation of message IEC145I in this publication for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated in message IEC145I.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

414 Explanation: The error occurred during execution of a CLOSE macro instruction for a data set on a direct access device. This system completion code is accompanied by message IEC212I. Refer to the explanation of message IEC212I in this publication for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated in message IEC212I.

Problem Determination: Table I, items 1, 3, 5a, 15, 25b, 29.

417 Explanation: The error occurred during execution of a BSAM CLOSE macro instruction with a TYPE=T operand for a data set on a direct access device. This system completion code is accompanied by message IEC221I. Refer to the explanation of message IEC221I in this publication for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated in message IEC221I.

Problem Determination: Table I, items 1, 3, 5a, 15, 25b, 29.

422 Explanation: The job required too much queue space in the SYS1.SYSJOBQE data set for initiation.

The space reserved for each initiator was specified either during system generation or in the t parameter of the reply to message IEF423A.

System Action: If the ABEND occurred during step termination for the last step of the job, the problem program completes, even though CANCEL messages were issued.

Programmer Response: Divide the steps of the terminated job into two or more jobs or, the next time the system is started, specify that (1) the format of the SYS1.SYSJOBQE data set be changed (F in the Q parameter of the SET command) and (2) a larger t parameter be used in the reply to message IEF423A.

If the ABEND occurred during step termination for the last step of the job, verify that the problem program completed as expected and that the data sets associated with the problem program were handled correctly.

Problem Determination: Table I, items 7ab, 8a, 17b, 29.

425 Explanation: The error occurred during execution of a SEGWT macro instruction in an overlay program.

The SEGWT macro instruction specified loading of an exclusive segment.

Programmer Response: Probable user error. Either combine the two exclusive segments into one segment, or reorganize the overlay structure so that the exclusive segments become inclusive. Then execute the job step again.

Problem Determination: Table I, items 1, 5a, 9, 29.

42A Explanation: The error was detected during execution of an ATTACH macro instruction.

The ECB operand specified an invalid address for the event control block (ECB) to be posted when the subtask terminates. The address was invalid for one of the following reasons:
• It was not on a fullword boundary.
• It was higher than the highest address in main storage.
• The TCB protect key for that task did not match the main storage key in the area where the ECB was located.

Programmer Response: Probable user error. Change the ATTACH macro instruction to specify the correct ECB, and ensure that the specification was not incorrectly modified by the problem program. Recompile and execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

430 Explanation: The error occurred during execution of a DEQ macro instruction.

The control program found that the parameter list created from the macro instruction was invalid.

Programmer Response: Probable user error. Correct the DEQ macro instruction specification or the program errors that incorrectly modified the parameter list. Recompile and execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

431 Explanation: The error occurred during execution of the TESTRAN interpreter with a program that was being tested.

The symbol table and control dictionaries of a program could not be read.

Programmer Response: Probable user error. Repeat the linkage editing of the program to recreate the symbol table and control

dictionaries. Then execute the job step again.

Problem Determination: Table 1, items 1, 3, 4, 5b, 29.

437 Explanation: The error occurred at an end-of-volume. This system completion code is accompanied by message IEC025I. Refer to the explanation of message IEC025I in this publication for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated in message IEC025I.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

438 Explanation: The error occurred during execution of an ENQ macro instruction.

The control program found that the parameter list created from the macro instruction was invalid.

Programmer Response: Probable user error. Correct the specification of the macro instruction or the program errors that incorrectly modified the parameter list. Recompile and execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

4FE Explanation: The task attempted to terminate normally; however, there was at least one outstanding I/O request that was incomplete. This situation usually occurs when the terminating task issues I/O requests to a data set that was opened by another task in the terminating task's tree structure.

System Action: The outstanding I/O has been purged.

Programmer Response: The program may be corrected by one of the following:
• Making sure that all I/O for the terminating task has completed prior to the task completing.
• Making sure that the completing task was attached using the EXTR or ECB option. The EXTR routine or ECB logic can then be used to restore the purged I/O to the attaching task by RESTORE. The IOB chain pointer was stored in the terminated TCB at TCB+'BC' (TCBIOBRC).

Problem Determination: Table I, items 5a, 15, 16, 29.

500 Explanation: The error was detected when an input/output operation was requested and the Data Extent Block did not contain the address of a valid unit control block, or the UCBID field of the unit control block (UCB), pointed to by the DEBUCBAD field of the data extent block did not contain hexadecimal FF.

The control program found that one of the blocks was incorrectly modified or, when using the EXCP access method, the programmer

incorrectly built the input-output block or the event control block.

If an abnormal termination dump with a trace table is available, the address of the applicable input/output block is:
• In register 1 of the EXCP (SVC0) most recently issued before the abnormal termination occurred.
• In register 2 in the section of the dump labeled REGS AT ENTRY TO ABEND.

Programmer Response: Probable user error. Verify that the blocks were not incorrectly modified by the problem program. If the EXCP access method is being used, make sure that the input/output block and the event control block are correctly built.

After making corrections, execute the job step again.

Problem Determination: Table I, items 1, 3, 5a, 15, 19, 29.

504 Explanation: The error was detected during execution of a GETMAIN macro instruction that requested allocation of one or more areas of main storage. The macro instruction contained an LA operand (address of a list of lengths) and an A operand (address of a list of beginning addresses for the areas).

The length list and the address list occupied overlapping storage locations.

Programmer Response: Probable user error. Correct the macro instruction or program errors that incorrectly modified the parameter lists. Then execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

505 Explanation: The error was detected during execution of a FREEMAIN macro instruction that requested release of one or more areas of main storage. The macro instruction contained an LA operand (address of a list of lengths) and an A operand (address of a list of beginning addresses for the areas).

The length list and the address list occupied overlapping storage locations.

Programmer Response: Probable user error. Correct the macro instruction or program errors that incorrectly modified the parameters. Then execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

506 Explanation: The error occurred during execution of a LINK, XCTL, ATTACH, or LOAD macro instruction in an overlay program. If the requested program had been loaded, not enough main storage would have remained for the overlay supervisor.

Programmer Response: Probable user error. Reduce the size of the entire program or of the overlay segment. If this is not possible, change the program from an overlay

program to a dynamically loaded program or do not execute the program with the TESTRAN interpreter. Then recompile and execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29. Table II, Format 1: trace option - TRACE=SYS.

513 Explanation: The error occurred during execution of an OPEN macro instruction for a data set on magnetic tape. This system completion code is accompanied by message IEC146I. Refer to the explanation of message IEC146I in this publication for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated in message IEC146I.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

514 Explanation: The error occurred during execution of a CLOSE macro instruction. This system completion code is usually accompanied by message IEC213I. Refer to the explanation of message IEC213I in this publication for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated in message IEC213I.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

522 Explanation: All of the tasks in a job step were in an SVC wait state for thirty consecutive minutes or, in systems with system management facilities, for the time specified in the JWT parameter.

The event control block (ECB) specified in the wait request was never posted. This could be the result of waiting on the wrong ECB or not posting the correct ECB.

Programmer Response: Correct any errors and execute the job step again. If no errors are found and a thirty minute wait is legitimate for that particular job step, specify TIME=1440 on the EXEC statement to bypass all job step timing.

Problem Determination: Table I, items 7ab, 29. Execute the IEBPTPCH utility program to list the reader procedure that was used for this job, if SMF is not being used and the TIME parameter was not specified on the EXEC statement.

52A Explanation: The error occurred during the execution of an ATTACH macro instruction. Although the STAI operand was not specified in this ATTACH macro instruction, a STAI operand had been specified for an ancestor task in the task tree structure. However, if this program is executing in a TSO

environment, there was not sufficient Local System Queue Area available to propogate the STAI environment to the subtask specified by this ATTACH macro instruction. If this program is not executing in a TSO environment, there was not sufficient System Queue Area to propagate the STAI environment.

System Action: The subtask is not attached, and the task that issued the ATTACH macro instruction is abnormally terminated.

Programmer Response: Notify the system programmer at the installation and resubmit the job.

Problem Determination: Table I, items 1, 2, 5a, 7a, 29. If the problem persists in a TSO environment, have the terminal sheet available.

530 Explanation: The error was detected during execution of a DEQ macro instruction.

A DEQ macro instruction was issued in an asynchronous exit routine for a resource previously enqueued by another routine in the same task. However, the task had not yet received control of the resource.

Programmer Response: Probable user error. Correct the program so that the DEQ macro instruction is issued only after the task has control of the resource. If possible, avoid issuing the DEQ macro instruction in the exit routine. Recompile and execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

537 Explanation: The error occurred at end-of-volume input/output on magnetic tape. This system completion code is accompanied by message IEC016I. Refer to the explanation of message IEC016I for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated for message IEC016I.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

604 Explanation: The error occurred during execution of a GETMAIN macro instruction.

The control program found one of the following:
• An erroneous address or length was contained in a free queue element.
• The address in the A or LA operand specified a location outside the main storage assigned to the task, or was not a multiple of 4.
• The address of the parameter list for the macro instruction was erroneous. This address was in register 1.
• In MFT only, the address or length contained in a gotten queue element (GQE) was invalid.

dictionaries. Then execute the job step again.

Problem Determination: Table 1, items 1, 3, 4, 5b, 29.

437 Explanation: The error occurred at an end-of-volume. This system completion code is accompanied by message IEC025I. Refer to the explanation of message IEC025I in this publication for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated in message IEC025I.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

438 Explanation: The error occurred during execution of an ENQ macro instruction.

The control program found that the parameter list created from the macro instruction was invalid.

Programmer Response: Probable user error. Correct the specification of the macro instruction or the program errors that incorrectly modified the parameter list. Recompile and execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

4FE Explanation: The task attempted to terminate normally; however, there was at least one outstanding I/O request that was incomplete. This situation usually occurs when the terminating task issues I/O requests to a data set that was opened by another task in the terminating task's tree structure.

System Action: The outstanding I/O has been purged.

Programmer Response: The program may be corrected by one of the following:
• Making sure that all I/O for the terminating task has completed prior to the task completing.
• Making sure that the completing task was attached using the EXTR or ECB option. The EXTR routine or ECB logic can then be used to restore the purged I/O to the attaching task by RESTORE. The IOB chain pointer was stored in the terminated TCB at TCB+'BC' (TCBIOBRC).

Problem Determination: Table I, items 5a, 15, 16, 29.

500 Explanation: The error was detected when an input/output operation was requested and the Data Extent Block did not contain the address of a valid unit control block, or the UCBID field of the unit control block (UCB), pointed to by the DEBUCBAD field of the data extent block did not contain hexadecimal FF.

The control program found that one of the blocks was incorrectly modified or, when using the EXCP access method, the programmer

incorrectly built the input-output block or the event control block.

If an abnormal termination dump with a trace table is available, the address of the applicable input/output block is:
• In register 1 of the EXCP (SVC0) most recently issued before the abnormal termination occurred.
• In register 2 in the section of the dump labeled REGS AT ENTRY TO ABEND.

Programmer Response: Probable user error. Verify that the blocks were not incorrectly modified by the problem program. If the EXCP access method is being used, make sure that the input/output block and the event control block are correctly built.

After making corrections, execute the job step again.

Problem Determination: Table I, items 1, 3, 5a, 15, 19, 29.

504 Explanation: The error was detected during execution of a GETMAIN macro instruction that requested allocation of one or more areas of main storage. The macro instruction contained an LA operand (address of a list of lengths) and an A operand (address of a list of beginning addresses for the areas).

The length list and the address list occupied overlapping storage locations.

Programmer Response: Probable user error. Correct the macro instruction or program errors that incorrectly modified the parameter lists. Then execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

505 Explanation: The error was detected during execution of a FREEMAIN macro instruction that requested release of one or more areas of main storage. The macro instruction contained an LA operand (address of a list of lengths) and an A operand (address of a list of beginning addresses for the areas).

The length list and the address list occupied overlapping storage locations.

Programmer Response: Probable user error. Correct the macro instruction or program errors that incorrectly modified the parameters. Then execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

506 Explanation: The error occurred during execution of a LINK, XCTL, ATTACH, or LOAD macro instruction in an overlay program. If the requested program had been loaded, not enough main storage would have remained for the overlay supervisor.

Programmer Response: Probable user error. Reduce the size of the entire program or of the overlay segment. If this is not possible, change the program from an overlay

program to a dynamically loaded program or donot execute the program with the TESTRAN interpreter. Then recompile and execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29. Table II, Format 1: trace option - TRACE=SYS.

513 Explanation: The error occurred during execution of an OPEN macro instruction for a data set on magnetic tape. This system completion code is accompanied by message IEC146I. Refer to the explanation of message IEC146I in this publication for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated in message IEC146I.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

514 Explanation: The error occurred during execution of a CLOSE macro instruction. This system completion code is usually accompanied by message IEC231I. Refer to the explanation of message IEC231I in this publication for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated in message IEC231I.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

522 Explanation: All of the tasks in a job step were in an SVC wait state for thirty consecutive minutes or, in systems with system management facilities, for the time specified in the JWT parameter.

The event control block (ECB) specified in the wait request was never posted. This could be the result of waiting on the wrong ECB or not posting the correct ECB.

Programmer Response: Correct any errors and execute the job step again. If no errors are found and a thirty minute wait is legitimate for that particular job step, specify TIME=1440 on the EXEC statement to bypass all job step timing.

Problem Determination: Table I, items 7ab, 29. Execute the IEBPTPCH utility program to list the reader procedure that was used for this job, if SMF is not being used and the TIME parameter was not specified on the EXEC statement.

52A Explanation: The error occurred during the execution of an ATTACH macro instruction. Although the STAI operand was not specified in this ATTACH macro instruction, a STAI operand had been specified for an ancestor task in the task tree structure. However, if this program is executing in a TSO

environment, there was not sufficient Local System Queue Area available to propogate the STAI environment to the subtask specified by this ATTACH macro instruction. If this program is not executing in a TSO environment, there was not sufficient System Queue Area to propagate the STAI environment.

System Action: The subtask is not attached, and the task that issued the ATTACH macro instruction is abnormally terminated.

Programmer Response: Notify the system programmer at the installation and resubmit the job.

Problem Determination: Table I, items 1, 2, 5a, 7a, 29. If the problem persists in a TSO environment, have the terminal sheet available.

530 Explanation: The error was detected during execution of a DEQ macro instruction.

A DEQ macro instruction was issued in an asynchronous exit routine for a resource previously enqueued by another routine in the same task. However, the task had not yet received control of the resource.

Programmer Response: Probable user error. Correct the program so that the DEQ macro instruction is issued only after the task has control of the resource. If possible, avoid issuing the DEQ macro instruction in the exit routine. Recompile and execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

537 Explanation: The error occurred at end-of-volume input/output on magnetic tape. This system completion code is accompanied by message IEC016I. Refer to the explanation of message IEC016I for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated for message IEC016I.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

604 Explanation: The error occurred during execution of a GETMAIN macro instruction.

The control program found one of the following:
• An erroneous address or length was contained in a free queue element.
• The address in the A or LA operand specified a location outside the main storage assigned to the task, or was not a multiple of 4.
• The address of the parameter list for the macro instruction was erroneous. This address was in register 1.
• In MFT only, the address or length contained in a gotten queue element (GQE) was invalid.

Specifications for free areas are contained in the free area queue, which is composed of queue elements defining each free area; a queue element appears in the first 8 bytes of its free area.

In MFT with ATTACH, the gotten queue element (GQE) chain contains queue elements that define the main storage areas allocated to subtasks. A queue element appears 8 bytes before the first byte of each allocated area.

Programmer Response: Probable user error. Check for program errors that incorrectly modified the free area queue, or the parameter list. Make sure that the address given by the A or LA operand was not incorrectly specified or modified. After making corrections, execute the job step again.

Note: A stand-alone dump at entry to ABTERM will provide the FQE queues prior to ABEND cleanup to assist in determining program errors.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

605 Explanation: The error occurred during execution of a FREEMAIN macro instruction.

The control program found one of the following:
• An erroneous address or length was specified in a free queue element.
• The address in the A or LA operand specified a location outside the boundaries of the main storage assigned to the task, or was not a multiple of 4.
• The address of the parameter list for the macro instruction was erroneous. This address was in register 1.
• In MFT only, the address or length contained in a gotten queue element (GQE) was invalid.

Specifications for free areas are contained in the free area queue, which is composed of queue elements defining each free area; a queue element appears in the first 8 bytes of its free area.

In MFT with ATTACH, the gotten queue element (GQE) chain contains queue elements that define the main storage areas allocated to subtasks. A queue element appears 8 bytes before the first byte of each allocated area.

Programmer Response: Probable user error. Check for program errors that incorrectly modified the free area queue or the parameter list. Make sure that the address given by the A or LA operand was not incorrectly specified or modified. After making corrections, execute the job step again.

Note: A stand-alone dump at entry to ABTERM will provide the FQE queues prior to ABEND cleanup to assist in determining program errors.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

606 Explanation: The error occurred during execution of a LINK, XCTL, ATTACH, or LOAD macro instruction.

Not enough main storage was available to load the requested program.

Programmer Response: Probable user error. Reduce the size of the program or change it to an overlay program or on a system with MFT, increase the region size request on the EXEC statement. Then recompile and execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

60A Explanation: The error occurred during execution of either an R-form FREEMAIN macro instruction or an R-form GETMAIN macro instruction.

The control program found one of the following:
• An invalid address or length was specified in a free queue element (FQE).
• The address of the parameter list was invalid.
• In MFT only, the address or length contained in a gotten queue element (GQE) was invalid.

Specifications for free areas are contained in the free area queue, which is composed of queue elements defining each free area; a queue element appears in the first 8 bytes of its free area.

In MFT with ATTACH, the gotten queue element (GQE) chain contains queue elements that define the main storage areas allocated to subtasks. A queue element appears 8 bytes before the first byte of each allocated area.

Programmer Response: Probable user error. Check for program errors that incorrectly modify the free area queue. After making corrections, execute the job step again.

Note: A stand-alone dump at entry to ABTERM will provide the FQE queues prior to ABEND cleanup to assist in determining program errors.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

613 Explanation: The error occurred during execution of an OPEN macro instruction for a data set on magnetic tape. This system completion code is accompanied by message IEC147I. Refer to the explanation of message IEC147I in this publication for complete information about the job that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated in message IEC147I.

Problem Determination: Table I, items 1, 3, 5a, 15, 29. 12

614 **Explanation:** The error occurred during execution of a CLOSE macro instruction for a data set on a direct access device. This system completion code is accompanied by message IEC214I. Refer to the explanation of message IEC214I in this publication for complete information about the job that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated in message IEC214I.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

622 **Explanation:** Initiation of execution of a task entered from a TSO terminal was terminated for one of the following reasons:

1. The system encountered one of the following errors while constructing control blocks for TSO:
   a. A GETMAIN macro instruction was not executed because not enough main storage was available.
   b. A multiple-step procedure was found.
   c. An OBTAIN macro instruction was not executed because the data set being sought did not exist.
   d. The prompting task terminated abnormally.
   e. An input/output error was encountered while reading the SYS1.SYSJOBQE data set.
2. The operator issued a STOP TSO command.
3. The terminal user signaled ATTN after the allocation process had completed.
4. The user submitting the job disconnected his terminal from the system.

System Action: In cases 1 and 2, the system issued terminal messages that describe the error conditions.

Programmer Response: In the first case, respond to the terminal messages that accompany this termination.
- For case 1a, specify a larger region size and attempt to execute the job again.
- For case 1b and 1c, specify a different procedure or consult your system programmer. Attempt to execute the job again.
- For cases 1d and 1e, consult your system programmer.

In the second case, attempt to execute the job again when TSO is started.

In the third case, attempt to execute the job again, make sure that you do not signal ATTN inadvertantly.

In the fourth case, attempt to execute the job again when the terminal is reconnected to the system.

In all cases, have the terminal sheet available or record the current display on the graphics device before calling IBM for programming support.

62A **Explanation:** The error occurred during execution of the ATTACH macro instruction in an MFT system with subtasking. The maximum number of tasks allowable already existed in the system when the ATTACH request was issued.

Technical Information: The maximum allowable number of tasks for a particular MFT system with subtasking is determined at system initialization, and depends on how much system queue area is available. The maximum number of tasks is recorded (in hexadecimal) in the CVTTSKS field in the Communications Vector Table (CVT). The addresses of all existing Task Control Blocks (TCBs) are contained in the TCB table whose starting address can be determined by adding 4 to the contents of the CVTIXAVL in the CVT.

Programmer Response: Probable user error. Determine whether all existing tasks are in fact required, then take one of these actions:
- If an excessive number of tasks was created unintentionally (for example, through a program loop), correct the problem program and resubmit the job.
- If all existing tasks are required and the maximum number of tasks for your system is less than 255, it may be possible to increase that value by restarting the system and making more system queue space available.
- If the maximum number of tasks cannot be increased or is already at its absolute limit (255), modify the problem program to reduce the number of times that the ATTACH macro instruction is invoked; if you cannot modify the problem program, submit the job for execution when few other tasks are active in the system.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

637 **Explanation:** The error occurred at an end-of-volume for a data set on magnetic tape or an end-of-volume during concatenation. This system completion code is accompanied by message IEC026I. Refer to the explanation of message IEC026I in this publication for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated in message IEC026I.

Problem Determination: Table I, items 1, 3, 5a.

704 **Explanation:** The error occurred during execution of an LU-or LC-form GETMAIN macro instruction in an MFT system.

The LU and LC forms, which indicate a list of areas to be allocated, are valid only in an MVT system.

Programmer Response: Probable user error. Rewrite the problem program so that it specifies allocation of only one area at a time. Then execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

705 Explanation: The error occurred during execution of an L-form FREEMAIN macro instruction in an MFT system.

The L-form, which indicates a list of areas to be released, is valid only in an MVT system.

Programmer Response: Probable user error. Rewrite the problem program so that it specifies release of only one area at a time. Then execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

706 Explanation: The error occurred during execution of a LINK, XCTL, ATTACH, or LOAD macro instruction.

The requested load module was marked by the linkage editor as not executable.

Programmer Response: Probable user error. Correct the errors that were found by the linkage editor in the load module, have the module edited by the linkage editor again, recompile, and execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

713 Explanation: The error occurred during execution of an OPEN macro instruction for a data set on magnetic tape or on a direct access device. This system completion code is accompanied by message IEC148I. Refer to the explanation of message IEC148I in this publication for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated in message IEC148I.

Problem Determination: Table I, items 1, 2, 3, 5a, 15, 29.

714 Explanation: The error occurred during execution of a CLOSE macro instruction for a data set on magnetic tape. This system completion code is accompanied by message IEC215I. Refer to the explanation of message IEC215I in this publication for complete information about the task that was terminated and for an explanation of thee return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated in message IEC215I.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

717 Explanation: The error occurred during execution of a BSAM CLOSE macro instruction with a TYPE=T operand for a data set on magnetic tape. This system completion code is accompanied by message IEC222I. Refer to the explanation of message IEC222I in this

publication for complete information about the task that was terminated and for an explanation of the register 15.

Programmer Response: Respond as indicated in message IEC222I.

Problem Determination: 1, 3, 5a, 15, 29.

722 Explanation: The output limit specified by the OUTLIM keyword on the SYSOUT DD statement was exceeded.

Programmer Response: Probable user error. Check for input/output loops and verify that the OUTLIM value does not conflict with any installation requirements. Otherwise, increase the OUTLIM value on the SYSOUT DD statement.

Problem Determination: Table I, items 1, 5a, 7ab, 29.

72A Explanation: The error occurred during execution of an ATTACH macro instruction. The issuer of the macro instruction specified an invalid parameter address.

Programmer Response: Probable user error. Correct the parameter addresses, ensuring that they are valid storage addresses. Recompile and execute the job step again.

Problem Determination: Table I, items 1, 5a, 15, 16, 19, 29.

737 Explanation: The error occurred at an end-of-volume or during allocation of a secondary quantity or direct access storage as requested in the SPACE parameter of the DD statement for the data set. This system completion code is accompanied by message IEC027I. Refer to the explanation of message IEC027I in this publication for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated in message IEC027I.

Problem Determination: If the data set does exist on the specified volumes and the problem recurs, see Table I, items 1, 3, 5a, 15, 25b, 29.

804 Explanation: The error occurred during execution of (1) a GETMAIN macro instruction with a mode operand of EU or VU or (2) a language processor.

Either more main storage was requested than was available or, in systems with MFT, a request was issued for zero bytes of main storage.

Programmer Response: Probable user error. In the first case, make sure that sufficient storage is available when the storage request is executed. Then check for program errors that incorrectly modified the storage request and the free area queue. If necessary, request a smaller amount of storage. Then execute the job step again.

In the second case, if the processor is assigned main storage during system generation, make sure that there is no conflict with the REGION parameter specified in the cataloged procedure. If the BLKSIZE parameter is changed to increase system performance, make sure that the REGION parameter is also changed. (The REGION parameter can be overridden in a JOB or EXEC statement. Another alternative is to specify SIZE in the PARM parameter of the processor EXEC statement.) Check for these conflicts and modify the procedure or system generation accordingly.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

806 Explanation: An error occurred during execution of a LINK, XCTL, ATTACH, or LOAD macro instruction, in which the EP or EPLOC operand was specified. The error was detected by the control program routine for the BLDL macro instruction.

Technical Information: The contents of register 15 indicate the nature of the error:
• 04 - The program whose entry point was specified in the EP or EPLOC operand was not found in the indicated source (private library, job library, or link library.)
• 08 - An uncorrectable input/output error occurred when the BLDL control program routine attempted to search the directory of the library that contained the program whose entry point was specified in the EP or EPLOC operand. At the time of abnormal termination, the contents of general purpose register 6 plus X'138' points to the address of the IOB ECB, the post code of which may prove helpful in isolating the problem. (For a discussion of the post codes see IBM System/360 Operating System: Input/Output Supervisor, Program Logic Manual, GY28-6616.) Note: The storage related to the IOB ECB may be free unless the dump is taken immediately after the ABEND macro instruction is issued. In systems with MFT and MVT, registers 2 and 3 contain the name of the requested module.

Programmer Response: If register 15 contains a X'04' it is a probable user error. Make sure that the requesting program was not incorrectly modified. Make sure that the source was indicated correctly and that the indicated library does contain the requested program. Correct the error, and execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 25c, 29. If register 15 contains a X'08', see Table II, Format 1: trace option - TRACE=IO. If the problem recurs, call IBM for hardware support.

80A Explanation: The error occurred during execution of either an R-form GETMAIN macro instruction, or a GETMAIN macro with a mode operand of EU or VU.

Either more main storage was requested than was available or, in systems with MFT, a request was issued for zero bytes of main storage.

Programmer Response: Probable user error. Make sure that sufficient storage is available when the storage request is executed. Then check for program errors that incorrectly modified the storage request and the free queue element. If necessary, change the problem program to request a smaller amount of storage. Then execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

813 Explanation: The error occurred during execution of an OPEN macro instruction for a data set on magnetic tape. This system completion code is accompanied by message IEC149I. Refer to the explanation of message IEC149I in this publication for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated in message IEC149I.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

837 Explanation: The error occurred at an end-of-volume for a sequential data set. This system completion code is accompanied by message IEC028I. Refer to the explanation of message IEC028I in this publication for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated in message IEC028I.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

905 Explanation: The error occurred during execution of a FREEMAIN macro instruction.

The control program found one of the following:
• The address of the storage area released was not on a doubleword boundary (a multiple of 8).
• In MFT, the address of the storage area to be released was not in the area described by the job step boundary box.
• In MFT with ATTACH, the size of the storage area to be released was greater than the size defined by its corresponding gotten queue element (GQE).

Programmer Response: Probable user error. Check the addresses specified for areas to be released. They may have been incorrectly specified or modified. After making corrections, execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

906 Explanation: The error occurred during execution of a LINK macro instruction.

This macro instruction caused the count of requestors waiting to use a reenterable or serially reusable load module to exceed 255.

Programmer Response: Probable user error. Check for program errors, such as endless loops, that would cause macro instruction(s) requesting the same load module to be executed too often. After making corrections, recompile and execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

90A Explanation: The error occurred during execution of an R-form FREEMAIN macro instruction.

The control program found one of the following:
- The address of the storage area to be released was not on a doubleword boundary (a multiple of 8).
- In MFT, the address of the storage area to be released was not in the area described by the job step boundary box.
- In MFT with ATTACH, the size of the storage area to be released was greater than the size defined by its corresponding gotten queue element (GQE).

Programmer Response: Probable user error. Check the addresses specified for areas to be released. They may have been incorrectly specified or modified. Correct the error, and execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

913 Explanation: The error occurred during execution of an OPEN macro instruction or during end-of-volume for a password protected data set after the operator attempted to enter a password in response to message IEC301A. This system completion code is accompanied by message IEC150I. Refer to the explanation of message IEC150I in this publication for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated in message IEC150I.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

A03 Explanation: The error occurred when a task attempted to terminate normally with a RETURN macro instruction or a branch to the return address in register 14. The task had initiated one or more subtask(s) that had not terminated.

Programmer Response: Probable user error. Change the program so that, before termination of the task, all its subtasks will terminate. A task can determine that its subtasks have terminated by specifying ECB operands in the ATTACH macro instructions that initiate the subtasks and then issuing WAIT macro instruction(s) that specify the

event control blocks representing the subtask terminations.

If WAIT macro instruction(s) had been issued and had indicated that all subtasks had terminated, check for program errors that incorrectly modified the WAIT macro instructions or event control blocks.

After making corrections, recompile and execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

A05 Explanation: The error occurred during execution of a FREEMAIN macro instruction.

The control program found that the address and length specifications in the release request defined an area to be freed that overlapped a free area in main storage. Specifications for free areas are contained in the free area queue, which is composed of queue elements defining each free area; a queue element appears in the first 8 bytes of its free area.

Programmer Response: Probable user error. Check for program errors that incorrectly modified the free area queue or the release request. Make sure the release request was correctly specified. Correct the error, and execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

A06 Explanation: The error was detected during execution of either a LINK, LOAD, XCTL or ATTACH macro instruction.

This macro instruction requested a serially reusable load module; however, a prior request for the same load module was already queued for the task issuing this macro instruction.

Programmer Response: Probable user error. Change the program to wait until the serially reusable load module is executed before issuing the LINK, LOAD, XCTL or ATTACH macro instruction for the load module. After making corrections, recompile and execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

A0A Explanation: The error occurred during execution of an R-form FREEMAIN macro instruction.

The control program found that the address and length specifications in the release request defined an area to be freed that overlapped a free area in main storage.

Programmer Response: Probable user error. Check for program errors that incorrectly modified the free area queue or the release request. Make sure the release request was correctly specified. Correct the error and execute the job step again.

Problem Determination: Table 1, items 1, 5a, 16, 23, 29.

A13 Explanation: The error occurred during execution of an OPEN macro instruction for a data set on a magnetic tape. This system completion code is accompanied by message IEC151I. Refer to the explanation of message IEC151I in this publication for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated in message IEC151I.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

A14 Explanation: The error occurred during execution of a CLOSE macro instruction for a data set on a direct access device. This system completion code is accompanied by message IEC216I. Refer to the explanation of message IEC216I in this publication for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated in message IEC216I.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

A37 Explanation: The error occurred during end-of-volume processing. This system completion code is accompanied by message IEC015I. Refer to the explanation of message IEC015I in this publication for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated to message IEC015I.

Problem Determination: Table I, items 1, 4, 5a, 15, 16, 29.

B04 Explanation: The error occurred during execution of a GETMAIN macro instruction.

A subpool number greater than 127 was specified.

Programmer Response: Probable user error. Make sure that the storage request was specified correctly and was not incorrectly modified. Correct the error, and execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

B05 Explanation: The error occurred during execution of a FREEMAIN macro instruction.

A subpool number greater than 127 was specified.

Programmer Response: Probable user error. Make sure that the release request was specified correctly and was not incorrectly modified. After making corrections, execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

B06 Explanation: During input/output activity, a system error task operating on behalf of a user task was abnormally terminating (SVCDUMP produced), or was unable to load the requested ERP module (register 15 has the error code -- see ABEND S106). Rather than have the system error task fail, the supervisor reinstated the error task and abnormally terminated the user task.

Programmer Response: Retry the task.

Problem Determination: Table I, items 5a, 16, 23, 29.

B0A Explanation: The error occurred during execution of an R-form GETMAIN or FREEMAIN macro instruction.

A subpool number greater than 127 was specified.

Programmer Response: Probable user error. Make sure that the request was specified correctly and was not incorrectly modified. Correct the error, and execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

B13 Explanation: The error occurred during execution of an OPEN macro instruction for a data set on a 1403 printer with the universal character set (UCS) special feature. This system completion code is accompanied by message IEC152I. Refer to the explanation of message IEC152I in this publication for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated in message IEC152I.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

B14 Explanation: The error occurred during execution of a CLOSE macro instruction for a partitioned data set opened for output to a member. This system completion code is accompanied by message IEC217I. Refer to the explanation of message IEC217I in this publication for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated in message IEC217I.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

B37   **Explanation:** The error was detected by the end-of-volume routine. This system completion code is accompanied by message IEC030I. Refer to the explanation of message IEC030I in this publication for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

      Programmer Response: Respond as indicated in message IEC030I.

      Problem Determination: Table I, items 1, 3, 5a, 15, 29.

C03   **Explanation:** The error occurred when a task attempted to terminate normally with a RETURN macro instruction or a branch to the return address in register 14.

      The control program could not close one of the task's data sets that was still open at termination, because the data control block (DCB) for the data set had been erroneously modified. The TCBDEB field of the task control block (TCB) for the terminating task points to the data extent block (DEB) associated with the erroneous DCB. Examples of how the DCB could be erroneously modified are:

- A program containing an open DCB issued an XCTL macro instruction.
- A program freed main storage that contained an open DCB.
- The system program modified the DCB incorrectly.

      (Note: In an ABEND dump, the TCBDEB field points to the DEB for the SYSABEND or SYSUDUMP data set, which in turn points to the DEB associated with the erroneous DCB.)

      Programmer Response: Probable user error. Correct the program error that incorrectly modified the data control block. After making the corrections, recompile and execute the job step again.

      Problem Determination: Table I, items 1, 5a, 16, 23, 29.

C04   **Explanation:** The error occurred during execution of a GETMAIN macro instruction in systems with MVT.

      The control program encountered an invalid storage hierarchy specification. The specification may have been modified during program execution or the assembled specification may have been incorrect.

      Programmer Response: Probable user error. Check for program errors that incorrectly modified the hierarchy specification. Correct the error, and execute the job step again.

      Problem Determination: Table I, items 1, 5a, 16, 23, 29.

C06   **Explanation:** A transient area task, operating in behalf of a user task, was in the process of terminating abnormally (SVCDUMP produced), or was unable to load the requested module (register 15 has the error code -- see ABEND S106). Rather than have the transient area task fail, the supervisor reinstated the transient area task and abnormally terminated the user task.

      Programmer Response: Rerun the job.

      Problem Determination: Table I, items 16, 23, 29. Table II, Format 1: trace option - TRACE=SYS.

C13   **Explanation:** The error occurred during execution of an OPEN macro instruction for a concatenated partitioned or a graphics data set. This system completion code is accompanied by message IEC157I or IEC153I. Refer to the explanation of message IEC157I or IEC153I in this publication for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

      Programmer Response: Respond as indicated to message IEC157I or message IEC153I.

      Problem Determination: Table I, items 1, 4, 5a, 16, 23, 29. Table II, Format 3.

C2D   **Explanation:** The error occurred during execution of an overlay program. The control program found an invalid scatter record when attempting to load a segment of the overlay program.

      Programmer Response: Linkage edit the program again, and execute the job step again.

      Problem Determination: Table I, items 1, 5a, 9b, 29.

D03   **Explanation:** The error occurred when a task attempted to terminate normally with a RETURN macro instruction or a branch to the return address in register 14.

      Resources acquired through ENQ macro instructions had not been released before termination. All resources acquired through ENQ macro instructions must be released through DEQ macro instructions before task termination. This ABEND code may occur after message IEE514I. Consult the console sheet; if this message appears preceding the ABEND, see the documentation of IEE514I in this publication for a further explanation.

      Programmer Response: Probable user error. Change the program to include DEQ macro instructions for all resources named in ENQ macro instructions. If DEQ macro instructions were coded, check for program errors that incorrectly modified the DEQ macro-expansions, the queue control block (QCB), or the queue elements. After making corrections, recompile and execute the job step again.

      Problem Determination: Table I, items 1, 5a, 16, 23, 29.

D05 Explanation: The error occurred during execution of a FREEMAIN macro instruction.

A task invoked a system function which, in turn, issued a FREEMAIN macro instruction. However, the FREEMAIN macro instruction attempted to free system queue space storage that was not owned by the task.

For example, a task issues a CLOSE macro instruction for a data set that it does not own. During execution of the CLOSE macro instruction, a FREEMAIN macro instruction is issued.

Programmer Response: Probable user error. Change the program to ensure that no requests for system functions result in the issuance of an invalid FREEMAIN macro instruction. After making corrections, execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

D0A Explanation: The error occurred during execution of an R-form FREEMAIN macro instruction.

A task invoked a system function which, in turn, issued an R-form FREEMAIN macro instruction. However, the FREEMAIN macro instruction attempted to free system queue space storage that was not owned by the task.

For example, a task issues a CLOSE macro instruction for a data set that it does not own. During execution of the CLOSE macro instruction, a FREEMAIN macro instruction with an R operand is issued.

Programmer Response: Probable user error. Change the program to ensure that no requests for system functions result in the issuance of an invalid FREEMAIN macro instruction. After making corrections, execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

D0D Explanation: An error occurred while ABEND was handling an abnormally terminating subtask for the job step task. ABEND was reentered invalidly; therefore the environment of the abnormal termination was altered to include all tasks in the job step. A frequent cause for this condition is that a task has overlaid a Free queue Element (FQE) in a subpool (probably subpool 251) not belonging to or shared by one of the abnormally terminating tasks.

The system completion code of the subtask originally scheduled for abnormal termination can be found in the user completion code subfield (the low-order 12 bits) of the TCBCMP field of the job step task control block (TCB). If the user completion code subfield is zero, the subtask terminated as the result of a user-invoked ABEND macro instruction.

Note: This system completion code may be accompanied by one of several system messages, which may contain the user completion code from the TCBCMP field of the TCB. If this code is in decimal, it must be converted to hexadecimal to be meaningful.

System Action: ABEND attempts to terminate the job step. A SYSUDUMP or SYSABEND dump may be provided; a dump may also have been taken to the SYS1.DUMP data set.

Programmer Response: Make sure that none of the tasks in the job step has overlaid an FQE. Determine the system completion code for the original subtask, as described above. Take any necessary corrective action and execute the job step again. If the problem recurs, call IBM for programming support.

D13 Explanation: The error occurred during execution of an OPEN macro instruction for a graphic data control block. This system completion code is accompanied by message IEC158I. Refer to the explanation of message IEC158I in this publication for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated in message IEC158I.

Problem Determination: Table I, items 1, 3, 4, 5a, 15, 16, 29. Table II, Format 3.

D14 Explanation: The error occurred during execution of a CLOSE macro instruction for a graphic data control block.

The graphic device to be closed was previously opened by another task.

Programmer Response: Probable user error. Issue the CLOSE macro instruction within the same task that issues the OPEN macro instruction, or remove the invalid CLOSE macro instruction. Then execute the job step again.

Problem Determination: Table I, items 1, 3, 5a, 15, 29.

D23 Explanation: The error occurred during execution of a WTO or WTOR macro instruction for one of the following reasons:
• The parameter list supplied to the WTO macro instruction does not begin on a halfword boundary, or the parameter list supplied to the WTOR macro instruction does not begin on a fullword boundary.
• The text length was equal to or less than zero.
• No buffers were available.

Programmer Response: Probable user error. Correct the program issuing the WTO or WTOR macro instruction, recompile, and execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29

D2D **Explanation:** The error occurred during execution of an overlay program.

The control program found an invalid record type when attempting to load a segment of the overlay program.

Programmer Response: Linkage edit the program again, and execute the job step again.

Problem Determination: Table I, items 1, 5a, 9, 29.

D37 **Explanation:** The error occurred when an output operation to a direct access device was requested. This system completion code is accompanied by message IEC031I. Refer to the explanation of message IEC031I in this publication for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated in message IEC031I.

Problem Determination: Table I, items 1, 3, 5a, 15, 25b, 29.

E04 **Explanation:** The error occurred during execution of a GETMAIN macro instruction for a program executing in the supervisor mode.

More bytes of main storage were requested from the system queue area (SQA) than were available. In MVT there were at least 288 bytes available and the task could be abnormally terminated.

Programmer Response: Resubmit the job. If this code occurs frequently, installation action is needed to increase the space allowed for the system queue; more space should be specified at system generation or in response to message IEA101A at IPL time.

Problem Determination: Table I, items 2, 29.

E0D **Explanation:** (MVT only). While handling an abnormally terminating subtask of the job step task, ABEND required 512 decimal bytes of main storage. This amount was not available from subpool 252, so ABEND used storage in the user's region that had been allocated to the job step and changed the environment of the abnormal termination to include all tasks in the job step.

The system completion code of the subtask originally scheduled for abnormal termination can be found in the user completion code subfield (the low-order 12 bits) of the TCBCMP field of the job step task control block (TCB). If the user completion code subfield is zero, the subtask terminated as the result of a user-invoked ABEND macro instruction.

Note: This system completion code may be accompanied by one of several system messages, which may contain the user completion code from the TCBCMP field of the TCB. If this code is in decimal, it must be converted to hexadecimal to be meaningful.

System Action: The job step is terminated. No SYSUDUMP or SYSABEND dump is taken after the abnormal termination environment is altered to include all tasks in the job step. If a dump had been taken when the original subtask terminated, that dump is available. It will not, however, directly reflect the conditions that produced the E0D system completion code.

Programmer Response: Increase the region size and execute the job step again. (Note: If possible, correct the errors in the original subtask as indicated by the subtask's system completion code (described in the explanation above). Execute the job step again.) If the problem recurs, refer to the documentation for the subtask's system completion code in this publication and take the appropriate action before calling IBM for programming support.

E13 **Explanation:** The error occurred during execution of an OPEN macro instruction for a graphic control block. This system completion code is accompanied by message IEC159I. Refer to the explanation of message IEC159I in this publication for complete information about the task that was terminated and for the explanation of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated in message IEC159I.

Problem Determination: Table I, items 1, 3, 4, 5a, 15, 16, 29. Table II, Format 3.

E23 **Explanation:** The error occurred during processing of a WTOR macro instruction.

The address of the event control block (ECB), the address of the request block (RB) in the ECB, or of the main storage area for the reply was invalid.

Programmer Response: Probable user error. Correct the macro instruction or program errors that incorrectly modified the macro-expansion. Recompile and execute the job step again.

Problem Determination: Table I, items 1, 5a, 16, 23, 29.

E2D **Explanation:** The error occurred during execution of an overlay program.

The control program found an invalid address when attempting to load a segment of the overlay program.

Programmer Response: Linkage edit the program again, and execute the job step again.

Problem Determination: Table I, items 1, 5a, 9, 29.

E37 Explanation: The error occurred when an output operation was requested. The data set was on a direct access or magnetic tape device. This system completion code is accompanied by message IEC032I. Refer to the explanation of message IEC032I in this publication for complete information about the task that was terminated and for an explanation of the return code (rc in the message text) in register 15.

Programmer Response: Respond as indicated in message IEC032I.

Problem Determination: Table I, items 1, 3, 5b, 15, 29.

Fnn Explanation: The error occurred during the execution of an invalid supervisor call (SVC) instruction.

The last 2 digits of this completion code are the operand of the supervisor call instruction in hexadecimal.

Programmer Response: Probable user error. Make sure that the supervisor call instruction was not incorrectly modified. Check the operand against the valid codes for the control program being used, and determine if the SVC that was issued had been generated into the system. Correct the error, and execute the job step again.

Problem Determination: Table I, items 5a, 16, 23, 29.

PART II: WAIT STATE CODES

Wait State Code	The wait state code is found in the program status word (PSW) when the computer is in wait state.
Program Producing Code	Input/output supervisor, IPL and NIP programs, machine-check handler, supervisor, and system environment recording routines SER0 and SER1.
Audience and Where Produced	For operator: displayed in console lights.

Program Status Word Format	yyyyyyyyxxxxxzzz
	
	yyyyyyyy
	    Left half of program status word. This half has two forms:
	
	FF0s0000 If the wait state code (zzz in right half of program status word) is 000, no tasks are ready in the system. Otherwise, an error condition, indicated by zzz, has occurred.
	000s0000 System wait state caused by an error condition.
	
	In each of the above forms, s represents bits 12-15 (the AMWP bits).
	xxxxxzzz
	    Right half of program status word. The wait state code, zzz, indicates the error condition.

Comments	If the system enters a wait state during IPL or NIP execution and the explanation of the wait state resulted from an input/output error, the operator should display the contents of register 10 in the console lights. Register 10 will contain the unit address of the last device referenced in an input/output operation. Since this device could be the source of the error, the operator should, if possible, disable or demount the device before starting the system again.
Problem Determination	Refer to the fold-out in part VI of this publication for problem determination instructions.

001 **Explanation:** During execution of the IPL program or the nucleus initialization program (NIP), a "not operational" condition code was produced in response to a Test I/O instruction that was issued to determine the current status of the volume containing the nucleus being loaded. (If NIP, the fourth byte of the program status word is hexadecimal FF.)

Operator Response: Probable user error. Ensure that the device on which the volume was mounted is ready. If the problem recurs, call IBM for programming support.

002 **Explanation:** During execution of the IPL program or the nucleus initialization program (NIP), an input/output operation was not initiated; the channel status word (CSW) was stored; and the channel was not busy. (If NIP, the fourth byte of the program status word is hexadecimal FF.)

Operator Response: Probable hardware error. Start the system again. If the problem recurs, call IBM for hardware support.

003 **Explanation:** During execution of the IPL program or the nucleus initialization program (NIP), an input/output operation was not initiated, because no UCB was found for the IPLed device, an invalid storage configuration for MVT was found, or a not operational response was received from an SIO macro instruction. (In the first two cases, a message describing the situation will precede the wait state code.) The channel status word (CSW) was not stored, and the channel was not busy. (If NIP, the fourth byte of the program status word is hexadecimal FF.)

Operator Response: Probable hardware error. Start the system again. If the problem recurs, call IBM for hardware support.

004 **Explanation:** During execution of the IPL program or the nucleus initialization program (NIP), an input/output operation was not initiated; the channel status word (CSW) was not stored and the channel was not busy following execution of a Test I/O instruction. (If NIP, the fourth byte of the program status word is hexadecimal FF.)

Operator Response: Probable hardware error. Start the system again. If the problem recurs, call IBM for hardware support.

005 Explanation: During execution of the IPL program or the nucleus initialization program (NIP), an input/output interruption occurred because of a unit check.

If IPL, the fourth byte of the program status word is hexadecimal 00. The address of the channel command word (CCW) causing the original unit check was placed at hexadecimal location 4C. The first four sense bytes describing the unit check were placed at hexadecimal location 54.

If NIP, the fourth byte of the program status word is hexadecimal FF. The result of a sense operation to determine the cause of the unit check was not one of the following:
• No record found.
• File mask violation.
• End of cylinder.
• Track condition check.

Operator Response: Probable hardware error. Restart the system.

Problem Determination: Table I, items 11, 17b, 29.

006 Explanation: During execution of the IPL program or the nucleus initialization program (NIP), one or more of the following occurred:
• An interface control check.
• A channel control check.
• A channel data check.
• A program check.
• A channel chaining check.

(If NIP, the fourth byte of the program status word is hexadecimal FF.)

Operator Response: Probable user error. Restart the system.

Problem Determination: Table I, items 11, 17b, 29.

007 Explanation: During execution of the nucleus initialization program (NIP), a console was not available.

Operator Response: Probable user error. Ensure that the device is available.

Problem Determination: Table I, items 11, 17b, 29.

008 Explanation: During execution of the nucleus initialization program (NIP), an input/output interruption occurred because of a unit check. The unit check indicates that a record was not found.

This code also appears if an unformatted direct access volume is mounted on an online device or if the volume label is on an alternate track (defective track 0 at DASDI).

Operator Response: Probable user error. Ensure that there are no unformatted volumes on an online direct access device, and restart the system.

Problem Determination: Table I, items 11, 17b, 29.

009 Explanation: During execution of the nucleus initialization program (NIP), an input/output interruption occurred because of a unit check. The unit check indicates that a file mask violation occurred in response to a TIO macro instruction.

Operator Response: Probable hardware error. Restart the system.

Problem Determination: Table I, items 11, 17b, 29.

00A Explanation: The SYS1.LINKLIB was not found in the catalog.

Operator Response: Notify the system programmer.

Programmer Response: Probable user error. Insure that the SYS1.LINKLIB is in the catalog and restart the system.

Problem Determination: Table I, items 30.

00F Explanation: A volume has been IPLed that does not contain IPL text.

Operator Response: Probable user error. Correct the load unit switches to address the correct volume to be IPLed. Verify that the correct volume is mounted. Press the LOAD key and continue.

Problem Determination: Table I, items 11, 29.

010 Explanation: During execution of the nucleus initialization program (NIP), an input/output interruption occurred because of a unit check. The unit check indicates that an end of cylinder occurred before the record being searched for was found.

Operator Response: Probable user error. Restart the system.

Problem Determination: Table I, items 11, 17b, 29.

011 Explanation: During execution of the nucleus initialization program (NIP), an input/output interruption occurred because of a unit check. The unit check indicates that a track condition check occurred.

Operator Response: Probable hardware error. Restart the system.

Problem Determination: Table I, items 11, 17b, 29.

012 Explanation: During nucleus initialization, the prefix switches on both central processing units were set in the same position, causing both units to use the same prefixed storage area.

Operator Response: Probable user error. Set one of the prefix switches in the opposite position, and restart the system. If the problem recurs, call IBM for programming support.

015 Explanation: During nucleus initialization, it was determined that the storage box enable/disable switches were not set in the same position on both central processing units.

Operator Response: Probable user error. Set the storage enable/disable switches so that each box in a multiprocessor configuration either can or cannot be used by both central processing units. If the problem recurs, call IBM for programming support.

016 Explanation: During nucleus initialization, the uppermost 4K bytes of storage malfunctioned and could not be used for the permanent storage area.

Operator Response: Probable hardware error. Redial the storage boxes so that a different box has the highest address range, and start the system again. If the problem recurs, call IBM for hardware support.

017 Explanation: During execution of the IPL program or the nucleus initialization program (NIP), a unit check occurred while executing a sense instruction. The sense instruction had been issued to clarify a previous unit check condition. (If NIP, the fourth byte of the program status word is hexadecimal FF.)

Operator Response: Probable hardware error. Restart the system.

Problem Determination: Table I, items 11, 17b, 29.

018 Explanation: During execution of the IPL program, the nucleus was found to be too big for the machine size; the space available for relocation dictionary (RLD) records was exceeded.

Operator Response: Probable user error. Report this message to the programmer.

Programmer Response: Regenerate the system and decrease the size of the nucleus by removing options. If the problem recurs, call IBM for programming support.

019 Explanation: During execution of the IPL program, a program interruption occurred because a machine malfunction made the area containing the IPL program unusable.

Operator Response: Probable hardware error. Restart the system. If the problem recurs, call IBM for hardware support.

020 Explanation: During execution of the nucleus initialization program (NIP), the multiprocessing initialization module (IEAMP650) could not be loaded from the SYS1.LINKLIB data set for one of the following reasons:
(1) The multiprocessing initialization module was not found in the SYS1.LINKLIB data set.
(2) A permanent input/output error occurred during the directory search for the multiprocessing initialization module.
(1) Operator Response: Probable user error. Restart the system. If the problem

recurs, report the condition to the programmer responsible for the system.

Programmer Response: Make sure that module IEAMP650 is in SYS1.LINKLIB.

Problem Determination: Table I, items 11, 17b, 29.

(2) Operator Response: Probable hardware error. Restart the system.

Problem Determination: Table I, items 11, 17b, 29.

021 Explanation: During nucleus initialization, an input/output interruption occurred on teleprocessing or graphics console following an EXCP operation.

Register 1 contains a pointer to the input/output block (IOB) for the failing EXCP operation.

Operator Response: Probable hardware error. Restart the system. If the problem recurs, call IBM for hardware support.

0E2 Explanation: During processing by the supervisor, either a machine-check interruption or a channel failure occurred, but neither system environment recording routine, SER0 or SER1, is in the operating system.

Operator Response: Probable hardware error. Restart the system.

Problem Determination: Table I, items 2, 12, 30.

A01 Explanation: This wait state code is associated with message IGF003W. MCH has encountered an unexpected machine-check interruption during its error recovery attempt.

System Action: Enter wait state.

Operator Response: Probable hardware error. If 'S' is present in the associated message, execute the System Environment Record Edit and Print (SEREP) program to record the machine environment, then restart the system. If 'S' is not present, restart the system and execute the IFCEREP0 program.

Problem Determination: Table I, items 14, 30.

A02 Explanation: A second machine-check interruption occurred while handling a machine-check interruption within either RMS/85, 155, or 165. No message will be issued.

System Action: Enter wait state.

Operator Response: Probable hardware error. Execute the System Environment Record Edit and Print (SEREP) program to record the machine environment; restart the system and execute the IFCEREP0 program.

Problem Determination: Table I, items 14, 30.

A03 Explanation: This wait state code is associated with message IGF004W. A program interruption occurred during MCH processing.

System Action: Enter wait state.

Operator Response: Probable hardware error. If 'S' is present in the associated message, execute the System Environment Record Edit and Print (SEREP) program to record the machine environment, then restart the system. If 'S' is not present, restart the system and execute the IFCEREP0 program.

Problem Determination: Table I, items 14, 30.

A04 Explanation: This wait state code is associated with message IGF006W. The MCH Resident Nucleus module (IGFNUC00) was unable to load a scheduled MCH transient module. MCH operation must terminate.

System Action: Enter wait state.

Operator Response: Probable hardware error. If 'S' is present in the associated message, execute the System Environment Record Edit and Print (SEREP) program to record the machine environment, then restart the system. If 'S' is not present, restart the system and execute the IFCEREP0 program.

Problem Determination: Table I, items 14, 30.

A05 Explanation: This wait state code is associated with message IGF002W. MCH has encountered a nonretryable recoverable failure within a supervisor area.

System Action: Enter wait state.

Operator Response: Probable hardware error. If 'S' is present in the associated message, execute the System Environment Record Edit and Print (SEREP) program to record the machine environment, then restart the system. If 'S' is not present, restart the system and execute the IFCEREP0 program.

Problem Determination: Table I, items 14, 30.

A06 Explanation: This wait state code is associated with message IGF001W. MCH has encountered a nonrecoverable failure within a supervisor area.

System Action: Enter wait state.

Operator Response: Probable hardware error. If 'S' is present in the associated message, execute the System Environment Record Edit and Print (SEREP) program to record the machine environment, then restart the system. If 'S' is not present, restart the system and execute the IFCEREP0 program.

Problem Determination: Table I, items 14, 30.

A07 Explanation: This wait state code is associated with message IGF006W MCH was attempting to create a pending I/O interruption (both CE and DE pending) from the SYSRES device while performing its termination procedures. An SIO was issued with CC=0 expected, but a CC=1, 2, or 3 was received.

System Action: Enter wait state.

Operator Response: Probable hardware error. If 'S' is present in the associated message, execute the System Environment Record Edit and Print (SEREP) program to record the machine environment, then restart the system. If 'S' is not present, restart the system and execute the IFCEREP0 program.

Problem Determination: Table I, items 14, 30.

A08 Explanation: This wait state code is associated with message IGF006W. Same as wait state code A07 except a CC=0 was received from the SIO. A TCH was then issued expecting a CC=1 (interruption pending) but receiving a CC=0 or 3.

System Action: Enter wait state.

Operator Response: Probable hardware error. If 'S' is present in the associated message, execute the System Environment Record Edit and Print (SEREP) program to record the machine environment, then restart the system. If 'S' is not present, restart the system and execute the IFCEREP0 program.

Problem Determination: Table I, items 14, 30.

A09 Explanation: This wait state code is associated with message IGF006W. MCH successfully created a pending SYSRES interruption but in attempting to clear it via a TIO, a CC=2, or 3 was received instead of a CC=1.

System Action: Enter wait state.

Operator Response: Probable hardware error. If 'S' is present in the associated message, execute the System Environment Record Edit and Print (SEREP) program to record the machine environment, then restart the system. If 'S' is not present, restart the system and execute the IFCEREP0 program.

Problem Determination: Table I, items 14, 30.

A0A Explanation: This wait state code is associated with message IGF013W. MCH was entered as the result of a channel-check condition. MCH has produced a channel inboard record. (CCH has not been able to complete its functions, or CCH is not in the system).

System Action: Enter wait state.

Operator Response: Probable hardware error. If 'S' is present in the associated message, execute the System Environment Record Edit and Print (SEREP) program to record the machine environment, then restart the system. If 'S' is not present, restart the system and execute the IFCEREP0 program.

Problem Determination: Table I, items 14, 30.

A0B Explanation: This wait state code is associated with message IGF012W. MCH determined that a machine-check interruption occurred during Channel-Check Handler processing.

System Action: Enter wait state.

Operator Response: Probable hardware error.
If 'S' is present in the associated message,
execute the System Environment Record Edit and
Print (SEREP) program to record the machine
environment, then restart the system. If 'S'
is not present, restart the system and execute
the IFCEREP0 program.

Problem Determination: Table I, items 14, 30.

A0D Explanation: This wait state code is
associated with message IGF010W. MCH
determined that the machine is not an IBM
System/360 Model 65, 65 Multiprocessor, or 85.

System Action: Enter wait state.

Operator Response: Probable hardware error.
Execute the System Environment Record Edit and
Print (SEREP) program to record the machine
environment, then restart the system.

Problem Determination: Table I, items 14, 30.

A0E Explanation: This wait state code is
associated with message IGF011W. MCH
determined that it has not been properly
initialized by NIP.

System Action: Enter wait state.

Operator Response: Probable hardware error.
Execute the System Environment Record Edit and
Print (SEREP) program to record the machine
environment, then restart the system.

Problem Determination: Table I, items 14, 30.

A0F Explanation: This wait state code is
associated with message IGF016W. MCH has
received an indication in the logout that an
unrecoverable 2880 error has occurred.

System Action: Enter wait state.

Operator Response: Probable hardware error.
If 'S' is present in the associated message,
execute the system environment record edit and
print (SEREP) program to record the machine
environment, then restart the system. If 'S'
is not present in the message, restart the
system and execute the IFCEREP0 program.

Problem Determination: Table I, items 14, 30.

A10 Explanation: This wait state code is
associated with message IGF006W. An I/O error
occurred while MCH was clearing the channel
path to an I/O device. The error occurred in
module IGFASR0A, while clearing the SYSRES
device or the active system console.

System Action: Enter wait state.

Operator Response: Probable hardware error.
If 'S' is present in the associated message,
execute the System Environment Record Edit and
Print (SEREP) program to record the machine
environment, then restart the system. If 'S'
is not present, restart the system and execute
the IFCEREP0 program.

Problem Determination: Table I, items 14, 30.

A12 Explanation: This wait state code is
associated with message IGF006W. An I/O error
occurred while MCH the channel
path to an I/O device. The error occurred
while clearing a job library device for the
refresh loader.

System Action: Enter wait state.

Operator Response: Probable hardware error.
If 'S' is present in the associated message,
execute the System Environment Record Edit and
Print (SEREP) program to record the machine
environment, then restart the system. If 'S'
is not present, restart the system and execute
the IFCEREP0 program.

Problem Determination: Table I, items 14, 30.

A13 Explanation: This wait state code is
associated with message IGF014W. An I/O error
occurred while MCH was clearing the channel
path to an I/O device.

System Action: Enter wait state.

Operator Response: Probable hardware error.
If 'S' is present in the associated message,
execute the System Environment Record Edit and
Print (SEREP) program to record the machine
environment, then restart the system. If 'S'
is not present, restart the system and execute
the IFCEREP0

Problem Determination: Table I, items 14, 30.

A14 Explanation: This wait state code is
associated with message IGF015W. An
unexpected error occurred while MCH was making
a recovery attempt.

System Action: Enter wait state.

Operator Response: Probable hardware error.
If 'S' is present in the associated message,
execute the System Environment Record Edit and
Print (SEREP) program to record the machine
environment, then restart the system. If 'S'
is not present, restart the system and execute
the IFCEREP0 program.

Problem Determination: Table I, items 14, 30.

A15 Explanation: A machine-check interruption
occurred while MCH was saving the system
environment.

System Action: Enter wait state.

Operator Response: Probable hardware error.
Execute the System Environment Record Edit and
Print (SEREP) program to record the machine
environment, then restart the system.

Problem Determination: Table I, items 14, 30.

A16 Explanation: This wait state code is
associated with message IGF050W[S]. The error
has occurred in the Time of Day Clock.

System Action: Enters wait state.

Operator Response: Probable hardware error.
If 'S' is present, execute the SEREP program
for the model. If 'S' is not present, restart
the system and schedule the IFCEREP0 program.

Problem Determination: Table I, items 14, 30.

A21 Explanation: The two central processing units
of a Model 65 Multiprocessing System, while
operating in multisystem mode, experienced
simultaneous or nearly simultaneous machine
checks or, after one central processing unit
experienced a machine check and began
executing MCH, the second central processing
unit experienced a machine check while
spinning in its time out loop.

Operator Response: Probable hardware error.
Execute the System Environment Record Edit and
Print (SEREP) program to record the machine
environment, then restart the system.

Problem Determination: Table I, items 14, 30.

A22 Explanation: In a Model 65 Multiprocessing
System with both central processing units
operating in multisystem mode, the central
processing unit executing MCH failed to
complete recovery processing before the time
out on the second central processing unit
expired.

Operator Response: Probable hardware error.
Execute the System Environment Record Edit and
Print (SEREP) program to record the machine
environment, then restart the system.

Problem Determination: Table I, items 14, 30.

B01 Explanation: The 3211 utility has completed
normally.

Operator Response: Verify the printed image
and restart the system.

B02 Explanation: This wait state code is issued
by the 3211 utility. A control card is
missing or out of order. The JOB and END
control cards must be the first and last cards
respectively. The DFN, UCS, and FCB
statements can be included in any order.

Operator Responsed Correct the control card
sequence, insert any missing cards, and rerun
the program.

Problem Determination: Table I, items 11, 29.

B03 Explanation: This wait state code is issued
by the 3211 utility. The JOB statement is
incorrect.

Operator Response: Correct the JOB statement
and rerun the program.

Problem Determination: Table I, items 11, 29.
Have the 3211 utility and control cards
available.

B04 Explanation: This wait state code is issued
by the 3211 utility. The DFN statement is
incorrect.

Operator Response: Correct the DFN statement
and rerun the program.

Problem Determination: Table I, items 11, 29.
Have the 3211 utility and control cards
available.

B05 Explanation: This wait state code is issued
by the 3211 utility. The UCS statement is
incorrect.

Operator Response: Correct the UCS statement
and rerun the program.

Problem Determination: Table I, items 11, 29.
Have the 3211 utility and control cards
available.

B06 Explanation: This wait state code is issued
by the 3211 utility. The FCB statement is
incorrect.

Operator Response: Correct the FCB card and
rerun the program.

Problem Determination: Table I, items 11, 29.
Have the 3211 utility and control cards
available.

B07 Explanation: This wait state code is issued
by the 3211 utility. The END statement is
incorrect.

Operator Response: Correct the END statement
and rerun the program.

Problem Determination: Table I, items 11, 29.
Have the 3211 utility and control cards
available.

B0A Explanation: This wait state code is issued
by the 3211 utility. An external interrupt
has occurred.

Operator Response: Rerun the program.

B0B Explanation: This wait state code is issued
by the 3211 utility. A program check
interrupt has occurred.

Problem Determination: Table I, items 11, 29.
Have the 3211 utility and control statements
available.

B0C Explanation: This wait state code is issued
by the 3211 utility. A machine check
interrupt has occurred.

Operator Response: Execute the SEREP program
program and save the output. Rerun the job.

Problem Determination: Table I, items 14, 30.

B11 Explanation: This wait state code is issued
by the 3211 utility. The reader is not on
line. This will occur when the reader's
control unit has no power or when the control
unit has been switched off the I/O interface.

Operator Response: Put the specified control
unit online and rerun the program. If the
error recurs, call IBM for hardware support.

B12 Explanation: This wait state code is issued
by the 3211 utility. The reader is not ready.

Operator Response: Ready the reader and rerun
the program.

B13 **Explanation**: This wait state code is issued by the 3211 utility. The reader is not ready.

Operator Response: If the error condition is not apparent, display location 3 for sense information. (An interpretation of sense bit settings can be found in the component description manual for the control unit being used.) Correct the faulty condition and clear the reader check. Rerun the program. If reader checks occur frequently, use a card guide to check for off-punched cards. If the cards are punched correctly and are in good condition and readchecks continue, call IBM for hardware support.

B14 **Explanation**: This wait state code is issued by the 3211 utility. A reader channel error has occurred.

Operator Response: Probable hardware error. Rerun the job.

Problem Determination: Table I, items 12, 30.

B15 **Explanation**: This wait state code is issued by the 3211 utility. No device end is indicated on the reader.

Operator Response: Probable hardware error. Rerun the job.

Problem Determination: Table I, items 12, 30.

B19 **Explanation**: This wait state code is issued by the 3211 utility. The printer is not on line. This will occur when the printer's control unit has no power, when the control unit has been switched off the I/O interface or when the control unit is not a part of the system.

Operator Response: Ensure that the address of the printer specified in the DFN statement is correct. Ensure that the control unit is online, and rerun the job. If the error recurs, call IBM for hardware support.

B1B **Explanation**: This wait state code is issued by the 3211 utility. A unit check has occurred on the printer.

Operator Response: If the error condition is not apparent, display low core location 2-7 for sense information. (An interpretation of sense bit settings can be found in the publication IBM 3211 Printer and 3811 Control Unit Component Description, GA24-3343.) Correct the faulty condition and rerun the job. If the problem recurs, call IBM for hardware support.

B1C **Explanation**: This wait state code is issued by the 3211 utility. A printer channel error has occurred.

Operator Response: Probable hardware error. Rerun the job.

Problem Determination: Table I, items 12, 30.

B1D **Explanation**: This wait state code is issued by the 3211 utility. No device end is indicated on the printer.

Operator Response: Probable hardware error. Rerun the job. If the error recurs, call IBM for hardware support:

D01 **Explanation**: The error occurred for one of the following reasons:
- During execution of the Abnormal Termination (ABTERM) program, an invalid recursion to ABTERM occurred; that is, ABTERM failed while processing the terminating program.
- Entry to ABTERM occurred because the wait task terminated abnormally.

System Action: The system entered a wait state.

Operator Response: Probable operating system error; restart the system.

Note: This wait state should occur only if programming support has modified ABTERM.

Problem Determination: Table I, items 11, 29.

E02 **Explanation**: A permanent input/output error occurred while the IBM 2250 Display Unit was being used as the primary console. At the time the error occurred, no alternate console was available.

System Action: The sense bytes are placed in the two high-order bytes of register 15 and the status bytes are placed in the two low-order bytes of register 15. Then the system is placed in a wait state.

Operator Response: If an alternate console is available, start the system again, using the alternate console. If an alternate console is not available, call IBM for programming support.

E04 **Explanation**: The error occurred during execution of a GETMAIN macro instruction for a program executing in the supervisor mode. More bytes of main storage were requested from the system queue area (SQA) than were available. However, since there were less than 288 bytes available, the task could not be abnormally terminated.

Operator Response: Resubmit the job. If this code occurs frequently, installation action is needed to increase the space allowed for the system queue; more space should be specified at system generation or in response to message IEA101A during system IPL.

Problem Determination: Table I, items 11, 29.

F05 **Explanation**: System environment recording routine SER0 or SER1 wrote an environment record about a machine malfunction that caused an unrecoverable error.

System Action: The routine attempted to ring the console alarm and then placed the system in wait state.

Operator Response: Probable hardware error. Restart the system.

Problem Determination: Table I, items 2, 18, 30.

F06 Explanation: A second machine-check
     interruption occurred while system environment
     recording routine SER0 or SER1 was writing an
     environment record about a prior machine
     malfunction. The environment record was
     written.

     System Action: The routine attempted to ring
     the console alarm and then placed the system
     in wait state.

     Operator Response: Probable hardware error.
     Execute the System Environment Record Edit and
     Print (SEREP) program to record the machine
     environment, then restart the system.

     Problem Determination: Table I, items 2, 14,
     18, 30. 14, 18, 30.

F07 Explanation: Machine-check interruptions are
     occurring so frequently that system
     environment recording routine SER0 or SER1
     cannot write a meaningful environment record.

     System Action: The routine attempted to ring
     the console alarm and then placed the system
     in wait state.

     Operator Response: Probable hardware error.
     Execute the System Environment Record Edit and
     Print (SEREP) program to record the machine
     environment, then restart the system.

     Problem Determination: Table I, items 2, 14,
     30.

F08 Explanation: System environment recording
     routine SER0 could not write an environment
     record in the SYS1.LOGREC data set because of
     uncorrectable input/output or channel errors
     associated with the system residence device.

     System Action: The routine attempted to ring
     the console alarm and then placed the system
     in wait state.

     Operator Response: Probable hardware error.
     Execute the System Environment Record Edit and
     Print (SEREP) program to record the machine
     environment, then restart the system.

     Problem Determination: Table I, items 2, 14,
     30.

F09 Explanation: System environment recording
     routine SER0 or SER1 could not write an
     environment record in the SYS1.LOGREC data set
     because either the data set is full or an
     error exists in the header record.

     System Action: The routine attempted to ring
     the console alarm and then placed the system
     in wait state.

     Operator Response: Execute the System
     Environment Record, Edit and Print (SEREP) to
     record the machine environment. Restart the
     system and execute the IFCEREP0 program to
     dump the SYS1.LOGREC data set.

     Problem Determination: Table I, items 14, 30.

F0A Explanation: The resident module of system
     environment recording routine SER0 could not
     load the nonresident module from the linkage
     library (SYS1.LINKLIB) data set.

     System Action: The SER0 routine placed the
     system in wait state.

     Operator Response: Probable hardware error.
     Execute the System Environment Record Edit and
     Print (SEREP) program to record the machine
     environment, then restart the system.

     Problem Determination: Table I, items 2, 14,
     30.

F0D Explanation: System environment recording
     routine SER1 encountered an uncorrectable
     input/output error or a central processing
     unit (CPU) error or both while attempting to
     write an environment record in the SYS1.LOGREC
     data set. The environment record was not
     written.

     System Action: The routine attempted to ring
     the console alarm and then placed the system
     in wait state.

     Operator Response: Probable hardware error.
     Execute the System Environment Record Edit and
     Print (SEREP) program to record the machine
     environment, then restart the system.

     Problem Determination: Table I, items 2, 14,
     30.

F0F Explanation: System environment recording
     program (Model 195 SER1) encountered permanent
     buffer segment errors in all four segments of
     the high speed buffer of the Model 195.

     System Action: The program recorded an
     environment record and then placed the system
     in the wait state.

     Operator Response: Start the system. If the
     error recurs, call IBM for hardware support.

Definition: A system wait state is indicated
on the operator control section of the system
control panel by the wait light. No central
processing unit instructions are processed
while the wait light is on. A system wait
state is entered when bit 14 of the current
program status word (PSW) is set to 1. To
exit from this state, an interruption or
initial program load must occur to change the
current PSW. When a condition arises such
that the right half of the PSW does not match
any of the explicit wait state codes listed in
this publication, an uncoded wait state has
occurred.

Explanation: An uncoded wait state may be the
result of normal operation; for example, the
system may wait for a series of specified
operator actions before it can resume
processing. The uncoded wait state may also
be a symptom of abnormal operation; for
example, the system may enter a wait state if
a hardware malfunction causes an input/output
interruption to be lost.

System Action: The system may exit from an
uncoded wait state without operator
intervention if an input/output interruption
occurs, for example when a user at a terminal
requests attention, or when an external
interruption occurs, for example when a
specified time interval has expired.
Otherwise, the system continues to wait for an
appropriate operator response before it can
continue processing.

Operator Response: If you are able to
communicate with the system through the master
console device (that is, if the 1052 PROCD
light turns on after you press REQUEST),
perform the following actions:
- Enter a DISPLAY R command. The system will
  respond with message IEE110I if any operator
  action is required from previous messages.
  This would include replies to messages or
  mounting of volumes. If all system requests
  have been satisfied, you will receive
  message IEE111I.
- Scan the console log to make sure that all
  messages requiring operator action have been
  satisfied. For example, IEF308I suggests
  that the operator must redefine a partition
  or region size to allow enough main storage
  for the job scheduler's minimum operating
  requirements.
- The system may be waiting for work. Issue a
  DISPLAY A command. The system will respond
  with message IEE821I (MFT) or IEE102I (MVT)
  to list all active tasks. The system is out
  of work if all readers (RDR) and writers
  (WTR) are stopped and the number of IEF429I
  messages issued since the last IEF161I
  message is equal to the number of times you
  gave the START INIT command.
- The system may have exhausted direct access
  space, and is waiting for space to become
  available. In this case, issue a DISPLAY Q
  command. The system will respond with

message IEF869I to list the number of jobs
on the output queue (SOUTQ). Direct access
space will be released if you can start a
WTR for each class of the output queue. In
order to start a WTR, you may find it
necessary to issue a HOLD Q command and
possibly CANCEL some active jobs or system
tasks so enough main storage is available
for a WTR. You may also find it necessary
to STOP RDR to prevent further use of direct
access space by the reader for the input
queue (JOBQ).
- Issue a DISPLAY U command. The system will
  respond with message IEE450I to list the
  status of devices in the system. The data
  listed will include indication of BSY
  (busy), MTP (mount pending), NRD (not
  ready), and other status information that
  may be useful to help you determine why the
  system is in the wait state. This command
  may cause lengthy typeout time.
- As a last resort, issue the following
  sequence of commands until the uncoded wait
  state condition is corrected:

1. If a SYS1.DUMP data set was created
   during or before nucleus initialization,
   issue the DUMP command to obtain a core
   image dump of the condition causing the
   wait. Save the output in case the
   uncoded wait cannot be resolved.
2. HOLD Q to prevent initiation of new
   jobs.
3. DISPLAY JOBNAMES to get information
   about job starting and stopping.
4. DISPLAY ACTIVE to get current job
   execution status.
5. STOP RDRs and WTRs to correct possible
   main storage fragmentation.
6. CANCEL jobs with DUMP (CANCEL jobname,
   DUMP) in reverse order of their
   importance.
7. DISPLAY ACTIVE to monitor the changing
   environment.
8. RELEASE Q to resume normal processing.

If the problem cannot be corrected or
communication with the system cannot be
established, do the following before calling
IBM for programming support:
- Record the contents of the current PSW.
- Have the master console sheet available.
- Execute the stand-alone program IMDSADMP
  with the TYPE=HI option to produce a storage
  dump to tape. If a tape is not available,
  execute the stand-alone program IMDSADMP
  with the TYPE=LO option to produce a storage
  dump to a printer.
- Execute IMDPRDMP with the 'GO' option after
  you restart the system. The input to
  IMDPRDMP is the dump tape form IMDSADMP.
  Save the formatted dump output.

If you cannot restart the system, execute the
hardware system test appropriate for your
system before calling IBM for hardware
support.

Definition: A loop is indicated by an endless repetition of events in a system. Meaningful work is not produced in a loop. The loop occurs when a sequence of central processing unit instructions are repeatedly executed until a terminal condition prevails (e.g., cancel by operator). A loop is recognized by:
• A steady glow in the lights of the system control panel with the SYSTEM light on;
• A rhythmic pattern in the lights of the system control panel;
• A pointless recurrence of input/output activity (e.g., tape oscillating).
• A job that does not change status for a long period of time.

Explanation: A loop can be the result of several different causes, some of which are listed here:
• A deliberate loop designed by the programmer. This might be a debugging loop built during program testing. Or it might be a loop to poll for the occurrence of some event before it will exit.
• An apparent loop. This kind of situation is not actually a loop. It can occur, for example, when a scientific data reduction program is doing a lengthly repetitive operation on a large array of numbers.
• A loop due to a logic error or coding error by the programmer.
• A loop due to a logic error in a system component.
• A loop due to incorrect setup by the operator.
• A loop due to an error in the Control Program.
• A loop due to a hardware malfunction.

System Action: The system may exit from a loop, without operator intervention, if the execution time of the program exceeds the time limit specified in the TIME parameter of the EXEC statement or the standard time limit of the RDR procedure (assuming your installation has interval timing included in the system).

Operator Response: If you are able to communicate with the system through the master console device (that is, if the 1052 PROCD light turns on after pressing REQUEST), enter DISPLAY A. The system will respond with message IEE821I (MFT) or IEE102I (MVT) to list all active tasks. Use this command frequently. Identical entries occurring on successive uses of DISPLAY A command beyond the estimated execution time of a job indicates a possible loop. If you are reasonably certain the program is in an endless loop, enter CANCEL jobname, DUMP to terminate the job. The programmer will receive a system completion code of 122 with his output. The code will direct him to take appropriate actions. A copy of the master console sheet should accompany his output if he calls for IBM programming support.

If communication with the system cannot be established, do the following before calling IBM for programming support:
• Record the contents of the current PSW;
• Press STOP. Place the RATE switch to the INST position. Record the contents of the Instruction Counter (also called Instruction Address Register on some models) for each depression of the START pushbutton until you have instruction-stepped through the loop. If the loop is so large that it is impractical to record its entire scope, then record five sequential instruction addresses when the Instruction Counter contains a large value. You may capture the small and large ends of the loop by temporarily placing RATE to the PROCESS position, pressing START then STOP until observation of the Instruction Counter shows the desired range;
• Execute the stand-alone program IMDSADMP with the TYPE=HI option to produce a storage dump to tape. If a tape is not available, execute the stand-alone program IMDSADMP with the TYPE=LO option to produce a storage dump to a printer;
• Have the master console sheet available;
• Execute IMDPRDMP with the 'GO' option after you restart the system. The input to IMDPRDMP is the dump tape from IMDSADMP. Save the formatted dump output.

If you cannot restart the system, execute the hardware system test appropriate for your system before calling IBM for hardware support.

Programmer Response: The programmer whose job is terminated from a loop by the operator or the system (e.g., TIME expiration or program check interruption) will be directed by the documented instructions for the system completion code that accompanies his job step. This might be system completion code 122, 222, 322, or 0Cx.

PART III: NUMBERED MESSAGES

Component Name	IBC
Program Producing Message	Independent utility programs: IBCDASDI (DASDI), IBCDMPRS (DUMP/RESTORE), IBCRCVRP (RECOVER/REPLACE).
Audience and Where Produced	For programmer: location specified in MSG utility control statement.
Message Format	IBCnnns text IBC2nns text cuu xx ssss yyyyyyyyyyyy 　mmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmm ccchhhh nnn or 2nn 　　Message serial number. s 　　Type code: 　　A Action; operator must perform a specific action. 　　I Information; no operator action is required. 　　W Wait; processing stopped until action is determined and 　　　　performed. text 　　16-byte message text. c 　　Channel of device in error. uu 　　Unit in error. xx 　　Command code. ssss 　　Status bytes from channel status word (CSW). YYYYYYYYYYYYYmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmm 　　Sense bytes. cccc 　　Cylinder address of direct access device being used when failure 　　occurred. (This address appears only if direct access device is 　　being used.) hhhh 　　Head address of direct access device being used when failure 　　occurred. (This address appears only if direct access device is 　　being used.)
Associated Publications	IBM System/360 Operating System: 　　Utilities, GC28-6586
Problem Determination	Refer to the fold-out in part VI of this publication for problem determination instructions.

Error Messages for IBCDASDI (DASDI) and IBCDMPRS (Dump/Restore)

IBC101W INVALID CARD CODE. CORRECT ERROR.
　　DEPRESS INTERRUPT KEY.

　　Explanation: An invalid card code appears
　　in the last card processed.

　　Programmer Response: Probable user error.
　　Check for keypunch or multipunch errors.
　　Correct and rerun the job.

　　Problem Determination: Table I, items 2,
　　20, 29.

IBC102A CONTROL STATEMENT ERROR. JOB TERMINATED.

　　Explanation: A utility control statement
　　contains an incorrect keyword, parameter,
　　or name field.

　　Programmer Response: Probable user error.
　　Check for keypunch errors. Correct
　　incorrect keyword, parameter, or name
　　fields. Rerun the job.

　　Problem Determination: Table I, items 2,
　　20, 29.

IBC103A STATEMENT SEQUENCE ERROR. JOB TERMINATED.

　　Explanation: The utility statements are
　　not in the proper sequence, or unnecessary
　　utility statements are present.

Programmer Response: Probable user error. Correct control statement sequence or remove unnecessary statements and rerun the job.

Problem Determination: Table I, items 2, 20, 29.

IBC104W SVC INTERRUPT. JOB TERMINATED.

Explanation: An unknown SVC interrupt occurred. This program does not issue SVCs.

System Action: The job is terminated.

Operator Response: Re-execute the program.

Problem Determination: Table I, items 11, 15, 20, 29.

IBC105A DEFINE INPUT DEVICE.

Explanation: The input device must be identified to the system by the operator as specified under Operator Response below.

System Action: The system waits for the operator to reply.

Operator Response: Enter the following message from console typewriter:

INPUT=dddd cuu,

where dddd is the device type and cuu is the channel and unit address of the input device.

IBC106A THE VOLID IN CONTROL STATEMENT DOES NOT AGREE WITH ID IN VOL LABEL WHICH FOLLOWS. VOLID=ser.

Explanation: The VOLID parameter in the utility control statement did not match the volume serial number (ser) found on the receiving volume.

Operator Response: Probable user error. Correct the statement or mount the correct volume. Restart the program.

Problem Determination: Table I, items 2, 15, 20, 28, 29.

IBC107W TRACK ZERO BAD. JOB TERMINATED.

Explanation: The device cannot be initialized as a system residence volume due to a defective surface on cylinder 00, track 00.

System Action: The job is terminated.

Programmer Response: This volume cannot contain IPL text as track 0 is defective. Mount another volume and rerun the job.

Problem Determination: Table I, items 2, 20, 29.

IBC108I HA OR R0 FIELD BAD.

Explanation: The home address or record zero was defective and has been moved down the track (on 2314/2319 disk and 2321 data cell only). The defective track and the alternate track assignment are listed.

IBC108W HA OR R0 FIELD BAD. JOB TERMINATED.

Explanation: The device cannot be initialized due to a bad surface area in the home address or track descriptor record area.

System Action: The job is terminated.

Operator Response: Mount another volume and rerun the job.

Problem Determination: Table I, items 2, 20, 29.

IBC109I TRACK CHK INDICATES TRACK IS GOOD.

Explanation: The track in question is good and no alternate was assigned.
Programmer Response: None.

IBC110I BAD TRACK cccchhhh.

Explanation: A defective track was found at the specified location (cccc is the cylinder number, hhhh is the head number).

Programmer Response: Make sure that message IBC111I was issued for each bad track.

IBC111I ALTERNATE{cccchhhh}
              {NONE   }

Explanation: An alternate track at the specified location (cccchhhh) is assigned to replace the defective track (cccc is the cylinder number, hhhh is the head number). If NONE is specified with this message, either the defective track is in the alternate track area or the applicable device is a drum device.

NOTE: If an alternate track is bad and another alternate is assigned the second alternate will not indicate cccchhhh.

IBC112W ALT TRACKS DEPLETED. JOB TERMINATED.

Explanation: The number of alternate tracks assigned has exceeded the maximum number for this device.

Operator Response: Mount another volume and rerun the job.
Problem Determination: Table I, items 2, 20, 29.

IBC113W IMPROPER VTOC BEGIN ADDRESS. JOB TERMINATED.

Explanation: The starting address for the VTOC cannot be track 0 for any direct access device or track 1 for the 2302 or 2311 devices if IPL text is written by the program. The VTOC cannot start on an alternate track.

System Action: The job is terminated.

Programmer Response: Probable user error.
Change the STRTADR parameter on the VTOCD
statement to use another track.

Problem Determination: Table I, items 2,
15, 20, 29.

IBC151W MACHINE CHECK. JOB TERMINATED.

Explanation: A machine malfunction has
caused a machine interrupt.

System Action: The job is terminated.

Operator Response: Execute the SEREP
program and save the output. Rerun the
job.

Problem Determination: Table I, items 14,
30.

IBC152W PROGRAM INTERRUPT. JOB TERMINATED.

Explanation: A program interrupt has
occurred.

System Action: The job is terminated.

Operator Response: None.

Problem Determination: Table I, items 2,
11, 20, 29.

IBC153A TYPEWRITER FAILED TO READ LAST MESSAGE.
DEPRESS INTERRUPT KEY.

Explanation: The console typewriter
failed to read the input message.

System Action: The system waits for the
operator's response.

Operator Response: Press the console
INTERRUPT key and attempt to enter the
input message again.

Problem Determination: Table I, item 30.

IBC154A READY READER cuu. DEPRESS INTERRUPT KEY.

Explanation: The reader identified in the
message by cuu has a card jam, a transport
jam, or is out of cards.

System Action: The system waits for the
operator's response.

Operator Response: Correct the faulty
condition, ready the reader, and press the
console INTERRUPT key to continue the
program. If the card or transport jam
occurs again, reproduce the jammed cards
and try again.

Problem Determination: Table I, item 30.

IBC155A READY PRINTER cuu. DEPRESS INTERRUPT KEY.

Explanation: The printer identified in
the message text by cuu is not ready.
This may be due to a forms check, an open
interlock, or someone having hit the STOP
key.

Operator Response: Correct the faulty
condition, ready the printer, and press
the console INTERRUPT key to continue to
program.

Problem Determination: Table I, item 30.

IBC156A READY TAPE cuu. DEPRESS INTERRUPT KEY.

Explanation: The tape drive on channel c,
unit uu is not ready.

System Action: The system waits for the
operator's response.

Operator Response: Correct the faulty
condition, ready the tape drive, and
depress the console INTERRUPT key.

Problem Determination: Table I, item 30.

IBC157A READY DASD cuu. DEPRESS INTERRUPT KEY.

Explanation: The direct access device on
channel c, unit uu is not ready.

System Action: The system waits for the
operator's response.

Operator Response: Correct the faulty
condition, ready the direct access drive,
and press the console INTERRUPT key.

Problem Determination: Table I, item 30.

IBC158A WRONG TAPE ON cuu. MOUNT PROPER TAPE.
INTERRUPT.

Explanation: The tape on the device
specified by cuu does not pertain to this
job.

System Action: The system waits for the
operator's response.

Operator Response: Probable user error.
Mount the correct tape and press the
INTERRUPT key to continue.

Problem Determination: Table I, items 2,
20, 28, 29.

IBC159A READER CHECK. CORRECT ERROR. DEPRESS
INTERRUPT KEY.

Explanation: A reader check has occurred.

System Action: The system waits for the
operator's response.

Operator Response: Correct the faulty
condition and clear the reader check.
Ready the reader and continue the program
by pressing the console INTERRUPT key. If
reader checks occur frequently, check the
input cards with a card guide for off
punched cards.

Problem Determination: Table I, item 30.

IBC160A PRINT CHECK. CORRECT ERROR. DEPRESS
INTERRUPT KEY.

Explanation: A print check has occurred.

System Action: The system waits for the
operator's response.

Operator Response: Clear the print check
by pressing check reset on the printer.
Press INTERRUPT key on the console to
continue processing.

Problem Determination: Table I, item 30.

IBC161A END OF TAPE. MOUNT TAPE ON cuu. DEPRESS
INTERRUPT KEY.

Explanation: End of present tape reel on
channel c, unit uu.

System Action: The system waits for the
operator's response.

Operator Response: Mount another tape
volume on the active tape device, that is,
the TODEV device for DUMP operations or
the FROMDEV device for RESTORE operations.
Press the INTERRUPT key to continue the
program.

IBC162A MOUNT ANOTHER PACK ON UNIT cuu. DEPRESS
INTERRUPT KEY.

Explanation: End of the present disk pack
on channel c, unit uu.

Operator Response: Mount another disk
pack on the active disk drive, that is,
the TODEV device for DUMP operations or
the FROMDEV device for RESTORE operations.

IBC163A END OF JOB.

Explanation: A normal end-of-job
condition has occurred.

System Action: The job is terminated.

IBC164A VOLUME LABEL COULD NOT BE READ.

Explanation: An error was encountered
while reading the standard volume label.
The volume cannot be identified.

System Action: The job is terminated.

Programmer Response: Reinitialize the
volume using IBCDASDI. Rerun the job.
Under the operating system vary the device
offline and run IEHDASDR with the LABEL
function against the volume.

Problem Determination: Table I, item 29.

IBC165A ATTEMPT TO RESTORE TO WRONG DEVICE

Explanation: IBCDMPRS (DUMP/RESTORE)
attempted to restore data to a device type
other than the type from which it was
dumped.

System Action: The job is terminated.

Programmer Response: Probable user error.
Correct the TODEV operand to reflect the
device from which the data was dumped.

Problem Determination: Table I, items 2,
15, 20, 28, 29.

IBC166A NOT A RESTORE VOL. ON cuu. MOUNT PROPER
VOLUME. DEPRESS INTERRUPT KEY.

Explanation: A volume other than a
restore volume is mounted on the named
device, channel c, unit uu.

Operator Response: Mount the correct
volume and press the INTERRUPT key.

IBC167A SEEKED BALLAST CELL. MOUNT PROPER CELL.
DEPRESS INTERRUPT KEY.

Explanation: A ballast cell is mounted in
the bin requested in a utility control
statement.

Operator Response: Mount the proper cell
and continue the program by pressing the
interrupt key.

IBC168I TRACK 0 HAS AN ALTERNATE ASSIGNED. VOLUME
HAS BECOME NON-IPL-ABLE

Explanation: Track 0 has been flagged as
a defective track. (This volume is usable
as a work volume, but not as a system
residence volume.)

System Action: The job is terminated.

Operator Response: Mount another volume
and rerun the program.

Diagnostic Messages for Independent Utilities

IBC201W COMMAND REJECT. device, opcode, status,
sense bytes

Explanation: The specified channel has
rejected an incorrect channel command word
(CCW) list.

System Action: The job is terminated.

Operator Response: Rerun the program.

Problem Determination: Table I, items 11,
29.

IBC202A INTERV. REQUIRED. cuu

Explanation: The specified device is not
ready.

System Action: The system waits for the
operator's response

Operator Response: The specified device
requires operator intervention to make it
ready.

Problem Determination: Table I, item 30.

IBC203W BUS. OUT CHECK. c

   Explanation: A bus out check has occurred
   on the specified channel. Probable
   hardware error.

   System Action: The job is terminated.

   Problem Determination: Table I, items 12,
   30.

IBC204W EQUIPMENT CHECK.

   Explanation: An equipment failure has
   occurred. Probable hardware error.

   System Action: The job is terminated.

   Problem Determination: Table I, item 30.

IBC205W DATA CHECK. device, opcode, status, sense
   bytes

   Explanation: A solid data check has
   occurred on the specified device.
   Probable hardware error.

   System Action: The job is terminated.

   Problem Determination: Table I, item 30.

IBC206W OVERRUN. c

   Explanation: An overrun check has
   occurred on the specified channel.

   System Action: The job is terminated.

   Programmer Response: Rerun the job.

   Problem Determination: Table I, item 30.

IBC207W FLAGGED TRACK. device, opcode, status,
   sense bytes

   Explanation: A track condition check has
   occurred on the specified device.

   System Action: The job is terminated.

   Programmer Response: Rerun the job.

   Problem Determination: Table I, item 30.

IBC208W DATA CONV. CHECK. device, opcode, status,
   sense bytes

   Explanation: A data converter check has
   occurred on the specified device.

   System Action: The job is terminated.

   Operator Response: Move data to another
   device and rerun the job.

   Problem Determination: Table I, item 30.

IBC209W END OF CYLINDER. device, opcode, status,
   sense bytes

   Explanation: An unusual end of cylinder
   condition has occurred on the specified
   device.

   System Action: The job is terminated.

   Programmer Response: Rerun the job.

   Problem Determination: Table I, item 30.

IBC210W INVALID ADDRESS. device, opcode, status,
   sense bytes

   Explanation: An invalid address has been
   issued to the specified device.

   System Action: The job is terminated.

   Programmer Response: Determine if the
   cccchhh address shown in the message is
   valid for the device indicated.

   Problem Determination: Table I, items 2,
   13, 29.

IBC211W NOT AVAILABLE. device, opcode, status,
   sense bytes

   Explanation: The specified device is not
   attached to the system.

   System Action: The job is terminated.

   Operator Response: Ensure that the
   ENABLE/DISABLE switch on the device and/or
   control unit is in the ENABLE position.

   Problem Determination: Table I, item 30.

IBC212W READ DATA CHECK. device, opcode, status,
   sense bytes

   Explanation: A permanent read data check
   has been detected on the specified tape
   unit.

   System Action: The job is terminated.

   Operator Response: Clean tape unit
   Read/Write heads and rerun the job.

   Problem Determination: Table I, item 30.

IBC213W COUNT FIELD CHECK. device, opcode,
   status, sense bytes

   Explanation: A data check has occurred in
   the count field of the specified direct
   access device.

   System Action: The job is terminated.

   Operator Response: Move the volume to
   another device and rerun the job. Do not
   move the volume to more than one other
   device. Bad volumes may cause damage to
   devices.

   Problem Determination: Table I, item 30.

IBC214W TRACK OVERRUN.

   Explanation: A track overrun condition
   has occurred.

   System Action: The job is terminated.

IBC

Operator Response: Rerun the job.

Problem Determination: Table I, items 11, 29.

IBC215W FILE PROTECTED.   device, opcode, status, sense bytes

Explanation: The specified device is file protected.

System Action: The job is terminated.

Operator Response: If the volume is to be read only, no response is necessary. If the volume is to be written on and the device is a tape unit, install a file protect ring.

Problem Determination: Table I, item 30.

IBC216W DASD-END OF FILE.   device, opcode, status, sense bytes

Explanation: An unusual end-of-file has occurred on the specified direct access storage device.

System Action: The job is terminated.

Operator Response: Move the volume to another device and rerun the job. Do not move the volume to more than one other device. Bad volumes may cause damage to devices.

Problem Determination: Table I, item 29.

IBC217W NO RECORD FOUND

Explanation: Two index markers were detected during a CCW chain, and the record being sought was not found.

System Action: The job is terminated.

Operator Response: Probable hardware error. If the error occurred while restoring a volume using IBCDMPRS, execute IBCDASDI or IEHDASDR (specifying the ANALYZE function) to reinitialize the volume; then, rerun the job.

If the error occurred while using IBCDASDI or IBCDMPRS to dump a volume, rerun the job.

Problem Determination: Table I, item 29.

IBC218W INVALID ERROR.

Explanation: An invalid error return has occurred.

System Action: The job is terminated.

Operator Response: Rerun the job.

Problem Determination: Table I, item 29.

IBC219W WRONG ERROR.   device, opcode, status, sense bytes

Explanation: The error return is valid but is not associated with the specified device.

System Action: The job is terminated.

Operator Response: Rerun the job.
Problem Determination: Table I, item 29.

IBC220W CHAN. CTRL ERROR.   cxx, opcode, status, sense bytes

Explanation: A channel control check has occurred on the specified channel.

System Action: The job is terminated.

Operator Response: Probable hardware error.   Rerun the job.

Problem Determination: Table I, items 12, 30.

IBC221W INTERFACE ERROR.   cxx, opcode, status, sense bytes

Explanation: An interface control check has occurred on the specified channel.

System Action: The job is terminated.

Operator Response: Probable hardware error.   Rerun the job.

Problem Determination: Table I, items 12, 30.

IBC222W CHAN. DATA CHECK.   cxx, opcode, status, sense bytes

Explanation: A channel data check has occurred on the specified channel.

System Action: The job is terminated.

Operator Response: Probable hardware error.   Rerun the job.

Problem Determination: Table I, items 12, 30.

IBC223W DASD OVERFLOW.   (device, cuu), opcode, status, sense bytes

Explanation: An overflow incomplete condition has occurred on the specified direct access device.

System Action: The job is terminated.

Operator Response: Probable hardware error.   Rerun the job.

Problem Determination: Table I, item 30.

IBC224W PROGRAM CHECK.

Explanation: A program check has occurred due to an incorrect channel command word (CCW).

System Action: The job is terminated.

Operator Response: Rerun the job.

Problem Determination: Table I, items 11, 13, 20, 29.

IBC225W PROTECTION CHECK. (device, cuu), opcode, status, sense bytes

Explanation: A protection check has occurred on the specified device.

System Action: The job is terminated.

Operator Response: Rerun the job.

Problem Determination: Table I, items 11, 29.

IBC226W UNIT EXCEPTION. cuu, device, opcode, status, sense bytes

Explanation: A unit exception has occurred on the specified unit.

System Action: The job is terminated.

Operator Response: Rerun the job.

IBC227W INCORRECT LENGTH. cuu, opcode, status, sense bytes

Explanation: A wrong length record condition has occurred on the specified unit.

System Action: The job is terminated.

Operator Response: Rerun the job.

Problem Determination: Table I, item 29.

IBC228W CHAINING CHECK. cxx, opcode, status, sense bytes

Explanation: A chaining check has occurred on the specified channel.

System Action: The job is terminated.

Operator Response: Probable hardware error. Rerun the job.

Problem Determination: Table I, items 11, 30.

IBC229W COMMAND SEQ. ERR.

Explanation: An invalid sequence of channel command words (CCWs) was issued.

System Action: The job is terminated.

Operator Response: Probable hardware error. Rerun the job.

Problem Determination: Table I, items 11, 30.

IBC230W SEEK CHECK ERROR.

Explanation: An invalid SEEK address was issued, or a unit malfunction caused a SEEK check.

System Action: The job is terminated.

Operator Response: Probable hardware error. Rerun the job.

Problem Determination: Table I, items 2, 20, 30.

IBC231W WRITE DATA CHECK. cuu, opcode, status, sense bytes

Explanation: A permanent write data check has occurred on the specified tape unit.

System Action: The job is terminated.

Operator Response: Clean the Read/Write heads of the indicated tape unit and rerun the job.

Problem Determination: Table I, item 30.

IBC232W TAPE -- LOAD POINT. cuu, opcode, status, sense bytes

Explanation: A tape at load point condition has occurred on the specified tape unit.

System Action: The job is terminated.

Operator Response: None.

IBC233W NOISE RECORD. cuu, opcode, status, sense bytes

Explanation: A noise record was found on the specified tape unit.

System Action: The job is terminated.

Operator Response: Clean the Read/Write heads of the specified tape unit and rerun the job.

Problem Determination: Table I, items 28, 30.

IBC234W MISSING ADR-MARK. cuu, opcode, status, sense bytes

Explanation: A missing address marker has occurred on the specified device.

System Action: The job is terminated.

Operator Response: None.

Problem Determination: Table I, item 29.

IBC235W BLANK TRACK.

Explanation: A blank track has been encountered on the specified data cell.

IBC236W 3 BLANK CYLINDERS.

Explanation: Three blank cylinders have been encountered during the analysis of a strip. The message usually indicates that a 2321 failed to 'pick' a strip.

IBC

Operator Response: Probable hardware error.

Problem Determination: Table I, item 30.

IBC237W 3 BLANK STRIPS.

Explanation: Three blank strips have been encountered within one subcell. The message usually indicates that a 2321 failed to 'pick' a strip.

Operator Response: Probable hardware error.

Problem Determination: Table I, item 30.

IBC238W 3 BLANK SUBCELLS.

Explanation: Three blank subcells have been encountered within a cell. This message usually indicates that a 2321 failed to 'pick' a strip.

Operator Response: Probable hardware error.

Problem Determination: Table I, item 30.

IBC239W 3 BLANK TRACKS.

Explanation: Three blank tracks have been encountered within one cylinder. This message usually indicates that a 2321 failed to 'pick' a strip.

Programmer Response: Probable hardware error.

Problem Determination: Table I, item 30.

IBC242W INVALID TRK FMT. cuu, opcode, status, sense bytes

Explanation: An attempt was made to write data exceeding track capacity on the specified device.

System Action: The job is terminated.

Operator Response: Rerun the job.

Problem Determination: Table I, items 11, 29.

IBC243W WRITE INHIBITED.

Explanation: The WRITE INHIBIT switch is probably set on in the control unit to inhibit execution of write commands.

System Action: The job is terminated.

Operator Response: Check the status of the WRITE INHIBIT switch:
• If the WRITE INHIBIT switch is set on to inhibit execution of write commands and the disk pack should be written on, set the switch off and rerun the job.
• If the write inhibit switch is set on to intentionally inhibit execution of write commands, follow the procedures established by your installation.

• If the WRITE INHIBIT switch is set off to allow execution of write commands, rerun the job.

Problem Determination: Table I, items 2, 13, 30.

IBC249W I/O ERROR, JOB TERMINATED.

Explanation: This message follows all messages that describe input/ output error conditions.

System Action: The job is terminated.

Error Messages for IBCRCVRP (Recover/Replace)

IBC300I TRACK HAD BAD {R0|HA}

Explanation: An error was encountered while reading either the home address (HA) or the track descriptor record (R0).

Programmer Response: Run IBCDASDI and reinitialize the volume. Restore the data using IBCDMPRS.

Problem Determination: Table I, item 30.

IBC301I ADDRESS MARKER MISSING AFTER XXX

Explanation: The RECOVER routine found that an address marker was missing after the specified record.

IBC302I UNEXPECTED EOF INTERRUPT. EOP

Explanation: The key length and data length of each record was compared against the actual key and data available in each record on the track. A zero data length in a count field indicated EOF but there was data available in that record, therefore an unexpected end-of-file was generated.

System Action: End-of-pass (EOP). Processing of the control statement terminates. The RECOVER program continues to the next statement.

Programmer Response: If R0 is the bad record, reinitialize the pack with IBCDASDI. If the record is other than R0 use IBCDMPRS to restore the volume.

Problem Determination: Table I, items 2, 13, 20, 29.

IBC303I TRACK HAS HA AND R0 ONLY. EOP

Explanation: Track has only home address and track descriptor record, and was not flagged as a bad track.

System Action: The RECOVER routine continues to the next control card. There is no need to replace data on this track.

IBC3041 DATA TRACK bbbbccccchhhh ON ALT.
bbbbccccchhhh

Explanation: The specified data track has
been assigned this alternate.

IBC3051 HA IS BAD or xxx HAS BAD {KEY|DATA|KEY AND
DATA} or xxx HAS BAD {COUNT|ADDRESS MARK}
LIST OF BAD RECORD FOLLOWS. ASSUME RECORD
SIZE REST OF TRACK

Explanation: An error was encountered
while reading the home address or the key
and/or data fields of the specified record
xxx; or the specified record has a bad
count or a missing address mark.

System Action: In the last case, the
remaining portion of track is listed (in
hexadecimal) on the message output device.

Programmer Response: Probable user error.
Use IBCDMPRS to dump the volume, and
reinitialize the volume using IBCDASDI.

Problem Determination: Table I, item 30.

IBC3061 ALT. TRACK bbbbccccchhh ORIGINAL
bbbbccccchhh

Explanation: The REPLACE routine has
assigned the specified alternate track to
receive the data from the original
defective track.

System Action: The data recovered from
the bad track is merged with the
replacement data and written on the
alternate. The original track is flagged
as defective.

IBC3071 VTOC ON BAD TRACK, POSSIBLY CANNOT ASSIGN
ALTERNATE

Explanation: The bad track contains the
VTOC DSCB which has the alternate track
information.

System Action: The REPLACE routine
assigns an alternate track if the VTOC
DSCB record containing the alternate track
information is not defective. If the
record is defective, the alternate track
cannot be assigned.

Programmer Response: Use IBCDMPRS to dump
the volume, and reinitialize the volume
using IBCDASDI.

Problem Determination: Table I, item 30.

IBC400A JOB TERMINATED

Explanation: Appends REPLACE routine
error messages that are accompanied by
termination of the job.

IBC401A DOES NOT MEET DATA CARD ID OR FORMAT
REQUIREMENTS

Explanation: Data card is not in correct
format.

System Action: The job is terminated.

Programmer Response: Probable user error.
Correct the format of the data statement
and rerun the job.

Problem Determination: Table I, items 2,
13, 20, 29.

IBC402A I/D PARAMETER ON DATA CARD DOES NOT MATCH
INSERT RECORD PARAMETER

System Action: The job is terminated.

Programmer Response: Probable user error.
Either supply the correct record number or
put the data records in the proper order.
Reload the program and execute the REPLACE
routine.

Problem Determination: Table I, items 2,
13, 20, 29.

IBC403A KEY AND/OR DATA FIELD LENGTH DOES NOT
EQUAL COUNT FIELD REQUIREMENTS

Explanation: Either too much or not
enough data was supplied in the data
record.

System Action: The job is terminated.

Programmer Response: Probable user error.
Supply the correct number of replacement
data bytes (including key), reload the
program, and execute the REPLACE routine.

Problem Determination: Table I, items 2,
13, 20, 29.

IBC404A DATA CARD HAS INVALID CHARACTER

Explanation: An invalid hexadecimal
character was found in the data card.

System Action: The job is terminated.

Programmer Response: Correct the invalid
character and rerun the job.

Problem Determination: Table I, items 2,
13, 20, 29.

IBC407A PREVIOUS RECOVER PROGRAM WAS ABORTED.
RERUN RECOVER

Explanation: The RECOVER routine did not
go to completion.

System Action: The job is terminated.

Operator Response: Rerun the recover job.
If the problem recurs, run IBCDASDI and
reinitialize the volume.

IBC408A RECORD NUMBER SUPPLIED DOES NOT EQUAL
CORRESPONDING BAD RECORD NUMBER

Explanation: Replacement records are not
in proper order.

System Action: The job is terminated.

Programmer Response: Probable user error.
Reorder replacement records, reload the
program, and execute the REPLACE routine.

Problem Determination: Table I, items 2, 13, 20, 29.

IBC409A NEW COUNT DOES NOT EQUAL GOOD ORIGINAL COUNT

Explanation: The count field for this record does not match the count field supplied on the INSERT statement.

System Action: The job is terminated.

Programmer Response: Probable user error. Correct the count field of the INSERT statement to correspond to the original count field.

Problem Determination: Table I, items 2, 15, 20, 29.

IBC411A {TRACK|VOLID} NUMBER SUPPLIED DOES NOT MATCH NUMBER ON TAPE

Explanation: The track number or volume serial number on the REPLACE statement does not match the corresponding number on the recover tape.

System Action: The job is terminated

Programmer Response: Probable user error. Either (1) supply the correct track number or volume serial number on the REPLACE statement; or (2) supply the correct

replace tape, reload the program, and execute the REPLACE routine.

Problem Determination: Table I, items 2, 13, 20, 29.

IBC412A RECOVER TAPE WAS NOT MADE BY THIS LEVEL OF RECOVER/REPLACE. RERUN RECOVER

Explanation: The REPLACE routine attempted to use output of an earlier version of the RECOVER routine.

System Action: The job is terminated.

Programmer Response: Probable user error. Use an up to date version of the RECOVER routine to produce a correct recover tape.

Problem Determination: Table I, items 2, 15, 20, 28, 29.

IBC413A TAPE ON cuu NOT A RECOVER TAPE

Explanation: A recover tape is not mounted on the specified channel and unit, as stated in the REPLACE statement.

System Action: The job is terminated.

Operator Response: Probable user error. Mount the correct tape and rerun the job.

Problem Determination: Table I, items 2, 15, 20, 28, 29.

Component Name	IEA
Program Producing Message	ABEND, IEAPRINT program, input/output supervisor, nucleus initialization program (NIP), rollout/rollin, and supervisor.
Audience and Where Produced	For operator: console. For programmer: SYSPRINT data set.

Message Format	xx IEAnnns text
	
	xx
	    Message reply identification (absent, if operator reply not required or if issued by IEAANIP at IPL time.)
	nnn
	    Message serial number.
	s
	    Type code:
	
	    A Action; operator must perform a specific action.
	    E Eventual action; operator must perform action when he has time.
	    I Information; no operator action is required.
	    W Wait; processing stopped until action is determined and performed.
	text
	    Message text.

Comments	None.
Problem Determination	Refer to the fold-out in part VI of this publication for problem determination instructions.

Input/Output Supervisor Messages 1

IEA000A adr,INT REQ,cm,stat,sensbbbbbb,,ser,jjj
IEA000A adr,INT REQ,CC=3/NO PATHS AVAILABLE,,,jjj

Explanation: For the first format of the message, the input/output supervisor detected a device that requires intervention; for the second format of the message, the input/output supervisor received a not operational indication on the last available path to a device.

In the message text in hexadecimal, the fields are:

adr
    Unit address of the device.
cm
    Operation code of the channel command word (CCW) during whose execution the error occurred. If the channel command word cannot be found, this field appears as **.
stat
    Status portion of the channel status word (CSW).
sens
    First 2 sense bytes for the error condition.
bbbbbb
    Next 3 sense bytes for the error condition. This field appears only for devices that give more than 2 bytes of sense information.
ser
    Serial number of the volume on which intervention is required. This field appears only for magnetic tape or direct access devices.
jjj
    Job name, in characters, during which intervention is required. (If the job name cannot be determined, this field will be left blank.)

Operator Response: For the first format of the message, take an appropriate action, such as:
• Make the unit ready. If the unit cannot be made ready, cancel the job.
• Feed more cards to the reader or punch.
• Clear a card jam.
• Empty a stacker.
• Empty the chip box.
• Put paper into the printer or console typewriter.

For the second format of the message, either physically turn on a path to the device (for example, a control unit switch or a channel switch) or VARY a path online that has been previously varied offline. Then, if necessary, make the device ready.

Problem Determination: Table I, items 11, 29, 30.

IEA000I adr,errmsg,cm,stat,sens,dcbctfd,ser,
        hh.mm.ss
IEA000I lna,err,cm,stat,ibss,opxxterm,,jjj,
        hh.mm.ss
IEA000I adr,err,cm,stat,sensbbbbbb,
        ⎛binxcylntrck⎞,ser,jjj,hh.mm.ss
        ⎨binxsbstcytr⎬
        ⎝dcbctfd   ⎠

Explanation: The input/output supervisor, the basic telecommunication access method (BTAM), the queued telecommunication access method (QTAM) routine or TCAM found an uncorrectable input/output error. The first format of the message is used only for magnetic tapes; the second format only for telecommunication devices; and the third format for all devices other than telecommunication devices. For devices having greater than six sense bytes, two lines are required to contain the message.

In systems with graphics access method (GAM), unit checks and conditions that require operator intervention indicate devices that do not exist or that were included in SYSGEN but not attached to the system.

In the message texts, the fields are:

errmsg
  Message describing the error:
  • ERROR ON ERG to indicate that a data check occurred during an erase gap operation. The operation was initiated by the write recovery procedures. This message is an indication that some residual data remained on the tape; a later reread through the erased area may indicate a noise record. Depending on the length of the noise, a permanent error (read data check) may occur.
  • NOISE-USER to indicate that a noise record (a record whose length is less than 12 bytes) was recognized as a cause of a data check. The noise record is ignored, and no repositioning for a reread is attempted.
  • NOISE-ERP to indicate that error recovery procedures were in progress when a short record-data check condition was encountered. This situation should not occur, and is a good indication of either faulty hardware media, a crimp in the tape, or noise on the bus line. Repositioning of the tape cannot be guaranteed under these conditions.
  • UNEX LOAD PT to indicate that an unexpected load point was encountered during error recovery for magnetic tape (probably the result of a recording density incompatability). The message may appear twice if the tape is not a standard label tape.
  • CTRL BLK ERR to indicate that the tape ERP is using an input/output block IOB in which the CSW command address is zero instead of an expected address.

  • DSE FAILED to indicate that a data security erase failure occurred. An IOB intercept condition has been detected and the error is flagged as permanent.
  • UNEX INTRPT to indicate that an interrupt condition has been detected by the error recovery procedures and that only "device end" is on in the status byte. A status of X'1400' indicates the tape drive has gone from 'not ready' to 'ready' status. This is a "SECURITY INTERRUPT." A Security Interrupt indicates that during the time your drive was "not ready", your tape may have been replaced or moved so that it is now mispositioned. If neither situation occurred, the tape processing may proceed normally.
  • CHAN PGM CHECK to indicate a channel program check.
  • PROT CHECK to indicate a channel protection check.
  • WR INHIBITED to indicate that a write command attempted to a file-protected device.

err
  Description of the error based on status and sense information:
  • CCC - channel control check.
  • ICC - interface control check.
  • CHC - chaining check.
  • CDC - channel data check.
  • EQC - equipment check.
  • BOC - bus out check.
  • CMD - command reject.
  • DCK - data check.
  • SEN - a unit check occurred during a sense operation. (When this condition is present, the fields cm, stat, sensbbbbbb, and binxcylntrck do not appear in the message text.)
  • OVR - (for direct access and magnetic tape only), overrun.
  • SKC - (for direct access only), seek check.
  • NRF - no record found (for direct access only).
  • MAM - missing address marker (for direct access only).
  • DCC - data converter check (for magnetic tape only).
  • UNC - unusual command (for 2540 card reader and punch only).
  • TOT - (for telecommunications only), time out.
  • LDA - (for telecommunications only), lost data.
  • IOE - input/output error (for errors other than those described above).
  • WRI - write inhibited.
  • UEX - unit exception.
  • CPC - channel program check.
  • PRT - protection check.

adr
  Unit address, in hexadecimal, of the device.
lna
  Line address, in hexadecimal.
cm
  Command code, in hexadecimal, of the channel command word (CCW) being executed when the error occurred. If the channel command word cannot be found, this field appears as **.

stat
    Status portion, in hexadecimal, of
    the channel status word (CSW).

sens
    First two sense bytes, in
    hexadecimal, for the error condition.
    This field appears only if a unit
    check condition is indicated in the
    stat field (which precedes this field
    in the message text).

bbbbbb
    Next three sense bytes, in
    hexadecimal, for the error condition.
    This field appears only for devices
    that give more than two bytes of
    sense information. For devices
    having greater than six sense bytes,
    the sense bytes are contained in the
    second line of the message. For the
    3330 and 2305, this field contains
    the next six sense bytes for program
    errors and the next 22 bytes for
    equipment and data checks.

ib
    The sense byte describing a unit
    check type error condition for
    telecommunication devices.

ss
    Sense information resulting from the
    execution of a diagnostic Write/Read
    command which ended with a unit check
    status (2701 Data Adapter Unit only).
    This information may result from a
    Write/Break or Read/Skip command for
    QTAM.

dcbctfd
    Record count, in hexadecimal, not
    including label records. This field
    appears only for magnetic tape. (For
    the first format of this message,
    this field indicates the count of the
    record preceding the error record.)
    For devices having greater than six
    sense bytes, this field is contained
    in the second line of the message.

op
    TP operation code, in hexadecimal,
    describing the type of channel
    command word (CCW) being executed
    when the error occurred.

xx
    Not used.

term
    Terminal identification characters,
    in hexadecimal. It may be either two
    bytes or one byte, depending upon the
    terminal type. If it is one byte, it
    is left justified. If a dial line is
    being used with QTAM, the last four
    digits of the dial number are
    provided.

binxcylntrck
    Address, in hexadecimal, of the bin
    (binx), the cylinder (cyln), and the
    track (trck) where the error
    occurred. When an error occurs while
    trying to obtain this data, the last
    seek address is substituted. This
    field appears only for disk and drum
    direct access devices. On a data or
    equipment check for a 2305 or 3330,
    this field does not appear. For
    other errors on these devices, the
    field is contained on the second
    line.

binxsbstcytr
    Address, in hexadecimal, of the bin
    (binx), the subcell (sb), the strip
    (st), the cylinder (cy), and the
    track (tr) where the error occurred.
    When an error occurs while trying to
    obtain this data, the last seek
    address is substituted. This field
    appears only for data cell direct
    access storage devices.

ser
    Serial number of the volume on which
    the error occurred. This field
    appears only for magnetic tape or
    direct access devices.

jjj
    Jobname

hh.mm.ss
    Time in hours, minutes, and seconds.

<u>Note</u>: Two consecutive commas or a blank
field in the message text indicates that a
field could not be determined or is
contained on the next or previous line of
the message.

<u>Operator Response</u>: Probable hardware
error. For the first format of the
message, proceed with caution in
accepting, unconditionally, the results of
the operation. Consider canceling the job
if there is a requirement to expect
perfect results. Each message should be
considered as a potential warning of a
marginal condition.

For the second and third formats of the
message, note that some abnormal error
condition occurred. Depending on the
severity of the error (check the status
and sense information) and depending on
the installation requirements, take
appropriate action.

For the 2305 and the 3330, the following
responses are valid:

• CMD REJECT - command reject
    This is a programmer error - correct
    and retry.
• OVERRUN
    BUS OUT CK - bus out check
    EQUIP CHECK - equipment check
    INTF CTL CK - interface control check

    These are permanent hardware faults.
    Customer Engineer action is required.
• DATA CHECK
    Operator should request an alternate
    sparing utility program such as
    IEHATLAS to perform recovery -
    replace functions and to assign an
    alternate track spare if necessary.

    If the above utility cannot complete,
    then the GET ALT function in the
    IBCDASDI or IHFDASDR utility should
    be invoked. This will assign the
    spare but will not perform
    recovery/replace.

    If no alternate spares are available,
    Customer Engineer action is required.

- WR INHIBITED

If the write inhibit switch is set on to inhibit execution of write commands and the volume should be written on, set the switch off and rerun the job. If the write inhibit switch is set on to intentionally inhibit execution of write commands, follow the procedures established by your installation.

For the 1419/1275, the following response is valid:

- CMD REJECT - command reject

If the command code is X'FF', this is a probable hardware failure. The disengage command failed and a customer engineer's attention is required.

Problem Determination: Table I, items 2, 30.

IEA001I UNIT adr, PATH pth INOPERATIVE [FOR CPU x]

Explanation: One path to a multipath device has become inoperative. The system will continue all operations on a limited basis, using the remaining paths.

In the message text, the fields are:

adr

Unit address, in hexadecimal, of the device.

pth

Channel and unit control path, in hexadecimal, by which the device could not be accessed. If the path cannot be determined, this field appears as **.

x

Central processing unit, A or B, for which the path is inoperative. The field FOR CPU x appears only for multiprocessing systems.

Operator Response: Probable hardware error. The system will automatically begin reusing the path when it becomes operational.

Problem Determination: Table I, items 2, 30.

Supervisor Messages

IEA007I NO CORE AVAIL FOR NEW REGN

Explanation: Sufficient storage (52K contiguous bytes within dynamic storage) to bring in a terminator is not available.

System Action: A second attempt is made to obtain the 52K of storage, and if successful, processing continues. If main storage can not be obtained, the task is abnormally terminated and the system proceeds to the next task.

Operator Response: None.

Programmer Response: Ensure that 52K of main storage is available and resubmit the job.

ABEND Messages

IEA021I jjj sss CORE IMAGE BYPASSED -x

Explanation: No attempt was made to write a core image dump for step sss of job jjj for one of the following reasons:
- If x is 1, the damage assessment routine (DAR) was entered twice to perform the same function.
- If x is 2, the data set to contain the dump was not in the system.
- If x is 3, a dump was already in progress.

System Action: The system continues processing.

Operator Response: If x is 1 or 3, none. If x is 2, report this message to the programmer.

Programmer Response: Ensure that the SYS1.DUMP data set is included in the system and execute the job step again.

Problem Determination: Table I, item 30. Table II, Format 1: trace option - TRACE=SYS.

IEA022I jjj sss CORE IMAGE FAILED -x

Explanation: The attempt to write a core image dump for step sss of job jjj failed for one of the following reasons:
- If x is 1, the data set was full.
- If x is 2, the format of the data set was incorrect.
- If x is 3, an input/output error occurred; no dump is provided.
- If x is 4, an input/output error occurred; a partial dump is provided.
- If x is 5, an end-of-volume condition occurred for a tape; a partial dump is provided.

System Action: The system continues processing.

Operator Response: None.

Problem Determination: Table II, Format 1: trace option - TRACE=IO. If x=1, execute the IMDPRDMP service aid program and then execute the job step again. If the problem recurs, call IBM for programming support.

If x=2, execute the IEHDASDR program to produce a direct access dump of the SYS1.DUMP data set before calling IBM for programming support.

If x=3 or x=4, have the master console log available and call IBM for programming support.

If X=5, probable user error. If the
message was issued on the first core image
dump written to the tape volume, use a
full 2400 foot reel of tape, or allocate
the SYS1.DUMP data set on a direct access
device specifying sufficient space to
contain the entire dump. If the message
is issued on other than the first dump
written to the volume, note the number of
dumps which can be contained on a single
tape volume, manually unload the dump
volume, and mount a new non-labeled
scratch tape. This tape should be
manually unloaded and replaced by a new
tape when the number of core image dumps
on that tape is such that a subsequent
dump would generate the end of reel
condition.

IEA023I jjj sss CORE IMAGE COMPLETE -x

Explanation: If x is 1, the attempt to
write a core image dump for step sss of
job jjj was successful.

System Action: The system continues
processing.

Operator Response: For a direct access
device, use the IMDPRDMP service aid
program to print the dump data set.

Problem Determinaiton: Table II, Format
1: trace option - TRACE=IO.

IEA024I ERROR IN GTF. xxx TRACE OPTION WAS
DISABLED

Explanation: ABDUMP in its formatting of
the GTF trace table found an error record
for trace option xxx; where xxx is, EXT
IO, SIO, PI, or SSM (SSM is applicable
only in a multiprocessing system). This
error record was produced when GTF
encountered a program check while
attempting to create a trace record for
xxx. This message is followed by a
hexadecimal dump of the error record.
Refer to messages IHL118I and IhL1201.

System Action: The program check for the
error record caused GTF to bypass
recording further events for the trace
option xxx. However, GTF continued to
record all events for the other trace
options requested.

Programmer Response: Probable user error.
Ensure that problem programs are not
altering the GTF region or partition. The
trace option xxx is disabled after this
point, but processing continues for the
other trace options requested. If xxx is
SVC, SVC tracing will continue.

Problem Determination: Table I, items 1,
2, 16, 29. Ensure that sufficient storage
is available within the GTF region or
partition for a SNAP dump (an additional
4K is needed for ABDUMP/SNAP execution).
Ensure that the GTFSNP catalogued
procedure is used to obtain an ABDUMP/SNAP
dump.

IEA025I INVALID GTF RECORD FOLLOWS

Explanation: ABDUMP in its formatting of
the GTF trace table found a GTF record
with an invalid EID or FID field. ABDUMP
prints this message and follows it with a
hexadecimal dump of the error record.

System Action: Processing continues.

Programmer Response: Probable user error.
Ensure that problems programs are not
altering the trace table.

Problem Determination: Table I, items 1,
2, 11, 29.

IEA027I jjj sss ENQUEUED RESOURCES
IEA027I xxxx, yyyy

Explanation: Step sss of job jjj has been
running in "must complete" status.
However, the job has been scheduled for
abnormal termination.

In the message text, xxxx is a major name
and yyyy is a minor name of an enqueued
resource for the job. This line will
appear for each enqueued resource.

System Action: The system continues
processing.

Operator Response: None. Message IEA028A
follows.

IEA028A REPLY 'C' OR 'N'

Explanation: This message permits the
operator to respond to preceding message
IEA027I.

System Action: The system waits for a
reply.

Operator Response: If the resources are
critical and "must complete" status must
be maintained, enter REPLY xx,'C'. If the
resources are not critical, enter REPLY
xx,'N' to release the resources and allow
processing to continue.

Note: A REPLY xx,'C' will require that
the system be reinitialized to release the
resources.

IEA029I jjj sss TASK {REINSTATED }
{REINSTATEMENT FAILED}

Explanation: An attempt was made to
reinstate a failing task for step sss of
job jjj. Task reinstatement for problem
program tasks means that the supervisor
will abnormally terminate the task.
System tasks will be reinitialized.

System Action: The system continues
processing.

Operator Response: None. If the problem
recurs, before calling IBM for programming
support, execute the IMDPRDMP service aid
program to print the dump data set, and
have the output available.

Problem Determination: Table II, Format
1: trace option - TRACE=SYS.

IEA030I OPEN FAILED FOR DUMP DATA SET FOR {JS}
{ST}
[DUE to hhh]

Explanation: An attempt to open a dump
data set during ABEND processing was
unsuccessful. In the message text, JS
signifies a job step task and ST signifies
a subtask (valid only in systems with the
MFT - ATTACH option). If the phrase "DUE
TO hhh" appears, abnormal termination with
a system completion code of hhh has
occurred during the attempted open. This
message only appears in MFT systems.

System Action: No dump is provided. The
system continues processing.

Programmer Response: If the phrase "DUE
TO hhh" appears, follow the response for
that completion code. If the phrase does
not appear, check that the SYSUDUMP DD
statement is correctly specified, and
resubmit the job.

Problem Determination: Table I, items 1,
15, 29.

IEA031I ABDUMP FAILED FOR {JS} [DUE TO hhh]
{ST}

Explanation: The abnormal termination
dump routine (ABDUMP) was executed
unsuccessfully. In the message text, JS
signifies a job step task and ST signifies
a subtask (valid only in systems with the
MFT - ATTACH option). If the phrase "DUE
TO hhh" appears, abnormal termination with
a system completion code of hhh has
occurred during the execution of the
ABDUMP routine. This message only appears
in MFT systems.

System Action: The system continues
processing.

Programmer Response: If the phrase "DUE
TO hhh" appears with a completion code of
B37, allocate more direct access space by
coding the SPACE parameter on the SYSABEND
or SYSUDUMP data definition card. For
other completion codes, follow the
response given for that completion code.
If the phrases does not appear, resubmit
the job.

Problem Determination: Table I, items 1,
15, 29. If not a B37 completion code, see
Table II, Format 1: trace option -
TRACE=SYS.

IEA032I CLOSE FAILED DURING ABEND FOR DATA SET -
(ddn]

Explanation: The abnormal termination
routine (ABEND) attempted unsuccessfully
to close a data set. If the data
definition name ddn associated with the
data set can be located, it will be
included in the message text. This
message only appears in MFT systems.

System Action: The system continues
processing.

Programmer Response: Re-execute the job
step.

Problem Determination: Table I, items 2,
5a, 15, 16, 29.

IEA033I ABDUMP BYPASSED - NO MS - {JS}
{ST}

Explanation: The abnormal termination
routine (ABEND) has determined that there
is insufficient available main storage to
attempt execution of the abnormal
termination dump routine (ABDUMP). In the
message text, MS signifies main storage,
JS signifies the job step task, and ST
signifies a subtask (valid only in systems
with the MFT - ATTACH option). This
message only appears in MFT systems.

System Action: No dump is taken and the
system continues processing.

Programmer Response: In an MFT system,
ensure that 4800 bytes of main storage are
available for ABDUMP processing by
increasing the partition size.

Nucleus Initialization Program (NIP) Messages

IEA100I TIMER IS NOT WORKING.

Explanation: The nucleus initialization
program (NIP) found that the timer was not
enabled.

System Action: The system continues
processing.

Operator Response: Probable user error.
Turn on the timer switch on the system
control panel if timing is desired, and
restart the system. If the problem
recurs, call IBM for hardware support.

Note: This message will always occur on
the Model 155.

IEA101A SPECIFY SYSTEM PARAMETERS FOR RELEASE
xx.yy.sss

Explanation:
xx = Release number
yy = Release level
sss = System type (e.g., MFT, MVT, MVT/MP)
When the system was generated, the
installation specified that the operator
be allowed to change certain system
parameters each time the system is loaded.
This message, issued during nucleus
initialization, requests the changes.

For systems with MFT, the parameters are:
• ALTSYS=ddd to specify the alternate
  system residence device. The device
  must be the same type as the system
  residence device. If an invalid address
  is specified, no message will be issued
  to so indicate. The system will use the
  alternate system residence device
  specified at system generation.

- BLDL=xx,[yy] to specify lists of modules
in SYS1.LINKLIB or SYS1.SVCLIB for which
resident BLDL entires are to be created.
The xx,yy are appended to IEABLD to form
the names of SYS1.PARMLIB members. If
two lists are specified, one must be for
SYS1.SVCLIB and the other for
SYS1.LINKLIB. If two lists are
specified for the same library, the
second is ignored.
- HARDCPY=(xxxx[,yyyy][,zzzz]) to specify
that the hard copy log is desired (for
systems with multiple console support
(MCS) only).
The xxxx is required and is either
SYSLOG if the system log is to be used
as the hard copy log or an appropriate
unit address if a console is to be used
as the hard copy log. However, if the
system log was designated as the hard
copy log during system generation, a
unit address must be specified; if
desired, a VARY command can be issued to
reestablish the system log as the hard
copy log after message IEE041I is
received.

The yyyy is either ALL if the hard copy
log is to record all messages or a list
of the appropriate routing codes
(separated by commas and enclosed in
parentheses) if only messages with these
routing codes are to be recorded on the
hard copy log. (If the console
configuration contains an active graphic
console or more than one active console,
a hard copy log is required. In this
case, the yyyy is not required if any of
routing codes 1, 2, 3, 4, 7, 8, and 10
are desired, since all of these codes
are automatically assigned by the
system.)

The zzzz is either CMDS if all commands,
responses and status displays are to be
recorded on the hard copy log; or STCMDS
if all commands, responses and status
displays, except time-interval updated
status displays, are to be recorded on
the hard copy log; or INCMDS if all
commands and responses (but not status
displays) are to be recorded on the
hard copy log; or NOCMDS if the commands,
responses and status displays are not
to be recorded on the hard copy log.
If this parameter is not specified, CMDS
is the system default. (If the console
configuration contains an active graphic
console or more than one active console,
a hard copy log is required. In this
case, the zzzz is not required and will
be ignored if specified since CMDS is
automatically assigned by the system.)

- MIN=nn to specify the minimum main
storage space for job initiation. The
nn is the number of 1K (1024-byte)
blocks to be used. Caution should be
taken to avoid reducing this value below
actual scheduler design. This value
overrides the value specified during
system generation for minimum scheduler
size (MINPART).

- MOD=nn to specify the computing system
model being initialized. The nn is the
model number (for example, 40, 50, or
65). This parameter is used to
initialize the correct recovery
management support (RMS) routines for
the specified model. The default is the
system-generated model identifier.

- RAM=aa to specify access method modules
to be made resident. The aa is appended
to IEAIGG to form the name of a
SYS1.PARMLIB member; the member contains
the list of modules to be loaded. If
specified during system generation and
not modified through this reply, the
IEAIGG00 list is used. (If the resident
reenterable load module area option is
included in the system, this parameter
is as described for MVT.)

- RERP=xx to specify error recovery
procedure routines to be made resident.
The xx is appended to IEAIGE to from the
name of a SYS1.PARMLIB member; the
member contains a list of modules to be
loaded. If specified during system
generation and not modified through this
reply, the IEAIGE00 list is used.

- RSVC=xx to specify non-resident SVC
routines, which are otherwise kept in
direct access storage, to be made
resident. The xx is appended to IEARSV
to form the name of a SYS1.PARMLIB
member; the member contains a list of
SVC modules to be loaded. If specified
during system generation and not
modified through this reply, the
IEARSV00 list is used.

- SQS=n to specify the main storage space
for the system queue area. The n is the
total number of bytes needed for the
system queue area. For more than two
partitions in the system, 800 bytes of
storage should be added to the minimum
system queue area size (1600 for systems
without MCS, 2600 for systems with MCS)
for each partition in excess of two.
The total size of the nucleus, including
the system queue area and the optional
BLDL, RAM, and RSVC modules, is rounded
to the next higher 2K boundary, in
systems with the storage protection
feature, or to the next doubleword
boundary.

For systems with MVT, the parameters are:

- ALTSYS=ddd as described for systems with
MFT.

- BLDL=xx,[yy] as described for systems
with MFT.

- HARDCPY=(xxxx[,yyyy][,zzzz]) as
described for systems with MFT.

- HRAM=aa[,bb,cc,dd] to specify access
method and other reenterable modules to
be made resident in the secondary link
pack area in Hierarchy 1 (only if IBM
2361 Core Storage and Main Storage
Hierarchy Support is included in the
system). The aa, bb, cc, and dd are
appended to IEAIGG to form the names of
SYS1.PARMLIB members. The number of
members specified by the HRAM and RAM
parameters combined cannot exceed four.
If not specified at this time, no
reenterable modules are loaded into
Hierarchy 1.

- HSVC=aa[,bb,cc,dd] to specify
  non-resident SVC routines to be made
  resident in a secondary link pack area
  in Hierarchy 1 (only if IBM 2361 Core
  Storage and Main Storage Hierarchy
  Support are included in the system).
  The aa, bb, cc, and dd are appended to
  IEARSV to form the names of SYS1.PARMLIB
  members. The number of members
  specified by the HSVC and RSVC
  parameters combined cannot exceed four.
  If not specified at this time, no
  non-resident SVC modules are loaded into
  Hierarchy 1.

- MIN=nn to specify the minimum main
  storage space for job initiation. The
  nn is the number of 1K (1024-byte)
  blocks to be used. It must be 52 or
  greater. This value overrides the value
  specified during system generation.

- MOD=nn to specify the computing system
  model being initialized. The nn is the
  model number (for example, 40, 50, or
  65). This parameter is used to
  initialize the correct recovery
  management support (RMS) routines for
  the specified model. The default is the
  system-generated model identifier.

- MPS=nn to specify the main storage space
  for the master partition. The nn is the
  number of 2K (2048-byte) blocks to be
  reserved. This value overrides the
  value specified during system
  generation.

- QBF=nnn to specify the main storage
  space to be reserved for buffers for the
  job queue. The nnn is the number of 1K
  (1024-byte) blocks to be reserved. It
  can be any number up to and including
  255. This value overrides the value
  specified during system generation.

- RAM=aa[,bb,cc,dd] to specify access
  method and other reenterable modules to
  be made resident. The aa, bb, cc, and
  dd are appended to IEAIGG to form the
  names of SYS1.PARMLIB members; the
  members contain lists of modules to be
  loaded in addition to the standard
  required modules. One to four members
  can be thus specified. If specified
  during system generation and not
  modified through this reply, the
  IEAIGG00 list is used.

- RERP=aa[,bb,cc,dd] to specify error
  recovery procedure routines to be made
  resident. The aa, bb, cc, and dd are
  appended to IEAIGE to form the names of
  SYS1.PARMLIB members; the members
  contain lists of error recovery
  procedure modules to be loaded. One to
  four members can be thus specified. If
  specified during system generation and
  not modified through this reply, the
  IEAIGE00 list is used.

- RSVC=aa[,bb,cc,dd] to specify
  non-resident SVC routines, which are
  otherwise kept in direct access storage,
  to be made resident. The aa, bb, cc,

and dd appended to IEARSV to form the
names of SYS1.PARMLIB members; the
members contain lists of SVC modules to
be loaded. One to four members can be
thus specified. If specified during
system generation and not modified
through this reply, the IEARSV00 list is
used.

- SQS=n to specify the main storage space
  for the system queue. The n is the
  number of 2K (2048-byte) blocks of
  storage to be added to the size
  specified during system generation.

- TMSL=(nn,xxxx)[,(nn,xxxx)...] to specify
  time-slice groups. The nn is the
  priority of the time-slice group and is
  expressed as a one or two digit value
  from 0 through 13; the xxxx is the
  length, in milliseconds, of the time
  slice and is expressed as a one to four
  digit decimal value.

System Action: The system waits pending
the operator's reply.

Operator Response: Reply as requested by
the system programmer at the installation.
The reply must take one of the following
forms:
- REPLY 00,'U' to indicate that no
  parameters are to be changed.

  Note: a simple EOB is equivalent to
  this reply.

- REPLY 00,'U,H' when using the system
  generation value for all parameters, and
  a list of the size of each of the
  storage hierarchies in systems with IBM
  2361 core storage and main storage
  hierarchy support for IBM 2361 models 1
  and 2 is wanted.

- REPLY 00,'U,L,H' when using the system
  generation value for all parameters, and
  all lists (including a list of the size
  of each of the storage hierarchies) are
  wanted.

- REPLY 00,'prm=,' to indicate that the
  parameter as specified during system
  generation is to be canceled for this
  loading. The cancelation specification
  must always be followed by a comma.

- REPLY 00,'prm=val' or REPLY
  00,'prm=val,val,...' to indicate that
  the parameter is to take the specified
  value(s) for this loading.

- To get a list of the HRAM, HSVC, RAM,
  and/or RSVC modules in systems with MVT
  or a list of the BLDL, RAM, or RSVC
  modules or all three in systems with
  MFT, enter one of the following:
  REPLY 00,'prm=val,L'
  REPLY 00,'prm=val,val,...,L'
  REPLY 00,'prm=00,L'
  REPLY 00,'U,L'

  Enter the first or second reply when
  specifying the value(s) for the
  parameter, the third reply when using

the system generation value for the
parameter, and the fourth reply when
using the system generation value for
all parameters, if all lists are wanted.

- Omission of a parameter from the reply
  to indicate that the system generation
  value is to be used.

More than one parameter can be specified.
For example:

REPLY 00,'prm=val,val prm=, prm=00,L'

The rules for specifying several
parameters are:
- The list of parameters must be enclosed
  in apostrophes.
  A comma or blank must separate
  successive parameters in the list.
  The last parameter in the list need not
  be followed by a comma or blank unless
  the cancelation specification is the
  last item. The cancelation
  specification must always be followed by
  a comma.

> Example:
> You may specify:
>   r 00,'prm=val,prm=val,prm=,'
>   or
>   r 00,'prm=val,prm=,prm=val'
>
> You may not specify:
>   r 00,'prm=val,prm=val,prm='

- U must not be specified.
- If all the parameters do not fit on one
  line, follow the last parameter on the
  line with a blank and CONT. For
  example:

  REPLY 00,'RAM=12,RSVC=00,L CONT'

The system will issue message IEA116A to
request the rest of the reply. The reply
can be continued as many times as needed.

IEA102A INVALID PARAMETER/FORMAT - RESPECIFY

Explanation: During nucleus
initialization, the last reply entered
through the console contained an invalid
parameter or was not in the correct
format.

System Action: If the reply contained an
invalid parameter, the system accepts all
parameters specified before the
specification of the parameter in error.

Operator Response: Probable user error.
Enter the reply again correctly. In the
case of an invalid parameter, it is
permissible to enter a reply specifying
only the corrected parameter and the
parameters that were not accepted (that
is, those parameters following the invalid
parameter in the last reply).

If desired, any parameter may be
respecified in this response. However, if
any parameter was accepted, any reply
which contains the parameter U is invalid.

Problem Determination: Table I, items 2,
29.

IEA103I DATASET dsn NOT FOUND BY LOCATE

Explanation: Data set dsn could not be
found; the data set is either not
cataloged or the volume containing the
data set is not mounted.

System Action: Nucleus initialization
will continue. The system will run with
decreased function.

Operator Response: Probable user error.
If the data set and its associated
function are required, catalog the data
set or mount the volume containing the
data set. Restart the system.

Problem Determination: Table I, items 2,
11, 25d, 29.

IEA104A M ser

Explanation: The nucleus initialization
program (NIP) requires that the direct
access volume whose serial number is ser
be mounted.

This message will be repeated if a non
direct access device, a direct access
device with a serial number other than
ser, or a direct access device of the
wrong device type was mounted.

System Action: The system waits for a
reply.

Operator Response: Probable user error.
Mount the specified volume on any
available direct access device of the
correct type.

Problem Determination: Table I, items 2,
11, 29.

IEA105A dsn RESIDES ON A UNIT (utn) FOR WHICH
THERE IS NO UCB

Explanation: The nucleus initialization
program (NIP) could not find the unit
control block (UCB) for the unit on which
the volume containing the specified data
set resides. The unit was probably not
defined during system generation.

In the message text, dsn is the data set
name and (utn) is the unit name.

System Action: If dsn is either
SYS1.NUCLEUS or SYS1.LINKLIB, the system
enters the wait state. If dsn is any
optional data set name, the system
continues processing.

Operator Response: If the SYS1.NUCLEUS or
SYS1.LINKLIB data set resides on a unit
having no unit control block, remove the
system residence volume from its present
unit and mount it on a unit defined at
system generation. Then start the system
again.

IEA

If an optional data set (SYS1.ASRLIB or SYS1.ROLLOUT) resides on a unit having no unit control block, the associated option will be made inoperative and nucleus initialization will continue. If it is desired to include the option in the system, remove the volume from its present unit and mount it on a unit defined at system generation. Then start the system again.

Report this message to the system programmer at the installation, so that he can have the system generated again with all units defined.

Programmer Response: Probable user error. Perform an input/output system generation, specifying in the IODEVICE macro instruction the addresses of all device accessible to the system.

Problem Determination: Table I, items 2, 11, 29.

IEA106I mem NOT FOUND IN lib

Explanation: The nucleus initialization program (NIP) could not find the member named mem in the library named lib.

System Action: The nucleus initialization program continues processing.

Operator Response: Report this message to the programmer.

Programmer Response: Probable user error. Ensure that the member is included in the library.

Problem Determination: Table I, items 2, 11, 29.

IEA107I prm IGNORED

Explanation: A reply to message IEA101A named a parameter, prm, that was not selected during system generation for optional changing when the system is loaded.

System Action: The nucleus initialization program (NIP) continues processing.

Operator Response: Report this message to the programmer.

Programmer Response: Probable user error. If the parameter is required ensure that the option associated with parameter prm is selected at system generation.

Problem Determination: Table I, items 2, 11, 29.

IEA108I PERMANENT I/O ERROR DURING BLDL [-SYS1.SVCLIB]

Explanation: The nucleus initialization program (NIP) is unable to bring the linkage library (SYS1.LINKLIB) or the SVC library (SYS1.SVCLIB) directory into main storage because of an uncorrectable input/output error. If the system can

determine that the failure occurred while attempting to bring in the SYS1.SVCLIB directory, this information is also included.

System Action: The nucleus initialization program continues processing without a resident directory.

Operator Response: Probable hardware error. Report this message to the programmer.

Problem Determination: If the error recurs, before calling IBM for hardware support, record the address of the device on which the input/output error occurred and have it available.

IEA109I BLDL FAILED FOR FOLLOWING MODULES

Explanation: During nucleus initialization, parts of the resident directories have not been completed. The module names not found in SYS1.SVCLIB or SYS1.LINKLIB and therefore not appearing in the resident directory are printed on the console immediately following this message.

System Action: The nucleus initialization program (NIP) continues processing with an incomplete resident directory.

Operator Response: Probable user error. Report this message and give the master console log to the programmer.

Programmer Response: Probable user error. Ensure that the modules listed are included in the SYS1.LINKLIB or SYS1.SVCLIB data set.

Problem Determination: Table I, items 2, 13, 25c, 29.

IEA110I LOAD FAILED FOR lmd

Explanation: During nucleus initialization, the access method module named lmd was not loaded into main storage.

System Action: The nucleus initialization program (NIP) continues processing.

Operator Response: Report this message to the programmer.

Programmer Response: Probable user error. Ensure that modules listed are included in the SYS1.LINKLIB or SYS1.SVCLIB data set.

Problem Determination: Table I, items 2, 13, 25c, 29.

IEA111W SPACE EXCEEDED - RESPECIFY prm

Explanation: While providing the optional parameter named prm, the nucleus initialization program (NIP) exceeded the available main storage.

System Action: The system enters a wait state (Wait State code 003).

Operator Response: Report this message to the programmer, asking him for a different response to message IEA101A so that less main storage will be required. Then restart the system.

Programmer Response: Probable user error. Ensure that sufficient main storage is available for the system generated.

Problem Determination: Table I, items 11, 29.

IEA112I LIST lis FOR prm - INVALID FORMAT

Explanation: During nucleus initialization, the format of the list named lis for the optional parameter named prm was invalid.

System Action: The nucleus initialization program (NIP) continues processing without the named parameter.

Operator Response: Report this message to the programmer.

Programmer Response: Probable user error. Ensure that the list (lis) in SYS1.PARMLIB referenced by parameter prm is of the correct format.

Problem Determination: Table I, items 13, 26c, 29.

IEA113I prm MODULE LIST

Explanation: In the reply to message IEA101A, a list of modules for the optional parameter named prm was requested. The list immediately follows this message.

System Action: The system continues processing.

Operator Response: Give the list to the programmer.

IEA114I SVC xxx NOT SUPPORTED

Explanation: During nucleus initialization, SVC routine module xxx, which is not supported by the system being initialized, was specified.

System Action: The module was not loaded; however, the nucleus initialization program (NIP) continues processing.

Operator Response: Report this message to the programmer.

Programmer Response: Probable user error. Ensure that SVC routine module xxx is included at system generation.
Problem Determination: Table I, items 11, 29.

IEA115I SVC xxx NOT DEFINED

Explanation: During nucleus initialization, SVC routine module xxx, which is not defined and does not exist, was specified.

System Action: The module was not loaded; however, the nucleus initialization program (NIP) continues processing.

Operator Response: Report this message to the programmer.

Programmer Response: Probable user error. Ensure that SVC routine module xxx is included at system generation.

Problem Determination: Table I, items 11, 29.

IEA116A CONTINUE SYSTEM PARAMETERS

Explanation: During nucleus initialization, the reply to message IEA101A specified CONT as its final entry. The CONT indicated that the reply was incomplete and that additional parameters were to be specified.

System Action: The system waits for a reply to message IEA101A.

Operator Response: Probable user error. Continue the reply to message IEA101A, beginning this continuation with REPLY 00.

IEA117I NUMBER OF TIME-SLICING GROUPS EXCEEDS SYSGEN LIMIT

Explanation: During nucleus initialization, the operator specified more time-slicing groups than were defined at system generation.

Message IEA102A follows, permitting the operator to respecify his reply.

System Action: The system waits for a reply to message IEA102A.

Operator Response: Probable user error. Respecify the reply in response to message IEA102A.

IEA118I TIME SLICE VALUE INCREASED TO 20 MILLISECONDS

Explanation: The time-slice value specified by the operator is smaller than the minimum value permitted. The nucleus initialization program (NIP) corrected the error by increasing the size of the time-slice value to 20, the minimum permissable size.

System Action: The system continues processing.

Operator Response: None.

IEA119I SQS SIZE INCREASED TO nnnn BYTES

Explanation: During system initialization, the nucleus initialization program found that the size specified for the system queue area was less than nnnn bytes.

System Action: The size of the system
queue area was increased to the minimum of
nnnn bytes.

System Action: The system continues
processing.

Operator Response: None.

IEA120A DEVICE ddd SHARED.   REPLY 'CONTINUE' OR
'WAIT'

Explanation: Device ddd is a shared
device and is presently reserved by a
central processing unit (CPU) other than
the central processing unit from which an
IPL is being performed.

System Action: The system action depends
on the operator's response.

Operator Response: To wait until the
device is released by the central
processing unit that is presently using
it, enter REPLY xx,'WAIT'. Normal
processing will continue after the device
is available.

Otherwise, enter REPLY xx,'CONTINUE'.
This reply will result in the device being
marked unavailable to the central
processing unit from which the IPL is
being performed. Processing will
continue. (If this reply is entered, do
not execute any job that might require
allocation of device ddd. If such a job
is executed, a mount message will be
issued and subsequent operator action
might make the device unavailable to the
central processing unit that originally
reserved it.)

Note: If the message appears frequently
or if the wait time is excessive, notify
the system programmer at the installation.

IEA125I EMULATOR COMPATIBILITY FEATURE ASSUMED
LOADED INTO WCS

Explanation: If emulation is to be
performed, the nucleus initialization
program (NIP) has assumed that the
emulator compatibility feature has been
loaded into Writable Control Storage
(WCS).

System Action: The nucleus initialization
program continues processing.

Operator Response: If emulation is to be
performed and the compatibility feature
has not been loaded into WCS, load the
compatibility feature and restart the
system. Otherwise, none.

IEA130I LINK LIBRARY DATA SETS NOT FOUND

Explanation: The nucelus initialization
program (NIP) could not find one or more
of the data sets that were to be
concatenated with the SYS1.LINKLIB data
set to form the system link library:
• The data sets were not found in the
  system catalog.

• The data sets were not found on the
  device indicated by the catalog. (In
  this case, this message will be preceded
  by message IEA211I.)
• The data sets were resident on a device
  that the operator (in response to
  message IEA131A) indicated was not to be
  mounted.

System Action: The nucleus initialization
program continues processing.

Operator Response: Report this message to
the programmer.

Programmer Response: Probable user error.
Ensure that the data sets are included in
one of the volumes specified in the
SYS1.PARMLIB member LNKLST0.

Problem Determination: Table I, items 11,
13, 26c, 29.

IEA131A MOUNT LINKLIB VOL(S):   ser

Explanation: The nucleus initialization
program (NIP) could not find one or more
of the volumes containing the data sets to
be concatenated with the SYS1.LINKLIB data
set to form the system link library. The
volume serial numbers, ser, of the volumes
that could not be found are listed one at
a time following this message.

System Action: The nucleus initialization
program waits for an operator response
after each volume serial number is listed,
and continues processing after each
response.

Operator Response: After each volume
serial number is listed, either mount the
indicated volume or reply with an EOB
signal from the console. (The EOB signal
indicates that the data sets resident on
the indicated volume are not to be
included in the system link library.)

IEA135A SPECIFY SYS1.DUMP TAPE UNIT ADDRESS OR NO

Explanation: The nucleus initialization
program (NIP) has been unable to locate
the SYS1.DUMP data set and is asking
whether a tape volume is to be provided
for the data set.

System Action: The system waits for a
reply.

Operator Response: If the SYS1.DUMP data
set is to be used, enter REPLY xx,'ddd'
where ddd is the 2400/3400 series tape
device to contain the tape volume.

Note: For a Model 65 Multiprocessing
System, make sure that tape device ddd is
accessible to the central processing unit
being tested.

If the SYS1.DUMP data set is not to be
used, enter REPLY xx,'NO'. (The dump,
which is normally directed to the
SYS1.DUMP data set, will be bypassed if a
critical system error occurs.)

IEA136I DEVICE AT ddd UNACCEPTABLE FOR SYS1.DUMP - xxxx

> **Explanation:** An unacceptable device ddd was specified in response to message IEA135A for reason xxxx as follows:
> - NO UCB - The unit control block (UCB) for device ddd cannot be found.
> - NOT 2400 - Device ddd is not a 2400/3400 series tape device.
> - UNAVAILABLE - Device ddd is either not available or not operational.
> - NONEXISTENT - Device ddd is physically nonexistent.
> - I/O ERROR - An uncorrectable I/O error occurred on device ddd.
>
> **System Action:** The system reissues message IEA135A.
>
> **Operator Response:** In all cases except where xxxx is an I/O error it is a probable user error. Verify that the device is operational and is specified correctly. Then enter REPLY xx,'ddd' again in response to message IEA135A. If the second attempt also fails, either specify another device in response to message IEA135A or enter REPLY xx,'NO' in response to message IEA135A and call IBM for programming support. If xxxx is 1/O ERROR, it is a probable hardware error. Either specify another device in response to message IEA135A or enter REPLY xx, 'NO', and call IBM for hardware support.

IEA137A M ddd,NL

> **Explanation:** In response to message IEA135A, the operator indicated that the SYS1.DUMP data set was to reside on a tape volume on device ddd.
>
> This message appears (following message IEA138A) if the operator erroneously mounts a labeled tape volume in response to this message.
>
> This message also appears if, before the tape is mounted, input/output activity occurs on any device other than device ddd.
>
> **System Action:** The system waits for the operator response.
>
> **Operator Response:** Mount an unlabeled tape volume on device ddd.

IEA138A D ddd

> **Explanation:** In response to message IEA137A, a labeled tape volume was mounted on device ddd.
>
> **System Action:** The system waits for the operator response.
>
> **Operator Response:** Probable user error. Demount the volume from device ddd.
>
> **Problem Determination:** Table I, items 11, 29.

IEA150A SPECIFY HARDCPY

> **Explanation:** A hard copy log is required for one of the following reasons:
> - The console configuration contains an active graphic console.
> - The console configuration contains more than one active console.
>
> **System Action:** The system waits until the operator has responded to this message.
>
> **Operator Response:** Enter REPLY xx, 'HARDCPY=(xxxx[,yyyy][,zzzz])' to specify that the hard copy log is desired:
> - The xxxx is required and is either SYSLOG if the system log is to be used as the hard copy log or an appropriate unit address if a console is to be used as the hard copy log.
>
> **Note:** The console specified must be one that was operating during previous NIP processing.
> - The yyyy is not required if any of routing codes 1, 2, 3, 4, 7, 8, and 10 are desired, since all of these codes are automatically assigned by the system. Otherwise, the yyyy is either ALL if the hard copy log is to record all messages or a list of the additional routing codes (separated by commas and enclosed in parentheses) if messages with these routing codes are also to be recorded on the hard copy log.
> - The zzzz is normally part of the standard reply but should not be specified during nucleus initialization processing since all commands and responses will automatically be recorded on the hard copy log.

IEA152I HARDCPY SPECIFICATION INVALID

> **Explanation:** In response to message IEA101A or IEA150A, the operator specified an invalid device for a hard copy log:
> - The device was not a valid console.
> - The system log is not supported as the hard copy log.
>
> **System Action:** In response to an invalid device in the reply to message IEA101A, the system ignores the HARDCPY specification and continues operation.
>
> In response to an invalid device in the reply to message IEA150A, the system reissues message IEA150A.
>
> **Operator Response:** Probable user error. If the invalid reply was issued in response to message IEA150A, wait until message IEA150A is reissued and then respond with a valid device (or SYSLOG if the system log is supported and SYSLOG was not previously specified).
>
> If a hard copy log is not mandatory but is desired for NIP and IPL messages, start the system again.

IEA

If a recording of NIP and IPL messages and operator commands is not required but a hard copy log is desired, wait until a READY message is issued and then enter a VARY HARDCPY command.

Problem Determination: Table I, items 11, 29.

IEA153I HARDCPY CONSOLE UNAVAILABLE

Explanation: In response to message IEA101A, HARDCPY specified a valid console, but the console was unavailable at IPL time.

System Action: System initialization continues, but the HARDCPY specification is not accepted. If a hard copy log is required, the system issues message IEA150A.

Operator Response: If message IEA150A has been issued, respond as indicated by the message.

If a hard copy log is not mandatory but is desired for NIP and IPL messages, start the system again.

If a recording of NIP and IPL messages and operator commands is not required but a hard copy log is desired, wait until a READY message is issued and then enter a VARY HARDCPY command.

IEA154I HARD COPY OF INITIALIZATION MESSAGES DISCONTINUED

Explanation: The logging of nucleus initialization program (NIP) messages must be discontinued because the message buffer is full. The message or operator reply preceding this message was the last message recorded.

System Action: System initialization continues.

Operator Response: None.

IEA205I UNABLE TO SCRATCH dsn ON ser

Explanation: An attempt to scratch and reallocate space for data set dsn on the volume whose serial number is ser failed because of an error during the scratch operation.

System Action: The system continues processing.

Operator Response: Report this message to the programmer.

Programmer Response: Probable user error. Ensure that the central processing unit indicated at system generation is the same system that is the subject of NIP.

Problem Determination: Table I, items 11, 29.

IEA206I UNABLE TO ALLOCATE dsn ON ser

Explanation: An attempt to allocate space for data set dsn on the volume whose serial number is ser failed.

System Action: The system continues processing.

Operator Response: Report this message to the programmer.

Programmer Response: Probable user error. Ensure that the central processing unit indicated at system generation is the same system that is the subject of IPL.

Problem Determination: Table I, items 11, 29.

IEA207I FORMATTING OF dsn DATA SET UNSUCCESSFUL

Explanation: A permanent input/output error occurred while the nucleus initialization program (NIP) was attempting to set up the format of the data set dsn.

System Action: The system continues processing.

Operator Response: Report this message to the programmer.

Programmer Response: Probable hardware error. If the problem recurs, call IBM for hardware support.

IEA208I fff FUNCTION INOPERATIVE

Explanation: The nucleus initialization program (NIP) has detected unrecoverable error conditions during initialization of function fff. As a result, the function has been made inoperative.

This message is issued in conjunction with a diagnostic message identifying the specific type of error.

System Action: The nucleus initialization program continues processing.

Operator Response: Report this message to the programmer.

Programmer Response: Probable user error. Respond to the diagnostic message issued in conjunction with this message.

IEA209I dsn SCRATCHED FROM ser

Explanation: The space allocation for data set dsn was found to be too small and has been scratched from the volume whose serial number is ser.

System Action: The system attempts to allocate more space for the data set and will inform the operator of the action taken by issuing either message IEA206I or IEA210I.

Operator Response: None.

IEA210I dsn ALLOCATED ON ser

Explanation: Space for data set dsn was
successfully allocated on the volume whose
serial number is ser.

System Action: The system continues
processing.

Operator Response: None.

IEA211I OBTAIN FAILED FOR dsn DATA SET

Explanation: The nucleus initialization
program (NIP) was unable to find the data
set control block (DSCB) for data set dsn
for one of the following reasons:
• The volume containing the data set was
  not mounted.
• The data set control block was not in
  the volume table of contents (VTOC).
• A permanent input/output error occurred.

System Action: The nucleus initialization
program continues processing.

Operator Response: If the volume that
contains the data set is not mounted,
mount it and restart the system. If the
volume is mounted, record the device
number and notify the programmer.

Programmer Response: Probable user error.
List the VTOC of the volume that is
supposed to contain the data set. If the
data set is not on the volume, create it
and have the system restarted.

Problem Determination: Table I, items 2,
13, 25bd, 29.

Additional Technical Information: The
data set may be relocated.

IEA212A D, xxx OR yyy

Explanation: During nucleus
initialization, direct access devices xxx
and yyy were found to have duplicate
volume labels. If one of the devices is a
data cell, the message text will appear as
adr/b, where adr is the device address and
b is the bin number of the sub-cell
containing the duplicate volume label.

System Action: Nucleus initialization is
suspended until one of the identified
volumes is demounted.

Operator Response: Demount the volume
that is not needed. If the volume to be
demounted is a permanently resident
device, such as a drum, start the system
again. If a sub-cell is to be demounted,
demount the entire data cell.

IEA213I INITIALIZATION OF SYS1.ASRLIB INCOMPLETE

Explanation: The SYS1.ASRLIB data set was
only partially initialized for one of the
following reasons:
• The nucleus address of one or more
  refreshable modules was not resolved
  successfully.

• The SYS1.ASRLIB data set was not large
  enough to contain all the modules and
  tables required for the machine check
  handler (MCH).
• An attempt was made to write a module or
  table onto the SYS1.ASRLIB data set, but
  the size of the module or table exceeded
  the track capacity of the unit on which
  the data set resides.

System Action: The system continues
processing.

Operator Response: Report this message to
the programmer.

Programmer Response: Probable user error.
Ensure that the SYS1.ASRLIB is large
enough to contain all the modules.
Problem Determination: Table I, items 11,
29.

IEA214I I/O ERROR DURING SYS1.ASRLIB
INITIALIZATION

Explanation: The nucleus initialization
program (NIP) has encountered a permanent
input/output error while writing the
SYS1.ASRLIB data set.

Operator Response: Report this message to
the programmer.

Programmer Response: Probable hardware
error. If the problem recurs, call IBM
for hardware support.

IEA216I GETMAIN FAILED DURING INITIALIZATION

Explanation: The nucleus initialization
program (NIP) issued a GETMAIN macro
instruction; however, more main storage
was requested than was available.

System Action: The system bypasses the
function requiring the storage and issues
message IEA208I, describing the
inoperative function. Processing
continues.

Operator Response: Report this message to
the programmer.

Programmer Response: Probable user error.
Ensure that sufficient main storage is
available for NIP processing.

Problem Determination: Table I, items 11,
29.

IEA217I SEREP INTERFACE ESTABLISHED

Explanation: The nucleus initialization
program (NIP) has retained the system
environment recording, editing, and
printing (SEREP) interface for one of the
following reasons:
• SEREP support was selected for the
  model.
• Neither SER nor MCH was selected during
  system generation.
• No level of SER support was selected for
  the model. (In this case, message
  IEA219I precedes this message.)

- A required SER module could not be found in the SYS1.LINKLIB data set. (In this case, message IEA106I, which identifies the SER module not found, precedes this message.)

System Action: The nucleus initialization program continues processing.

Operator Response: None.

IEA218I MODEL=nnn/sys, ALTSYS=ddd, ASSUMED

Explanation: The nucleus initialization program (NIP) has assumed primary model nnn, system type (360 or 370) - sys, and alternate system residence device ddd:
- Model nnn will be used for initialization of model dependent system functions unless the MOD parameter is specified in response to message IEA101A, which follows this message.
- Device ddd will be used as the 'to' device for a system-initiated system residence swap unless the ALTSYS parameter is specified in response to message IEA101A, which follows this message.

System Action: The nucleus initialization program continues processing.

Operator Response: If model nnn and device ddd are correct for the system being initialized, none.

If nnn is not correct, specify the correct model number in the MOD parameter in response to message IEA101A; if ddd is not to be used, specify a device of the same type as the system residence device in the ALTSYS parameter in response to message IEA101A.

IEA219I MODEL NOT SUPPORTED

Explanation: The nucleus initialization program (NIP) has determined that system environment recording (SER) support was not selected for either the assumed model or the model specified in the MOD parameter in response to message IEA101A.

System Action: The nucleus initialization program continues processing.

Operator Response: Report this message to the programmer.

Programmer Response: Probable user error. Ensure that the central processing unit indicated at system generation is the same system that is the subject of NIP.

Problem Determination: Table I, items 11, 29.

IEA220I H0=nn BYTES H1=nn BYTES

Explanation: During nucleus initialization, a listing was requested of the size of each of the storage hierarchies.

In the message text, H0 represents hierarchy 0 (processor storage), H1 represents hierarchy 1, and nn represents the number of bytes, in decimal.

Operator Response: None.

IEA250E TIMER ON CPU y INOPERATIVE, VARY COMMANDS MAY BE AFFECTED

Explanation: The interval timer on central processing unit (CPU) y is not enabled. Therefore, VARY CPU, VARY channel, and QUIESCE commands may give unpredictable results.

System Action: The system continues processing.

Operator Response: Probable user error. To avoid unpredictable results, enable the timer and restart the system.

Problem Determination: Table I, items 11, 29.

IEA251E CONTROL UNIT ccX HAS PARTITION SWITCHES SET ASYMMETRICALLY

Explanation: The control unit ccx has at least one tape unit or direct access device that is accessible to one CPU only.

System Action: System initialization will continue normally but system performance may be degraded.

Operator Response: Probable user error. If the control unit is intended to be assymetric, ignore the message. Otherwise, set the I/O control unit allocation switch to "enable" and restart the system.
Problem Determination: Table I, item 30.

IEA252I STORAGE LOCATIONS xxxxxx TO yyyyyy OFFLINE

Explanation: During nucleus initialization, storage has been placed offline. Storage is either nonexistent, disabled, powered down, or malfunctioning. In the message text, xxxxxx is the starting address and yyyyyy is the ending address of the storage.

System Action: The system continues processing.

Operator Response: If this message appears unexpectedly, call IBM for hardware support. Otherwise, no response is necessary.

Additional Technical Information: If the main storage box is enabled, and the message appears, there has been a machine check in that main storage.

IEA253I CHANNELS OFFLINE y:x

Explanation: During nucleus initialization, channels x of central processing unit y have been placed offline. In the message text, x will appear for each channel involved.

System Action: The system continues
processing.

Operator Response: If this message
appears unexpectedly, call IBM for
hardware support.

IEA254W STORAGE BOX ENABLE/DISABLE SWITCHES SET
ASYMMETRICALLY

Explanation: Located on the configuration
control panel is a pair of storage
allocation switches for each storage unit
in the system (one switch for each central
processing unit). Both central processing
units are operating in multisystem mode,
but cannot share storage because the
storage allocation switches for each
storage unit have been set in the same
position (ENABLE or DISABLE).

System Action: The system entered wait
state (wait state code 015).

Operator Response: Probable user error.
Set the storage enable/disable switches so
that each box in a multiprocessor
configuration either can or cannot be used
by both central processing units. If the
problem recurs, call IBM for hardware
support.

IEA255W BOTH PREFIX SWITCHES ARE SET THE SAME

Explanation: The prefix switches, located
on the configuration control panel, for
both central processing units have been
set in the same position (ENABLE or
DISABLE). This causes both central
processing units to use the same prefixed
storage area.

System Action: The system entered wait
state (wait state code 012).

Operator Response: Probable user error.
Set one of the prefix switches in the
opposite direction and restart the system.
If the problem recurs, call IBM for
hardware support.

IEA256I PARTITIONED SYSTEM INITIATED

Explanation: A system with only one
central processing unit has been
initiated.

System Action: The system continues
processing.

Operator Response: If an attempt to
initiate a system with two central
processing units was made, call IBM for
programming support. Otherwise, no action
is required.

IEA257I ONE CPU MULTIPROCESSOR INITIATED

Explanation: The system has been started
in multisystem mode, and the central
processing unit (CPU) that was not started
was placed offline.

System Action: The system continues
processing.

Operator Response: None.

Problem Determination: If the message
appeared unexpectedly, Table I, items 11,
29. If the message was expected, no
action is necessary.

IEA258I MULTIPROCESSOR INITIATED

Explanation: The system has been started
in multisystem mode, and both central
processing units have been initiated.

System Action: The system continues
processing.

Operator Response: None.

IEA260I STATUS OF DEVICE

```
       dev dev dev dev dev
   cc   x   x   x   x   x
   cc   x   x   x   x   x
   cc   x   x   x   x   x
   cc   x   x   x   x   x
   cc   x   x   x   x   x
```

Explanation: This message indicates the
status of all devices in the system at
nucleus initialization:
• Each cc indicates a unique
  channel/control unit address in the
  system.
• Each dev indicates a possible device
  address.
• Each x indicates the status of the
  particular dev for the particular cc:
  #
      Offline to both central processing
      units.
  A
      Online to central processing unit A
      only.
  B
      Online to central processing unit B
      only.
  S
      Online to both central processing
      units (shared).
  .
      No unit control block (not
      generated into system).

System Action: The system continues
processing.

Operator Response: None.

Rollout/Rollin Messages

IEA400I jjj, sss R/I I/O ERR

Explanation: A permanent input/output
error occurred on a direct access device
while attempting to rollin step sss of job
jjj.

System Action: The job is abnormally
terminated.

Operator Response: Probable hardware
error. Resubmit the job. If the problem
recurs, reallocate the Rollout/Rollin data
set.

Problem Determination: Table II, Format
1: trace option - TRACE=IO.

IEA401I jjj, sss R/O I/O ERR

Explanation: A permanent input/output
error occurred on a direct access device
while attempting to rollout step sss of
job jjj.

System Action: The system designates that
the job could not be rolled out, and an
attempt is made to find another region
that will satisfy the rollout request.

Operator Response: Probable hardware
error. If the problem recurs, reallocate
the Rollout/Rollin data set.

Problem Determination: Table II, Format
1: trace option - TRACE=IO.

IEA402A ROLLOUT/IN MSGS REQUIRED. REPLY Y OR N.

Explanation: The rollout/rollin code has
been entered for the first time after the
system was started. This message gives
the operator the option of allowing the
system to display informational messages
IEA403-IEA406.

System Action: The system waits pending
the operator's reply.

Operator Response: If the informational
messages are to be displayed, enter REPLY
xx,'Y'. If the informational messages are
to be suppressed, enter REPLY xx,'N'.

IEA403I jjj, sss, LOG R/O siz, adr

Explanation: Step sss of job jjj has
caused a logical rollout of dynamic main
storage.

In the message text, siz is the size of
the region and adr is the beginning
address of the region, in hexadecimal.

System Action: The system continues
processing.

Operator Response: None.

IEA404I REGN adr LOG ROLLIN

Explanation: The region whose beginning
address is adr, in hexadecimal, has been
rolled in.

System Action: The system continues
processing.

Operator Response: None.

IEA405I jjj, sss, R/O OF jjj, sss

Explanation: Step sss of job jjj
specified at the beginning of the message
text has caused a physical rollout of step

sss of job jjj specified at the end of the
message text.

System Action: The system continues
processing.

Operator Response: None.

IEA406I jjj, sss, ROLLIN

Explanation: Step sss of job jjj has been
physically rolled in.

System Action: The system continues
processing.

Operator Response: None.

Input/Output Supervisor Messages 2

IEA604A D adr,ser

Explanation: The operator replaced a
required direct access volume without
having received a mount request.

In the message text, D indicates that the
volume whose serial number is ser is to be
demounted from the device whose unit
address is adr, in hexadecimal.

Operator Response: Demount the volume.
Then respond as indicated for message
IEA605A, which follows this message.

IEA605A M adr,ser,,[jjj]

Explanation: M indicates that the volume
whose serial number is ser is to be
mounted on the device whose unit address
in hexadecimal is adr.

Message IEA604A or IEA606I precedes this
message, indicating the reason for the
mount request. In the message text, jjj
is the name of the job in control during
which intervention is required. If the
job name cannot be determined, this field
is left blank.

Operator Response: If the volume
requested is not available, cancel the
job. Otherwise, mount the indicated
volume. (If message IEA606I precedes this
message, the volume indicated in that
message must first be demounted from the
device.)

IEA606I adr,BAD VOLUME LABEL,cm,stat,senbbbbbb,,
ser,[jjj]

Explanation: A permanent input/output
error occurred while trying to read the
volume serial number of the indicated
volume.

In the message text, in hexadecimal, the
fields are:

adr
      Unit address of the device.

cm
    Operation code of the channel command word (CCW) during whose execution the error occurred. If the channel command word cannot be found, this field appears as **.

stat
    Status portion of the channel status word (CSW).

sens
    First 2 sense bytes for the error condition.

bbbbbb
    Next 3 sense bytes for the error condition. This field appears only for devices that give more than 2 bytes of sense information.

ser
    Serial number of the volume on which intervention is required.

jjj
    The name of the job in control when intervention is required. If the jobname cannot be determined, this field is left blank.

Operator Response: Respond as indicated for message IEA605A, which follows this message. 2

IEA620I ddd TR=nnn,TW=nnn,SIO=nnnnn ERROR THRESHOLD REACHED

Explanation: The number of errors specified by either the read error threshold or the write error threshold has been exceeded.

In the message text, the fields are:

ddd
    Unit address of the device.
TR=nnn
    Number of temporary read errors.
TW=nnn
    Number of temporary write errors.
SIO=nnnnn
    Number of Start I/O operations.

Operator Response: Check the local operating procedures to see if the number of errors specified in the message text indicates that the volume should be reconditioned.

IEA700I ccc[-r] {jjj} sss ff[dddddddd]
               {aaa}

Explanation: The control program detected an error during the execution of a GETMAIN macro instruction. The job step was abnormally terminated with a system completion code of ccc. This message provides additional information on the error.

In the message text, the fields are:
ccc
    system completion code
r
    reason code. Included only when there are multiple reasons for issuing the message.
jjj
    job name

sss
    step name
ff
    flag byte. A X'00' indicates that the GETMAIN macro instruction was issued via an SVC 4 instruction. A X'80' indicates that GETMAIN was entered via a branch and that job name jjj has been replaced by branch address aaa.
aaa
    return address of the calling routine from register 14 if the entry to GETMAIN was not via an SVC instruction.
dddddddd
    variable data in hexadecimal. Data is 1 to 3 complete words in length.

The length and meaning of hexadecimal data dddddddd is dependent on system completion code ccc and reason code (r) given in the message.

The meaning of the applicable reason codes is:

ccc r	Meaning
604-1	Parameter list for the GETMAIN macro instruction contained an invalid address, or the address of the parameter list was invalid.
604-2	A free queue element (FQE) contained invalid information
604-3	In MFT with ATTACH, a gotten queue element (GQE) contained invalid information.
804-1	Requested amount of main storage was not available.
804-2	In an MVT system, a negative length was specified; in an MFT system, a zero or negative length was specified.

The meaning of the variable data is:

ccc	r	word 1	word 2	word 3
504		x1		
604	1	x1		
604	2	x2	x3	x3
604	3	x2	x6	x6
804	1	x2	x1	x4
804	2	x2		
B04		x2		
C04		x2		
E04		x2	x5	

where:

x1 - Address of the GETMAIN parameter list. The first word of the parameter list is the address of the length list specified in the LA operand; the second word is the address of the address list specified in the A operand.

x2 - The first byte is the number of the subpool for which the request was made; the last three bytes are the number of bytes requested.

x3 - Contents of the free queue element
(FQE). The first word is a pointer
to the next FQE; the second word is
the number of bytes in the free area
defined by this FQE.

x4 - Number of bytes in the largest
available block of main storage in
your region or partition.

x5 - Number of bytes in the largest
available block of SQA.

x6 - Contents of the gotten queue element
in MFT with ATTACH. The first word
is a pointer to the next GQE; the
second word is the number of bytes +8
in the allocated area.

Programmer Response: Refer to the
explanation of completion code ccc in the
section on "Completion Codes" for the
complete response to this message.

IEA701I ccc [-r] {jjj}/{aaa} sss ff [dddddddd]

Explanation: The control program detected
an error during the execution of a
FREEMAIN macro instruction. The job step
was abnormally terminated with a system
completion code of ccc. This message
provides additional information on the
error.

In the message text, the fields are:

ccc
    system completion code
r
    reason code. Included only when
    there are multiple reasons for
    issuing the message.
jjj
    job name
sss
    step name
ff
    flag byte. A X'00' indicates that
    the FREEMAIN macro instruction was
    issued via an SVC 5 instruction. A
    X'80' indicates that FREEMAIN was
    entered via a branch and that job
    name jjj has been replaced by branch
    address aaa.
aaa
    return address of the calling routine
    from register 14 if the entry to
    FREEMAIN was not via an SVC
    instruction.
dddddddd
    variable data in hexadecimal. Data
    is 1 to 4 complete words in length.

The length and meaning of hexadecimal data
dddddddd is dependent on system completion
code ccc and reason code (r) given in the
message.

The meaning of the applicable reason codes
is:

ccc r	Meaning
305-1	Specified main storage area was not in named subpool
305-2	Specified subpool could not be found
605-1	Parameter list for the FREEMAIN macro instruction contained an invalid address, or the address of the parameter list is invalid
605-2	A free queue element (FQE) contained invalid information
605-3	In MFT with ATTACH, a gotten queue element (GQE) contained invalid information.
905-1	In MFT only, the address of the area to be freed was not on a doubleword boundary.
905-2	In MFT only, the address of the area to be freed was not in the area described by the job step boundary box.
905-3	In MFT with ATTACH, the length of the area to be freed was greater than that described by its gotten queue element (GQE).

The meaning of the variable length data
is:

ccc	r	word 1	word 2	word 3	word 4
305	1	x1	x2	x3	
305	2	x1	x2	x3	
505		x4			
605	1	x4			
605	2	x1	x2	x5	x5
605	3	x1	x2	x7	x7
705		x4			
905		x1	x2	x3	
905	1	x1	x2		
905	2	x1	x2		
905	3	x1	x2	x8	
A05		x1	x2	[x6]	
B05		x1	x2		
D05		x1	x2		

where:
x1 - The first byte is the number of the
    subpool for which the request was
    made; the last three bytes are the
    number of bytes requested.

x2 - Beginning address of the main storage
    area to be freed.

x3 - Address of the task control block
    (TCB) for the abending task.

x4 - Address of the FREEMAIN parameter
    list. The first word of the
    parameter list is the address of the
    length list specified in the LA
    operand; the second word is the
    address of the address list specified
    in the A operand.

x5 - Contents of the free queue element
    (FQE). The first word is a pointer
    to the next FQE; the second word is
    the number of bytes in the free area
    defined by this FQE.

x6 - Number of bytes of overlap into free
area. (Provided only in an MVT
system.)

x7 - In MFT with ATTACH, the contents of
the gotten queue element (GQE). The
first word is a pointer to the next
GQE; the second word is the number of
bytes +8 in the allocated area.

x8 - In MFT with ATTACH, the beginning
address of the gotten queue element
(GQE) describing the area to be
freed.

<u>Programmer Response</u>: Refer to the
explanation of completion code ccc in the
section on "Completion Codes" for the
complete response to this message.

IEA702I ccc[-r] {jjj} sss ff[dddddddd]
{aaa}

<u>Explanation</u>: The control program detected
an error during the execution of either a
GETMAIN or FREEMAIN macro instruction.
The job step was abnormally terminated
with a system completion code of ccc.
This message provides additional
information on the error.

In the message text, the fields are:

ccc
    system completion code
r
    reason code. Included only when
    there are multiple reasons for
    issuing the message.
jjj
    job name
sss
    step name
ff
    flag byte. A X'00' indicates that
    the GETMAIN/FREEMAIN macro
    instruction was issued via an SVC 10
    instruction. A X'80' indicates that
    GETMAIN/FREEMAIN was entered via a
    branch and that job name jjj has been
    replaced by branch address aaa.
aaa
    return address of the calling routine
    from register 14 if the entry to
    GETMAIN/FREEMAIN was not via an SVC
    instruction.
dddddddd
    variable data in hexadecimal. Data
    is 1 to 3 complete words in length.

The length and meaning of hexadecimal data
dddddddd is dependent on system completion
code ccc and reason code (r) given in the
message.

The meaning of the applicable reason codes
is:

ccc	r	Meaning
30A	1	Specified main storage area was not in named subpool
30A	2	Specified subpool could not be found

30A	3	Main storage area to be freed was not within caller's region (subpool FREEMAIN only)
30A	4	Zero length was not specified for subpool FREEMAIN
60A	2	A free queue element (FQE) for either a GETMAIN or FREEMAIN macro instruction was invalid
60A	3	In MFT with ATTACH, a gotten queue element (GQE) contained invalid information.
80A	1	Requested amount of main storage not available
80A	2	Zero length specified
90A	1	In MFT only, the address of the area to be freed was not on a doubleword boundary.
90A	2	In MFT only, the address of the area to be freed was not in the area described by the jobstep boundary box.
90A	3	In MFT with ATTACH, the length of the area to be freed was greater than that described by its gotten queue (GQE).

The meaning of the variable length data
is:

ccc	r	word 1	word 2	word 3
20A		x1	x2	
30A	1	x3	x4	x1
30A	2	x3	x4	x1
30A	3	x3	x4	x1
30A	4	x3	x4	x1
40A		x3	x4	
60A	2	x3	x5	x5
60A	3	x3	x8	x8
704		x1		
80A	1	x3	x6	
80A	2	x3		
90A		x3	x4	
90A	1	x3	x4	
90A	2	x3	x4	
90A	3	x3	x4	x9
A0A		x3	x4	[x7]
B0A		x3		
D0A		x3	x4	

where:

x1 - Address of the task control block
    (TCB) for the abending task.

x2 - Number of the subpool that was not
    freed.

x3 - The first byte is the number of the
    subpool for which the request was
    made; the last three bytes are the
    number of bytes requested.

x4 - Beginning address of the main storage
    area to be freed.

x5 - Contents of the free queue element
    (FQE). The first word is a pointer
    to the next FQE; the second word is
    the number of bytes in the free area
    defined by this FQE.

x6 - Number of bytes in the largest
    available block of main storage in
    your region or partition.

x7 - Number of bytes of overlap into free
area. (Provided only in an MVT
system.)

x8 - In MFT with ATTACH, the contents of
the gotten queue element (GQE). The
first word is a pointer to the next
GQE; the second word is the number of
bytes +8 in the allocated area.

x9 - In MFT with ATTACH, the beginning
address of the gotten queue element
(GQE) describing the area to be
freed.

Programmer Response: Refer to the
explanation of completion code ccc in the
section on "Completion Codes" for the
complete response to this message.

IEA703I ccc[-r] jjj sss MODULE ACCESSED xxxxxxxx

Explanation: During execution of a LINK,
LOAD, ATTACH, or XCTL macro instruction,
the control program encountered an error
while loading module xxxxxxxx. The job
step was abnormally terminated with a
system completion code of ccc. This
message provides additional information on
the error.

In the message text, the fields are:

ccc
    system completion code

r
    reason code. Included only when
    there are multiple reasons for
    issuing the message.
jjj
    job name
sss
    step name
xxxxxxxx
    the name of the module being accessed
    at the time of the error.

This message is issued for the following
completion codes:

ccc	r	Explanation of reason Code
106	C	Invalid scatter data in load module
106	D	Invalid record type in load module
106	E	Invalid address in load module
106	F	Uncorrectable input/output error
207		
308		
406		
706		
806	4	Specified entry point not found
806	8	Uncorrectable input/output error
906		
A06		

Programmer Response: Refer to the
explanation of completion code ccc in the
section on "Completion Codes" for the
complete response to this message.

Component Name	IEB
Program Producing Message	Data set utility programs: IEBCOMPR, IEBCOPY, IEBDG, IEBEDIT, IEBGENER, IEBISAM, IEBPTPCH, IEBTCRIN, IEBUPDAT, IEBUPDTE.
Audience and Where Produced	For programmer: SYSPRINT data set.

Message Format	IEBnnns text
	
	nnn
	     Message serial number, which is coded to indicate the utility
	     program:
	
	     0nn IEBEDIT
	     1nn IEBCOPY
	     2nn IEBCOMPR
	     3nn IEBGENER
	     4nn IEBPTPCH
	     5nn IEBUPDAT
	     6nn IEBISAM
	     7nn IEBDG
	     8nn IEBUPDTE
	     9nn IEBTCRIN
	
	s
	     Type code:
	     A Action; operator must perform a specific action.
	     I Information; no operator action is required.
	text
	     Message text.

Comments	Messages indicating job termination can be interpreted three ways: • If the utility program was invoked, a return code is passed to the calling program with the option to terminate. • If the utility program represents one step of a multi-step job, the job is terminated. • Otherwise, the job is terminated.
Associated Publications	IBM System/360 Operating System: Utilities, GC28-6586
Problem Determination	Refer to the fold-out in part VI of this publication for problem determination instructions.

IEBEDIT Program Messages

IEB001I (SYSUT1) NOT OPENED
      (SYSUT2)
      (SYSIN)

    Explanation: The SYSUT1, SYSUT2, or SYSIN data set, as indicated in the message text, could not be opened. Either the DD statement defining the data set was not included in the input stream or a DCB parameter for the data set was invalid.

    System Action: The job step is terminated. (The return code is 8.)

    Programmer Response: Probable user error. Ensure that a DD statement for SYSUT1, SYSUT2, and SYSIN is included in the input stream, and that the parameters on the DD statement(s) are correct (particularly that the block size specification is a multiple of 80). Resubmit the job.

    Problem Determination: Table I, items 1, 2, 3, 5a, 13, 29

IEB008I INVALID NAME FIELD

    Explanation: In the EDIT statement preceding this message, the name field is invalid. Possibly, the name field consists of more than 8 characters or contains an invalid character.

    System Action: Processing continues with the next EDIT statement, if any. (The return code is 4.)

    Programmer Response: Probable user error. Correct the name field on the preceding statement and resubmit the job to process

either the entire input stream or the
unedited portion of the input stream.

Problem Determination: Table I, items 1,
2, 3, 5a, 7c, 13, 29.

IEB009I INVALID STATEMENT SYNTAX

Explanation: The EDIT statement preceding
this message is coded incorrectly.

System Action: Processing continues with
the next EDIT statement. (The return code
is 4.)

Programmer Response: Probable user error.
Correct the preceding statement and
resubmit the job to process either the
entire input stream or the unedited
portion of the input stream.

Problem Determination: Table I, items 1,
2, 3, 5a, 7c, 13, 29.

IEB010I INVALID OPERATION CODE

Explanation: The preceding statement is
not an EDIT utility control statement.
Possibly, EDIT is misspelled.

System Action: Processing continues with
the next EDIT statement. (The return code
is 4.)

Programmer Response: Probable user error.
Correct the operation on the preceding
control statement to EDIT and resubmit the
job to process either the entire input
stream or the unedited protion of the
input stream, as necessary.

Problem Determination: Table I, items 1,
2, 3, 5a, 7c, 13, 29.

IEB011I INVALID OPERAND

Explanation: In the EDIT statement
preceding this message, the operand is
invalid. Possibly, a parameter is
misspelled or incompatible parameters are
specified.

System Action: Processing continues with
the next EDIT statement. (The return code
is 4.)

Programmer Response: Probable user error.
Correct the operand(s) on the preceding
control statement and resubmit the job to
process either the entire input stream or
the unedited portion of the input stream.

Problem Determination: Table I, items 1,
2, 3, 5a, 7c, 13, 29.

IEB014I INVALID DELIMITER

Explanation: In the EDIT statement
preceding this message, a delimiter is
invalid.

System Action: Processing continues with
the next EDIT statement. (The return code
is 4.)

Programmer Response: Correct the
delimiter(s) on the preceding control
statement and resubmit the job to process
either the entire input stream or the
unedited portion of the input stream.

Problem Determination: Table I, items 1,
2, 3, 5a, 7c, 13, 29.

IEB020I INVALID CONTINUATION CARD

Explanation: In the statement preceding
this message, the continuation does not
begin in column 16.

System Action: Processing continues with
the next EDIT statement. (The return code
is 4.)

Programmer Response: Probable user error.
Begin the continuation statement in column
16 or correct the statement that indicated
a continuation, if no continuation is
desired. Resubmit the job to process
either the entire input stream or the
unedited portion of the input stream.

Problem Determination: Table I, items 1,
2, 3, 5a, 7c, 13, 29.

IEB021I INVALID CHARACTER

Explanation: In the EDIT statement
preceding this message, a character is
invalid.

System Action: Processing continues with
the next EDIT statement. (The return code
is 4.)

Programmer Response: Probable user error.
Correct the error in the control statement
and resubmit the job to process either the
entire input stream or the unedited
portion of the input stream.

Problem Determination: Table I, items 1,
2, 3, 5a, 7c, 13, 29.

IEB022I JOB NAME NOT FOUND BEFORE END OF FILE

Explanation: Either no JOB statement was
found in the input data set or the
specified job could not be found.

System Action: The job step is
terminated. (The return code is 4.)

Programmer Response: Probable user error.
Insert the missing JOB statement into the
input stream or correct the control
information on the associated EDIT
statement and resubmit the job.

Problem Determination: Table I, items 1,
2, 3, 5a, 7c, 13, 29.

IEB023I sss STEP COULD NOT BE FOUND

Explanation: Step sss could not be found
in the input data set. Possibly the step
name was misspelled.

System Action: Processing continues with the next EDIT statement. (The return code is 4.)

Programmer Response: Probable user error. Insert the missing step into the input stream or correct the control information on the associated EDIT statement. Resubmit the job to process either the entire input stream or the unedited portion of the input stream.

Problem Determination: Table I, items 1, 2, 3, 5a, 7c, 13, 29.

IEB024I d WAS HIGHEST SEVERITY CODE

Explanation: Return code d was the highest return code generated during execution of the IEBEDIT program.

Programmer Response: For other than sucessful job completion (severity code = 0), resubmit the job to process either the entire input stream or the unedited portion of the input stream.

Problem Determination: Table I, items 1, 2, 3, 5a, 7c, 13, 29.

IEB027I I/O ERROR dsn, jjj, sss, ddd, devtyp, ddn, op, err, xxxx, acc

Explanation: A permanent input/output error occurred while processing on device ddd.

In the message text, the error analysis information was provided by the SYNADAF data management macro instruction issued by the SYNAD routine:

dsn
    Data set name.
jjj
    Job name.
sss
    Step name.
ddd
    Unit address of the device.
devtyp
    Device type.
ddn
    Data definition name.
op
    Operation attempted.
err
    Error description.
xxxx
    Last seek address of block count.
acc
    Access method.

System Action: The program is terminated. (The return code is 8.)

Programmer Response: Correct the error condition indicated in the message text according to the error analysis information provided by the SYNADAF data management macro instruction. Resubmit the job.

Problem Determination: Table I, items 1, 2, 3, 5a, 7c, 13, 29. Table II, Format 1: trace option - TRACE=SYS.

IEB030I {SYSUT1} BLKSIZE INVALID
       {SYSIN }

Explanation: The block size of the SYSUT1 or SYSIN data set, as indicated in the message text, is not a multiple of 80 bytes.

System Action: The program is terminated. (The return code is 8.)

Programmer Response: Probable user error. Correct the block size of the indicated data set and resubmit the job.

Problem Determination: Table I, items 1, 2, 3, 5a, 7c, 13, 29.

IEB032I SYSUT2 BLKSIZE INVALID - SYSUT1 ASSUMED

Explanation: The block size of the SYSUT2 data set is not a multiple of 80 bytes.

System Action: The SYSUT1 block size attributes are assumed for the SYSUT2 data set. Processing continues. (The return code is 4.)

Programmer Response: Probable user error. If the block size for SYSUT1 is undesirable for SYSUT2, correct the block size for SYSUT2 and resubmit the job; otherwise, disregard this message.

Problem Determination: Table I, items 1, 2, 3, 5a, 7c, 13, 29.

IEB033I STATEMENT NOT PROCESSED EOF ON SYSUT1

Explanation: An end-of-file condition was encountered on the SYSUT1 data set, and the preceding EDIT statement was not processed.

System Action: The job step is terminated. (The return code is 4.)

Programmer Response: Probable user error. Restructure the EDIT statements if the edited output is not as desired and resubmit the job; otherwise, disregard the unprocessed EDIT statements.

Problem Determination: Table I, items 1, 2, 3, 5a, 7c, 13, 29.

IEB034I STEPNAME REQUIRED WITH TYPE={INCLUDE }
                                   {EXCLUDE}

Explanation: No step name was specified with a TYPE=INCLUDE or TYPE=EXCLUDE operation, as indicated in the message text.

System Action: Processing continues with the next EDIT statement. (The return code is 4.)

Programmer Response: Probable user error. Correct the condition indicated in the message text and resubmit the job to

process either the entire input stream or the unedited portion of the input stream.

Problem Determination: Table I, items 1, 2, 3, 5a, 7c, 13, 29.

IEBCOPY Program Messages

IEB100I I/O ERROR READING MEMBER membername

Explanation: An I/O error was encountered reading the specified member name. Message IEB139I, which gives detailed information regarding the location of the error record, is always issued previous to this message.

System Action: The next COPY control statement is sought, unless a data check in the key or data portion only occurred. In this case the error is ignored and data is copied as it came into main storage. (The return code is 4.)

Programmer Response: Depending on the type of error, rerun the COPY operation with the data set in error allocated (1) at a different physical location on the volume, (2) on a different device, or (3) on a different channel. If the error is on an input data set, it may be necessary to re-create the data set.

Problem Determination: Table I, items 1, 3, 13, 25b, 29. Table II, Format 1: trace option - TRACE=SIO,IO,PCI.

IEB101I I/O ERROR WRITING MEMBER DATA AT TTR=ttr [-DURING READ BACK CHECK]

Explanation: An I/O error occurred while copying member data to the output data set. The TTR of the record in error relative to the beginning of the data set is given. The [ ] part of message is only given if the error occurred during read back check.

System Action: If the error was encountered during read back check and involved a data check in key or data only, the error is ignored. Otherwise the next COPY control statement is sought. (The return code is 4.)

Programmer Response: Depending on the type of error, rerun the COPY operation with the data set in error allocated (1) at a different physical location on the volume, (2) on a different device, or (3) on a different channel.

Problem Determination: Table I, items 1, 3, 13, 25b, 29. Table II, Format 1: trace option - TRACE=SIO,IO,PCI.

IEB102I MEMBER{membername}NOT COPIED DUE TO I/O
              {********}ERROR

Explanation: An I/O error on the SYSUT3 work file has made processing of the specified member impossible. If ********

replaces the membername in the above message, the error was found reading from SYSUT3. The output directory will have to be investigated to determine which member was not copied (possibly by use of IEHLIST.)

System Action: Processing continues with the next member to be copied. (The return code is 8.)

Programmer Response: Depending on the type of error, rerun the COPY operation with the data set in error allocated (1) at a different physical location on the volume, (2) on a different device, or (3) on a different channel.

Problem Determination: Table I, items 1, 3, 13, 25b, 29. Table II, Format 1: trace option - TRACE=SIO,IO,PCI.

IEB103I MEMBERS membername THROUGH END OF DATA SET ARE NOT ACCESSIBLE DUE TO I/O ERROR

Explanation: Due to an I/O error while updating the output data set's directory, members starting from the named member through the end of the data set (in alphanumeric order) have become inaccessible.

System Action: The COPY operation is terminated. The next COPY operation is sought. (The return code is 12.)

Programmer Response: Depending on the type of error, rerun the COPY operation with the data set in error allocated (1) at a different physical location on the volume, (2) on a different device, or (3) on a different channel.

Problem Determination: Table I, items 1, 3, 13, 25b, 29. Table II, Format 1: trace option - TRACE=SIO,IO,PCI.

IEB104I INVALID COMMAND OR KEYWORD

Explanation: A command or keyword on the control statement just listed is misspelled or invalid for the IEBCOPY program.

System Action: The COPY operation is terminated. The next COPY control statement is sought. (Return code is 8.)

Programmer Response: Probable user error. Correct the error an resubmit the job.

Problem Determination: Table I, items 1, 3, 13, 29.

IEB105I PARAMETER INVALID

Explanation: A parameter on the control statement just listed is too long or contains an invalid character.

System Action: The COPY operation is terminated. The next COPY control statement is sought. (Return code - 8.)

Programmer Response: Correct the error
and resubmit the job.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB106I UNEQUAL PARENTHESIS

Explanation: The statement just printed
has an unbalanced number of parentheses.

System Action: The COPY operation is
terminated. The next COPY control
statement is sought. (Return code - 8.)

Programmer Response: Probable user error.
Correct the error and rerun the job.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB107I INVALID CONTINUATION

Explanation: The control statement just
listed is invalid. Parameters may have
ended with a comma (which infers
continuation) but the continuation column
(72) was blank. An attempt may have been
made to continue a statement from within a
RENAME/REPLACE specification within nested
parentheses. This is invalid.

System Action: The COPY operation is
terminated. The next COPY control
statement is sought. (Return code - 8.)

Programmer Response: Probable user error.
Correct the error and rerun the job.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB108I MEMBER WITHOUT SELECT OR EXCLUDE

Explanation: A statement contained
MEMBER= but was not associated with a
SELECT or EXCLUDE command.

System Action: The COPY operation is
terminated. The next COPY control
statement is sought. (Return code - 8.)

Programmer Response: Probable user error.
Correct the error and rerun the job.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB109I NO MIXING OF SELECT AND EXCLUDE MODES IN
SAME COPY STEP

Explanation: A SELECT statement
immediately follows an EXCLUDE statement
without an INDD= statement between, or the
converse - an EXCLUDE statement
immediately follows a SELECT statement.

System Action: The COPY operation is
terminated. The next COPY control
statement is sought. (Return code - 8.)

Programmer Response: Probable user error.
Correct the error and rerun the job.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB110I INVALID REPLACE SPECIFIED

Explanation: Parameters were not embedded
within parentheses correctly or
parentheses were missing from valid
RENAME/REPLACE specifications.

System Action: The COPY operation is
terminated. The next COPY control
statement is sought. (Return code - 8.)

Programmer Response: Probable user error.
Correct the error and rerun the job.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB111I NULL PARAMETERS

Explanation: A control statement was
completely blank, or blanks followed the
equal sign immediately after a keyword.

System Action: The COPY operation is
terminated. The next COPY control
statement is sought. (Return code - 8.)

Programmer Response: Probable user error.
Correct the error and rerun the job.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB112I CANNOT RENAME/REPLACE ON EXCLUDE

Explanation: The control statement just
listed has a parameter embedded within
parentheses to show RENAME/REPLACE of this
member. This is invalid with an exclusive
copy.

System Action: The COPY operation is
terminated. The next COPY control
statement is sought. (Return code - 8.)

Programmer Response: Probable user error.
Correct the error and rerun the job.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB113I OUTDD OR INDD NOT SPECIFIED

Explanation: The commands are incomplete.
An INDD=keyword must be associated with a
COPY statement that has defined the output
data set (OUTDD=). A SELECT or EXCLUDE
statement may have been read without an
INDD= preceding it.

System Action: The COPY operation is
terminated. The next COPY control
statement is sought. (Return code - 8.)

Programmer Response: Probable user error.
Correct the error and rerun the job.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB114I OUTDD/LIST NOT ON COPY CARD

> Explanation: The OUTDD= or LIST= keywords
> were scanned but were not physically or
> logically associated with the COPY
> statement.
>
> System Action: The COPY operation is
> terminated. The next COPY control
> statement is sought. (Return code - 8.)
>
> Programmer Response: Probable user error.
> Correct the error and rerun the job.
>
> Problem Determination: Table I, items 1,
> 3, 13, 29.

IEB115I END OF FILE ON SYSIN

> Explanation: On the first read or during
> a "flush", end-of-file was given by the
> SYSIN device as the result of a previous
> error.
>
> System Action: Control is returned to the
> caller; this is the end of the last COPY
> operation.
>
> Programmer Response: Correct the
> preceding error or insert control
> statements.
>
> Problem Determination: Table I, items 1,
> 3, 13, 29.

IEB116I MIXING CONTROL STATEMENTS FROM OLD AND NEW
VERSION OF IEBCOPY

> Explanation: Both types of statements
> were contained within the same copy step
> or multiple COPY operations were attempted
> using old version IEBCOPY control
> statements.
>
> System Action: If a complete set of valid
> statements occurred together, one COPY
> operation was done. If the statements are
> intermixed, no COPY was done. The job is
> terminated. (The return code is 8.)
>
> Programmer Response: Probable user error.
> Correct the error and rerun the job.
>
> Problem Determination: Table I, items 1,
> 3, 13, 29.

IEB117I TABLES EXCEED ALLOCATED CORE

> Explanation: The amount of main storage
> available for creation of the INDD table
> and SELECT/EXCLUDE table has been
> exceeded.
>
> System Action: The COPY operation is
> terminated. The next COPY control
> statement is sought. (Return code - 8.)
>
> Programmer Response: Probable user error.
> Multiple COPY, OUTDD=, and INDD=
> statements can be used so the INDD table,
> which is built for each copy step will not
> be so large. The number of member names
> in SELECT/EXCLUDE statements per copy step
> can also be decreased, and the number of
> copy steps increased. Review the core

> storage estimate considerations for
> IEBCOPY.
>
> Problem Determination: Table I, items 1,
> 3, 15, 29. Have core storage estimate
> calculations available.

IEB118I CONTROL STATEMENT ERROR

> Explanation: The statement just listed
> has an invalid command, keyword, or
> parameter. There may be multiple INDD=
> keywords on the same statement or old and
> new versions of IEBCOPY keywords are
> mixed.
>
> System Action: The job step is terminated
> if old IEBCOPY type of statements.
> Otherwise, the COPY operation is
> terminated and the next COPY control
> statement is sought. (Return code - 8.)
>
> Explanation: Probable user error.
> Correct the error and rerun the job.
>
> Problem Determination: Table I, items 1,
> 3, 15, 29.

IEB119I STATEMENT SEQUENCE ERROR

> Explanation: There is an error in the old
> version IEBCOPY control statement sequence
> or multiple COPY statements immediately
> following each other where the first COPY
> statement was incomplete or out of place.
>
> System Action: If in old version IEBCOPY
> mode, the job step is terminated;
> otherwise, the next COPY control statement
> is sought. (The return code is 8.)
>
> Programmer Response: Probable user error.
> Correct the error and rerun the job.
>
> Problem Determination: Table I, items 1,
> 3, 15, 29.

IEB120I ddname VALIDATION ERROR

> Explanation: The name of the DD statement
> on which the error occured is identified
> in the area designated by ddname. This
> message is always given by the validation
> routine when there is an error during the
> validation or opening of any data set.
> The message immediately following this
> message will explain the nature of the
> error.
>
> System Action: (The return code is 8.)
>
> Programmer Response: None.
>
> Problem Determination: Table I, items 1,
> 25b, 29.

IEB121I OPEN ERROR

> Explanation: The data set defined in the
> preceding message could not be opened.
>
> System Action: The COPY operation is
> terminated. The next COPY control
> statement is sought. (Return code - 8.)

Programmer Response: Probable user error.
Check for invalid DD statement parameters.

Problem Determination: Table I, items 1,
25b, 29.

IEB122I DSCB COULD NOT BE OBTAINED

Explanation: There was an error code
returned from the OBTAIN macro that was
used to read the DSCB for the data set
defined in the preceding message.

System Action: The COPY operation is
terminated. The next copy control
statement is sought. (Return code - 8.)

Programmer Response: Probable user error.
Check to see that a DSCB for data set in
question is available.

Problem Determination: Table I, items 1,
3, 13, 25b, 29.

IEB123I DATA SET NOT PARTITIONED

Explanation: The data set identified in
the preceding message does not have
partitioned organization. If the data set
that is not partitioned is an input or an
output data set, it cannot be processed by
the IEBCOPY program.

System Action: The next COPY control
statement is sought. (Return code - 8.)

Programmer Response: Rerun the job step.

Problem Determination: Table I, items 1,
3, 13, 25b, 29.

IEB124I INVALID LRECL

Explanation: The logical record length of
the data set defined is not valid. It may
be zero or input data set LRECL may not be
equal to output data set LRECL.

System Action: The COPY operation is
terminated. The next COPY control
statement is sought. (Return code - 8.)

Programmer Response: Rerun the job step.

Problem Determination: Table I, items 1,
3, 13, 25b, 29.

IEB125I INVALID BLOCKSIZE

Explanation: The blocksize of the data
set defined is not valid. The blocksize
may be zero or larger than the track
capacity allows, taking the key (if any)
into account, while the data set is not
track overflow.

System Action: The COPY operation is
terminated. The next COPY control
statement is sought. (Return code - 8.)

Programmer Response: Rerun the job step.

Problem Determination: Table I, items 1,
3, 13, 25b, 29.

IEB126I ddname REFERENCES AN UNMOVABLE DATA SET

Explanation: The input data set (ddname)
is flagged as unmovable. It will not be
compressed in place because it may contain
location dependent data.

System Action: The COPY operation is
terminated. The next COPY control
statement is sought. (Return code - 8.)

Programmer Response: Probable user error.
Verify that the data set in question is
flagged as unmovable (format1 DSCB).

Problem Determination: Table I, items 1,
3, 13, 25b, 29.

IEB127I RECFM INCOMPATIBLE

Explanation: The record format of the
input data set defined is imcompatible
with that of the output data set (that is,
it cannot copy from fixed record format to
variable record format or vice versa).

System Action: The COPY operation is
terminated. The next COPY control
statement is sought. (Return code - 8.)

Programmer Response: Probable user error.
Respecify the record format of either the
input or output data set and rerun the
job.

Problem Determination: Table I, items 1,
3, 13, 25b, 29.

IEB128I CANNOT REBLOCK TRACK OVERFLOW DATA SETS

Explanation: The input and/or the output
data sets have track overflow records.
Reblock/deblock will not be done.

System Action: The COPY operation is
terminated. The next COPY control
statement is sought. (Return code - 8.)

Programmer Response: Probable user error.
Respecify the block size of the output
data set so that it is equal to the block
size of the input data set. Rerun the
job.

Problem Determination: Table I, items 1,
3, 13, 25b, 29.

IEB129I CANNOT REBLOCK KEYED DATA SETS

Explanation: The input and/or the output
data sets have keyed records.
Reblock/deblock will not be done.

System Action: The COPY operation is
terminated. The next COPY control
statement is sought. (Return code - 8.)

Programmer Response: Probable user error.
Respecify the block size of the output
data set so that it is equal to the block
size of the input data set. Rerun the
job.

Problem Determination: Table I, items 1,
3, 13, 25b, 29.

IEB130I KEY LENGTHS UNEQUAL

   Explanation: The key length of the input
   and output data sets are not equal.

   System Action: The COPY operation is
   terminated. The next COPY control
   statement is sought. (Return code - 8.)

   Programmer Response: Probable user error.
   Respecify the key length of the output
   data set so that it is equal to the key
   length of the input data set. Rerun the
   job.

   Problem Determination: Table I, items 1,
   3, 13, 25b, 29.

IEB131I CANNOT COMPRESS KEYED DATA SET

   Explanation: A compress in place COPY
   operation was requested but the data set
   contains keyed records. IEBCOPY does not
   compress keyed data sets.

   System Action: The COPY operation is
   terminated. The next COPY control
   statement is sought. (Return code - 8.)

   Programmer Response: Probable user error.
   Verify that the data set in question is
   keyed (format1 DSCB).

   Problem Determination: Table I, items 1,
   3, 13, 25b, 29.

IEB132I INVALID RE/DE-BLOCKING

   Explanation: The data set previously
   defined is incompatible with the output
   data set. For example, a variable format
   record may contain an LRECL that is
   greater than the output blocksize.

   System Action: The COPY operation is
   terminated. The next COPY control
   statement is sought. (Return code - 8.)

   Programmer Response: Probable user error.
   Respecify the output block size to allow
   this member to be properly copied, and
   rerun the job.

   Problem Determination: Table I, items 1,
   3, 13, 25b, 29.

IEB133I MINIMUM REQUESTED CORE NOT AVAILABLE

   Explanation: A variable conditional
   GETMAIN was issued, and the return code
   indicates that the minimum amount of
   permanent storage requested was not
   obtainable. This error may also occur if
   blocked SYSIN/SYSPRINT is specified and
   the required access method modules use
   permanent storage such that the minimum
   requested by GETMAIN cannot be made
   available.

   System Action: The job step is
   terminated. (The return code is 8.)

   Operator Response: Run the IEBCOPY
   program in a larger region or partition.

   Programmer Response: Probable user error.
   Allocate a larger partition or region to
   the IEBCOPY program. This error may also
   occur if blocked SYSIN/SYSPRINT is
   specified and the required access method
   modules use permanent storage such that
   the minimum requested by GETMAIN cannot be
   made available. In this case, de-block
   the blocked SYSIN/SYSPRINT data set(s).
   Review the permanent storage estimate
   considerations for IEBCOPY.

   Problem Determination: Table I, items 1,
   3, 15, 29. Have permanent storage
   estimate calculations available.

IEB134I CANNOT COMPRESS WITH SELECT OR EXCLUDE

   Explanation: An input data set's DDNAME
   was specified which was identical to the
   current output data set's DDNAME, but a
   SELECT or EXCLUDE control statement was
   also specified. This is an implied
   COMPRESS, and a mixed-mode copy step is
   not allowed.

   System Action: The COPY operation is
   terminated. The next COPY control
   statement is sought. (Return code - 8.)

   Programmer Response: Probable user error
   If the COMPRESS is desired, do not follow
   the INDD statement or group which contains
   the duplicate DDNAME with a SELECT or
   EXCLUDE control statement. If the
   COMPRESS is not desired, remove the
   duplicate DDNAME from the appropriate INDD
   statement.

   Problem Determination: Table I, items 1,
   3, 13, 29.

IEB135I MINIMUM I/O BUFFER NOT ALLOCATABLE

   Explanation: There is not enough
   unallocated permanent storage available to
   contain two minimum size I/O buffers
   without overlaying required tables.

   System Action: The COPY operation is
   terminated. The next COPY control
   statement is sought. (Return code - 8.)

   Operator Response: Run the IEBCOPY
   program in a larger region or partition.

   Programmer Response: Probable user error.
   Make more storage available to IEBCOPY.
   If a relatively large number of
   membernames are specified on the current
   SELECT or EXCLUDE control statement(s), it
   may be necessary to divide them into
   smaller groups of membernames and more
   copy steps. Allocate a larger partition
   or region to the IEBCOPY program. Review
   the permanent storage estimate
   considerations for IEBCOPY.

   Problem Determination: Table I, items 1,
   3, 15, 29.
   Have permanent storage estimate
   calculations available.

IEB136I CANNOT ALLOCATE TWO TRACKS OF I/O BUFFERS
FOR COMPRESS

Explanation: There is not enough
unallocated permanent storage available to
contain twice the device-dependent block
size as specified by the results of a
DEVTYPE macro. COMPRESS operations must
have this much I/O buffer space for full
track I/O and synchronization.

System Action: The COPY operation is
terminated. The next COPY control
statement is sought. (Return code - 8.)

Operator Response: Run the IEBCOPY
program in a larger region or partition.

Programmer Response: Probable user error.
Make more permanent storage available to
IEBCOPY. If several input data set
DDNAME's are specified on the current INDD
control statement or group, remove the
DDNAME causing the COMPRESS and put it
into a separate copy operation. Also it
may be necessary to take actions similar
to those described in message IEB133I.
Review the permanent storage estimate
considerations for IEBCOPY.

Problem Determination: Table I, items 1,
3, 15, 29. Have core storage estimate
calculations available.

IEB137I CANNOT SPECIFY DUPLICATE MEMBERNAMES FOR
SELECT/EXCLUDE/RENAME - NAME=membername

Explanation: The user has specified
duplicate membernames in either his
EXCLUDE statement(s) or his SELECT
statement(s). If in the latter, the user
may have specified duplicate renamed or
un-renamed "oldnames", duplicate
"newnames", or a combination of these.
The membername specified is the one which
was duplicated.

System Action: The COPY operation is
terminated. The next COPY control
statement is sought (Return code - 8.)

Programmer Response: Probable user error.
If duplicate names must be specified, put
each duplicate in a separate copy step.
It is advisable not to specify duplicate
member names at all.

Problem Determination: Table I, items 1,
3, 15, 29.

IEB138I CANNOT PROCESS ALL OLD/NEW-NAMES SPECIFIED

Explanation: The permanent storage
required for processing the number of
oldname/newname pairs specified is not
available.

System Action: The COPY operation is
terminated. The next COPY control
statement is sought. (Return code - 8.)

Programmer Response: Probable user error.
Decrease the number of renamed members
specified within any one SELECT control
statement, and spread the SELECT control

statements over more copy steps. Review
the permanent storage estimate
considerations for IEBCOPY.

Problem Determination: Table I, items 1,
3, 15, 29. Have permanent storage
estimate calculations available.

IEB139I SYNADAF message text -
⎧DURING READ   ⎫
⎨DURING WRITE   ⎬
⎩DURING READBACK CHECK ⎭

Explanation: An I/O error has occurred,
the SYNADAF macro issued, and this message
text is generated by the SYNADAF macro.

System Action: The COPY operation is
terminated. The next COPY control
statement is sought. (Return code - 4.)

Programmer Response: Depending on the
type of error, rerun the COPY operation
with the data set in error allocated (1)
at a different physical location on the
volume, (2) on a different device, or (3)
on a different channel. If the error is
on an input data set, it may be necessary
to re-create the data set.

Problem Determination: Table I, items 1,
3, 13, 25b, 26c, 29. Table II, Format 1:
trace option - TRACE=SIO,IO,PCI.

IEB140I ddname REFERENCES A NULL INPUT DATA SET

Explanation: The ddname printed is used
to reference an "empty" input data set;
there are no membernames contained in the
directory of this data set.

System Action: The next input data set or
control statement is sought.

Programmer Response: Check the input data
set.
Problem Determination: Table I, items 1,
3, 13, 25c, 29.

IEB141I CANNOT RE/DE-BLOCK WITH NOTE-LIST/USER
TTRN IN MEMBER membername

Explanation: The directory entry for the
named member indicates the presence of a
Note List and/or User TTRN's. However,
the user's data set specifications
indicate the requirement to re/deblock
members as they are copied. These two
facts are incompatible in IEBCOPY.

System Action: The COPY operation is
terminated. The next COPY control
statement is sought. (Return code - 8.)

Programmer Response: Probable user error.
If this member is to be copied, it cannot
be re/deblocked. Either respecify those
factors which cause re/deblocking (i.e.,
BLKSIZE, RECFM, and LRECL parameters of
the appropriate DCB's referenced in JCL),
or rebuild the directory entry and alter
the member data as needed to eliminate the
Note-List/User TTRN indicators.
Problem Determination: Table I, items 1,
3, 13, 25b, 29.

IEB1421 CANNOT CONTINUE TO BUILD CTLTAB

    Explanation: IEBCOPY requires more
storage to build required control table to
process the current input data set.

    System Action: The COPY operation is
terminated. The next COPY control
statement is sought. (Return code - 8.)

    Operator Response: Rerun IEBCOPY in a
larger partition.

    Programmer Response: Probable user error.
More storage is required to contain the
control table; allocate a larger partition
to IEBCOPY. If a larger partition is not
available, it will be necessary to use
SELECT control statements for the members
to be copied, and to assure that there are
at least two of these control statements,
each having approximately the same number
of membernames specified, and each in a
separate copy step. Review the permanent
storage estimate considerations for
IEBCOPY.

    Problem Determination: Table I, items 1,
3, 15, 29. Have permanent storage
estimate calculations available.

IEB1431 ALL SELECTED MEMBERS COPIED - DID NOT USE
ALL SPECIFIED INDD'S

    Explanation: All specified (selected)
members have been successfully copied, and
the directory entries referencing these
members are properly set up. It was not
necessary to use all specified input data
sets in order to "find" and process all
selected members.

    System Action: The next control statement
is sought.

    Programmer Response: Check if all INDDs
should be used.

    Problem Determination: Table I, items 1,
3, 13, 25c, 29.

IEB1441 THERE ARE xxx UNUSED TRACKS IN OUTPUT DATA
SET REFERENCED BY ddname

    Explanation: This message is issued upon
completion of copying all required members
to the output data set whose ddname is
printed. The message is given following
the completion of the COPY operation. If
an error has occurred, the number of
tracks given in this message may be
incorrect.

    System Action: The next control statement
is sought.

    Programmer Response: None.

IEB1451 CANNOT COMPRESS TRACK OVERFLOW DATA SET

    Explanation: IEBCOPY does not allow a
compress-in-place operation to be done if
the Track Overflow bit has been set in the
DCB that references the "output" data set.

    System Action: The COPY operation is
terminated. The next COPY control
statement is sought. (Return code - 8.)

    Programmer Response: Probable user error.
Verify that the data set in question is
not flagged (format1 DSCB) as a track
overflow data set.

    Problem Determination: Table I, items 1,
3, 13, 25b, 29.

IEB1461 CANNOT COMPRESS WITH RE/DE-BLOCKING

    Explanation: IEBCOPY does not allow a
compress-in-place operation to be done if
the user has not specified the same data
set characteristics in both the input and
output DD statements that reference the
data set to be compressed.

    System Action: The COPY operation is
terminated. The next COPY control
statement is sought (Return code - 8.)

    Programmer Response: Probable user error.
Specify the same data set characteristics
(i.e., BLKSIZE, RECFM, LRECL) for both the
input and output DD statements to be used
while compressing. This is best done by
referencing the same ddname in the
relevant INDD and OUTDD control
statements.

    Problem Determination: Table I, items 1,
3, 13, 25b, 29.

IEB1471 END OF JOB - $\begin{Bmatrix}0\\4\\8\end{Bmatrix}$WAS HIGHEST SEVERITY
CODE

    Explanation: This message, which is
issued at the completion of the IEBCOPY
job step, indicates the highest return
code generated during the execution of the
program.

    System Action: None.

    Programmer Response: Check if a 0 return
code was generated.

IEB1481 NO SPACE IN OUTPUT DIRECTORY FOR DIRECTORY
ENTRIES FROM INPUT DATA SET ddname

    Explanation: While building an updated
output directory (to reflect members
copied from the input data set referenced
by "ddname" in the above message), the
utility program has determined that the
amount of directory space allocated to the
output data set is insufficient.

    System Action: If message number IEB1681
does not immediately follow this message,
the output data set directory (a) reflects
those members copied as of the immediately
preceding input data set, if any, or (b)
is left as it originally was if this input
data set is the first one from which
members were to have been copied. If the
message IEB1681 does follow, the output
directory is truncated. The next COPY
control statement is sought. (Return code
- 8.)

Programmer Response: Probable user error.
Execute IEHLIST to determine just which
members are usable and referenced by the
truncated output directory.

Problem Determination: Table I, items 1,
3, 13, 25b, 29. Execute IEHLIST to list
the directory (LISTPDS) of all input data
sets in the associated COPY operation;
have the directory listing available.
Execute IEHDASDR to dump the directory of
the associated output data set, and save
the output.

IEB149I THERE ARE xxx UNUSED DIRECTORY BLOCKS IN
OUTPUT DIRECTORY

Explanation: This message is issued upon
completion of copying all required members
to the output data set, at the end of the
current COPY operation. If an error has
occurred, the number of blocks given in
this message may be incorrect.

System Action: The next control statement
is sought.

Programmer Response: None.

IEB150I ++WARNING++ THE OUTPUT DS REF. BY
xxxxxxxx CONTAINS TOO MANY DIRECTORY
BLOCKS PER TRACK

| Explanation: While writing the output
directory, IEBCOPY found the number of
directory blocks per track allocated to
the output data set to be greater than the
track capacity.

System Action: Processing of the job step
is continued and the directory blocks are
updated without the number of directory
| blocks per track being changed. (Return
code is 4.)

Programmer Response: Make sure that your
disk pack has the legitimate number of
blocks per track (for instance, 17 (X'11')
on a 2316 disk pack). The number of
directory blocks per track can be checked
in the format4 DSCB of the volume in
question at offset 75 (X'4B') on a 2316
disk pack. If your disk pack would have
18 blocks per track instead of 17, in the
case of a 2316 disk pack, I/O errors might
occur when using the last directory block
on each track. Therefore, copy all
partitioned data sets from this disk pack
to a pack that shows the correct number of
directory blocks per track (see the
format4 DSCB).

IEB151I JOB HAS TERMINATED WITH ERRORS

Explanation: This message is issued as
the result of a previous error (as
indicated by one or more preceding error
messages). Further processing may be
terminated.

System Action: Depending on the error(s),
either the next COPY operation is
processed or the job step is terminated.

Programmer Response: Correct the error(s)
indicated by preceding error message(s)
and resubmit that portion of the job that
was not successfully completed.

Problem Determination: Table I, items 1,
3, 13, 29. Table II, Format 1: trace
option - TRACE=SIO,IO,PCI.

IEB152I membername COMPRESSED-WAS ALREADY IN PLACE
AND NOT MOVED

Explanation: The member named in this
message did not need to be physically
moved during the compress-in-place
operation.

System Action: None.

Programmer Response: None.

IEB153I ALL MEMBERS COMPRESSED-ALL WERE ORIGINALLY
COMPRESSED

Explanation: The data set which was to
have been compressed in place was not in
need of being compressed, since there were
no embedded "gaps" between any of the
members of the data set. No members from
this data set were physically moved.

System Action: None.

Programmer Response: None.

IEB154I membername HAS BEEN SUCCESSFULLY COPIED

Explanation: The member named in this
message has been successfully copied from
the input data set to the output data set.
In a compress-in-place operation, this
message may be issued for a specific
member even though the member was not
actually moved, and message IEB152I was
issued. If the job step completes
successfully, this copied member can be
accessed and used.

System Action: None.

Programmer Response: None.

IEB155I membername HAS BEEN SUCCESSFULLY COPIED
AND IS A 'NEWNAME'

Explanation: The member named in this
message is a renamed member which has been
successfully copied from the input data
set to the output data set. The "oldname"
of this member can be determined by
checking the IEBCOPY control statement(s)
printed at the beginning of the copy step
in which this message occurred. If the
job step completes successfully, this
copied member can be accessed (using the
new membername specified), and used.

System Action: None.

Programmer Response: None.

IEB156I NOT A DIRECT ACCESS DATA SET

    Explanation: The data set defined in the previous message is not on a direct access device. IEBCOPY will not copy non-direct access data sets.

    System Action: The COPY operation is terminated. The next COPY control statement is sought. (Return code - 8.)

    Programmer Response: Probable user error. Correct the error and resubmit the job.

    Problem Determination: Table I, items 1, 3, 13, 29.

IEB157I DD STATEMENT NOT FOUND

    Explanation: The DD statement for the data set defined in the previous message could not be found.

    System Action: The COPY operation is terminated. The next COPY control statement is sought. (Return code - 8.)

    Programmer Response: Probable user error. Insert a DD statement for the data set and resubmit the job.

    Problem Determination: Table I, items 1, 3, 13, 29.

IEB158I PARM EQUAL COMPRESS NOT VALID.

    Explanation: PARM=COMPRESS was specified on the EXEC statement but the user has specified new version IEBCOPY statements which do not use PARM=COMPRESS to designate compress mode.

    System Action: Processing continues, but the compress-in-place is not done unless ddnames referenced in subsequent COPY operations cause it. (Return code is 4.)

    Programmer Response: None.

IEB159I NO MEMBERS COPIED FROM INPUT DATA SET REFERENCED BY ddname

    Explanation: The input data set whose ddname appears in this message was not used for one of the following reasons:
    • A selective copy was specified but none of the members to be copied were on this data set.
    • All of the members which were to have been copied from this input data set had names which were duplicates of membernames on the output data set, and the Replace option was not specified.
    • An I/O error (indicated by a previous message) has precluded use of members from this input data set.

    System Action: Normally, the next input data set will be processed. If an I/O error has occurred, the action indicated by the previous I/O error message(s) will be taken.

    Programmer Response: None if this condition was desired; otherwise, take appropriate action, depending upon the condition indicated in the above explanation.

    Problem Determination: Table I, items 1, 3, 13, 25c, 29.

IEB160I CONCATENATED DATA SETS

    Explanation: The DD name given in the previous message is the first in a group of concatenated data sets. IEBCOPY does not process concatenated data sets.

    System Action: The COPY operation is terminated. The next COPY control statement is sought. (Return code - 8.)

    Programmer Response: Probable user error. If more than one input data set is to be used in the copy step, a separate DD card is required for each. The ddnames must also be specified within the INDD= keyword on a COPY or INDD utility control card.

    Problem Determination: Table I, items 1, 3, 13, 29.

IEB161I COMPRESS TO BE DONE USING INDD NAMED ddname

    Explanation: A request for compress-in-place operation has been detected. The input and output data sets are the same data set.

    System Action: A compress-in-place operation is attempted.

    Programmer Response: None.

IEB162I INPUT DATA SET FROM INDD NAMED ddname NOT SAME AS OUTDD-CANNOT COMPRESS

    Explanation: PARM=COMPRESS is specified but the input and output data sets are not the same data set.

    System Action: PARM=COMPRESS is ignored. (Return code is 4.)

    Programmer Response: Probable user error. If a COMPRESS is wanted, correct DD cards or IEBCOPY control cards and rerun.

    Problem Determination: Table I, items 1, 3, 13, 29.

IEB163I NO MEMBER NAMES FOR PARTIAL COPY, WILL NOT COPY

    Explanation: The old version of IEBCOPY statement specified TYPCOPY=I but was not followed by any MEMBER=statements.

    System Action: The job step is terminated. (The return code is 8.)

    Programmer Response: Probable user error. Correct the error and rerun the job.

    Problem Determination: Table I, items 1, 3, 15, 29.

IEB164I TOTAL COPY ASSUMED

    Explanation: The old version of IEBCOPY statement specified TYPCOPY=E but was not followed by any MEMBER=statements.

    System Action: A full copy is done. (The return code is 4.)

    Programmer Response: Probable user error. Correct the error and rerun the job.

    Problem Determination: Table I, items 1, 3, 15, 29.

IEB165I membername 'FOUND' BUT NOT COPIED, DUE TO I/O ERROR READING INPUT DIRECTORY

    Explanation: A selective copy operation was being attempted, and the member named in this message had been encountered on the current input data set prior to the occurrence of the described I/O error.

    System Action: None.

    Programmer Response: None.

    Problem Determinaiton: Table II, Format 1: trace option - TRACE=SIO,IO,PCI.

IEB166I NO MEMBERS COPIED TO DATA SET REFERENCED BY ddname

    Explanation: Due to a validation error described in a previous message, no copying was done to the output data set referenced by the specified ddname.

    System Action: The COPY operation is terminated. The next COPY control statement is sought. (Return code - 8.)

    Programmer Response: None.

    Problem Determination: Table II, Format 1: trace option - TRACE=SIO,IO,PCI.

IEB167I FOLLOWING MEMBER(S) COPIED FROM INPUT DATA SET REFERENCED BY ddname

    Explanation: The ddname given in this message references the input data set from which member(s) whose names will be listed were copied. This message assists the user TRACE which data sets were used and how they were used.

    System Action: None.

    Programmer Response: None.

IEB168I **WARNING** DUE TO ERROR, POSSIBLE LOSS OF ACCESS TO MEMBER DATA AND/OR INCOMPLETE DIRECTORY

    Explanation: If preceded by message IEB148I, the output directory has been truncated. Otherwise the output directory may be incomplete.

    System Action: The COPY operation is terminated. The next COPY control statement is sought. (Return code 12.)

    Programmer Response: Depending on the type of error, rerun the COPY operation with the data set in error allocated (1) at a different physical location on the volume, (2) on a different device, (3) on a different channel. If the error is on an input data set, it may be necessary to re-create the data set. Another utility (such as IEHLIST) should be used to determine the final status of the output directory.

    Problem Determination: Table I, items 1, 3, 13, 25c, 29.

IEB169I **WARNING** DUE TO I/O ERROR ON SYSUT4, OUTPUT DIRECTORY MAY BE INCOMPLETE

    Explanation: Due to an I/O error on SYSUT4, the output directory may not be complete.

    System Action: The COPY operation is terminated. The next COPY control statement is sought. (Return code - 12.)

    Programmer Response: Depending on the type of error, rerun the COPY operation with the data set in error allocated (1) at a different physical location on the volume, (2) on a different device, (3) on a different channel. The output data sets directory should be investigated to see if all information is valid (possibly via use of IEHLIST.)

    Problem Determination: Table I, items 1, 3, 13, 25c, 29. Table II, Format 1: trace option - TRACE=SIO,IO,PCI.

IEB170I **WARNING** DUE TO SYSUT3 I/O ERROR, COMPRESS-IN-PLACE NOT DONE AND COPY OPERATION TERMINATED

    Explanation: An I/O error has occurred while using the "spill" data set. None of the members were physically moved, so the data set remains as it was prior to processing.

    System Action: The COPY operation is terminated. The next COPY control statement is sought. (Return code - 8.)

    Programmer Response: Depending on the type of error, rerun the COPY operation with the data set in error allocated (1) at a different physical location on the volume, (2) on a different device, (3) on a different channel.

    Problem Determination: Table I, items 1, 3, 13, 29. Table II, Format 1: trace option - TRACE=SIO,IO,PCI.

IEB171I ** WARNING ** DIRECTORY MAY NOT REFLECT VALID LOCATION OF MEMBER DATA

    Explanation: An I/O error during a compress-in-place operation may have affected the validity of the data set directory.

System Action: The COPY operation is
terminated. The next COPY control
statement is sought. (Return code - 8.)

Programmmer Response: The data set in
question should be re-created or dumped
and checked for valid information.
(Possibly via IEHLIST and/or IEHDASDR.)

Problem Determination: Table I, items 1,
3, 13, 25c, 29. Table II, Format 1:
trace option - TRACE=SIO,IO,PCI.

IEB172I ddname COULD NOT BE OPENED

Explanation: The specified data set could
not be opened. This is normally the
SYSPRINT data set. The SYSPRINT DD
statement may not have been included in
the JOB stream.

System Action: This data set cannot be
used. I/O error messages and an
end-of-job message are issued to the
console typewriter via alternate methods.
The error is ignored. (Return code is 4.)

Programmer Response: Probable user error.
It is necessary to use another utility
(such as IEHLIST) to verify the ending
status of all COPY operations performed.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB173I ddname - INVALID BLOCKSIZE

Explanation: An invalid blocksize
associated with the specified data set was
detected. This is probably the SYSPRINT
data set. Invalid DCB information, such
as block size, may have been specified in
the SYSPRINT DD statement.

System Action: This data set is not used.
I/O error messages and an end-of-job
message are issued to the console
typewriter via alternate methods. The
error is ignored. (Return code - 4.)

Programmer Response: Probable user error.
It is necessary to use another utility
(such as IEHLIST) to verify the ending
status of all COPY operations performed.
Problem Determination: Table I, items 1,
3, 13, 29.

IEB174I ** WARNING ** INPUT RECORD IS A SHORT
LENGTH RECORD - DDNAME = inddname - OUTPUT
TTRN = tt tt rr nn

Explanation: An unexpected short length
record (shorter than BLKSIZE) has been
found on the input data set described by
inddname. It was copied to the output
data set (at tt tt rr nn) exactly as it
was read from the input data set.

System Action: The error is ignored.
(Return code - 4.)

Programmer Response: Probable user error.
If the error cannot be ignored by the
user, the input data set must be
re-created.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB175I ** WARNING ** INPUT RECORD IS GREATER THAN
OUTPUT BLKSIZE-DDNAME = inddname - OUTPUT
TTRN = tt tt rr nn

Explanation: An input record, on the
input data set inddname, whose length is
greater than the output block size has
been processed. The record was copied to
the output data set at tt tt rr nn exactly
as it was on input (no truncation).

System Action: The error is ignored.
(Return code - 4.)

Programmer Response: Probable user error.
If necessary, rerun the COPY operation
again, specifying a larger block size, via
JCL on the output data set.

Problem Determination: Table I, items 1,
3, 13, 25b, 29.

IEB176I MEMBER membername IN DATASET REFERENCED BY
ddname HAS MORE THAN ONE NOTELIST POINTER

Explanation: The directory entry for the
referenced member has more than one note
list (user TTRN with N having a value
greater than zero). This is an invalid
directory entry and the member cannot be
correctly processed.

System Action: The COPY operation is
terminated. The next COPY operation is
sought. (The return code is 8.)

Programmer Response: Probable user error.
Re-create the member in error.

Problem Determination: Table I, items 1,
3, 13, 25c, 29.

IEB177I membername WAS SELECTED BUT NOT FOUND IN
ANY INPUT DATA SET

Explanation: The member named in this
message was specified on a SELECT
statement for the previous copy operation
but it does not exist on any of the
specified input data sets.

System Action: The error is ignored.
(Return code - 4.)

Programmer Response: Check to see where
the member is.

Problem Determination: Table I, items 1,
3, 13, 25c, 29.

IEB188I MEMBER membername IN DATA SET 'REFERENCED'
BY ddname HAS RECORDS GREATER THAN BLKSIZE

Explanation: The input data set's records
were found to be greater than the block
size.

System Action: The COPY operation is
terminated. The next COPY operation is
sought. (The return code is 4.)

Programmer Response: Probable user error.
Re-create the member in error.

Problem Determination: Table I, items 1,
3, 13, 29.

IEBCOMPR Program Messages

IEB201I INVALID CONTROL STATEMENT

Explanation: The syntax of the control
statement preceding this message is
invalid.

System Action: The program is terminated.
(The return code is 12.)

Programmer Response: Probable user error.
Correct the syntax of the preceding
statement and rerun the job.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB202I INVALID DIRECTORY BLOCK SIZE

Explanation: The length of the
partitioned data set directory entry is
less than 14 or greater than 256 bytes.

System Action: The job step is
terminated. (The return code is 12.)

Programmer Response: None.

Problem Determination: Table I, items 1,
3, 13, 26a, 29.

IEB203I ALIAS/TRUE NAME FAILURE

Explanation: The same name was found for
a true name and an alias name for SYSUT1
and SYSUT2 data sets.

System Action: The name found is printed.
Processing continues. (The return code is
8.)

Programmer Response: None.

IEB205I USER DATA FIELDS UNEQUAL

Explanation: The user data fields or TTRs
of the SYSUT1 and SYSUT2 data sets are not
the same.

System Action: The fields are listed and
processing continues. (Return code - 8.)

Programmer Response: None.

IEB210I TRUE NAMES MISSING FROM BOTH SETS

Explanation: All the names in one
directory do not have counterpart names in
the other directory.

System Action: The program is terminated.
(The return code is 12.)

Programmer Response: Make sure that at
least one partitioned data set has true

names associated with every member in the
partitioned data set, and rerun the job.

Problem Determination: Table I, items 1,
3, 13, 26a, 29.

IEB211I KEY LENGTHS ARE NOT EQUAL.

Explanation: The key lengths of the
SYSUT1 and SYSUT2 data sets are not the
same.

System Action: The program is terminated.
(Return code - 12.)

Programmer Response: Probable user error.
Make sure that both input data sets
contain keys with the same length, and
rerun the job.

Problem Determination: Table I, items 1,
3, 13, 29. Have the input data sets
available.

IEB212I INVALID DCB PARAMETER

Explanation: The record formats are not
standard or the BLKSIZE/LRECL is omitted
from either the input or output DD
statement.

System Action: The program is terminated.
(The return code is 12.)

Programmer Response: Make sure that a
valid RECFM was specified in the DCB, and
that the BLKSIZE/LRECL parameter was
included in the input or output DD
statement. If the data set resides on an
unlabeled tape, make sure that a valid
RECFM was included in the DCB parameter in
the DD statement. After making
corrections, execute the job step again.

Problem Determination: Table I, items 1,
3, 13, 25a, 29.

IEB213I REPETITIOUS CARD INVALID

Explanation: A second COMPARE or LABELS
statement has been encountered.

System Action: The job is terminated at
the end of the control statement scan.
(The return code is 12.)

Programmer Response: Probable user error.
Remove the extra command statement and
rerun the job step.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB214I FIXED RECORD LENGTHS UNEQUAL

Explanation: The record lengths of the
SYSUT1 and SYSUT2 data sets are not the
same.

System Action: The program is terminated.
(The return code is 12.)

Programmer Response: Probable user error.
Make sure that the logical records in both
data sets are of the same length, and that

the LRECL parameter in both DCBs are
correctly specified; rerun the job.

Problem Determination: Table I, items 1,
3, 13, 25a, 29.

IEB215I RECORD FORMATS DIFFERENT

Explanation: The record characteristics
of the SYSUT1 and SYSUT2 data sets are not
the same.

System Action: The program is terminated.
(The return code is 12.)

Programmer Response: Probable user error.
Make sure that the record characteristics
of the two data sets are compatible.

Problem Determination: Table I, items 1,
3, 13, 25a, 29.

IEB216I ILLEGAL CONTROL CARD SEQUENCE

Explanation: The COMPARE statement was
not the first utility control statement,
or two COMPARE statements were
encountered.

System Action: The program is terminated
at the end of the control statement scan.
(The return code is 12.)

Programmer Response: Probable user error.
Make sure that there is only one COMPARE
statement in the input stream, and rerun
the job.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB217I INVALID LRECL FOR V/VS RECORD

Explanation: The ll field of a V/VS
record is less than 5 or greater than
32,756.

System Action: The job step is
terminated. (The return code is 12.)

Programmer Response: Make sure that the
input data sets are valid and rerun the
job.

Problem Determination: Table I, items 1,
3, 13, 29. Have the input data sets
available.

IEB218I PERMANENT INPUT ERROR - FIND MACRO

Explanation: A permanent input error was
found by the FIND macro instruction during
a partitioned data set directory search.

System Action: The job step is
terminated. (The return code is 12.)

Programmer Response: None.

Problem Determination: Table I, items 1,
3, 13, 25c, 29. Table II, Format 1:
trace option - TRACE=SIO,IO.

IEB219I INVALID BLKSIZE FOR V/VS RECORD

Explanation: The LL field of a V/VS is
less than 9 or greater than 32,760.

System Action: The job step is
terminated. (The return code is 12.)

Programmer Response: Make sure that the
input data sets are valid, and rerun the
job.

Problem Determination: Table I, items 1,
3, 13, 29. Have the input data sets
available.

IEB221I RECORDS ARE NOT EQUAL

Explanation: Two corresponding records do
not contain the same data, or the second
part of the record descriptor word is not
equal (00).

System Action: The records are printed,
and processing continues. (The return
code is 8.)

Programmer Response: None.

IEB222I KEYS ARE NOT EQUAL

Explanation: Two corresponding keys do
not contain the same data.

System Action: The records are printed,
and processing continues. (The return
code is 8.)

Programmer Response: None.

IEB223I EXTRA RECORD ON SYSUT2

Explanation: The SYSUT2 data set contains
more records than the SYSUT1 data set.

System Action: The records are printed,
and processing continues. (The return
code is 8.)

Programmer Response: None.

IEB224I EXTRA RECORD ON SYSUT1

Explanation: The SYSUT1 data set contains
more records than the SYSUT2 data set.

System Action: The records are printed,
and processing continues. (The return
code is 8.)
Programmer Response: None.

IEB225I JOB TERMINATED AFTER EXIT

Explanation: The return code from an exit
routine indicated that the job should be
terminated.

System Action: The job is terminated.
(The return code is 12 or 16, as
determined by exit routine.)

Programmer Response: None.

Problem Determination: Table II, Format
1: trace option - TRACE=SIO,IO.

IEB226I WARNING - INVALID NAME

    Explanation: The statement label either
is longer than eight characters, or
contains an invalid character.

    System Action: Processing continues
normally.

    Programmer Response: Probable user error.
Correct the statement label, and rerun the
job.

    Problem Determination: Table I, items 1,
3, 13, 29.

IEB227I TEN CONSECUTIVE ERRORS

    Explanation: Ten successive unequal
comparisons have occurred, and an error
routine was not specified.

    System Action: If the input data sets are
sequential the program is terminated.
(Return code - 12.)

    If the input data sets are partitioned,
processing continues with the next member.
If the current member is the last member,
the program is terminated. (Return code -
8.)

    Programmer Response: None.

IEB229I DDNAME ddn CANNOT BE OPENED

    Explanation: The named DD statement ddn
does not exist.

    System Action: The program is terminated.
(The return code is 12.)

    Programmer Response: Either correct the
ddname if it is misspelled in the DD
statement or the ddlist, or insert a new
DD statement with the correct name.

    Problem Determination: Table I, items 1,
3, 13, 29.

IEB230I SYSIN BLOCKSIZE ERROR

    Explanation: The SYSIN DD statement
specifies a block size that is not a
multiple of the specified logical record
length.

    System Action: The program is terminated.
(The return code is 12.)

    Programmer Response: Make sure that the
block size is a multiple of the specified
logical record length, and rerun the job.

    Problem Determination: Table I, items 1,
3, 13, 29.

IEB231I EXTRA USER INPUT HEADER LABELS ON SYSUT1

    Explanation: The SYSUT1 data set contains
more user input header labels than the
SYSUT2 data set.

    System Action: The extra labels are
printed, and processing continues. (The
return code is 8.)

    Programmer Response: None.

IEB232I EXTRA USER INPUT HEADER LABELS ON SYSUT2

    Explanation: The SYSUT2 data set contains
more user input header labels than the
SYSUT1 data set.

    System Action: The extra labels are
printed, and processing continues. (The
return code is 8.)

    Programmer Response: None.

IEB233I EXTRA USER INPUT TRAILER LABELS ON SYSUT1

    Explanation: The SYSUT1 data set contains
more user input trailer labels than the
SYSUT2 data set.

    System Action: The extra labels are
printed, and processing continues. (The
return code is 8.)

    Programmer Response: None.

IEB234I EXTRA USER INPUT TRAILER LABELS ON SYSUT2

    Explanation: The SYSUT2 data set contains
more user input trailer labels than the
SYSUT1 data set.

    System Action: The extra labels are
printed, and processing continues. (The
return code is 8.)

    Programmer Response: None.

IEB235I SYSUT1 CONTAINS NO USER INPUT HEADER
LABELS

    Explanation: The programmer requested the
INHDR exit and/or label comparison, but
there was no input header label on the
SYSUT1 data set.

    System Action: Message IEB232I is also
issued.

    Programmer Response: None.

IEB236I SYSUT2 CONTAINS NO USER INPUT HEADER
LABELS

    Explanation: The programmer requested the
INHDR exit and/or label comparison, but
there was no input header label on the
SYSUT2 data set.

    System Action: Message IEB231I is also
issued.

    Programmer Response: None.

IEB237I BOTH INPUT DATA SETS CONTAIN NO USER
HEADER LABELS

    Explanation: The programmer requested the
INHDR exit and/or label comparison, but
there were input header labels on neither
the SYSUT1 nor the SYSUT2 data sets.

System Action: Processing continues.
(The return code is 8.)

Programmer Response: None.

IEB238I SYSUT1 CONTAINS NO USER INPUT TRAILER
LABELS

Explanation: The programmer requested the
INTLR exit and/or label comparison, but
there was no input trailer label on the
SYSUT1 data set.

System Action: Message IEB234I is also
issued.

Programmer Response: None.

IEB239I SYSUT2 CONTAINS NO USER INPUT TRAILER
LABELS

Explanation: The programmer requested the
INTLR exit and/or label comparison, but
there was no input trailer label on the
SYSUT2 data set.

System Action: Message IEB233I is also
issued.

Programmer Response: None.

IEB240I BOTH INPUT DATA SETS CONTAIN NO USER
TRAILER LABELS

Explanation: The programmer requested the
INTLR exit and/or label comparison, but
there were input trailer labels on neither
the SYSUT1 nor the SYSUT2 data sets.

System Action: Processing continues.
(The return code is 8.)

Programmer Response: None.

IEB241I INPUT HEADER LABELS ARE NOT EQUAL

Explanation: Corresponding input header
labels are not the same.

System Action: The SYSUT1 label is listed
first, followed by the SYSUT2 label.
Processing continues. (Return code - 8.)

Programmer Response: None.

IEB242I INPUT TRAILER LABELS ARE NOT EQUAL

Explanation: Corresponding input trailer
labels are not the same.

System Action: The SYSUT1 label is listed
first, followed by the SYSUT2 label.
Processing continues. (Return code - 8.)

Programmer Response: None.

IEB243I ERROR WHILE READING USER INPUT HEADER
LABEL ON SYSUT1

Explanation: An uncorrectable
input/output error occurred while reading
user input header labels on the SYSUT1
data set.

System Action: The program is terminated.
(The return code is 12.)

Programmer Response: None.

Problem Determination: Table I, items 1,
3, 13, 29. Table II, Format 1: trace
option - TRACE=SIO,IO. Have the
associated data set available.

IEB244I I/O ERROR WHILE READING USER INPUT HEADER
LABEL ON SYSUT2

Explanation: An uncorrectable
input/output error occurred while reading
user input header label on the SYSUT2 data
set.

System Action: The program is terminated.
(The return code is 12.)

Programmer Response: None.

Problem Determination: Table I, items 1,
3, 13, 29. Table II, Format 1: trace
option - TRACE=SIO,IO. Have the
associated data set available.

IEB245I I/O ERROR WHILE READING USER INPUT TRAILER
LABEL ON SYSUT1

Explanation: An uncorrectable
input/output error occurred while reading
user input trailer label on the SYSUT1
data set.

System Action: The program is terminated.
(The return code is 12.)

Programmer Response: None.

Problem Determination: Table I, items 1,
3, 13, 29. Table II, Format 1: trace
option - TRACE=SIO,IO. Have the
associated data set available.

IEB246I I/O ERROR WHILE READING USER INPUT TRAILER
LABEL ON SYSUT2

Explanation: An uncorrectable
input/output error occurred while reading
user input trailer label on the SYSUT2
data set.

System Action: The program is terminated.
(The return code is 12.)

Programmer Response: None.

Problem Determination: Table I, items 1,
3, 13, 29. Table II, Format 1: trace
option - TRACE=SIO,IO.

IEB247I x INPUT {HEADER } LABELS FROM BOTH DATA
            {TRAILER}
SETS ARE COMPARED

Explanation: At the programmer's request,
x number of user input header or trailer
labels were compared.

System Action: If the return code from
the user exit routine is 16, message
IEB225I is also issued. Otherwise,
processing continues normally.

Programmer Response: None.

IEB248I x EXITS TO rtne IS MADE FOR {SYSUT1}
                                       {SYSUT2}
RETURN CODE FROM USER ROUTINE IS d

Explanation: User label processing
routine rtne has been entered x times for
the SYSUT1 or SYSUT2 data set, as
indicated in the message text. The
routine returned a return code of d,
indicating that no more labels will be
processed.

System Action: If the return code from
the user routine is 16, message IEB225I is
also issued. Otherwise, processing
continues normally.

Programmer Response: None.

IEB249I NO RECORDS ARE COMPARED, DATA=ONLY

Explanation: The programmer specified
DATA=ONLY; hence, only user header labels
are processed.

System Action: The program is terminated.
(The return code is 0.)

Programmer Response: None.

IEB250I USER LABEL IS NOT SUPPORTED BY PARTITIONED
DATA SET

Explanation: The programmer requested the
INHDR or INTLR exit, but user labels are
invalid for partitioned data sets.

System Action: The program is terminated.
(The return code is 12.)

Programmer Response: Specify the keyword
parameter TYPORG=PS in the COMPARE
statement if the data sets are indeed
physical sequential, and rerun the job.

Problem Determination: Table I, items 1,
3, 13, 25a, 29. Have the associated data
sets available.

IEB251I INCOMPATIBLE MAXIMUM LOGICAL RECORD LENGTH

Explanation: One of the input data sets
contains logical records greater than 32K
bytes; the other one does not.

System Action: The program is terminated.
(The return code is 12.)

Programmer Response: Make sure that both
data sets contain records of compatible
logical record length, and rerun the job.

Problem Determination: Table I, items 1,
3, 13, 25a, 29. Have the associated data
sets available.

IEB252I KEYED DATA SETS. ONE CONTAINS SPANNED
RECORD, THE OTHER ONE DOES NOT

Explanation: Both input data sets contain
keyed records. One data set has variable
spanned records; the other one does not.

System Action: The program is terminated.
(The return code is 12.)

Programmer Response: Make sure that the
input data sets are of compatible
characteristics; rerun the job.

Problem Determination: Table I, items 1,
3, 13, 25c, 29. Have the associated data
sets available.

IEB253I RECORDS ARE COMPARED AT PHYSICAL BLOCK
LEVEL

Explanation: Since both data sets contain
keyed spanned records or logical records
greater than 32K bytes, the comparison is
made at the block level.

System Action: Processing continues
normally.

Programmer Response: None.

IEB254I CORRESPONDING BLOCK LENGTHS ARE NOT EQUAL

Explanation: Corresponding block lengths
are not the same.

System Action: The blocks are printed,
and processing continues. (Return code –
8.)

Programmer Response: None.

IEB255I CORRESPONDING RECORD LENGTHS ARE NOT EQUAL

Explanation: Corresponding lengths of
variable or variable spanned records are
not the same.

System Action: The records are printed,
and processing continues. (Return code –
8.)

Programmer Response: None.

IEB256I IEBCOMPR DOES NOT COMPARE PARTITIONED DATA
SETS WITH VS RECFM

Explanation: The programmer requested
that partitioned data sets containing
variable spanned (VS) records be compared.
IEBCOMPR does not support this function.

System Action: The program is terminated.
(Return code – 12.)

Programmer Response: Specify TYPORG=PS in
the COMPARE statement if the input data
sets are indeed physical sequential; rerun
the job.

Problem Determination: Table I, items 1,
3, 13, 25c, 29. Have the associated data
sets available.

IEB257I JOB TERMINATED AFTER EXIT FOR USER VOLUME
SWITCH LABEL PROCESS

Explanation: The programmer requested
that processing be terminated after the
volume switch input header/trailer labels
were examined in the labels exit routine.

IEB

System Action: The program is terminated.
(Return code - 16.)

Programmer Response: None.

IEB258I USER LABELS NOT COMPARED, UNABLE TO TAKE
EXIT FOR ONE DATA SET

Explanation: The programmer wishes to
process the input header/trailer labels as
data, but the utility program is unable to
take the input header/trailer label exit
for one of the data sets. Probably, the
SUL subparameter is missing from the
SYSUT1 or SYSUT2 DD statement.

System Action: The program is terminated.
(Return code - 12.)

Programmer Response: Make sure that both
the SYSUT1 and SYSUT2 DD statements
specify SUL in the LABEL parameter; rerun
the job.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB259I INVALID KEYWORD IN OR BEFORE COLUMN dd

Explanation: In the statement preceding
this message, a keyword beginning in or
before column dd is either incorrect or
not applicable to the command for which it
is specified.

System Action: The job is terminated at
the end of the control statement scan.
(Return code - 12.)

Programmer Response: Probable user error.
Correct the invalid keyword on the
preceding statement, and rerun the job.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB260I MISSING COMMAND IN OR BEFORE COLUMN dd

Explanation: In the statement preceding
this message, a command that should appear
in or before column dd is omitted.
Possibly, the previous statement indicated
a continuation, but the continuation
indicator was not recognized and the scan
routine looked for a command on the
preceding statement.

System Action: The program is terminated
at the end of the control statement scan.
(Return code - 12.)

Programmer Response: Probable user error.
Include the required command on the
preceding statement, or correct the
previous statement that caused the error.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB261I INVALID PARAMETER IN OR BEFORE COLUMN dd

Explanation: In the statement preceding
this message, a keyword beginning in or
before column dd is incorrect:

- The parameter is longer than eight
  characters.
- The parameter is invalid for the
  preceding keyword.
- The parameter is not immediately
  preceded by an equal sign.
- The parameter is misspelled.

System Action: The program is terminated
at the end of the control statement scan.
(Return code - 12.)

Programmer Response: Probable user error.
Correct the invalid parameter on the
preceding statement.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB262I MISSING KEYWORD IN OR BEFORE COLUMN dd

Explanation: In the statement preceding
this message, a required keyword that
should appear in or before column dd is
omitted, or a blank immediately preceded
an equal sign.

System Action: The program is terminated
at the end of the control statement scan.
(Return code - 12.)

Programmer Response: Probable user error.
Correct or include the required keyword on
the preceding statement.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB263I MISSING PARAMETER IN OR BEFORE COLUMN dd

Explanation: In the statement preceding
this message, a required parameter that
should appear in or before column dd is
omitted, or a blank immediately preceding
an equal sign.

System Action: The program is terminated
at the end of the control statement scan.
(Return code - 12.)

Programmer Response: Probable user error.
Correct the error on the preceding
statement.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB264I FIRST CONTROL CARD IS NOT COMPARE

Explanation: The COMPARE statement was
not the first utility control statement.

System Action: The program is terminated
at the end of the control card scan. (The
return code is 12.)

Programmer Response: Probable user error.
Make sure that the first statement of the
SYSIN data set is the COMPARE statement,
and rerun the job.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB265I INVALID COMMAND IN OR BEFORE COLUMN dd

    Explanation: In the statement preceding
this message, the command beginning in or
before column dd is either misspelled or
not immediately preceded or followed by a
blank.

    System Action: The program is terminated
at the end of the control statement scan.
(Return code - 12.)

    Programmer Response: Probable user error.
Correct the invalid command on the
preceding statement.

    Problem Determination: Table I, items 1,
3, 13, 29.

IEB266I CONTINUATION CARD BEGINS IN WRONG COLUMN

    Explanation: The continuation statement
preceding this message does not begin in
columns 4-16.

    System Action: The program is terminated
at the end of the control statement scan.
(The return code is 12.)

    Programmer Response: Probable user error.
Correct the error indicated in the message
text, and rerun the job.

    Problem Determination: Table I, items 1,
3, 13, 29.

IEB267I I/O ERROR, jjj, sss, ddd, devtyp, ddn, op,
err, xxxx, acc

    Explanation: A permanent input/output
error occurred while processing on device
ddd.

    In the message text, the error analysis
information was provided by the SYNADAF
data management macro instruction issued
in the SYNAD routine:

jjj
    Job name.
sss
    Step name.
ddd
    Unit address of the device.
devtyp
    Device type.
ddn
    Data definition name.
op
    Operation attempted.
err
    Error description.
xxxx
    Last seek address or block count.
acc
    Access method.

    System Action: The program is terminated.
(Return code - 12.)

    Programmer Response: Ensure that the DCB
information was valid, and rerun the job.

    Problem Determination: Table I, items 1,
3, 13, 29. Table II, Format 1: trace
option - TRACE=SIO,IO. Have the
associated data set available.

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IEB302I INVALID PARAMETER LIST

    Explanation: The parameter list supplied
by the programmer is invalid; that is, the
halfword pointed to by the first word of
the three-word parameter list contains a
negative number.

    System Action: The program step is
terminated. (The return code is 12.)

    Programmer Response: Probable user error.
Make sure that the length of the parameter
list specified is not a negative number.

    Problem Determination: Table I, items 1,
3, 13, 29.

IEB303I INVALID CONTROL STATEMENT

    Explanation: The syntax of the control
statement preceding this message is
invalid.

    System Action: The program is terminated.
(The return code is 12.)

    Programmer Response: Probable user error.
Correct the preceding utility control
statement and rerun the job.

    Problem Determination: Table I, items 1,
3, 13, 29.

IEB304I CONTROL STATEMENT INPUT ERROR

    Explanation: A permanent input/output
error was detected while reading the SYSIN
data set.

    System Action: The program is terminated.
(The return code is 12.)

    Programmer Response: None.

    Problem Determination: Table I, items 1,
3, 13, 29.

IEB305I JOB TERMINATED AFTER LABEL EXIT

    Explanation: A return code of 16 was
returned by a LABEL exit routine,
indicating that processing is terminated.

    System Action: The job is terminated.
(The return code is 16.)

    Programmer Response: None.

IEB306I JOB TERMINATED AFTER KEY EXIT

    Explanation: The return code (12 or 16)
from a KEY exit routine indicates the
processing is terminated.

System Action: The program is terminated.
(The return code is 12 or 16, as
determined by the exit routine.)
Programmer Response: None.

IEB307I JOB TERMINATED AFTER DATA EXIT

Explanation: The return code (12 or 16)
form a DATA exit routine indicates the
processing is terminated.

System Action: The job is terminated.
(The return code is 12 or 16, as
determined by the exit routine.)

Programmer Response: None.

IEB308I PERMANENT INPUT ERROR

Explanation: A permanent input/output
error was detected while reading the
SYSUT1 data set.

System Action: The program is terminated.
(The return code is 12.)

Programmer Response: Make sure that the
DCB values are correct for the data set
being processed.

Problem Determination: Table I, items 1,
3, 13, 29. Table II, Format 1: trace
option - TRACE=SIO,IO.

IEB309I PERMANENT OUTPUT ERROR

Explanation: A permanent input/output
error was detected while writing the
SYSUT2 data set.

System Action: The program is terminated.
(The return code is 12.)

Programmer Response: Make sure that the
output DCB values are compatible with
input DCB values, considering any record
editing that was requested.

Problem Determination: Table I, items 1,
3, 13, 29. Table II, Format 1: trace
option - TRACE=SIO,IO.

IEB310I STOW ERROR IN OUTPUT DATA SET

Explanation: A permanent error occurred
while writing the directory of the SYSUT2
data set. Possibly:
• The SYSUT2 data set is not partitioned.
• A member name was specified more than
once in MEMBER statements.
• Insufficient space was allocated for the
directory.

System Action: The program is terminated.
(The return code is 12.)

Programmer Response: Make sure that the
SYSUT2 data set is partitioned, a member
name is not specified more than once, and
sufficient space is allocated for the
directory, as necessary.

Problem Determination: Table I, items 1,
3, 13, 25c, 29. Table II, Format 1:
trace option - TRACE=SIO,IO.

IEB311I CONFLICTING DCB PARAMETERS

Explanation: The DCB parameters in the
SYSUT2 DD statement are not compatible
with those specified in the SYSUT1 DD
statement (e.g., (1) the I/O blocksize is
not a multiple of the I/O logical record
length when the record format is FB or F;
or (2) the I/O blocksize is not at least
four bytes larger than the I/O logical
record length when the record format is VB
or V.)

System Action: The job step is
terminated. (The return code is 12.)

Programmer Response: Probable user error.
Make sure that the DCB parameters of the
output DD statement are compatible with
the DCB parameters of the input DD
statement, considering any editing that
was requested.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB312I JOB TERMINATED AFTER ERROR EXIT

Explanation: A return code of 16 was
returned by an ERROR exit routine,
indicating that processing is terminated.

System Action: The program is terminated.
(Return code - 16.)

Programmer Response: None.

IEB315I SPACE NOT AVAILABLE

Explanation: Insufficient main storage
space is available for the work area,
buffers, and save areas.

System Action: The job is terminated.
(The return code is 12.)

Programmer Response: None.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB316I DDNAME ddn CANNOT BE OPENED

Explanation: DD statement ddn does not
exist. Perhaps a ddname is misspelled in
an existing DD statement or ddlist.

System Action: The job is terminated.
(The return code is 12.)

Programmer Response: Probable user error.
Correct the ddname if it is misspelled in
the DD statement or the ddlist, or insert
a DD statement specifying the name.

Problem Determination: Table I, items 1,
3, 15, 29.

IEB317I JOB TERMINATED, NO INPUT BLKSIZE/LRECL

Explanation: The BLKSIZE/LRECL parameter
was omitted from the input DD statement
for SYSUT1.

System Action: The program is terminated for SYSUT1. (The return code is 12.)

Programmer Response: Probable user error. Include a BLKSIZE/LRECL parameter in the SYSUT1 DD statement.

Problem Determination: Table I, items 1, 3, 15, 29.

IEB318I JOB TERMINATED, NO OUTPUT BLKSIZE/LRECL

Explanation: The BLKSIZE/LRECL parameter is omitted from the output DD statement for SYSUT2.

System Action: The program is terminated for SYSUT2. (The return code is 12.)

Programmer Response: Probable user error. Include a BLKSIZE parameter in the SYSUT2 DD statement.

Problem Determination: Table I, items 1, 3, 15, 29.

IEB319I INVALID SYSPRINT/SYSIN BLOCKSIZE

Explanation: The SYSPRINT/SYSIN DD statement specifies a block size that is not a multiple of the specified logical record length.

System Action: The program is terminated. (The return code is 12.)

Programmer Response: Probable user error. Correct the SYSPRINT/SYSIN BLKSIZE to be a multiple of the logical record length.

Problem Determination: Table I, items 1, 3, 15, 29.

IEB320I OUTPUT DATA SET WITH KEYS IN VS/VBS PROCESSING

Explanation: During a process other than 'straight copy', the programmer specified keys for a VS (variable-length, spanned) or VBS (variable-length, blocked, spanned) output data set. If a change is required in the data set characteristics, or if editing is to be done, a key cannot be specified.

System Action: The job is terminated. (The return code is 12.)

Programmer Response: Probable user error. Correct the data set characteristics (RECFM, BLKSIZE, LRECL) to be equal for the input and output data sets, and do not edit if keys are desired on VS or VBS records.

Problem Determination: Table I, items 1, 3, 15, 29.

IEB321I INPUT DATA SET WITH KEYS IN VS/VBS PROCESSING

Explanation: The input data set contained keys in one of the following situations:
• The input data set contained VS (variable-length, spanned) or VBS (variable-length, blocked, spanned) records, and the output data set had different attributes from the input data set.
• The input data set did not contain VS or VBS records, but the output data set did contain VS or VBS records.
If a change is required in the data set characteristics, or if editing is to be done, a key cannot be specified.

System Action: The job is terminated. (The return code is 12.)

Programmer Response: Probable user error. Correct the data set characteristics (RECFM, BLKSIZE, LRECL) to be equal for the input and output data sets, and do no edit if keys are desired on VS or VBS records.

Problem Determination: Table I, items 1, 3, 15, 29.

IEB322I JOB TERMINATED AFTER OPENING OUTPUT DATA SET UPON USER REQUEST

Explanation: The input header user label routine requires termination of the job after the output data set is opened.

System Action: The job is terminated. (Return code is 16.)

Programmer Response: None.

IEB323I JOB TERMINATED AFTER HEADER LABEL PROCESSING

Explanation: The programmer specified a LABELS DATA=ONLY statement. Therefore, after the user header labels are processed, the program is terminated.

System Action: Only user header labels are processed. The program is terminated. (Return code - 8.)

Programmer Response: None.

IEB324I x TIMES TO rtne EXIT ROUTINE

Explanation: User label exit routine rtne has received control x times.

System Action: Processing is continued. (Return code is 0.)

Programmer Response: None.

IEB325I LAST RETURN CODE WAS xx

Explanation: Return code xx was the last return code issued by the user routine specified in preceding message IEB324I.

System Action: Processing is continued. (Return code is 0.)

IEB

Programmer Response: None.

IEB326I (SYSUT1) (HEADER)LABEL GAVE I/O ERROR
(SYSUT2) (TRAILER)

Explanation: A permanent input/output
error occurred while reading or writing a
SYSUT1 or SYSUT2 header or trailer label,
as indicated in the message text. If the
error occurred while reading or writing a
header label, the data set was not opened.

System Action: The program is terminated.
(Return code - 12.)

Programmer Response: None.

Problem Determination: Table I, items 1,
3, 15, 29.

IEB327I SPECIFIED KEY EXITS ARE NOT TAKEN

Explanation: The programmer specified key
exits on a job requiring processing of a
VS (variable-length, spanned) or VBS
(variable-length, blocked, spanned) data
set with reformatting.

System Action: Key exits are not taken.
Processing continues. (Return code - 4.)

Programmer Response: Do not specify key
exits.

IEB328I LRECL EXCEEDS 32K; STRAIGHT COPY NOT
SPECIFIED

Explanation: A process other than
'straight copy' was specified. However:
• The RECFM specified for the input or
  output DCB was VS or VBS.
• The LRECL specified for the input or
  output DCB, or both, was greater than
  32,756.

System Action: The job is terminated.
(The return code is 12.)

Programmer Response: Probable user error.
Make data set characteristics (RECFM,
LRECL, BLKSIZE) equal for input and output
data sets. Do not specify editing. Rerun
the job.

Problem Determination: Table I, items 1,
3, 15, 29.

IEB329I PDS NOT ALLOWED WHEN INPUT/OUTPUT DATA SET
HAS RECFM=VS/VBS

Explanation: The programmer specified
that the output data set should be
partitioned and should contain VS
(variable-length, spanned) or VBS
(variable-length,blocked,spanned) records.
However, VS or VBS records cannot be
specified for partitioned data sets.

System Action: The job is terminated.
(Return code is 12.)

Programmer Response: Probable user error.
Remove the utility control statements
which specify the output data set as being
a PDS, and rerun the job.

Problem Determination: Table I, items 1,
3, 15, 29.

IEB330I TOTALING EXIT REQUESTS TERMINATION

Explanation: A return code of 16 was
returned by the programmer's totaling
routine, indicating that processing is
terminated.

System Action: The program is terminated.
(Return code - 16.)

Programmer Response: None.

IEB331I PROCESSING ENDS UPON REQUEST OF TOTALING
EXIT

Explanation: A return code of eight was
returned by the programmer's totaling
routine, indicating that processing is
terminated, but normal end-of-data
processing is completed for the output
data set.

System Action: Processing is terminated,
but normal end-of-data processing is
completed for the output data set.
(Return code - 8.)

Programmer Response: None.

IEB332I TOTALING EXIT DEACTIVATED UPON ITS OWN
REQUEST

Explanation: A return code of zero was
returned by the programmer's totaling
routine, indicating that processing is
continued but no further totaling exits
are taken.

System Action: Processing continues, but
no further totaling exits are taken.
(Return code - 0.)

Programmer Response: None.

IEB333I RECORD LABELS=n STATEMENTS ARE REQUIRED

Explanation: The programmer has specified
a LABELS DATA=INPUT statement. Therefore,
RECORD LABELS=n statements are also
required.

System Action: The program is terminated.
(The return code is 12.)

Programmer Response: Probable user error.
If user labels are desired, insert a
RECORD LABELS=n statement and the
associated labels statements in the input
stream; if labels are not desired, remove
the LABELS DATA=INPUT statement. Rerun
the job.

Problem Determination: Table I, items 1,
3, 15, 29.

IEB334I NO EDITING OR CONVERSION WILL BE DONE

Explanation: Both data sets contain VS
(variable-length, spanned) or VBS
(variable-length, blocked, spanned)
records, have the same block size, and
have the same logical record length.

Therefore, no editing or conversion will be done.

System Action: Processing continues.
(The return code is 0.)

Programmer Response: None.

IEB336I INVALID COMMAND IN COLUMN dd

Explanation: In the statement preceding this message, the operation beginning in column dd is incorrect:
• A GENERATE statement is not the first control statement.
• The GENERATE statement appears twice.
• An operation is misspelled.
• An operation other than GENERATE, EXITS, MEMBER, RECORD, or LABELS was specified.
• The LABELS statement appears twice.
• There are more input labels than are specified by the RECORD LABELS=n statement.

System Action: The job is terminated.
(The return code is 12.)

Programmer Response: Probable user error. Correct the command on the preceding utility control statement and rerun the job.

Problem Determination: Table I, items 1, 3, 15, 29.

IEB337I INVALID KEYWORD IN COLUMN dd

Explanation) In the statement preceding this message, a keyword beginning in column dd is either misspelled, incorrect, or not applicable to the command for which it is specified.

System Action: The job is terminated.
(The return code is 12.)

Programmer Response: Probable user error. Correct the invalid keyword and rerun the job.

Problem Determination: Table I, items 1, 3, 15, 29.

IEB338I INVALID PARAMETER IS COLUMN dd

Explanation: In the statement preceding this message, a parameter beginning in column dd is incorrect:
• A member name contains more than eight characters.
• In the RECORD statement, the IDENT keyword is followed by more than three parameters.
• In the RECORD statement, the FIELD keyword is followed by more than four parameters.
• In the RECORD statement, the conversion parameters in the FIELD keyword are not HE, PZ, or ZD.
• In the LABELS statement, the parameters in the DATA keyword are not ALL, ONLY, YES, NO, or INPUT.
• In the RECORD statement, the LABELS keyword is not followed by a number from one to eight.

System Action: The job is terminated.
(The return code is 12.)

Programmer Response: Probable user error. Correct the invalid parameter and rerun the job.

Problem Determination: Table I, items 1, 3, 15, 29.

IEB339I COMMAND MISSING PRECEDING COLUMN dd

Explanation: In the statement preceding this message, no operation is specified before column dd. Possibly, the preceding statement is a continuation statement, but the previous statement indicating the continuation contained an error and, therefore, the continuation was not recognized.

System Action: The program is terminated.
(The return code is 12.)

Programmer Response: Probable user error. Insert the missing command or correct the error on the statement with the continuation indicator, and rerun the job.

Problem Determination: Table I, items 1, 3, 15, 29.

IEB340I KEYWORD MISSING PRECEDING COLUMN dd

Explanation: In the statement preceding this message, a required keyword that should appear before column dd is omitted: that is, the NAME keyword is not specified in the MEMBER statement, or the DATA keyword is not specified in the LABELS statement.

System Action: The job is terminated.
(The return code is 12.)

Programmer Response: Probable user error. Insert the missing keyword and rerun the job.

Problem Determination: Table I, items 1, 3, 15, 29.

IEB341I PARAMETER MISSING PRECEDING COLUMN dd

Explanation: In the statement preceding this message, a parameter that should appear before column dd is omitted; that is, a keyword is not followed by a parameter, or the IDENT keyword in the RECORD statement is not followed by all three parameters.

System Action: The program is terminated.
(The return code is 12.)

Programmer Response: Probable user error. Insert the missing parameter and rerun the job.

Problem Determination: Table I, items 1, 3, 15, 29.

IEB342I INVALID SPACE ALLOCATION

    Explanation: Required keywords in the
    GENERATE statement are omitted or their
    parameter values are too small. This
    message is also issued if a RECORD
    LABELS=n statement is not preceded by a
    LABELS DATA=INPUT statement.

    System Action: The job is terminated.
    (The return code is 12.)

    Programmer Response: Probable user error.
    Correct keywords in the GENERATE statement
    or insert a LABELS DATA=INPUT statement,
    as necessary.

    Problem Determination: Table I, items 1,
    3, 15, 29.

IEB343I ALLOWED NO. OF CARDS EXCEEDED

    Explanation: Three or more LABELS
    statements were encountered. Two LABELS
    statements are the maximum allowed.

    System Action: The program is terminated.
    (The return code is 12.)

    Programmer Response: Probable user error.
    Reduce the number of LABELS statements to
    one or two and rerun the job.

    Problem Determination: Table I, items 1,
    3, 15, 29.

IEB344I WARNING: INVALID STATEMENT LABEL

    Explanation: In the statement preceding
    this message, the name field is greater
    than eight characters or contains an
    invalid character.

    System Action: Processing continues.

    Programmer Response: Probable user error.
    Correct the name field of the preceding
    statement.

IEB345I CONTINUATION NOT BEFORE COLUMN 17

    Explanation: The statement preceding this
    message does not contain any characters in
    columns 1-16, indicating that the
    statement is not a continuation. However,
    the previous statement indicated that a
    continuation statement was to follow.

    System Action: The program is terminated.
    (The return code is 12.)

    Programmer Response: Probable user error.
    Correct the preceding statement so that
    the statement is a continuation or correct
    the previous statement so that a
    continuation statement is not expected.

    Problem Determination: Table I, items 1,
    3, 15, 29.

IEB346I MISSING PARENTHESES

    Explanation: In the statement preceding
    this message, a closing parenthesis is
    omitted, or an error was encountered in a

    parameter list before the closing
    parenthesis.

    System Action: The program is terminated.
    (The return code is 12.)

    Programmer Response: Probable user error.
    Insert the missing parenthesis or correct
    the error within the parentheses, and
    rerun the job.

    Problem Determination: Table I, items 1,
    3, 15, 29.

IEB347I DUPLICATE KEYWORD

    Explanation: In the EXITS statement
    preceding this message, a keyword is
    specified twice.

    System Action: The program is terminated.
    (The return code is 12.)

    Programmer Response: Probable user error.
    Remove the duplicate keyword and rerun the
    job.

    Problem Determination: Table I, items 1,
    3, 15, 29.

IEB348I PRECEDING MEMBER REQUIRES 'IDENT'

    Explanation: Two MEMBER statements were
    encountered; however, there was no RECORD
    IDENT statement associated with the first
    MEMBER statement.

    System Action: The program is terminated.
    (The return code is 12.)

    Programmer Response: Probable user error.
    Insert a RECORD IDENT=(ident parameters)
    with the associated MEMBER statement, and
    rerun the job.

    Problem Determination: Table I, items 1,
    3, 15, 29.

IEB349I INCONSISTENT PARAMETERS IN FIELD OR IDENT

    Explanation: The first two parameters on
    an IDENT or FIELD keyword are not
    consistent with each other.

    System Action: The program is terminated.
    (The return code is 12.)

    Programmer Response: Probable user error.
    Make sure that the length indicator is
    accurate for the parameter it is
    describing, and rerun the job.

    Problem Determination: Table I, items 1,
    3, 15, 29.

IEB350I LITERAL LENGTH EXCEEDS 40

    Explanation: In the RECORD statement
    preceding this message, the literal
    specified in the FIELD keyword is greater
    than 40 bytes.

    System Action: The job is terminated.
    (The return code is 12.)

Programmer Response: Probable user error. Correct the literal on the preceding statement so it does not exceed forty bytes, and rerun the job.

Problem Determination: Table I, items 1, 3, 15, 29.

IEB351I I/O ERROR jjj, sss, ddd, devtyp, ddn, op, err, xxxx, acc

Explanation: A permanent input/output error occurred while processing on device ddd.

In the message text, the error analysis information was provided by the SYNADAF data management macro instruction issued in the SYNAD routine:

jjj
    Job name.
sss
    Step name.
ddd
    Unit address of the device.
devtyp
    Device type.
ddn
    Data definition name.
op
    Operation attempted.
err
    Error description.
xxxx
    Last seek address or block count.
acc
    Access method.

System Action: The job step is terminated. (The return code is 12.)

Programmer Response: Make sure that the data set characteristics accurately describe the data set which is being accessed. If they do not, correct them and rerun the job.

Problem Determination: Table I, items 1, 3, 15, 29. Table II, Format 1: trace option - TRACE=SIO,IO.

IEB352I WARNING: OUTPUT RECFM/LRECL/BLKSIZE COPIED FROM INPUT

Explanation: One of the following occurred:
• When neither RECFM, LRECL, nor BLKSIZE is present in the output DCB at open time, IEBGENER copies the RECFM, LRECL, and BLKSIZE from the input data set.
• When the output data set has no LRECL, this value is copied from the input data set.

System Action: No return code is set.

Programmer Response: If the output RECFM, LRECL, and BLKSIZE are to be changed, always specify the RECFM (except for U) and BLKSIZE on the output DD statement. The true name must be present on the output DD statement when the output is edited and the RECFM is FB, VS, or VBS.

IEBPTPCH Program Messages

IEB401I PRINT/PUNCH STATEMENT NOT FIRST.

Explanation: A PRINT or PUNCH statement is not the first utility control statement.

System Action: The program is terminated. (Return code - 12.)

Programmer Response: Probable user error. Correct the sequence of control statements or insert a PRINT or PUNCH statement.

Problem Determination: Table I, items 1, 3, 13, 29.

IEB402I INVALID OPERATION

Explanation: In the utility statement preceding this message, the operation is invalid.

System Action: The program is terminated. (Return code - 12.)

Programmer Response: Probable user error. Correct the invalid operation on the preceding statement.

Problem Determination: Table I, items 1, 3, 13, 29.

IEB403I MORE THAN TWO TITLE STATEMENTS.

Explanation: More than two TITLE statements are included. Two TITLE statements are the maximum allowed.

System Action: The program is terminated. (Return code - 12.)

Programmer Response: Probable user error. Remove all but two TITLE statements.

Problem Determination: Table I, items 1, 3, 13, 29.

IEB404I KEYWORD INVALID OR OMITTED

Explanation: In the statement preceding this message, a required keyword is either incorrect or missing.

System Action: The program is terminated. (Return code - 12.)

Programmer Response: Probable user error. Correct or include the required keyword on the preceding statement.

Problem Determination: Table I, items 1, 3, 13, 29.

IEB405I PARAMETER INVALID OR OMITTED

Explanation: In the statement preceding this message, a required parameter is either incorrect, inconsistent, or missing.

System Action: The program is terminated.
(Return code - 12.)

Programmer Response: Probable user error.
Correct or include the required parameter
on the preceding statement. If multiple
RECORD statements are included, make sure
that an IDENT parameter is contained in
each statement except the last. The last
statement does not require an IDENT
parameter.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB406I JOB TERMINATED AFTER USER EXIT

Explanation: The job was terminated after
control was returned from an exit routine.

System Action: The program is terminated.
(Return code is 12 or 16, as determined by
the exit routine.)

Programmer Response: None.

IEB407I JOB TERMINATED DUE TO I/O ERROR

Explanation: A permanent input/output
error was encountered.

System Action: The program is terminated.
(Return code - 12.)

Programmer Response: Probable user error.
Check the DCB parameters of the SYSUT1
data set. Make sure that the maximum
LRECL size is specified for variable
length records. Make sure that TYPORG=PO
was not specified for a physical
sequential data set. If SYSUT1 record
format is V or VS make sure there are no
records less than the minimum five bytes
long.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB408I MEMBER mem CANNOT BE FOUND

Explanation: Member mem is not contained
in the SYSUT1 data set.

System Action: The member is not printed
or punched. If there is another MEMBER
statement, the next member is read;
otherwise, the program is terminated.
(Return code - 8.)

Programmer Response: Make sure that the
member to be printed or punched is
contained in the SYSUT1 data set.

Problem Determination: Table I, items 1,
3, 13, 25c, 29.

IEB409I INVALID CONTROL STATEMENT

Explanation: The construction of the
control statement preceding this message
is invalid.

System Action: The program is terminated.
(Return code - 12.)

Programmer Response: Probable user error.
Make sure that the construction of the
preceding statement is correct. If this
is a TITLE card, make sure there are valid
parentheses with the ITEM keyword.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB410I INCORRECT RECORD STATEMENT

Explanation: The RECORD statement
preceding this message is incorrect.

System Action: The program is terminated.
(Return code - 12.)

Programmer Response: Probable user error.
If an IDENT keyword is in the preceding
RECORD statement, make sure that the sum
of the input-location parameter - minus
one and the length parameter does not
exceed the SYSUT1 logical record length.
If one or more FIELD keywords are in the
preceding RECORD statement, make sure that
the sum of the input-location parameter
and the length parameter does not exceed
the SYSUT1 logical record length. Also
make sure that the sum of all length
parameters for fields defined in the
preceding RECORD statement, does not
exceed the specified output length - minus
one per printed line or per punched card.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB411I DDNAME ddn CANNOT BE OPENED

Explanation: DD statement ddn does not
exist. Perhaps a ddname is misspelled in
an existing DD statement or ddlist.

System Action: The program is terminated.
(Return code - 12.)

Programmer Response: Make sure that the
ddname is not misspelled in the DD
statement or ddlist.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB412I INVALID INP/OUTP DCB PARAMETER

Explanation: One or more parameters in
the BLKSIZE and LRECL keywords were
omitted from the SYSUT1 DD statement. The
omitted parameters were replaced by the
value 1.

System Action: The program is terminated.
(Return code - 12.)

Programmer Response: Make sure that the
data control block contains all necessary
parameters.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB414I xxxx PARAMETER IS TOO SMALL

    Explanation: The number of FIELD keywords, IDENT keywords, literals, or name keywords in MEMBER or RECORD statements is greater than the number specified in parameter xxxx - MAXFLDS, MAXGPS, MAXLITS, MAXLINE, or MAXNAME, respectively.

    System Action: The program is terminated. (Return code - 12.)

    Programmer Response: Probable user error. Specify a greater value for parameter xxxx.
    Problem Determination: Table I, items 1, 3, 13, 29.

IEB415I VS/VBS DATA PROCESSED IN BLOCKS

    Explanation: The LRECL specified for the VS or VBS input data area exceeds 32,756 bytes.

    System Action: Processing continues on a physical basis; that is, blocks rather than logical records are printed or punched.

    Programmer Response: None.

IEB416I PREFORM, VS LRECL LARGER THAN 32K

    Explanation: The LRECL specified for the VS or VBS input data set exceeds 32,756 bytes and PREFORM was specified in the PRINT or PUNCH utility control statement.

    System Action: The program is terminated. (Return code - 12.)

    Programmer Response: Probable user error. Reformat the data set or delete the PREFORM parameter from the PRINT or PUNCH control statement.

    Problem Determination: Table I, items 1, 3, 13, 29.

| IEB417I DATA SET EMPTY, RETURN CODE IS 4

    Explanation: The data set to be printed or punched contains no data.

    System Action: The print or punch operation is terminated. (Return code - 4.)

    Programmer Response: Ensure that the volume containing the proper data set is mounted.

    Problem Determination: Table I, items 1, 3, 13, 29.

IEB418I VS/VBS NOT ALLOWED IN PDS

    Explanation: The data set organization conflicts with the record format; that is, if RECFM=VS or VBS, then TYPORG must be PS.

    System Action: The program is terminated. (Return code - 12.)

    Programmer Response: Probable user error. If SYSUT1 record format is VS or VBS, make sure that TYPORG=PO was not specified.

    Problem Determination: Table I, items 1, 3, 13, 29.

IEB419I USER RETURN CODE dd INVALID

    Explanation: Return code dd was returned by the user. However, the return code is invalid if it is other than 0, 4, or 16.

    System Action: The return code is ignored. Processing continues according to prior conditions.

    Programmer Response: Change the return code to 0, 4, or 16.

IEB420I SYSIN IS EMPTY

    Explanation: The SYSIN data set does not contain any IEBPTPCH control statements.

    System Action: The program is terminated. (Return code - 12.)

    Programmer Response: Probable user error. Make sure that the SYSIN data set contains either a PRINT or PUNCH statement.

    Problem Determination: Table I, items 1, 3, 13, 29.

IEB421I I/O ERROR jjj, sss, ddd, devtyp, ddn, op, err, xxxx, acc

    Explanation: A permanent input/output error occurred while processing on device ddd.

    In the message text, the error analysis information was provided by the SYNADAF data management macro instruction issued by the SYNAD routine:
    jjj
        Job name.
    sss
        Step name.
    ddd
        Unit address of the device.
    devtyp
        Device type.
    ddn
        Data definition name.
    op
        Operation attempted.
    err
        Error description.
    xxxx
        Last seek address or block count.
    acc
        Access method.

    System Action: The program is terminated. (Return code - 12.)

    Programmer Response: Correct the error condition indicated in the message text.

    Problem Determination: Table I, items 1, 3, 13, 29. Table II, Format 1: trace option - TRACE=SIO,IO.

IEB431I INVALID KEYWORD IN COLUMN dd

Explanation: In the statement preceding this message, a keyword beginning in column dd is either incorrect or not applicable to the command for which it is specified.

System Action: The program is terminated at the end of the control statement scan. (Return code - 12.)

Programmer Response: Probable user error. Correct the invalid keyword in the preceding statement. If this is a LABELS command, make sure that the keyword specified for the DATA= operand is either ALL, ONLY, YES or NO. If this is a PRINT command, make sure that the parameter specified for the CNTRL keyword is not greater than that specified for the MAXLINE keyword. If this is a PUNCH command make sure that neither the INITPG or MAXLINE keyword has been specified.

Problem Determination: Table I, items 1, 3, 13, 29.

IEB432I INVALID PARAMETER IN COLUMN dd

Explanation: In the statement preceding this message, a parameter beginning in column dd is either incorrect or not applicable to the keyword for which it is specified.

System Action: The program is terminated at the end of the control statement scan. (Return code - 12.)

Programmer Response: Probable user error. Correct the invalid parameter on the preceding statement. If the NAME, INREC, or OUTREC keywords are specified, make sure that the parameter does not exceed 8 characters.

Problem Determination: Table I, items 1, 3, 13, 29.

IEB433I MISSING KEYWORD BEFORE COLUMN dd

Explanation: In the statement preceding this message, a required keyword that should appear before column dd is either omitted, preceded or followed by an invalid delimiter.

System Action: The program is terminated at the end of the control statement scan. (Return code - 12.)

Programmer Response: Probable user error. Correct or include the required keyword on the preceding statement.

Problem Determination: Table I, items 1, 3, 13, 29.

IEB434I MISSING PARAMETER BEFORE COLUMN dd

Explanation: In the statement preceding this message, a required parameter that should appear before column dd is either

omitted, preceded, or followed by an invalid delimiter.

System Action: The program is terminated at the end of the control statement scan. (Return code - 12.)

Programmer Response: Probable user error. Correct or include the required parameter on the preceding statement. If a TITLE statement precedes this message, make sure that the literal in the ITEM parameter does not exceed 40 characters.

Problem Determination: Table I, items 1, 3, 13, 29.

IEB435I MISSING COMMAND PRECEDING COLUMN dd

Explanation: In the statement preceding this message, a required command that should appear before column dd is omitted. If the statement is a continuation, however, an error occurred on the preceding statement.

System Action: The program is terminated at the end of the control statement scan. (Return code - 12.)

Programmer Response: Probable user error. Make sure the preceding statement contains a valid command. If this is a continuation statement, make sure a statement preceding the continuation contains a valid command.

Problem Determination: Table I, items 1, 3, 13, 29.

IEB436I INVALID COMMAND

Explanation: In the statement preceding this message, a command is incorrect or invalid because of conditions set upon that command by commands, keywords, or parameters on previous statements.

System Action: The program is terminated at the end of the control statement scan. (Return code - 12.)

Programmer Response: Probable user error. Correct the command on the preceding statement. Make sure that previous keywords and parameters, such as MAXGPS or MAXNAME, do not conflict with this command, or make sure that no RECORD command precedes the first MEMBER command.

Problem Determination: Table I, items 1, 3, 13, 29.

IEB437I INVALID ITEM PARAMETER

Explanation: The TITLE or output-location parameter of the ITEM operand in a TITLE statement is invalid.

System Action: The program is terminated. (The return code is 12.)

Programmer Response: Probable user error. Make sure that the TITLE field of the ITEM operand does not exceed 40 bytes, is not

zero, and does not contain one apostrophe instead of two. Also, make sure that the sum of the TITLE length and the output-location length does not exceed the output logical record length.

Problem Determination: Table I, items 1, 3, 13, 29.

IEB438I INVALID NAME

Explanation: In the statement preceding this message, the statement name is either too long or contains an invalid character.

System Action: Processing continues normally. However, the control statement is ignored.

Programmer Response: Probable user error. Make sure that the preceding statement name neither exceeds 8 characters, nor contains an invalid character.

Problem Determination: Table I, items 1, 3, 13, 29.

IEB439I CONTINUATION NOT STARTED IN 4-16

Explanation: In the continuation statement preceding this message, data does not begin in columns 4 through 16.

System Action: The program is terminated at the end of the control statement scan. (Return code - 12.)

Programmer Response: Probable user error. Make sure that the continuation statement begins in columns 4 through 16. If the statement is not a continuation, however, correct the previous statement that indicates a continuation.

Problem Determination: Table I, items 1, 3, 13, 29.

IEB440I MISSING PARENTHESIS

Explanation: In the statement preceding this message, either a parenthesis is omitted or there is an error within the parentheses.

System Action: The program is terminated at the end of the control statement scan. (Return code - 12.)

Programmer Response: Probable user error. Include the missing parenthesis or correct the error within the parentheses.

Problem Determination: Table I, items 1, 3, 13, 29.

IEB441I MEMBER INVALID: TYPORG NOT PO

Explanation: The MEMBER statement preceding this message is invalid since physical sequential (PS) organization was specified; that is, TYPORG=PO must be specified on the PRINT or PUNCH utility control statement.

System Action: The program is terminated at the end of the control statement scan. (Return code - 12.)

Programmer Response: Probable user error. If SYSUT1 specifies a physical sequential data set, remove the MEMBER statement. If SYSUT1 specifies a partitioned data set, specify TYPORG=PO on the PRINT or PUNCH statement.

Problem Determination: Table I, items 1, 3, 13, 29.

IEB442I USER ATTRIBUTE I/O ERROR CAUSED TERM,

Explanation: An uncorrectable I/O error occurred for one of the following reasons:
• A standard user label exit was found during label processing.
• A user totaling exit was found while the utility was placing data on the output data set.

System Action: The program terminates. (Return code -- 12.)

Programmer Response: If further handling of the error is desired, expand the user exit and examine the standard status information, and issue the appropriate message.

IEBUPDAT Program Messages

IEB501I INVALID EXIT NAME. JOB TERMINATED.

Explanation: In the EXEC statement preceding this message, the exit routine name is incorrect. Possibly, the routine name is misspelled.

System Action: The program is terminated. (Return code -- 12.)

Programmer Response: Probable user error. Correct the exit routine name on the EXEC statement, and rerun the job.

Problem Determination: Table I, items 1, 3, 13, 29.

IEB502I EXIT RETURN CODE INDICATES TERMINATION.

Explanation: An exit routine returned a return code of 16, indicating termination.

System Action: The program is terminated.

Programmer Response: None.

IEB503I I/O ERROR ON SYSUT1. JOB TERMINATED.

Explanation: A permanent input/output error was encountered while the SYSUT1 data set was being read.

System Action: The program is terminated. (Return code - 12.)

Programmer Response: Make sure that the DCB parameters are specified correctly.

Problem Determination: Table I, items 1,
Table II, Format 1: trace option -
TRACE=SIO,IO. 3, 13, 29.

IEB5041 I/O ERROR ON SYSIN. JOB TERMINATED.

Explanation: A permanent input/output
error was encountered while the SYSIN data
set was being read.

System Action: The program is terminated.
(Return code - 12.)

Programmer Response: Make sure that the
DCB parameters are specified correctly.

Problem Determination: Table I, items 1,
3, 13, 29. Table II, Format 1: trace
option - TRACE=SIO,IO.

IEB5051 I/O ERROR ON SYSUT2. JOB TERMINATED.

Explanation: A permanent input/output
error was encountered while the SYSUT2
data set was being written.

System Action: The program is terminated.
(Return code - 12.)

Programmer Response: Make sure that the
DCB parameters are specified correctly.

Problem Determination: Table I, items 1,
3, 13, 29. Table II, Format 1: trace
option - TRACE=SIO,IO.

IEB5061 NM BLOCKSIZE IS ASSUMED 80

Explanation: Either no block size was
specified for the SYSUT2 data set or the
block size specified was not a multiple of
80 bytes.

System Action: A block size of 80 bytes
is assumed, and processing continues.
(Return code - 8.)

Programmer Response: Probable user error.
Correct the block size on the SYSUT2 DD
statement.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB5091 CURRENT TRANSACTION REJECTED.

Explanation: The transaction represented
by the preceding control statement and the
logical record statements is rejected
because the control statement is incorrect
or is out of sequence with respect to
other control statements.

System Action: Processing continues with
the next member of the library. (Return
code - 4.)

Programmer Response: Probable user error.
Correct the preceding control statement.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB5101 NO RECORDS WITHIN DELETE RANGE.

Explanation: No records were found within
the range specified in the DELET
statement.

System Action: Processing continues with
the next member of the library. (Return
code - 4.)

Programmer Response: Probable user error.
Make sure that the range specified in the
DELET statement is correct.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB5111 NO RECORDS WITHIN NUMBER RANGE.

Explanation: No records were found within
the range specified in the NUMBR
statement.

System Action: Processing continues with
the next member of the library. (Return
code - 4.)

Programmer Response: Probable user error.
Make sure that the range specified in the
NUMBR statement is correct.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB5121 DIRECTORY WRITE ERROR.

Explanation: A permanent error occurred
while writing the directory of the SYSUT2
data set. Possibly, the SYSUT2 data set
is not partitioned.

System Action: The program is terminated.
(Return code - 16.)

Programmer Response: Make sure that the
SYSUT2 data set is partitioned.

Problem Determination: Table I, items 1,
3, 13, 25a, 29. Table II, Format 1:
trace option - TRACE=SIO,IO.

IEB5131 OUTPUT DIRECTORY FILLED.

Explanation: The directory of the SYSUT2
data set does not contain sufficient space
for all the member entries.

System Action: The program is terminated.
(Return code - 12.)

Programmer Response: Probable user error.
Make sure that sufficient space is
allocated for the directory.

Problem Determination: Table I, items 1,
3, 13, 25a, 29.

IEB5141 MEMBER HAS NO RECORDS.

Explanation: The member specified in the
preceding header statement contains no
records.

System Action: Processing continues with
the next member of the library. (Return
code - 4.)

Programmer Response: Probable user error.
Make sure that the member name is spelled
correctly.

Problem Determination: Table I, items 1,
3, 13, 25a, 29.

IEB515I IMPROPER INVOCATION PARAMETER.

Explanation: Either the EXEC statement
contains an incorrect parameter or an
incorrect parameter was passed to the
IEBUPDAT program.

System Action: The program is terminated.
(Return code - 12.)

Programmer Response: Probable user error.
Correct the invalid parameter.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB516I MEMBER NAME SEQUENCE ERROR.

Explanation: The member names specified
on the preceding header statements are not
in binary collating sequence. (For
example, member name MEMB3 cannot be
specified before member name MEMB2.)

System Action: Processing continues with
the next member of the library. (Return
code - 4.)

Programmer Response: Probable user error.
Correct the sequence of header statements.

Problem Determination: Table I, items 1,
3, 13, 25a, 29.

IEB517I DDNAME ddn CANNOT BE OPENED

Explanation: DD statement ddn does not
exist.

System Action: The program is terminated.
(Return code - 12.)

Programmer Response: Probable user error.
Correct the ddname if it is misspelled in
the DD statement or the ddlist, or insert
a new DD statement with the correct name.

Problem Determination: Table I, items 1, |
3, 13, 29.

IEBISAM Program Messages

IEB600I UTILITY PROGRAM IEBISAM HAS SUCCESSFULLY
COMPLETED THE REQUESTED OPERATION
COMPLETION CODE=00

Explanation: The program has successfully
completed the requested operation.

System Action: Program operation has
completed. (Return code - 0.)

Programmer Response: None.

IEB601I DCB FIELD VALUES INCONSISTENT   COMPLETION
CODE=08

Explanation: One or more of the following
DCB subparameters are invalid: RECFM,
LRECL, BLKSIZE, RKP, and KEYLEN.

System Action: The program is terminated.
The requested operation is not performed.
(Return code - 8.)

Programmer Response: Probable user error.
Correct the invalid DCB subparameters.

| Problem Determination: Table I, items 1,
3, 13, 25b, 29.

IEB602I jjj, sss, ddd, devtyp, ddn, op, err, xxxx,
acc COMPLETION CODE=08

Explanation: A permanent input/output
error occurred while processing on device
ddd.

In the message text, the error analysis
information was provided by the SYNADAF
data management macro instruction issued
by the SYNAD routine:

jjj
    Job name.
sss
    Step name.
ddd
    Unit address of the device.
devtyp
    Device type.
ddn
    Data definition name.
op
    Operation attempted.
err
    Error description.
xxxx
    Last seek address or block count.
acc
    Access method.

System Action: The program is terminated.
(Return code - 8.)

Programmer Response: Make sure the DCB
information is consistent with the
original indexed sequential data set.

Problem Determination: Table I, items 1, |
3, 13, 25b, 29. Table II, Format 1:
trace option - TRACE=SIO,IO.

IEB603I DUPLICATE RECORD   COMPLETION CODE=08

Explanation: A record key is identical to
a record key previously placed in the
indexed sequential data set. Possibly the
RKP or the KEYLEN parameter has been
changed.
(This message appears for a LOAD operation
only.)

System Action: The program is terminated.
Reconstruction of the indexed sequential
data set is incomplete. (Return code -
8.)

Programmer Response: UNLOAD the original
indexed sequential data set and respecify
the LOAD operation. Also specify the
original DCB parameters in the SYSUT1 and
SYSUT2 DD cards.

Problem Determination: Table I, items 1,
3, 13, 25b, 29.

IEB604I NUMBER OF CHARACTERS TO BE TRANSMITTED
EXCEEDS LIMIT   COMPLETION CODE=08

Explanation: The number of characters in
a fixed-length record exceeds the value
specified in LRECL or in LRECL + KEYLEN
(for fixed-length, unblocked records with
a relative key position of 0).
(This message appears for a LOAD operation
only.)

System Action: The program is terminated.
The requested operation is not performed.
(Return code - 8.)

Programmer Response: Probable user error.
Correct the LRECL subparameter and unload
the original indexed sequential data set.
Then respecify that LOAD operation.

Problem Determination: Table I, items 1,
3, 13, 25b, 29.

IEB605I CLOSE REQUESTED BY USER AFTER A USER EXIT
COMPLETION CODE=04

Explanation: The return code returned by
the user was either 4 or 12.

System Action: The program is terminated.
(Return code - 4.)

Programmer Response: None.

IEB606I ILLEGAL RETURN CODE RECEIVED FROM A USER
EXIT   COMPLETION CODE=12

Explanation: The return code returned by
the user was other than 0, 4, 8, or 12.

System Action: The program is terminated.
(Return code - 12.)

Programmer Response: Probable user error.
Correct the user exit routine to issue a
valid return code.

Problem Determination: Table I, items 1,
3, 13, 29. Have a listing of the exit
routine available.

IEB607I SYSUT2 OR SYSUT1 DD CARD MISSING
COMPLETION CODE=16

Explanation: No SYSUT1 or SYSUT2 DD
statement was included in the job step.

System Action: The program is terminated.
(Return code - 16.)

Programmer Response: Probable user error.
Insert the missing SYSUT1 or SYSUT2 DD
statement.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB608I INVALID OPTION IN THE PARM FIELD OF THE
EXECUTE CARD   COMPLETION CODE=16

Explanation: The PARM parameter of the
EXEC statement is incorrect.

System Action: The program is terminated.
(Return code - 16.)

Programmer Response: Probable user error.
Correct the PARM parameter in the EXEC
statement.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB609I INPUT SEQUENCE ERROR   COMPLETION CODE=08

Explanation: Either a record was lost or
a noise record was encountered when
loading an indexed sequential data set.
Possibly the RKP, KEYLEN, or OPTCD
parameter has been changed.

System Action: The program is terminated.
(Return code - 8.)

Programmer Response: If possible, use a
backup copy of the unloaded data set.
UNLOAD the original indexed sequential
data set and respecify the LOAD operation.
Also specify the original DCB parameters
in the SYSUT1 DD card.

Problem Determination: Table I, items 1,
3, 13, 29. Table II, Format 1: trace
option - TRACE=SIO,IO.

IEBDG Program Messages

IEB700I DATA GENERATION HAS BEEN [SUCCESSFULLY]
COMPLETED.   COMPLETION CODE IS xxxx

Explanation: If xxxx is ZERO, data
generation was successfully completed.

If xxxx is FOUR, the job step was
terminated at the request of the user.

If xxxx is EIGHT, an error occurred while
processing a utility control statement.

If xxxx is TWELVE, an error occurred while
processing an input or output data set.

If xxxx is SIXTEEN, incorrect parameters
were encountered in a data control block
while opening a data set.

System Action: The program is terminated.

Programmer Response: If xxxx is ZERO or
FOUR, no action is necessary.

If xxxx is EIGHT, correct the appropriate
control statements and execute the job
step again.

If xxxx is TWELVE, correct the error
condition described in message IEB729I and
execute the job step again.

If xxxx is SIXTEEN, correct the appropriate DD statements and execute the job step again.

Problem Determination: Table I, items 1, 3, 13, 29.

IEB702I OPERATION WAS NOT DSD,FD,CREATE,REPEAT, OR END. CORRECT AND RERUN.

Explanation: The preceding utility control statement specified an invalid operation; that is, the operation was not DSD, FD, CREATE, REPEAT, or END.

System Action: Syntax checking of the remainder of the utility control statements in this set continues, but no additional data is generated. Processing continues normally with the next DSD statement encountered. (Return code - 8.)

Programmer Response: Probable user error. Since the output data set may have been only partially completed, execute IEHPROGM to scratch the data set, if necessary. Correct the operation specification on the preceding control statement.

Problem Determination: Table I, items 1, 3, 13, 29.

IEB703I INVALID KEYWORD VALUE. DELIMITER, DESCRIPTOR OR TYPE IS IMPROPER OR DUPLICATED. AN FD NAME HAS OCCURRED PREVIOUSLY.

Explanation: The keyword value pinpointed by preceding message IEB727I (if done) is incorrect. Possibly:
• A double quote specified within a picture caused an invalid length.
• A starting character of * was used when AL or AN format was specified.
• A character other than 0-9 or A-F was used when a hexadecimal digit was to be specified.
• A nonnumeric character was used when a decimal number was to be specified.
• A keyword was misspelled.
• An FD statement contained a previously used name.
• Mutually exclusive subparameters were encountered, such as FORMAT=CO and ACTION=RO. In this case, message IEB727I does not precede this message.

System Action: Syntax checking of the remainder of the utility control statements in this set continues, but no additional data is generated. Processing continues normally with the next DSD statement encountered. (Return code - 8.)

Programmer Response: Probable user error. Since the output data set may have been only partially completed, execute IEHPROGM to scratch the data set, if necessary. Correct the preceding statement so that a valid keyword value is specified.

Problem Determination: Table I, items 1, 3, 13, 29.

IEB704I INPUT DDNAME ON CREATE OR FD CARD IS NOT SPECIFIED ON DSD CARD.

Explanation: The ddname specified on a CREATE or FD statement was not referred to on the DSD statement beginning this set of utility control statements. The IEBDG program was unable to open the data set.

System Action: Syntax checking of the remainder of the utility control statements in this set continues, but no additional data is generated. Processing continues normally with the next DSD statement encountered. (Return code - 8.)

Programmer Response: Probable user error. Since the output data set may have been only partially completed, execute IEHPROGM to scratch the data set, if necessary. Include the missing ddname in the DSD statement.

Problem Determination: Table I, items 1, 3, 13, 29

IEB705I INVALID KEYWORD, POSSIBLE IMBEDDED COMMA.

Explanation: The keyword pinpointed by preceding message IEB727I is invalid. Possibly, the keyword is misspelled or contains an embedded comma.

System Action: Syntax checking of the remainder of the utility control statements in this set continues, but no additional data is generated. Processing continues normally with the next DSD statement encountered. (Return code - 8.)

Programmer Response: Probable user error. Since the output data set may have been only partially completed, execute IEHPROGM to scratch the data set, if necessary. Correct the keyword on the preceding statement.

Problem Determination: Table I, items 1, 3, 13, 29.

IEB706I NUMBER SPECIFIED IS LARGER THAN 32,767 OR EXCEEDS MACHINE CAPACITY (2,147,483,647).

Explanation: A length parameter on an FD statement was specified larger than 32,767 or the value of a field exceeded 2,147,483,647 during an INDEX operation. No conversion is performed.

System Action: Syntax checking of the remainder of the utility control statements in this set continues, but no additional data is generated. Processing continues normally with the next DSD statement encountered. (Return code - 8.)

Programmer Response: Probable user error. Since the output data set may have been only partially completed, use IEHPROGM to scratch the data set, if necessary. Correct the length specifications on the FD statement.

Problem Determination: Table I, items 1, 3, 13, 29.

IEB707I FD NAME ON CREATE CARD IS NOT PREVIOUSLY
DEFINED BY AN FD CARD OR IS NOT ASSOCIATED
WITH CORRECT DCB

Explanation: The NAME parameter on a
CREATE statement does not specify a value
previously defined on an FD statement.

System Action: Syntax checking of the
remainder of the utility control
statements in this set continues, but no
additional data is generated. Processing
continues with the next DSD statement
encountered. (Return code - 8.)

Programmer Response: Probable user error.
Since the output data set may have been
only partially completed, execute IEHPROGM
to scratch the data set, if necessary.
Make sure that the FD statement precedes
the CREATE statement that refers to it.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB708I PICTURE LENGTH TOO LARGE FOR CONVERSION

Explanation: A decimal picture was to be
converted to packed decimal or to a binary
equivalent; however, the number of digits
specified in the picture exceeds 16. No
conversion is performed.

System Action: Syntax checking of the
remainder of the utility control
statements in this set continues, but no
additional data is generated. Processing
continues normally with the next DSD
statement encountered. (Return code - 8.)

Programmer Response: Probable user error.
Since the output data set may have been
only partially completed, execute IEHPROGM
to scratch the data set, if necessary.
Make sure that the number of digits
specified in the picture is less than 16.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB709I USER EXIT ROUTINE RETURNED AN INVALID
RETURN CODE

Explanation: The return code returned
from the user exit routine was other than
0, 4, 12, or 16.

System Action: Syntax checking of the
remainder of the utility control
statements in this set continues, but no
additional data is generated. Processing
continues normally with the next DSD
statement encountered. (Return code - 8.)

Programmer Response: Probable user error.
Since the output data set may have been
only partially completed, execute IEHPROGM
to scratch the data set, if necessary.
Correct the user exit routine so that a
valid return code is returned.

Problem Determination: Table I, items 1,
3, 13, 23. Have program listing of the
associated user exit routine available.

IEB710I UNABLE TO GET ENOUGH SPACE TO PROCESS
REMAINING CONTROL CARDS

Explanation: A GETMAIN operation was
unable to get sufficient space to process
the remaining control statements.

System Action: Syntax checking of the
remainder of the utility control
statements in this set continues, but no
additional data is processed. Processing
continues normally with the next DSD
statement encountered. (Return code - 8.)

Programmer Response: Probable user error.
Since the output data set may have been
only partially completed, execute IEHPROGM
to scratch the data set, if necessary. If
a REGION parameter was specified, ensure
that the specified value is sufficient to
complete the necessary processing.

Problem Determination: Table I, items 1,
3, 13, 19.

IEB711I KEYWORD VALUE NOT FOLLOWED BY A BLANK OR
COMMA

Explanation: The keyword value pinpointed
by preceding message IEB727I is not
followed by a blank or comma.

System Action: Syntax checking of the
remainder of the utility control
statements in this set continues, but no
additional data is generated. Processing
continues normally with the next DSD
statement encountered. (Return code - 8.)

Programmer Response: Probable user error.
Since the output data set may have been
only partially completed, execute the
IEHPROGM to scratch the data set, if
necessary. Make sure that the keyword
value is followed by a blank or comma.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB712I CONTROL CARD NAME OR KEYWORD VALUE EXCEEDS
8 CHARACTERS

Explanation: The length of a keyword
value or control statement name is greater
than 8 characters.

System Action: Syntax checking of the
remainder of the utility control
statements in this set continues, but no
additional data is generated. Processing
continues normally with the next DSD
statement encountered. (Return code - 8.)

Programmer Response: Probable user error.
Since the output data set may have been
only partially completed, execute IEHPROGM
to scratch the data set, if necessary.
Correct the preceding statement so that
the name or value does not exceed 8
characters.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB7131 FLAGGED KEYWORD IS NOT COMPATIBLE WITH A PRECEDING KEYWORD

Explanation: The keyword pinpointed by preceding message IEB727I is not compatible with another keyword already specified on the same statement. (For example, the keywords PICTURE and FORMAT cannot be used together.)

System Action: Syntax checking of the remainder of the utility control statements in this set continues, but no additional data is generated. Processing continues normally with the next DSD statement encountered, if any. (Return code - 8.)

Programmer Response: Probable user error. Since the output data set may have been only partially completed, execute IEHPROGM to scratch the data set, if necessary. Correct the preceding statement so that the incompatible keywords are not specified together.

Problem Determination: Table I, items 1, 3, 13, 29.

IEB7141 REPEAT CARD ERROR OR REQUIRED NUMBER OF CREATE CARDS NOT PRESENT

Explanation: One of the following error conditions occurred:
• Two or more REPEAT statements refer either to the same CREATE statement or to the same group of CREATE statements.
• A CREATE keyword in a REPEAT statement specifies a number greater than the number of following CREATE statements.

System Action: Syntax checking of the remainder of the utility control statements in this set continues, but no additional data is generated. Processing continues normally with the next DSD statement encountered. (Return code - 8.)

Programmer Response: Probable user error. Since the output data set may have been only partially completed, execute IEHPROGM to scratch the data set, if necessary. Correct the erroneous REPEAT or CREATE statement, as necessary.

Problem Determination: Table I, items 1, 3, 13, 29.

IEB7151 NAME AND/OR LENGTH OR QUANTITY SPECIFICATION(S) OMITTED FROM FD AND/OR REPEAT CARD

Explanation: One or more of the field name, length, and quantity specifications is missing from an FD and/or REPEAT statement.

System Action: Syntax checking of the remainder of the utility control statements in this set continues, but no additional data is generated. Processing continues normally with the next DSD statement encountered. (Return code - 8.)

Programmer Response: Probable user error. Since the output data set may have been only partially completed, execute IEHPROGM to scratch the data set, if necessary. Include the missing parameters on the FD and/or REPEAT statements, as necessary.

Problem Determination: Table I, items 1, 3, 13, 29.

IEB7161 PICTURE STRING OR FD FIELD OVERFLOWS OUTPUT RECORD OR INPUT FIELD SELECTED OVERRUNS INPUT WORKAREA

Explanation: During construction of an output record by a CREATE statement, a specified picture string or FD field extended past the end of the defined record.

System Action: Syntax checking of the remainder of the utility control statements in this set continues, but no additional data is generated. Processing continues normally with the next DSD statement encountered. (Return code - 8.)

Programmer Response: Probable user error. Since the output data set may have been only partially completed, execute IEHPROGM to scratch the data set, if necessary. Make sure that the DCB parameters are correct. Compare the LRECL parameter value with the length of the defined record, and make sure the value is specified correctly.

Problem Determination: Table I, items 1, 3, 13, 29.

IEB7171 INPUT RECORD SIZE EXCEEDS SPECIFIED OUTPUT RECORD SIZE

Explanation: The record length specified in a DD statement for an output data set is not sufficient to contain corresponding input records.

System Action: Syntax checking of the remainder of the utility control statements in this set continues, but no additional data is generated. Processing continues normally with the next DSD statement encountered. (Return code - 8.)

Programmer Response: Probable user error. Since the output data set may have been only partially completed, execute IEHPROGM to scratch the data set, if necessary. Increase the record length specified in the DD statement.

Problem Determination: Table I, items 1, 3, 13, 29.

IEB7181 DSD CONTROL CARD MUST BE FIRST CARD OF SET

Explanation: The DSD control statement is either out of order or missing.

System Action: Syntax checking of the remainder of the utility control statements in this set continues, but no additional data is generated. Processing

IEB

continues normally with the next DSD
statement encountered. (Return code - 8.)

Programmer Response: Probable user error.
Insert the missing DSD statement or
correct the sequence of control
statements, as necessary.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB720I BLANK DOES NOT FOLLOW OPERATION OR CONTROL
CARD NAME

Explanation: The control statement name
or operation is not followed by a blank.

System Action: Syntax checking of the
remainder of the utility control
statements in this set continues, but no
additional data is generated. Processing
continues normally with the next DSD
statement encountered. (Return code - 8.)

Programmer Response: Probable user error.
Since output data set may have been only
partially completed, execute IEHPROGM to
scratch the data set, if necessary.
Correct the preceding statement so that
the control statement name or operation is
followed by a blank.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB721I KEYWORD, KEYWORD VALUE OR DELIMITER IS
MISSING OR EXTENDS INTO COLUMN 72

Explanation: A required keyword, keyword
value, or delimiter is missing or is
specified in column 72.

System Action: Syntax checking of the
remainder of the utility control
statements in this set continues, but no
additional data is generated. Processing
continues normally with the next DSD
statement encountered. (Return code - 8.)

Programmer Response: Probable user error.
Since the output data set may have been
only partially completed, execute IEHPROGM
to scratch the data set, if necessary.
Correct the preceding statement so that
the missing item is included or so the
item does not extend into column 72.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB723I PICTURE PARAMETER IS NOT FOLLOWED BY A
BLANK OR COMMA

Explanation: The picture length
subparameter or the picture value field is
not followed by a blank or comma.

System Action: Syntax checking of the
remainder of the utility control
statements in this set continues, but no
additional data is generated. Processing
continues normally with the next DSD
statement encountered. (Return code - 8.)

Programmer Response: Probable user error.
Since the output data set may have been
only partially completed, execute IEHPROGM
to scratch the data set, if necessary.
Correct the preceding statement so that
the picture parameter is followed by a
blank or comma.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB724I UNABLE TO OPEN DATA SET. LOOK FOR
CONFLICTING VALUES OR MISSING DD CARD

Explanation: An input or output data set
referred to by a DSD statement could not
be opened. Possibly, the DD statement is
missing or the BLKSIZE, LRECL, or RECFM
subparameters are incorrect.

System Action: No syntax checking or data
generation is performed for this set of
utility control statements. Processing
continues normally with the next DSD
statement encountered. (Return code - 8.)

Programmer Response: Probable user error.
Insert the missing DD statement or correct
the invalid parameters, as necessary.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB725I A DUPLICATE DSD CARD HAS BEEN FOUND.
CHECK FOR MISSING END CARD

Explanation: An END statement is either
out of order or missing.

System Action: Syntax checking of the
remainder of the utility control
statements in this set continues, but no
additional data is generated. Processing
continues normally with the next DSD
statement encountered. (Return code - 8.)

Programmer Response: Probable user error.
Insert the missing END statement or
correct the sequence of control
statements, as necessary.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB726I EXEC STATEMENT PARM PARAMETER IS CODED
INCORRECTLY

Explanation: The PARM parameter of the
EXEC statement contains an invalid
character or does not contain a 4-digit
decimal number.

System Action: The line count of the
message data set is set to a default value
of 58. (Return code - 0.)

Programmer Response: Probable user error.
If the default value assumed is
unacceptable, correct the LINECNT
subparameter on the EXEC statement.

Problem Determination: Table I, items 1,
3, 13, 29.

IEB727I ERROR

Explanation: This message pinpoints the location of syntax errors, incompatible keywords, and other control statement coding errors. In most cases, the "E" of ERROR falls directly below the point at which the error was detected in the preceding control statement.

System Action: The system action and return code are as indicated in the error message that follows this message.

Programmer Response: Respond as indicated in the error message that follows this message.

IEB728I INPUT STREAM FLUSHED FROM THIS POINT. LRECL, BLKSIZE, OR RECFM INCORRECT IN INPUT OR OUTPUT DCB

Explanation: An input or output data set could not be opened. Probably, the LRECL, BLKSIZE, or RECFM specification for the data set are incorrect or missing.

System Action: No syntax checking or data generation is performed for this set of utility control statements. Processing continues normally with the next DSD statement encountered. (Return code - 8.)

Programmer Response: Probable user error. Include the missing LRECL, BLKSIZE, or RECFM parameters or correct the invalid parameters, as necessary.

Problem Determination: Table I, items 1, 3, 13, 29.

IEB729I PERMANENT I/O ERROR, jjj, sss, ddd, devtyp, ddn, op, err, xxxx, acc

Explanation: A permanent input/output error occurred while processing on device ddd.

In the message text, the error analysis information was provided by the SYNADAF data management macro instruction issued in the SYNAD routine:

jjj
    Job name.
sss
    Step name.
ddd
    Unit address of the device.
devtyp
    Device type.
ddn
    Data definition name.
op
    Operation attempted.
err
    Error description.
xxxx
    Last seek address or block count.
acc
    Access method.

System Action: The program is terminated. (Return code - 12.)

Programmer Response: Correct the error condition as indicated in the message text.

Problem Determination: Table I, items 1, 3, 13, 29. Table II, Format 1: trace option - TRACE=SIO,IO.

IEBUPDTE Program Messages

IEB801I {OM} LRECL AND BLKSIZE ASSUMED 80/80
     {NM}

Explanation: Necessary DCB parameters were omitted from the SYSUT1 (indicated by OM or old master) or SYSUT2 (indicated by NM or new master) DD statement. The program assumes that the SYSUT1 or SYSUT2 data set, as applicable, contains 80-byte (fixed-length) unblocked records.

System Action: Processing continues. However, if the data set does not contain 80-byte (fixed-length) unblocked records, additional messages will be generated during execution and the job step will be terminated. (Return code - 0.)

Programmer Response: If the record format specifications assumed are correct, none. Otherwise, correct the applicable parameters.

Problem Determination: Table I, items 1, 3, 13, 29. Use IEHLIST to list the VTOCs of the volumes on which the old master and new master data sets reside.

IEB802I I/O ERROR jjj, sss, ddd, devtyp, ddn, op, err, xxxx, acc

Explanation: A permanent input/output error occurred while processing on device ddd.

In the message text, the error analysis information was provided by the SYNADAF data management macro instruction issued in the SYNAD routine:

jjj
    Job name.
sss
    Step name.
ddd
    Unit address of the device.
devtyp
    Device type.
ddn
    Data definition name.
op
    Operation attempted.
err
    Error description.
xxxx
    Track address or relative block number.
acc
    Access method.

System Action: The program is terminated. (Return code - 12.)

Programmer Response: Correct the error condition indicated in the message text.

Problem Determination: Table I, items 1, 3, 13, 29. Table II, Format 1: trace option - TRACE=SIO,IO.

IEB803I PERMANENT INPUT ERROR - FIND MACRO

Explanation: A permanent input error was detected by the FIND macro instruction while attempting to search a partitioned data set directory.

System Action: The program is terminated. (The return code is 12.)

Programmer Response: Check the DD statement describing the SYSUT1 data set for missing or incorrect parameters.

Problem Determination: Table I, items 1, 3, 13, 29. Table II, Format 1: trace option - TRACE=SIO,IO.

IEB804I PERMANENT INPUT ERROR - BLDL MACRO

Explanation: A permanent input/output error was detected by the BLDL macro when attempting to search a partitioned data set directory.

System Action: The program is terminated. (The return code is 12.)

Programmer Response: Check the DD statement describing the SYSUT1 data set for missing or incorrect parameters.

Problem Determination: Table I, items 1, 3, 13, 29. Table II, Format 1: trace option - TRACE=SIO,IO.

IEB805I CONTROL STATEMENT ERROR

Explanation: In the utility control statement preceding this message, a name, keyword, or parameter is incorrect.

System Action: If both the old master data set and the updated master data set are partitioned, the program continues processing with the next function statement. Otherwise, the program is terminated. (Return code - 4.)

Programmer Response: Probable user error. Correct the incorrect name, keyword, or parameter on the preceding statement.
Problem Determination: Table I, items 1, 3, 13, 29.

IEB806I STATEMENT SEQUENCE ERROR

Explanation: Either the utility control statements are out of sequence, or an unnecessary statement has been encountered.

System Action: If both the old master data set and the updated master data set are partitioned, the program continues processing with the next function statement. Otherwise, the program is terminated. (Return code - 4.)

Programmer Response: Probable user error. Correct the sequence of control statements.

Problem Determination: Table I, items 1, 3, 13, 29.

IEB807I INVALID OPERATION

Explanation: The statement preceding this message is inconsistent with previously specified parameters. Possibly:
• A DELETE statement is encountered during an UPDATE=INPLACE operation.
• A CHANGE statement is encountered, but PARM=NEW was specified on the EXEC statement.
• Data statements are out of sequence.
• A NUMBER statement with a SEQ1 parameter is encountered following an ADD statement.

System Action: If both the old master data set and the updated master data set are partitioned, the program continues processing with the next function statement. Otherwise, the program is terminated. (Return code - 4.)

Programmer Response: Probable user error. Correct the control statement or sequence of data statements, as necessary.

Problem Determination: Table I, items 1, 3, 13, 29.

IEB808I TERMINATED THIS MEMBER. IEBUPDTE WILL TRY NEXT MEMBER

Explanation: A control statement error, a statement sequence error, or an invalid operation has terminated an update operation.

System Action: Processing continues with the next function statement. (Return code - 0.)

Programmer Response: Correct the control statement error.

Problem Determination: Table I, items 1, 3, 13, 29.

IEB810I DELETE RANGE INVALID

Explanation: In the DELETE statement preceding this message, the SEQ1 or SEQ2 value specified does not match a sequence number in an existing logical record.

System Action: Processing continues with the next function statement. (Return code - 4.)

Programmer Response: Probable user error. Correct the SEQ1 or SEQ2 value, as necessary, on the preceding statement.

Problem Determination: Table I, items 1, 3, 13, 26bc, 29.

IEB811I NUMBER RANGE INVALID

Explanation: In the NUMBER statement preceding this message, the SEQ1 value does not match a sequence number in an existing logical record.

System Action: Processing continues with the next function statement. (Return code - 4.)

Programmer Response: Probable user error. Correct the SEQ1 value on the preceding statement.

Problem Determination: Table I, items 1, 3, 13, 26bc, 29.

IEB812I DIRECTORY WRITE ERROR

Explanation: A permanent input/output error occurred while writing the directory of the SYSUT2 data set.

System Action: The program is terminated. (Return code - 12.)

Programmer Response: Ensure that sufficient space is allocated for the directory on the SYSUT2 DD statement.

Problem Determination: Table I, items 1, 3, 15, 29. Table II, Format 1: trace option - TRACE=SIO,IO.

IEB813I OUTPUT DIRECTORY FULL

Explanation: Insufficient space was allocated for directory entries in the SYSUT2 data set. Therefore, the member was not placed in the data set.

System Action: The program is terminated. (Return code - 12.)

Programmer Response: Re-create the SYSUT2 data set, allocating sufficient space for the additional directory entries. Then rerun IEBUPDTE to include the members that were omitted.

Problem Determination: Table I, items 1, 3, 15, 29.

IEB814I DDNAME ddn CANNOT BE OPENED

Explanation: The data set specified on DD statement ddn cannot be opened. Possibly, the LRECL or BLKSIZE for the SYSIN volume is not equal to, or a multiple, of 80.

System Action: The program is terminated. (Return code - 12.)

Programmer Response: Probable user error. Correct the parameters that define the data set on DD statement ddn.

Problem Determination: Table I, items 1, 3, 15, 29.

IEB815I CANNOT PROCESS MORE THAN ONE PS DATA SET PER PASS

Explanation: A control statement specified the processing of two input sequential data sets in the same job step.

System Action: The program is terminated. (Return code - 12.)

Programmer Response: Probable user error. Ensure that there is no disagreement between the JCL and the user control statements. Rerun the job.

Problem Determination: Table I, items 1, 3, 15, 29.

IEB816I {MEMBER NAME mem FOUND IN NM DIRECTORY. TTR IS NOW ALTERED}

Explanation: For the first format of the message, member name mem specified on an ADD statement already exists.

For the second format of the message, member name mem exists in the new master (NM) directory.

System Action: For the first format of the message, the program is terminated. (Return code - 12.)

For the second format of the message, an entry (TTR) is altered and processing continues. (Return code - 0.)

Programmer Response: For the first format of the message, change the member name to be added. For the second format of the message, no action is necessary.

Problem Determination: Table I, items 1, 3, 15, 29.

IEB817I MEMBER NAME mem NOT FOUND IN NM DIRECTORY. STOWED WITH TTR

Explanation: Member name mem does not exist in the directory of the new master (NM) data set.

System Action: An entry (TTR) is made for the member in the directory. Processing continues. (Return code - 0.)

Programmer Response: None.

IEB818I HIGHEST CONDITION CODE WAS xx

Explanation: Condition code xx was the highest code generated in the job step.

System Action: The program is terminated normally.

Programmer Response: None.

IEB819I END OF JOB IEBUPDTE

Explanation: The IEBUPDTE program has completed processing.

System Action: The program is terminated normally.

Programmer Response: None.

IEB820I CANNOT PROCESS MORE THAN ONE UPDATE
INPLACE PER PASS

Explanation: Two or more UPDATE=INPLACE
operations were specified in the same job
step; they must be specified in separate
job steps.

System Action: The program is terminated.
(Return code - 12.)

Programmer Response: Probable user error.
Specify each UPDATE=INPLACE operation in a
separate job step.

Problem Determination: Table I, items 1,
3, 15, 29.

IEB821I INVALID EXIT NAME. JOB ENDED

Explanation: The name of a user exit
routine, specified on a function
statement, is invalid.

System Action: The program is terminated.
(Return code - 12.)

Programmer Response: Probable user error.
Correct the routine name on the applicable
function statement.

Problem Determination: Table I, items 1,
3, 15, 29.
Have the exit routine listings and linkage
editor output available.

IEB822I EXIT RETURN CODE ENDED JOB

Explanation: The return code returned by
the user was 16.

System Action: The program is terminated.
(Return code - 16.)

Programmer Response: If a return code of
16 was not expected, check your exit
routine and rerun the job.

Problem Determination: Table I, items 1,
3, 15, 29. Have the exit routine listings
available.

IEB823I {SYSUT1} HAS NO RECORDS
        {SYSIN }

Explanation: The SYSUT1 or SYSIN data
set, as indicated in the message text,
contains no records.

System Action: For the SYSUT1 data set,
processing continues with the next member,
if any. (Return code - 4.)

For the SYSIN data set, the program is
terminated. (Return code - 12.)

Programmer Response: Insert data
statements for the SYSIN data set or
ensure that the proper SYSUT1 data set is
specified, as necessary.

Problem Determination: Table I, items 1,
3, 15, 29.

IEB825I ALIAS IGNORED - SEQUENTIAL DATA SET

Explanation: An ALIAS statement specified
an alias name for an output sequential
data set.

System Action: The statement is ignored.
(Return code - 4.)

Programmer Response: Probable user error.
Delete the ALIAS statement.

Problem Determination: Table I, items 1,
3, 15, 29.

IEB826I MEMBER NAME FOUND IN OM DIRECTORY AS AN
ALIAS - CHANGED TO TRUE NAME IN NM
DIRECTORY

Explanation: The member name is an alias
name in the old master (OM) directory, and
is entered as a member name in the new
master (NM) directory.

System Action: Processing continues.
(Return code - 0.)

Programmer Response: None.

IEB827I INVALID INPUT PARAMETER

Explanation: Either the EXEC statement
contains an incorrect PARM parameter or an
incorrect parameter was passed to the
IEBUPDTE program.

System Action: The program is terminated.
(Return code - 12.)

Programmer Response: Probable user error.
Correct the PARM parameter of the EXEC
statement.

Problem Determination: Table I, items 1,
3, 15, 29.

IEB828I PAGE NUMBER PARAMETER INVALID

Explanation: An invalid starting page
number for the message data set was passed
to IEBUPDTE.

System Action: A page number of 1 is
assigned to the first page of the
printout. (Return code - 4.)

Programmer Response: Probable user error.
If the default of 1 is not acceptable,
correct the starting page number.

Problem Determination: Table I, items 1,
3, 15, 29.

IEB829I DDNAME PARAMETER IS INVALID

Explanation: An incorrect DDNAME
parameter was passed to IEBUPDTE.

System Action: The program is terminated.
(Return code - 12.)

Programmer Response: Probable user error.
Correct the DDNAME parameter.

Problem Determination: Table I, items 1, 3, 15, 29.

IEB830I OLD AND NEW MASTER LRECL UNEQUAL

Explanation: The logical record lengths of the old and new master data sets are unequal.

System Action: The program is terminated. (Return code - 12.)

Programmer Response: Probable user error. Correct the LRECL subparameter of the DCB parameter on the SYSUT2 DD statement.

Problem Determination: Table I, items 1, 3, 15, 29.

IEB831I OLD AND NEW MASTER DSORGS INCOMPATIBLE

Explanation: The data set organizations implied or specified on the SYSUT1 and/or SYSUT2 DD statements are either:
• Inconsistent with one another.
• Inconsistent with the data set organizations implied or specified on the utility control statements.

System Action: The program is terminated. (Return code - 12.)

Programmer Response: Probable user error. In the first case, ensure that the space allocation specified on the SYSUT1 and/or SYSUT2 DD statements is consistent with the data set organization. Also, ensure that the DSORG subparameter, if included, is correct.

In the second case, ensure that the keywords specified on the utility control statements are consistent with the data set organizations specified or implied on the SYSUT1 and/or SYSUT2 DD statements.

Problem Determination: Table I, items 1, 3, 15, 25b, 29.

IEB832I rtne IS PROCESSING USER
{INPUT } {HEADER } LABELS
{OUTPUT} {TRAILER}

Explanation: User routine rtne is currently processing input or output, header or trailer labels, as indicated in the message text.

System Action: Processing continues. (Return code - 0.)

Programmer Response: None.

IEB833I xx ENTRANCES TO rtne

Explanation: The number of entrances to user routine rtne is xx.

System Action: Processing continues. (Return code - 0.)

Programmer Response: None.

IEB834I LAST RETURN CODE FROM rtne WAS xx

Explanation: Return code xx was the last return code issued by user routine rtne.

System Action: Processing continues. (Return code - 0.)

Programmer Response: None.

IEB835I {TOTALING } SUPPORTED ONLY ON
{USER LABELS}

PS DATA SETS

Explanation: The user requested totaling exits or user label processing, as indicated in the message text, for a data set whose organization is not physical sequential. These functions are supported only for physical sequential data sets.

System Action: The program is terminated. (Return code - 8.)

Programmer Response: Probable user error. Do not specify totaling exits or user label processing for partitioned data sets.

Problem Determination: Table I, items 1, 3, 15, 29.

IEB836I TRAILER LABEL PROCESSING NOT SUPPORTED FOR UPDATE=INPLACE

Explanation: The user specified user trailer label exits with an UPDATE=INPLACE operation. This is not supported.

System Action: The program is terminated. (Return code - 8.)

Programmer Response: Probable user error. Do not specify trailer label processing with an UPDATE=INPLACE operation.

Problem Determination: Table I, items 1, 3, 15, 29.

IEB837I I/O ERROR WHILE PROCESSING USER LABEL

Explanation: An uncorrectable input/output error occurred during user label processing. The results of the label processing are unpredictable.

System Action: The program is terminated. (Return code - 12.)

Programmer Response: Ensure that DCB parameters for the data set are correct and are present.

Problem Determination: Table I, items 1, 3, 15, 29. Table II, Format 1: trace option - TRACE=SIO,IO.

IEB839I rtne IS TAKING TOTALING EXITS

Explanation: User routine rtne is taking totaling exits prior to writing each record.

System Action: Processing continues.
(Return code - 0.)

Programmer Response: None.

IEB8401 rtne REQUESTED TERMINATION OF TOTALING
EXITS

Explanation: A return code other than 4
was passed to IEBUPDTE by user totaling
routine rtne.

System Action: If the return code passed
to IEBUPDTE was 0, totaling exits are
discontinued, but processing continues.
(Return code - 0.)

If the return code was 8, the program is
terminated. (Return code - 12.)

If the return code was 16, the program is
terminated. (Return code - 16.)

Programmer Response: If termination of
the totaling exit routine was not
expected, check the exit routine and rerun
the job.

Problem Determination: Table I, items 1,
3, 15, 29. Have the exit routine listings
available.

IEB8411 INVALID RETURN CODE FROM rtne, TOTALING
EXITS DISCONTINUED

Explanation: The return code passed to
IEBUPDTE by user totaling routine rtne
during a totaling exit was not valid --
that is, the return code was not 0, 4, 8,
or 16.

System Action: Totaling exits are
discontinued, but processing continues.
(Return code - 0.)

Programmer Response: Probable user error.
Check the user routine to make sure that a
valid return code was passed to the
utility program; rerun the job.

Problem Determination: Table I, items 1,
3, 15, 29. Have the exit routine listings
available.

IEB8421 TOTALING EXITS NOT SUPPORTED FOR
UPDATE=INPLACE

Explanation: The user specified totaling
exits with an UPDATE=INPLACE operation.
This is not supported.

System Action: The program is terminated.
(Return code - 12.)

Programmer Response: Probable user error.
Do not specify totaling exits with an
UPDATE=INPLACE operation.

Problem Determination: Table I, items 1,
3, 15, 29.

IEB8431 INVALID CORE SIZE

Explanation: The main storage specified
in the TOTAL keyword either is a
non-numeric character, is less than 2
bytes, or is greater than 32K bytes.

System Action: The program is terminated.
(Return code - 12.)

Programmer Response: Probable user error.
Correct the TOTAL keyword.

Problem Determination: Table I, items 1,
3, 15, 29.

IEB8441 NO USER {HEADER } LABELS EXIST ON
{TRAILER}
INPUT DATA SET

Explanation: The user specified SUL on
the DD statement for the input data set,
but there are no header or trailer labels,
as indicated in the message text, on the
data set.

System Action: Processing continues.
(Return code - 0.)

Programmer Response: None.

IEB8451 NO USER {HEADER } LABELS CREATED ON
{TRAILER}
OUTPUT DATA SET

Explanation: The user specified SUL on
the SYSUT2 DD statement, but no header or
trailer labels, as indicated in the
message text, were copied from the SYSUT1
data set and no labels were generated by a
LABEL statement.

System Action: Processing continues.
(Return code - 0.)

Programmer Response: If user labels are
desired on the output data set, make sure
that the SYSUT1 data set contains user
labels, or supply user labels with the
LABEL statement. Rerun the job.

Problem Determination: Table I, items 1,
3, 15, 29. Have the associated input data
set available.

IEB8461 ALIAS IGNORED FOR UPDATE=INPLACE

Explanation: ALIAS statements for
partitioned data set members cannot be
processed using the UPDATE=INPLACE
operation.

System Action: All ALIAS statements are
ignored. Processing continues. (Return
code - 0.)

Programmer Response: Probable user error.
Delete the ALIAS statements.

Problem Determination: Table I, items 1,
3, 15, 29.

IEBTCRIN Program Messages

IEB901A M ddd,ser,jjj,sss

> Explanation: M indicates that an MTDI or
> MTST cartridge file is to be mounted on
> device ddd. The volume was required by
> job jjj or, if applicable, step sss of job
> jjj.
>
> In the message text, ser is the volume
> serial number provided in the SYSUT1 DD
> statement. If ser is TCRINP, no serial
> number was provided and TCRINP is used.
>
> Operator Response: Mount the requested
> cartridge(s) on device ddd and press the
> START button to ready the device. If the
> volume cannot be mounted, issue a CANCEL
> command to terminate job jjj.

IEB902I INVALID NAME FIELD

> Explanation: In the control statement
> preceding this message, the name field
> contains either more than eight characters
> or a nonalphabetic character in column 1.
>
> System Action: Diagnosis of the preceding
> statement is terminated. Any additional
> control statements are scanned for syntax
> errors, after which the program is
> terminated. (Return code - 12.)
>
> Programmer Response: Probable user error.
> Make sure the name field is correct and
> execute the job step again.
>
> Problem Determination: Table I, items 3,
> 15, 29.

IEB903I INVALID OPERATION

> Explanation: In the control statement
> preceding this message, an operation code
> other than TCRGEN or EXITS was specified.
>
> System Action: Diagnosis of the preceding
> statement is terminated. Any additional
> control statements are scanned for syntax
> errors, after which the program is
> terminated. (Return code - 12.)
>
> Programmer Response: Probable user error.
> Make sure the operation field is correct
> and execute the job step again.
>
> Problem Determination: Table I, items 3,
> 15, 29.

IEB904I INVALID KEYWORD

> Explanation: In the statement preceding
> this message, a keyword is incorrect.
> Possibly, the keyword was misspelled.
>
> System Action: Processing continues with
> the next keyword. Any additional control
> statements are scanned for syntax errors,
> after which the program is terminated.
> (Return code - 12.)

> Programmer Response: Probable user error.
> Make sure the control statement is correct
> and execute the job step again.
>
> Problem Determination: Table I, items 3,
> 15, 29.

IEB905I INVALID PARAMETER VALUE

> Explanation: In the statement preceding
> this message, a parameter value is
> incorrect. Possibly:
> * The MAXLN parameter value contains more
>   than 5 digits.
> * The OUTHDR2 user routine name is more
>   than 8 characters.
> * The VOKCHK parameter is misspelled as
>   VOKCHECK.
> * The REPLACE parameter value is not of
>   the form X'xx', where each x is replaced
>   by hexadecimal characters A-F or 0-9.
>
> System Action: Processing continues with
> the next keyword. Any additional control
> statements are scanned for syntax errors,
> after which the program is terminated.
> (Return code - 12.)
>
> Programmer Response: Probable user error.
> Make sure the control statement is correct
> and execute the job step again.
>
> Problem Determination: Table I, items 3,
> 15, 29.

IEB906I DUPLICATE OPERATION FIELD

> Explanation: The operation field on the
> control statement preceding this message
> is the same as the operation field on a
> control statement previously processed.
>
> System Action: Diagnosis of the preceding
> statement is terminated. Any additional
> control statements are scanned for syntax
> errors, after which the program is
> terminated. (Return code - 12.)
>
> Programmer Response: Probable user error.
> Make sure no control statements have
> duplicate operation fields and execute the
> job step again.
>
> Problem Determination: Table I, items 3,
> 15, 29.

IEB907I INCONSISTENT REPLACE PARAMETER

> Explanation: In the TCRGEN statement
> preceding this message, the REPLACE
> parameter is inconsistent with specified
> or implied TYPE, TRANS, and/or EDIT
> options.
>
> System Action: The program is terminated.
> (Return code - 12.)
>
> Programmer Response: Probable user error.
> Make sure the control statement is correct
> and execute the job step again.
>
> Problem Determination: Table I, items 3,
> 15, 29.

IEB908I CONFLICTING OPTIONS SPECIFIED

    Explanation: In the control statement
    preceding this message, either two or more
    keyword parameters were specified that
    should not appear together, or the same
    keyword parameter was specified more than
    once.

    System Action: The program is terminated.
    (Return code - 12.)

    Programmer Response: Probable user error.
    Make sure the control statement is correct
    and execute the job step again.

    Problem Determination: Table I, items 3,
    15, 29.

IEB909I EXPECTED CONTINUATION NOT RECEIVED

    Explanation: The statement preceding this
    message is not a valid continuation
    statement:
    • The previous statement contains a comma
      at the end of the operand, indicating
      continuation of the operand, but data in
      the preceding statement does not begin
      in columns 4 through 16.
    • The previous statement contains a
      non-blank character in column 72,
      indicating continuation of a comment,
      but data in the preceding statement does
      not begin after column 3.

    System Action: Diagnosis of the preceding
    statement is terminated. Any additional
    control statements are scanned for syntax
    errors, after which the program is
    terminated. (Return code - 12.)

    Programmer Response: Probable user error.
    Make sure that the continuation statement
    begins in column 4 through 16 or after
    column 3, as appropriate. Make sure that
    the control statement is correct and
    execute the job step again.

    Problem Determination: Table I, items 3,
    15, 29.

IEB910I NO SYSUT1 DD CARD - JOB TERMINATED

    Explanation: No SYSUT1 DD statement was
    included in the job step.

    System Action: The program is terminated.
    (Return code - 12.)

    Programmer Response: Probable user error.
    Insert the missing SYSUT1 DD statement.

    Problem Determination: Table I, items 3,
    15, 29.

IEB911I NO SYSIN DD CARD - ALL DEFAULT OPTIONS
       ASSUMED

    Explanation: No SYSIN DD statement was
    included in the job step.

    System Action: The program is executed
    using all default options for the SYSIN
    data set. (Return code - 4.)

    Programmer Response: Probable user error.
    If the use of all default options is
    desired, none. Otherwise, insert a SYSIN
    DD statement and any other necessary
    statements.

    Problem Determination: Table I, items 1,
    3, 13, 29.

IEB912I NO SYSPRINT DD CARD - DUMMY ASSUMED

    Explanation: No SYSPRINT DD statement was
    included in the job step.

    System Action: The program is executed as
    if DUMMY was specified for the SYSPRINT
    data set; that is, no messages will appear
    in the SYSPRINT data set. (Return code -
    4.)

    Programmer Response: Probable user error.
    If no output on the SYSPRINT data set is
    desired, none. Otherwise, insert a
    SYSPRINT DD statement.

    Problem Determination: Table I, items 1,
    3, 13, 29.

IEB913I NO {SYSUT2} DD CARD - DUMMY ASSUMED
       {SYSUT3}

    Explanation: No SYSUT2 or SYSUT3 DD
    statement, as indicated in the message
    text, was included in the job step.

    System Action: The program is executed as
    if DUMMY was specified for the SYSUT2 (or
    SYSUT3) data set; that is, no data will
    appear in the SYSUT2 (or SYSUT3) data set.
    The records that are passed to the user
    exit are constructed using the default
    value (VB) of the DCB RECFM parameter; in
    some cases, however, this may produce
    undesirable results. (Return code - 4.)

    Programmer Response: Probable user error.
    If no output on the SYSUT2 (or SYSUT3)
    data set is desired, none. Otherwise,
    insert a SYSUT2 (or SYSUT3) DD statement.

    Problem Determination: Table I, items 1,
    3, 13, 29.

IEB914I DCB SUBPARAMETER(S) MISSING IN ddn DD CARD
       - DEFAULTS ASSUMED

    Explanation: In DD statement ddn, the
    LRECL, BLKSIZE, and/or RECFM subparameters
    were not specified.

    System Action: The program is executed
    using default options. (Return code - 4.)

    Programmer Response: Probable user error.
    If the default parameters are acceptable,
    none. Otherwise, include the missing
    subparameters on DD statement ddn.

    Problem Determination: Table I, items 1,
    3, 13, 29.

IEB915I DDNAME ddn CANNOT BE OPENED

Explanation: Because of an undetermined error, the data set specified on DD statement ddn cannot be opened.

System Action: The program is terminated. (Return code - 16.)

Programmer Response: None

Problem Determination: Table I, items 1, 2, 3, 15, 29. If the data set that cannot be opened is on a direct access volume, execute IEHLIST (with the LISTVTOC function) for the volume, and save the output.

IEB916I INCONSISTENT ddn DCB PARAMETERS

Explanation: Two or more DCB parameters for the data set specified on DD statement ddn are inconsistent.

System Action: The program is terminated. (Return code - 16.)

Programmer Response: Probable user error. Correct the DCB parameters on DD statement ddn and execute the job step again.

Problem Determination: Table I, items 1, 2, 29.

If the DCB refers to a data set on a direct access volume, execute IEHLIST (with the LISTVTOC function) for the volume, and save the output.

IEB917I LOAD MODULE SPECIFIED FOR prm NOT FOUND

Explanation: Either a user exit routine specified in the prm keyword parameter of the EXITS statement or a user translate table specified in the prm keyword parameter of the TCRGEN statement could not be located in the job library or link library.

System Action: The program is terminated. (Return code - 16.)

Programmer Response: Probable user error. Make sure that the control statements contain no keypunch errors. If no keypunch errors are found, verify that the module is present in a link library or job library. If the module is present in the job library, ensure that a JOBLIB statement is included, and that it is correct. Execute the job step again.

Problem Determination: Table I, items 1, 2, 3, 15, 29. Execute IEHLIST (with the LISTVTOC function) for the volume containing the load module, and save the output.

IEB918I JOB TERMINATED AFTER prm EXIT

Explanation: A user-supplied exit routine specified in the prm parameter requested termination upon return to the utility program.

System Action: The program is terminated. (Return code - 16.)

Programmer Response: None.

IEB919I INSUFFICIENT STORAGE AVAILABLE

Explanation: In a GETMAIN macro instruction, more main storage was requested than was available.

System Action: The program is terminated. (Return code - 16.)

Programmer Response: If additional storage is available, increase the value specified in the REGION parameter of the JOB or EXEC statement.

If additional storage is not available, decrease the value specified in the BUFL subparameter of the DCB parameter of the SYSUT1 DD statement.

Problem Determination: Table I, items 1, 3, 13, 29.

IEB920I ddd,devtyp,ddn,op,err,xxxx,acc

Explanation: A permanent input/output error occurred while processing on unit record device ddd.

In the message text, the error analysis information was provided by the SYNADAF data management macro instruction issued in the SYNAD routine:

ddd
    Unit address of the device.
devtyp
    Device type.
ddn
    Data definition name.
op
    Operation attempted.
err
    Error description.
xxxx
    Asterisks.
acc
    Access method.

System Action: The program is terminated. (Return code - 16.)

Programmer Response: Probable hardware error. Correct the error condition indicated in the message text, if possible. Execute the job step again.

Problem Determination: Table I, items 1, 2, 5a, 30.

IEB921I ddd,devtyp,ddn,op,err,xxxx,acc

Explanation: A permanent input/output error occurred while processing on tape device ddd.

In the message text, the error analysis information was provided by the SYNADAF

data management macro instruction issued
in the SYNAD routine:

ddd
    Unit address of the device.
devtyp
    Device type.
ddn
    Data definition name.
op
    Operation attempted.
err
    Error description.
xxxx
    Relative block number.
acc
    Access method.

<u>System Action</u>: The program is terminated.
(Return code - 16.)

<u>Programmer Response</u>: Correct the error
condition indicated in the message text.

<u>Problem Determination</u>: Table I, item 29.

IEB922I ddd,devtyp,ddn,op,err,xxxx,acc

    <u>Explanation</u>: A permanent input/output
error occurred while processing on direct
access device ddd.

In the message text, the error analysis
information was provided by the SYNADAF
data management macro instruction issued
in the SYNAD routine:

ddd
    Unit address of the device.
devtyp
    Device type.
ddn
    Data definition name.
op
    Operation attempted.
err
    Error description.
xxxx
    Actual track address and block
    number.
acc
    Access method.

<u>System Action</u>: The program is terminated.
(Return code - 16.)

<u>Programmer Response</u>: Correct the error
condition indicated in the message text.

<u>Problem Determination</u>: Table I, item 29.

Component Name	IEC
Program Producing Message	Data management.
Audience and Where Produced	For operator: console.

Message Format	xx IECnnns text [Pnn]
	
	xx
	    Message reply identificaticn (absent, if cperator reply not required).
	nnn
	    Message serial number, which is coded tc indicate the data management function:
	
	    Onn End of volume
	    1nn Open
	    2nn Close
	    3nn Password Security
	    4nn Checkpoint/restart
	    6nn Direct access device space managenent (CACSM)
	    7nn Tape label creation
	    8nn BTAM/CTAM
	s
	    Type code:
	
	    A Action; operator must perfcrm a specific action.
	    D Decision; operator must chcose an alternative.
	    E Eventual action; operatcr must perfcrm acticn when he has time.
	    I Information; no operator action is required.
	text
	    Message text.
	Pnn
	    Partition which issued the message (systems with MFT cnly).

Comments	None.
Problem Determination	Refer to the fold-out in part VI cf this publicaticn for problem determination instructions.

End-of-Volume Messages

IEC001 {A/E} M ddd,ser[,labtyp][,den],jjj,sss[,dsn]

> Explanation: M indicates that a volume is to mounted on device ddd:
> * If ser is a 6-digit serial number, the volume with that serial number is to be mounted on the device.
> * If ser is SCRTCH, a scratch volume is to be mounted.
> * If ser begins with an L, the volume to be mounted is unlabeled; the number after the slash or L is an internal serial number assigned by the system to an unlabeled volume and is of the form xxxyy, where xxx is the data set number and yy is the volume sequence number of the data set.
> * If the device indicates a 1419/1275, ser is a stack of documents tc be readied on the device.

Note: In the case cf message IEC001E, no reference to a 1419/1275 will occur.

In the message text, labtyp and den appear only for tape vclumes. The volume has the type cf label specified by labtyp: SL for standard label, AL fcr ANS1 label, NSL for nonstandard label, cr NL for nc label; the density is as specified by den.

The vclume is being used by step sss of job jjj. If a MONITOR DSNAME command is active, data set dsn contained cn the volume is also specified in the message text.

Cperator Respcnse: If ser is SCRTCH, make sure that the file prctection ring has been inserted in the vclume.

Mount the volume cn the device. If a scratch volume is tc be mounted and a scratch volume is already cn the device, mount another scratch volume. Then, ready the device.

IEC002E K ddd,ser[,labtyp][,den],jjj,sss
        [,SPACE=prm][,dsn]

    Explanation: K indicates that the volume
on device ddd is to be demounted and
returned to the library:
- If ser is a 6-digit number, it is the
  serial number of the volume, which
  contains labels.
- If ser begins with an L, the volume to
  be demounted is unlabeled; the number
  after the L is an internal serial number
  assigned by the system to an unlabeled
  volume and is of the form xxxyy, where
  xxx is the data set number and yy is the
  volume sequence number of the data set.

In the message text, labtyp and den appear
only for tape volumes. The volume has the
type of label specified by labtyp: SL for
standard label, AL for ANS1 label, NSL for
nonstandard label, or NL for no label; the
density is as specified by den.

The volume is being used by step sss of
job jjj.

For direct access volumes, if a MONITOR
SPACE command is active, the field
SPACE=cccc,tttt,aaaa/yyyy,zzzz is
specified:

cccc
    Total number of free cylinders on the
    volume.
tttt
    Total number of tracks in addition to
    the free cylinders.
aaaa
    Areas or extents dividing the
    cylinders and tracks.
yyyy
    Maximum number of contiguous free
    cylinders of the largest extent
    within the total remaining space.
zzzz
    Number of tracks in addition to the
    free cylinders of the largest extent
    within the total remaining space.

If an error occurred during the listing of
the parameters in the SPACE field, one of
the following messages is specified:
- LSPACE-PERMANENT I/O ERROR
- LSPACE-NON-STANDARD OS VOLUME
- LSPACE-NOT A DIRECT ACCESS VOL
- LSPACE-INVALID PARAMETER
- LSPACE-UCB NOT READY

If a MONITOR DSNAME command is active,
data set dsn contained on the volume is
also specified in the message text.

Operator Response: Demount the volume.
Mark the serial number, label type, and
density on the volume, if they are not so
marked. Then return it to the library.
If LSPACE-PERMANENT I/O ERROR was in the
message, a permanent I/O error was
encountered while trying to read the VTOC.
Execute the IEHLIST utility program to
list the VTOC of this volume. If errors
occur, take appropriate action as
indicated in the message.

Problem Determination: If LSPACE-INVALID
PARAMETER was in the message, see Table I,
items 2, 29.

IEC003E R ddd,ser[,labtyp][,den],jjj,sss
        [,SPACE=prm]

    Explanation: R indicates that the volume
on device ddd is to be demounted and
retained near the computer for use in the
near future:
- If ser is a 6-digit number, it is the
  serial number of the volume, which
  contains labels.
- If ser begins with an L, the volume to
  be demounted is unlabeled; the number
  after the L is an internal serial number
  assigned by the system to an unlabeled
  volume and is of the form xxxyy, where
  xxx is the data set number and yy is the
  volume sequence number of the data set.

In the message text, labtyp and den appear
only for tape volumes. The volume has the
type of label specified by labtyp: SL for
standard label, AL for ANS1 label, NSL for
nonstandard label, or NL for no label; the
density is as specified by den. The
volume is being used by step sss of job
jjj.

For direct access volumes, if a MONITOR
SPACE command is active, the field
SPACE=cccc,tttt,aaaa/yyyy,zzzz is
specified:

cccc
    Total number of free cylinders on the
    volume.
tttt
    Total number of tracks in addition to
    the free cylinders.
aaaa
    Areas or extents dividing the
    cylinders and tracks.
yyyy
    Maximum number of contiguous free
    cylinders of the largest extent
    within the total remaining space.
zzzz
    Number of tracks in addition to the
    free cylinders of the largest extent
    within the total remaining space.

If an error occurred during the listing of
the parameters in the SPACE field, one of
the following messages is specified:
- LSPACE-PERMANENT I/O ERROR
- LSPACE-NON-STANDARD OS VOLUME
- LSPACE-NOT A DIRECT ACCESS VOL
- LSPACE-INVALID PARAMETER
- LSPACE-UCB NOT READY

Operator Response: Demount the volume.
Mark the serial number, label type, and
density on the volume, if they are not so
marked. (The internally assigned number
should appear externally on the volume in
case a subsequent step needs the volume;
for the subsequent mounting, the system
will specify the volume by the internally
assigned number.) Then retain the volume
near the computer. Also, mark the
jobname on the volume. If the job ends
without requesting a remount of the
volume, the volume need no longer be
retained. If LSPACE-PERMANENT I/O
ERROR was in the message, a permanent
I/O error was encountered while trying to

read the VTOC. Execute the IEHLIST
utility program to list the VTOC of this
volume. If errors occur, take appropriate
action as indicated in the message.

Problem Determination: If LSPACE-INVALID
PARAMETER was in the message, see Table I,
items 2, 29.

IEC004E D ddd,ser[,labtyp][,den],jjj,sss
[,SPACE=prm][,dsn]

Explanation: D indicates that the volume
on device ddd is to be demounted and used
subsequently as a scratch volume:
• If ser is a 6-digit number, it is the
serial number of the volume, which
contains labels.
• If ser begins with an L, the volume to
be demounted is unlabeled; the number
after the L is an internal serial number
assigned by the system to an unlabeled
volume and is of the form xxxyy, where
xxx is the data set number and yy is the
volume sequence number for the data set.

In the message text, labtyp and den appear
only for tape volumes. The volume has the
type of label specified by labtyp: SL for
standard label, AL for ANS1 label, NSL for
nonstandard label, or NL for no label; the
density is as specified by den.

The volume is being used by step sss of
job jjj.

For direct access volumes, if a MONITOR
SPACE command is active, the field
SPACE=cccc,tttt,aaaa/yyyy,zzzz is
specified:

cccc
    Total number of free cylinders on the
    volume.
tttt
    Total number of tracks in addition to
    the free cylinders.
aaaa
    Areas or extents dividing the
    cylinders and tracks.
yyyy
    Maximum number of contiguous free
    cylinders of the largest extent
    within the total remaining space.
zzzz
    Number of tracks in addition to the
    free cylinders of the largest extent
    within the total remaining space.

If an error occurred during the listing of
the parameters in the SPACE field, one of
the following messages is specified:
• LSPACE-PERMANENT I/O ERROR
• LSPACE-NON-STANDARD OS VOLUME
• LSPACE-NOT A DIRECT ACCESS VOL
• LSPACE-INVALID PARAMETER
• LSPACE-UCB NOT READY

If a DISPLAY DSNAME command is active,
data set dsn contained on the volume is
also specified in the message text.

Operator Response: Demount the volume.
Use it later when a scratch volume is
requested. If LSPACE-PERMANENT I/O ERROR

was in the message, a permanent I/O error
was encountered while trying to read the
VTOC. Execute the IEHLIST utility program
to list the VTOC of this volume. If
errors occur, take appropriate action as
indicated in the message.

Problem Determination: If LSPACE-INVALID
PARAMETER was in the message, see Table I,
items 2, 29.

IEC007D E ddd,ser,jjj,sss,dsn

Explanation: E indicates that a program
intended to write on the volume on device
ddd; however, the expiration date for data
set dsn on the volume has not occurred.

In the message text, ser is the 6-digit
serial number of the volume, which contain
labels. The volume is being used by step
sss of job jjj. For a tape volume, only
the last 17 characters of the data set
name (dsn) appear. This is as much as is
contained in the tape's data set labels.

Operator Response: If the expiration date
is to be ignored and the volume written
on, enter REPLY xx,'U'.

If the expiration date is to be honored
and the volume not written on, enter REPLY
xx,'M'. The system will then request that
a new volume be mounted.

Note: In systems with MVT or MFT, the
operator should normally terminate any job
attempting to update a system data set, if
this message is issued. However, if a
system data set is to be updated, the job
stream should be set up so that no other
concurrently running job uses the data set
being updated; if the job stream is set up
in this manner, the operator should be
instructed to respond with REPLY xx,'U' to
this message.

IEC009A F ddd,ser,jjj,sss,dsn

Explanation: F indicates that the volume
on device ddd is file protected; that is,
its file protection ring is not inserted,
so it can only be read. However, the
volume is to be written on.

In the message text, ser is the 6-digit
serial number of the volume and dsn is the
data set name. The volume is being used
by step sss of job jjj.

System Action: The system rewinds and
unloads the volume.

Operator Response: If so specified by the
programmer, insert a file protection ring
in the volume, mount the volume, and ready
the device. Otherwise, cancel the job.

IEC010D F ddd,ser,jjj,sss,dsn

Explanation: F indicates that the volume
on device ddd is file protected; that is,
its file protection ring is not inserted,
so it can only be read.

In the message text, ser is the 6-digit
serial number of the volume and dsn is the
data set name. The volume is being used
by step sss of job jjj.

Operator Response: If the volume should
be file protected, enter REPLY xx,'U'.

If the volume must have a file protection
ring, enter REPLY xx,'F'; the system will
rewind and unload the volume. Then insert
a file protection ring, mount the volume,
and ready the device.

IEC012I I/O ERR ddd,ser

Explanation: If I/O ERR appears in the
message text, an uncorrectable
input/output error occurred while
processing tape labels; if SEC VOL
appears, a security protected tape was
mounted and the programmer had specified
NL or NSL in the LABEL subparameter of the
DD statement describing the data set.

In the message text, ser is the serial
number of the volume and ddd is the unit
address.

Operator Response: Respond as indicated
when the system requests that a new volume
be mounted.

Problem Determination: Table I, items 1,
2, 3, 13, 28, 29.

IEC014E D ddd

Explanation: D indicates that the volume
on device ddd is to be demounted. The
control program has determined that this
volume, mounted in response to an earlier
mount message, either:
• Contains labels that cannot be read due
  to a permanent input/output error.
• Contains no labels or nonstandard labels
  when standard labels were specified.
• Contains standard labels when no labels
  or nonstandard labels were specified.
• Contains labels which are written in a
  density other than the density
  specified.

Operator Response: Demount the volume.
The system will then request that a new
volume be mounted. Mount a volume with
the correct density and label type.

Problem Determination: Table I, items 1,
2, 3, 13, 28, 29.

IEC015I A37-rc,jjj,sss,ddn[-#],ddd,ser

Explanation: The error occurred during
end-of-volume processing. In the message
text, A37-rc associates this message with
system completion code A37 and with return
code rc. Other fields in the message text
are:

jjj
    job name
sss
    step name

ddn[-#]
    DDname (followed by a concatenation
    number if it is part of a
    concatenation and not the first DD
    statement in the concatenation.)
ddd
    device address
ser
    volume serial number
The values of rc and their meanings are as
follows:

Return
Code   Meaning
04   An SVC 55 (EOV) was issued,
         usually by a CHECK, GET, or PUT
         routine, against a DCB which was
         not open.
08   An SVC 55 (EOV) was issued with
         register 1 pointing to a DCB.

System Action: The task is terminated
unless the error is to be ignored as
specified in the DCB ABEND exit routine.

Programmer Response: Probable user error.
An open DCB may have been partially
overlaid, closed by the user in a SYNAD
routine, or automatically closed by a
previous end-of-volume error where
'ignore' was specified in the DCB ABEND
exit routine. Correct the errors causing
abnormal termination as indicated by the
return code indicated in the message text.
Rerun the job.

Problem Determination: Table I, items 1,
4, 5a, 15, 16, 29. Table II, Format 3.

IEC016I 537-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred at an
end-of-volume. In the message text,
537-rc associates this message with system
completion code 537 and with return code
rc. Other fields in the message text are:
jjj
    jobname
sss
    step name
ddn[-#]
    DDname (followed by a concatenation
    number if it is part of a
    concatenation and not the first DD
    statement in the concatenation.)
ddd
    device address
ser
    volume serial number
dsn
    data set name

The values of rc and their meanings are as
follows:

Return
Code   Meaning
04   The volume serial number
         indicated was being used by
         another data set for tape
         input/output. Correct the volume
         reference to ensure that the same
         volume is not being used by more
         than one data set.

System Action: The task is terminated unless the error is to be ignored as specified in the DCB ABEND exit routine. If the error is to be ignored, the system will attempt to close the DCB before returning to the user.

Programmer Response: Probable user error. Correct the error causing the abnormal termination as indicated by the return code in the message text. Then resubmit the job.

Problem Determination: Table I, items 1, 5a, 29.

IEC017I A ddd, ddn- $\begin{Bmatrix} 1 \\ 2 \end{Bmatrix}$

Explanation: A indicates that the volume (specified in DD statement ddn) on device ddd is recorded in ASCII and bears an American National Standard volume label or file header label. The accessibility field of the volume label (indicated by 1 in the message text) contains a nonblank character, or the file header label (indicated by 2 in the message text) contains a nonblank character other than one; this means that the volume or the file is security-protected and may not be processed by the operating system.

System Action: The system closes the data control block associated with the file on the volume, and stops further processing of the file. If the tape volume has already been mounted, it is rewound.

Programmer Response: Make sure that the correct volume and file were specified in the job control statements.

Problem Determination: Table I, items 1, 2, 13, 29.

IEC018D A ddd,ser,jjj,sss,dsn

Explanation: A indicates that volume ser on device ddd bears a standard volume label or an American National Standard volume label, but the programmer did not specify the label type of the mounted volume in the job control statements. In the message text, ser is the 6-digit serial number of the volume and dsn is the 17 character data set name from the existing HDR1 label. The volume is being used by step sss of job jjj.

System Action: The system waits for the operator's reply.

Operator Response: Enter REPLY xx,'U' to permit the system to create a new volume label or write a tape mark over the American National Standard volume label. Enter REPLY xx,'M' to permit the system to rewind the tape volume and issue a mount message for a scratch tape.

Programmer Response: Make sure that the job control statements specify American National Standard labels if they are to be used.

Problem Determination: Table I, items 1, 2, 13, 29.

IEC020I 001-x,jjj,sss,ddn,ddd,ser,dsn

$\left\{\begin{array}{l} \text{NO ERROR HANDLING, (SYNAD), EXIT SPECIFIED} \\ \text{ERROR OCCURRED WHILE CLOSING DATA SET} \\ \text{NON-ACCEPTABLE ERROR} \\ \text{DCB EROPT=ABE OR AN INVALID CODE, AND/OR} \\ \quad \text{NO SYNAD EXIT SPECIFIED} \\ \text{GET OR READ ISSUED AFTER END-OF-FILE} \end{array}\right\}$

Explanation: A 001 system completion code was issued for step sss of job jjj for one of the following reasons:
- If x is 1, for BSAM, BISAM, BDAM or QSAM, no error handling (SYNAD) exit was specified.
- If x is 2, an error was encountered while attempting to close the data set.
- If x is 3, for QSAM, an error was encountered that could not be accepted.
- If x is 4, for QSAM, ABE or an invalid value for EROPT parameter in the DCB and/or no error handling (SYNAD) exit was specified.
- If x is 5, for QSAM, a GET was issued after end-of-file; for BSAM, a READ was issued after end-of-file.

In the message text, ddn is the data definition name of the DD statement describing the data set, ddd is the unit name, ser is the serial number of the volume, and dsn is the data set name.

NOTE: System completion code 001 is also issued when the logical record length and block specified in the data control block or DD statement differ from the logical record length and blocksize that occur in the data set.

Programmer Response: Correct any errors that caused the abnormal termination. Then execute the job step again.

Problem Determination: Table I, items 1, 3, 5a, 13, 29.

IEC021I NO SPACE IN PASSWORD DATA SET

Explanation: The password data set on the system residence device is full. No additional entries may be added until entries are deleted or a new password data set is created.

System Action: The job step is terminated.

Operator Response: Inform the programmer responsible for the installation that you have received this message.

Programmer Response: Delete outdated entries in the present password data set or create a new password data set.

Problem Determination: Table I, items 2, 25a, 29.

IEC022I 137-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred during
end-of-volume on a magnetic tape. In the
message text, 137-rc associates this
message with system completion code 137
and with return code rc. Other fields in
the message text are:
jjj
    job name
sss
    step name
ddn[-#]
    DDname (followed by a concatentation
    number if it is part of a
    concatenation and not the first DD
    statement in the concatenation.)
ddd
    device address
ser
    volume serial number
dsn
    data set name

The values of rc and their meanings are as
follows:

Return
Code   Meaning
04   An I/O error occurred while
        writing an end-of-volume label or
        a tape mark.

08   An I/O error occurred while
        positioning the tape in
        preparation for label processing.

0C   An I/O error occurred reading a
        trailer label for a data set
        opened with the option INPUT or
        INOUT. If the data set was
        opened with the option RDBACK,
        the I/O error occurred reading a
        header label.

10   An I/O error occurred while
        positioning a magnetic tape at
        the end of the data set.

14   An I/O error occurred reading
        header labels for a data set
        opened for INPUT or INOUT. If
        the data set was opened for
        RDBACK, the error occurred while
        reading the trailer label.

18   An I/O error occurred while
        positioning a magnetic tape data
        set at the first data record.

1C   An invalid trailer label was read
        during end-of-volume processing.
        Execute the IEBPTPCH utility
        program to determine the contents
        of the volume. Take any
        corrective action necessary to
        recreate the volume so that the
        information may be accessed.

20   An invalid header label was read
        during end-of-volume processing.
        Execute the IEBPTPCH utility
        program to determine the contents
        of the volume. Take any
        corrective action necessary to
        recreate the volume so that the
        information may be accessed.

System Action: The task is terminated
unless the error is to be ignored as
specified in the DCB ABEND exit routine.
If the error is to be ignored, the system
will attempt to close the DCB before
returning to the user.

Programmer Response: Probable user error
unless an I/O error has occurred. Correct
the errors that caused the abnormal
termination as indicated by the return
code in the message text. Then resubmit
the job.

If I/O error has occurred, a defective
volume or device may be the cause. Rerun
the job, specifying a different volume or
device. If a scratch volume was being
used when the I/O error occurred, request
a different volume. If that does not
solve the problem, request a different
device in the UNIT parameter of the DD
statement. If a specific volume is
needed, try requesting a different device
in the UNIT parameter of the DD statement.
Rerun the job.

Problem Determination: Table I, items 1,
4, 5a, 16, 29. Table II, Format 3.

IEC023I 237-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred during
end-of-volume. In the message text,
237-rc associates this message with system
completion code 237 and with return code
rc. Other fields in the message text are:

jjj
    job name
sss
    step name
ddn[-#]
    DDname (followed by a concatenation
    number if it is part of a
    concatenation and not the first DD
    statement in the concatenation.)
ddd
    device address
ser
    volume serial number
dsn
    data set name

The values of rc and their meanings are as
follows:

Return
Code   Meaning
04   The block count in the DCB does
        not match that in the trailer
        label. A block of data has been
        missed or skipped (probably due
        to a hardware error.)

08   The DSNAME in a header label does
        not match that in the JFCB on the
        second or subsequent volume of a
        magnetic tape data set. Verify
        that the correct volume and
        DSNAME were specified.

System Action: The task is terminated unless the error is to be ignored as specified in the DCB ABEND exit routine. If the error is to be ignored, the system will attempt to close the DCB before returning to the user.

Programmer Response: Probable user error unless hardware error has occurred. Correct the errors causing the abnormal termination as indicated by the return code in the message text. Then rerun the job.

Problem Determination: Table I, items 1, 4, 5a, 16, 29. Table II, Format 3.

IEC024I 337-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred when the end of a data set was reached. In the message text, 337-rc associates this message with system completion code 337 and with return code rc. Other fields in the message text are:

jjj
    job name
sss
    step name
ddn[-#]
    DDname (followed by a concatenation number if it is part of a concatenated data set and not the first DD statement in the concatenation.)
ddd
    device address
ser
    volume serial number
dsn
    data set name

The values of rc and their meanings are as follows:

Return Code	Meaning
04	The end of a data set was reached, but no end-of-data-set routine (EODAD) was specified in the DCB.
08	A dummy data was referenced for input but no end-of-data set routine (EODAD) was specified in the DCB.

System Action: The task is terminated.

Programmer Response: Probable user error. Correct the errors causing the abnormal termination as indicated by the return code in the message text. Then rerun the job.

Problem Determination: Table I, item 1, 4, 5a, 16, 29. Table II, Format 3.

IEC025I 437-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred at an end-of-volume. In the message text, 437-rc associates this message with system completion code 437 and with return code rc. Other fields in the message text are:

jjj
    job name

sss
    step name
ddn[-#]
    DDname (followed by a concatenation number if it is part of a concatenation and not the first DD statement in the concatenation.)
ddd
    device address
ser
    volume serial number
dsn
    data set name

The values of rc and their meanings are as follows:

Return Code	Meaning
04	The protect key in the TCB (TCBPKF) was not the same as that in the DEB (DEBDEBID). Correct any errors that may have caused the task control block or data extent block to be modified.
08	When FEOV was issued, the DCB pointer was invalid.

System Action: The task is terminated. unless the error is to be ignored as specified in the DCB ABEND exit routine. If the error is to be ignored, the system will attempt to close the DCB before returning to the user.

Programmer Response: Probable user error. Correct the errors causing the abnormal termination as indicated by the return code in the message text. Then rerun the job.

Problem Determination: Table I, items 1, 4, 5a, 16, 29. Table II, Format 3.

IEC026I 637-rc,jjj,sss,ddn[-#],dev,vol,dsn

Explanation: The error occurred during end-of-volume for a data set on magnetic tape or an end-of-volume during concatenation. In the message text, 637-rc associates this message with system completion code 637 and with return code rc. Other fields in the message text are:

jjj
    job name
sss
    step name
ddn[-#]
    DDname (followed by a concatenation number if it is part of a concatenation and not the first DD statement in the concatenation.)
ddd
    device address
ser
    volume serial number
dsn
    data set name

The values of rc and their meanings are as follows:

Return
Code   Meaning
04   An I/O error occurred while
        reading a tape label, writing a
        tape mark, or positioning a
        magnetic tape volume.

08   Following user trailer label
        processing, an I/O error occurred
        positioning a magnetic tape.

0C   Concatenation of data sets with
        unlike attributes was detected,
        but not specified in the DCB
        (i.e., DCBOFLGS bit 4 is 0).

10   An I/O error occurred while
        positioning a magnetic tape
        volume at a label, if the volume
        has standard labels, or at the
        data, if the volume does not have
        labels.

14   An I/O error in tape positioning
        occurred for a data set with the
        LEAVE option specified in the
        OPEN macro instruction or with
        the LEAVE option specified in the
        FEOV macro instruction.

18   An I/O error in tape positioning
        occurred for a data set opened
        with the REREAD option.

1C   An I/O error occurred in tape
        positioning when FEOV is issued
        for a data set with DISP=PASS and
        no OPEN option 2 specified.

20   An I/O error occurred during a
        rewind and unload of a private
        magnetic tape volume. No option
        2 is specified in the OPEN macro
        instruction and the DISP is not
        PASS.

24   An I/O error occurred rewinding a
        scratch magnetic tape volume.
        Either FEOV with a REWIND option
        was issued, or no OPEN option 2
        was specified when the DISP was
        not PASS.

28   An I/O error occurred during a
        rewind and unload of a magnetic
        tape volume. When the error
        occurred, the system was
        attempting to unload a volume
        from the device to allow the
        mounting of a required volume.

2C   An I/O error occurred while
        rewinding a magnetic tape volume
        prior to verifying the volume
        label.

30   An I/O error occurred performing
        a rewind and unload when the
        wrong volume was mounted in
        response to message IEC001A.

34   An I/O error occurred during
        end-of-volume processing while
        reading the volume label of a
        magnetic tape volume.

38   An I/O error occurred while
        positioning a tape without a
        label or with nonstandard labels.

3C   An I/O error occurred while
        positioning a concatenated
        magnetic tape data set. If it
        has standard labels, the error
        occurred positioning at the
        labels. If it has no labels, the
        error occurred positioning at the
        data.

40   An I/O error occurred while
        positioning a magnetic tape data
        set that was opened with the
        option INPUT or INOUT. If it is
        a tape with standard labels, the
        error occurred positioning at the
        labels. If it is a tape with no
        labels, the error occurred
        positioning at the data.

44   An I/O error occurred while
        checking sense bytes to determine
        if a file protect ring is on a
        magnetic tape containing a data
        set opened for INOUT.

48   An I/O error occurred rewinding
        and unloading a magnetic tape
        volume in preparation for a look
        ahead mount.

4C   An I/O error occurred in tape
        positioning following user header
        label processing.

50   The second or subsequent member of
        concatenated tape data sets is
        either a GDG that had not been
        opened at the time it was
        catalogued, or contained a volume
        reference to a DD statement that
        contained a non-specific volume
        request.

System Action: The task is terminated
unless the error is to be ignored as
specified in the DCB ABEND exit routine.
If the error is to be ignored, the system
will attempt to close the DCB before
returning to the user.

Programmer Response: Probable user error
unless I/O error has occurred. Correct the
errors causing abnormal termination as
indicated by the return code in the
message text. Then rerun the job.

If an I/O error has occurred, a defective
volume or device may be the cause. Save
the output from the failing job to aid in
the analysis of the problem.

Rerun the job specifying a different
volume or device. If a scratch volume was
being used when the I/O error occurred,
request a different volume. If that does
not solve the problem, request a different
device in the UNIT parameter of the DD
statement. If a specific volume is
needed, try requesting a different device
in the UNIT parameter of the DD statement.
Rerun the job.

Problem Determination: Table I, items 1,
4, 5a, 16, 29. Table II, Format 3.

IEC027I 737-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred
during end-of-volume processing
or during allocation of a

secondary quantity or direct access storage as requested in the SPACE parameter of the DD statement for the data set. In the message text, 737-rc associates this message with system completion code 737 and with return code rc. Other fields in the message text are:

jjj
   job name
sss
   step name
ddn[-#]
   DDname (followed by a concatenation number if it is part of a concatenation and not the first DD statement in the concatenation.)
ddd
   device address
ser
   volume serial number
dsn
   data set name

The values of rc and their meanings are as follows:

Return Code	Meaning
04	An I/O error occurred reading or writing a DSCB during end-of-volume processing.
08	An I/O error occurred reading a direct access volume label during end-of-volume processing.
0C	An I/O error was detected by BLDL while searching for the TTR of a concatenated member.
10	An I/O error occurred writing a file mark for a data set on a direct access device.
14	An I/O error occurred while reading a DSCB preparing for user trailer label processing.
18	An I/O error occurred reading the volume label on a 2321 Data Cell.
1C	An I/O error occurred while reading a format 3 DSCB.
20	An I/O error occurred during a look-ahead mount, and while reading a DSCB at end-of-volume.
24	A missing member name was detected by BLDL while searching for the TTR of a concatenated member.
28	An I/O error occurred reading a format4 DSCB in preparation for reading a format1 DSCB. Either 1) the TTR of the VTOC in the UCB is bad due to improper volume label verification, 2) the VTOC has been overlaid by other data, or 3) the disk has been demounted and another mounted when not requested.
30	During end-of-volume processing when reading a FORMAT1 DSCB, the DSCB read did not have a FORMAT1 format id.

System Action: The task is terminated unless the error is to be ignored as specified in the DCB ABEND exit routine. If the error is to be ignored, the system will attempt to close the DCB before returning to the user.

Programmer Response: If an I/O error has occurred, a defective volume or device may be the cause. Save the output from the failing job to aid in the analysis of the problem.

Rerun the job specifying a different volume or device. If a scratch volume was being used when the I/O error occurred, request a different volume. If that does not solve the problem, request a different device in the UNIT parameter of the DD statement. If a specific volume is needed, try requesting a different device in the UNIT parameter of the DD statement. Rerun the job.

Problem Determination: Table I, items 1, 4, 5a, 16, 29. Table II, Format 3.

IEC028I 837-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred during end-of-volume for a sequential data set. In the message text, 837-rc associates this message with system completion code 837 and with return code rc. Other fields in the message text are:

jjj
   job name
sss
   step name
ddn[-#]
   DDname (followed by a concatenation number if it is part of a concatenation and not the first DD statement in the concatenation.)
ddd
   device address
ser
   volume serial number
dsn
   data set name

The values of rc and their meanings are as follows:

Return Code	Meaning
04	An I/O error occurred while reading or writing a JFCB or JFCB extension block.
08	No TTR was found for the JFCB extension. Specify more volume serial numbers or a larger volume count in the VOL parameter of the DD statement.

System Action: The task is terminated unless the error is to be ignored as specified in the DCB ABEND exit routine. If the error is to be ignored, the system will attempt to close the DCB before returning to the user.

Programmer Response: Execute job step again.

Problem Determination: Table I, items 1, 4, 5a, 16, 29. Table II, Format 3.

IEC030I B37-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred during end-of-volume. In the message text, B37-rc associates this message with system completion code B37 and with return code rc. Other fields in the message text are:

jjj
    job name
sss
    step name
ddn-#
    DDname (followed by a concatenation number if it is part of a concatenation and not the first DD statement in the concatenation.)
ddd
    device address
ser
    volume serial number
dsn
    data set name

The values of rc and their meanings are as follows:

Return Code	Meaning
04	During end-of-volume processing the system had to demount a volume in order to mount the next volume of the data set. It was unable to demount the volume for one of the following reasons: • The volume was permanently resident. • The volume was reserved. • Another job had data sets allocated on the volume. • There were OPEN data sets on the volume for the failing task.
08	During end-of-volume processing the system tried to extend to a DOS volume. The DOS VTOC for the volume could not be converted to the OS format for one of the following reasons: • A split cylinder data set was located on cylinder zero. • A split cylinder data set was located on the same cylinder as the VTOC. • A split cylinder data set was located on the same cylinder as a non-split cylinder data set. • Overlapping extents were found between: two FORMAT 1s; a FORMAT 1 and a FORMAT 3; or, between two FORMAT 3s.

For an output data set on a direct access device, the system might have needed to demount the volume for one of the following reasons:
• No more space was available on the volume.
• The data set already had 16 extents, but required more space.

• More space was required, but the volume table of contents (VTOC) was full. If additional space was allocated, another data set control block (DSCB) might have been needed, but could not have been written.

For an output data set on magnetic tape, a volume needed to be demounted because the reflective spot was encountered and more records were to be written.

For an input data set on more than one volume, one of the volumes needed to be demounted, so that the next one could be mounted, but the system was unable to demount the volume.

System Action: The task is terminated unless the error is to be ignored as specified in the DCB ABEND exit routine. If the error is to be ignored, the system will attempt to close the DCB before returning to the user.

Programmer Response: Probable user error. For all cases, allocate as many units as volumes required.

For the first two cases, if the volume to be demounted is permanently resident or reserved, set up the JCL to allocate devices that are removable.

For the third case, change the JCL to request deferred mounting, or specify more volumes than units to prevent sharing of required units.

For the fourth case, rewrite the program or change the JCL insuring that there are no open data sets on volumes that must be demounted.

For the last three cases (08 return code) either scratch or move the split cylinder data set that is causing the error.

In all cases, correct the errors and execute the job step again.

Problem Determination: Table I, items 1, 4, 5a, 16, 29. Table II, Format 3.

IEC031I D37-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred when an output operation to a direct access device was requested. In the message text, D37-rc associates this message with system completion code D37 and with return code rr. Other fields in the message text are:

jjj
    job name
sss
    step name
ddn[-#]
    DDname (followed by a concatenation number if it is part of a concatenation and not the first DD statement in the concatenation.)
ddd
    device address

ser
    volume serial number
dsn
    data set name

The values of rc and their meanings are as
follows:

Return
Code   Meaning
04   A data set opened for output used
       all the primary space, and no
       secondary space was requested.
       Change the JCL specifying a
       larger primary quantity or add a
       secondary quantity to the space
       parameter on the DD statement.

System Action: The task is terminated
unless the error is to be ignored as
specified in the DCB ABEND exit routine.
If the error is to be ignored, the system
will attempt to close the DCB before
returning to the user.

Programmer Response: Probable user error.
Correct the errors that caused the
abnormal termination as indicated by the
return code in the message text. Rerun
the job.

Problem Determination: Table I, items 1,
4, 5a, 16, 29. Table II, Format 3.

IEC032I E37-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred when an
output operation was requested. The data
set was on a direct access or magnetic
tape device. In the message text, E37-rc
associates this message with system
completion code E37 and with the return
code rc. Other fields in the message text
are:

jjj
    job name
sss
    step name
ddn[-#]
    DDname (followed by a concatenation
    number if it is part of a
    concatenation and not the first DD
    statement in the concatenation.)
ddd
    device address
ser
    volume serial number
dsn
    data set name

The values of rc and their meanings are as
follows:

Return
Code   Meaning
04   A data set opened for output used
       all space available to it on the
       current volume, and no more
       volumes were available. Change
       the JCL specifying more volumes.
08   End-of-volume has found, on a
       data set opened for output, a
       DSCB with a duplicate data set

name on the next volume with a
volume sequence number less than
that in the DEB.

System Action: The task is terminated
unless the error is to be ignored as
specified in the DCB ABEND exit routine.
If the error is to be ignored, the system
will attempt to close the DCB before
returning to the user.

Programmer Response: Probable user error.
Correct the errors causing abnormal
termination as indicated by the return
code in the message text. Rerun the job.

Problem Determination: Table I, items 1,
4, 5a, 16, 29. Table II, Format 3.

Open Messages

IEC101A M ddd,ser[,labtyp][,den],jjj,sss[,dsn]

Explanation: M indicates that a volume is
to be mounted on device ddd:
- If ser is a 6-digit serial number, the
volume with that serial number is to be
mounted on the device.
- If ser is SCRTCH, a scratch volume is to
be mounted.
- If ser begins with an L, the volume to
be mounted is unlabeled; the number
after the L is an internal serial number
assigned by the system to an unlabeled
volume and is of the form xxxyy, where
xxx is the data set number and yy is the
volume sequence number for the data set.

In the message text, labtyp and den appear
only for tape volumes. The volume has the
type of label specified by labtyp: SL for
standard label, AL for ANS1 label, NSL for
nonstandard label, or NL for no label; the
density is as specified by den.

The volume is being used by step sss of
job jjj.

If a MONITOR DSNAME command is active,
data set dsn contained on the volume is
also specified in the message text.

Operator Response: If ser is SCRTCH, make
sure that the file protection ring has
been inserted in the volume.

Mount the volume on the device; then,
ready the device.

IEC104E D ddd,ser

Explanation: D indicates that the volume
on device ddd is to be demounted and used
subsequently as a scratch volume:
- If ser is a 6-digit number, it is the
serial number of the volume, which
contains labels.
- If ser begins with an L, the volume to
be demounted is unlabeled; the number
after the L is an internal serial number
assigned by the system to an unlabeled

volume and is of the form xxxyy, where
xxx is the data set number and yy is the
volume sequence number of the data set.

Operator Response: Demount the volume.
Use it later when a scratch volume is
requested.

IEC105I ddd,jjj REDUCED ERROR RECOVERY REQUESTED

Explanation: A data set was opened on
magnetic tape with a request to use the
reduced error recovery facility. In the
message text, ddd is the unit address and
jjj is the job name.

Operator Response: None.

IEC106E R ddd,ser

Explanation: R indicates that the volume
on device ddd is to be demounted and
retained near the computer for use in the
near future:
• If ser is a 6-digit number, it is the
  serial number of the volume, which
  contains labels.
• If ser begins with an L, the volume to
  be demounted is unlabeled; the number
  after the L is an internal serial number
  assigned by the system to an unlabeled
  volume and is of the form xxxyy, where
  xxx is the data set number and yy is the
  volume sequence number of the data set.

Operator Response: Demount the volume.
Mark the serial number on the volume, if
it is not so marked. (The internally
assigned number should appear externally
on the volume in case a subsequent step
needs the volume; for the subsequent
mounting, the system will specify the
volume by the internally assigned number.)
Then retain the volume near the computer.
Also, mark the jobname on the volume. If
the job ends without requesting a remount
of the volume, the volume need no longer
be retained.

IEC107D E ddd,ser,jjj,sss,dsn

Explanation: E indicates that a program
intended to write on the volume on device
ddd; however, the expiration date for data
set dsn on the volume has not occurred.

In the message text, ser is the 6-digit
serial number of the volume, which
contains labels. The volume is being used
by step sss of job jjj. For a tape
volume, only the last 17 characters of the
data set name (dsn) appear. This is as
much as is contained in the tape's data
set labels.

Operator Response: If the expiration date
is to be ignored and the volume written
on, enter REPLY xx,'U'.

If the expiration is to be honored and the
volume not written on, enter REPLY xx,'M'.
If another volume can be used, that is, if
the original request was for a scratch
volume, the system will then request that
a new volume be mounted. However, if
another volume cannot be used, the system
will terminate the job step.

Note: In systems with MVT or MFT, the
operator should normally terminate any job
attempting to update a system data set, if
this message is issued. However, if a

system data set is to be updated, the job
stream should be set up so that no other
concurrently running job uses the data set
being updated; if the job stream is set up
in this manner, the operator should be
instructed to respond with REPLY xx,'U' to
this message.

IEC108I OPERATOR ACTION HAS BEEN REQUESTED FOR
YOUR DATA SET

Explanation: Operator intervention is
necessary before processing can continue
on your data set. This message can be
issued by Open, End of Volume, Scratch, or
Rename whenever the operator must mount a
disk or a tape or if he must make a
decision, such as to give permission to
write on an unexpired data set.

System Action: The system waits for the
operator to respond.

Programmer Response: A long wait may ensue
for your TSO terminal before the operator
responds.

IEC109A F ddd,ser,jjj,sss,dsn

Explanation: F indicates that the volume
on device ddd is file protected; that is,
its file protection ring is not inserted,
so it can only be read. However, the
volume is to be written on.

In the message text, ser is the 6-digit
serial number of the volume and dsn is the
data set name. The volume is being used
by step sss of job jjj.

System Action: The system rewinds and
unloads the volume.

Operator Response: If so specified by the
programmer, insert a file protection ring
in the volume, mount the volume, and ready
the device. Otherwise, cancel the job.

IEC110D F ddd,ser,jjj,sss,dsn

Explanation: F indicates that the volume
on device ddd is file protected; that is,
its file protection ring is not inserted,
so it can only be read.

In the message text, ser is the 6-digit
serial number of the volume and dsn is the
data set name. The volume is being used
by step sss of job jjj.

Operator Response: If the volume should
be file protected, enter REPLY xx,'U'.

If the volume must have a file protection
ring, enter REPLY xx,'F'; the system will
rewind and unload the volume. Then insert
a file protection ring, mount the volume,
and ready the device.

IEC111E D ddd,ser

Explanation: D indicates that the volume
on device ddd is to be demounted. The
control program has determined that this
volume, mounted in response to an earlier
mount message, is not the requested
volume. In the message text, ser is the
6-digit serial number of the volume that
was actually mounted.

Operator Reaponse: Demount the volume.
The system will then request that the
correct volume be mounted.

IEC112I {I/O ERR} ddd,ser
        {SEC VOL}

Explanation: If I/O ERR appears in the
message text, an uncorrectable
input/output error occurred while
processing tape labels. If SEC VOL
appears, a security protected tape was
mounted and the programmer had specified
NL or NSL in the LABEL parameter of the
DD statement describing the data set, or
the data set name on the tape did not
match the data set name specified in the
DSNAME parameter of the DD statement.

In the message text, ser is the serial
number of the volume and ddd is the unit
address.

System Action: The system may either
abnormally terminate the task or demount
the tape and request the operator to
mount a scratch tape, even if a specific
volume was requested in the VOL=SER
parameter of the DD statement describing
the data set.

Operator Response: Respond as indicated
when the system requests that a new
volume be mounted.

Problem Determination: Table I, items 1,
2, 3, 13, 28, 29.

IEC113A ENTER PASSWORD FOR DATA SET dsn

Explanation: The requested data set is
password protected. The correct password
must be provided within two tries before
access is allowed to the data set. Any
TSO logon password or the last previous
password for the corresponding DD
statement has already been tried and
found to be invalid.

System Action: The system waits for the
TSO user to reply.

Programmer Response: Enter the correct
1 to 8 character password. On terminals
that support the suppress print feature,
the printing or displaying of the password
will be suppressed.

IEC114E D ddd {,ser,jjj,sss,ddn-n}
               {,ddn-n   }

Explanation: D indicates that the volume
on device ddd is to be demounted. The
control program has determined that this
volume, mounted in response to an earlier
mount message, either:
• Contains labels that cannot be read due
  to a permanent input/output error.
• Contains no labels or nonstandard labels
  when standard labels were specified.
• Contains standard labels when no labels
  or nonstandard labels were specified.
• Contains labels which are written in a
  density other than the density
  specified.
• Has a volume serial number other than
  the volume serial requested.

If ddn (DDNAME) is supplied in the message
text, the tape volume to be demounted was
recorded in ASCII; ser is the 6-digit
serial number of the volume, jjj is the
job name, sss is the step name, and n
specifies the reason for demounting as
follows:

if n equals
1 - The accessibility field of the volume
    label contains a nonblank character
    which means that the volume is
    security protected and may not be
    processed by the operating system.
2 - The accessibility field of the file
    header label contains a nonblank
    character other than one, which means
    that the file may not be processed by
    the operating system.
3 - The system cannot process the volume
    which is recorded in ASCII, because
    the ASCII option was not specified at
    system generation.
4 - The control program has determined
    that conflicting data control block
    attributes have been used to define
    the data set on the volume. Some of
    the conflicting attributes may be the
    following:

    BUFOFF greater than 99.
    BUFOFF not equal to L on OUTPUT or
      OUTIN.
    BUFOFF equal to L where RECFM is not
      equal to D.
    OPTCD not equal to Q where LABEL
      equals AL or AUL.
    OPTCD equal to Q where DSORG is not
      equal to PS.
    OPTCD not equal to Q where RECFM
      equals D.
    OPTCD equal to Q where RECFM equals
      V.
    LABEL equal to AL or AUL for a
      seven-track tape device.

System Action: The data set is not opened
and processing continues.

Operator Response: Demount the volume.
The system will then request that a new
volume be mounted. Mount a volume with
the correct density and label type.

Programmer Response: Probable user error.
Respond as indicated for the following
values of n:
1 - Make sure that the correct volume was
    specified in the job control
    statements.
2 - Make sure that the correct file and
    volume are being used.
3 - The ASCII option was not specified at
    system generation, so bit 6 in the
    CVTOPTA field of the communications
    vector table is 0. If it is 1, have
    available a record of the options
    specified at system generation.
4 - Make sure that the data control block
    attributes do not conflict.

Problem Determination: Table I, items 1,
2, 3, 5a, 13, 28, 29.

IEC115I INVALID PASSWORD

> Explanation: The first password supplied
> was incorrect. Either the password did
> not exist for the requested data set, its
> read/write mode was invalid, or it was
> longer than 8 characters.
>
> System Action: The system will issue
> message IEC116A.
>
> Programmer Response: Determine what the
> correct password is and respond to
> message IEC116A.

IEC116A REENTER-

> Explanation: The first password was
> incorrect. A second password may now be
> supplied.
>
> System Action: The system waits for the
> TSO user to reply.
>
> Programmer Response: Enter the correct
> 1 to 8 character password. On terminals
> that support the suppress print feature,
> the printing or displaying of the
> password will be suppressed.

IEC117I DATA SET CANNOT BE USED - PASSWORD INVALID

> Explanation: Both attempts at supplying
> the correct password were invalid.
>
> System Action: Use of the requested data
> set is denied. If this occurs in Open
> or End of Volume, message IEC150I 913-0C
> is issued and the task is terminated with
> a system completion code of 913 and the
> data set is not accessable during this
> terminal session. If this occurs in
> Scratch or Rename, the data set is
> bypassed and processing continues.
>
> Programmer Response: Probable user error.
> Determine the correct password or correct
> the password data set. If the data set
> must be accessed, the TSO terminal user
> must log off and logon again. Rerun the
> job.

IEC118I READ ONLY DATA SET CANNOT BE OPENED FOR
OUTPUT

> Explanation: The second attempt to open
> a data set was with a read only password
> for that data set.
>
> System Action: Use of the requested data
> set is denied. Message IEC150I 913-0C is
> issued and the task is terminated with a
> system completion code of 913 and the
> data set is not accessable during this
> terminal session.
>
> Programmer Response: Probable user error.
> Determine the correct write mode password;
> only open the data set for input; or
> change the mode of the password or add a
> write mode password to the password data
> set. If the data set must be accessed,
> the TSO terminal user must log off and
> logon again. Rerun the job.

IEC119I ERROR-IMAGELIB,CODE=n

> Explanation: An attempt to open
> SYS1.IMAGELIB was unsuccessful for one of
> the following reasons:
> • CODE=1   SYS1.IMAGELIB was not a
>   cataloged data set.
> • CODE=2   The volume on which
>   SYS1.IMAGELIB resides is not mounted.
> • CODE=3   An error occurred during an
>   attempt to read the format 1
>   SYS1.IMAGELIB DSCB or in filling in the
>   fields of the DEB.
> • CODE=4   No space was available in
>   subpool 250 for constructing the DEB
>   and the DCB for SYS1.IMAGELIB.
>
> System Action: The related program was
> terminated if the error occurred when the
> output data set was being opened. If the
> error occurred during execution of the
> SETPRT macro, the problem is passed a
> return code and determines further
> processing based on the nature of the
> error.

Operator Response:
• If CODE=2, mount the proper volume and rerun the job.
• If CODE=1 or 3, report the message to the system programmer.

Programmer Response:
• If CODE=1, catalog SYS1.IMAGELIB.
• If CODE=3, check the format 1 DSCB for errors. Call IBM for programming support if the problem persists.
• If CODE=4, make sure that sufficient storage is available when the storage request is executed.

IEC120A M xxx, character set code [,FOLD][,VERIFY]

Explanation: M indicates a mounting request. The programmer has requested that the chain or train, specified by character set code, be used on UCS printer xxx.

Operator Response: Mount the train or chain that was requested and enter REPLY xx,'text' where text is the character set code.

To ignore the request and use the character set image currently loaded, enter REPLY xx,'U'.

Otherwise, mount a suitable alternate chain or train and enter REPLY xx,'text' where text is the alternate character set code followed, if applicable, by FOLD or F and/or VERIFY or V. (If FOLD or F is omitted but VERIFY or V is specified, indicate the omission of FOLD or F by specifying two consecutive commas -- for example, REPLY xx,'AN,,V'.)

If the mounting request cannot be satisfied with any available chain or train, enter REPLY xx,'CANCEL' or 'REPLY xx,'C' to cancel the UCS load. The system will terminate the job if the request occurred during execution of an OPEN macro instruction.

Note: See the publication IBM System/360 Operating System: Operator's Reference, GC28-6691, for sample printouts for the standard IBM chains and trains.

IEC121D V xxx, character set code [,FOLD]

Explanation: V indicates a verification request. The system has displayed the character set image, specified by character set code, on UCS printer xxx.

Operator Response: Verify that the image displayed corresponds to the requested image.

If the image is correct, enter REPLY xx,'VERIFIED' or REPLY xx,'V'.

If the image is incorrect, mount the correct chain or train and enter REPLY xx,'RETRY' or REPLY xx,'R'. If subsequent verifications are still incorrect, enter REPLY xx,'CANCEL' or REPLY xx,'C' to

cancel the UCS load. The system will terminate the job if the request occurred during execution of an OPEN macro instruction.

Note: See the publication IBM System/360 Operating System: Operator's Reference, GC28-6691, for sample printouts for the standard IBM chains and trains.

IEC122D xxx, character set code UCS IMAGE NOT FOUND

Explanation: The character set image, specified by character set code, to be loaded in the UCS buffer of printer xxx could not be found in the image library.

Operator Response: To correct an erroneous specification, mount the requested chain or train and enter REPLY xx,'text' where text is the correct character set code.

If an alternate character set can be used, mount the alternate chain or train and enter REPLY xx,'text' where text is the alternate character set code followed, if applicable, by FOLD or F and/or VERIFY or V. (If FOLD or F is omitted but VERIFY or V is specified, indicate the omission of FOLD or F by specifying two consecutive commas -- for example, REPLY xx,'AN,,V'.)

To ignore the request and use the character set image currently loaded, enter REPLY xx,'U'.

If no alternate character set can be used, enter REPLY xx,'CANCEL' or REPLY xx,'C' to cancel the UCS load. The system will terminate the job if the request occurred during execution of an OPEN macro instruction.

Problem Determination: Table I, items 1, 3, 5a, 15, 17a, 29.

IEC123D xxx, SPECIFY UCS PARAMETER

Explanation: The current job step did not specify UCS parameters and the character set currently loaded on UCS printer xxx cannot be assumed as a default option for one of the following reasons:
• The character set is unknown to the system.
• The character set is invalid because of a previous error condition.
• The character set is not a default character set.

Operator Response: For the first occurrence of this message, mount the chain or train of a suitable default character set and enter REPLY xx,'text' where text is the character set code followed, if applicable, by FOLD or F and/or VERIFY or V. (If FOLD or F is omitted but VERIFY or V is specified, indicate the omission of FOLD or F by specifying two consecutive commas -- for example, REPLY xx,'AN,,V'.) Note that this response should be used only the first time this message is produced.

After the first occurrence cf this
message, enter REPLY xx,'U' to ignore the
request and use the character set image
currently loaded.

If no character set is available for the
job step, enter REPLY xx,'CANCEL' or REPLY
xx,'C'. The system will terminate the job
if the request occurred during execution
of an OPEN macro instruction.

Note: See the publication IBM System/360
Operating System: Operator's Procedures,
GC28-6692, for sample printouts for the
standard IBM chains and trains.

IEC124I xxx, ERROR OCCURRED WHILE LOADING FCB

Explanation: A permanent I/O error (forms
control buffer parity error) persisted
after two attempts were made to load the
FCB. The error occurred while opening the
data control block for printer xxx. This
error can be caused by:
• A form control buffer parity error.
• An attempt to load an invalid FCB image.

System Action: The related program was
terminated.

Operator Response: If the associated I/C
error message (IEA000I) contains a X'02'
in the first sense byte, an attempt was
made to load an invalid FCB image.

Specify a substitute image cr correct the
one in error. An image is invalid if:
• Its specified length exceeds 180 lines.
• Its specified and actual lengths are not
  equal.
• There is an invalid channel specified.
• The last byte of the image is not X'1x'.
If IEA000I contains a X'04' in the first
sense byte a buffer parity error occurred.

Problem Determination: Table I, items 18,
24, 30.

IEC125I ERROR - REPEAT REPLY

Explanation: An invalid response was made
to a previous Universal Character Set
(UCS) or Forms Control Buffer (FCB)
message.

Operator Response: Enter the reply again,
correctly.

IEC126I xxx, UNCORRECTABLE ERROR LOADING UCS

Explanation: A permanent input/output
error (UCS parity error) persisted after
ten attempts were made to load the UCS
buffer. The error occurred while opening
the data control block for UCS printer
xxx. Subsequent output on this printer
may be invalid.

Operator Response: Probable hardware
error.

Problem Determination: Table I, items 1,
2, 13, 18, 30.

IEC127D xxx, image-id FCB IMAGE NOT FOUND

Explanation: The FCB buffer cf printer
xxx was not loaded because the FCB image
specified by the image-id was not in the
image library.

Operator Response: To correct an
erroneous specification, enter REPLY
xx,'text' where text is the correct or
alternate FCB image-id to be used. The
image-id can then be followed by VERIFY or
V cr ALIGN or A.

Specifying VERIFY cr ALIGN allows the
operator to align forms to the new image.

The VERIFY option also provides a printout
of the image loaded.

To ignore the request and use the FCB
image currently loaded, enter REPLY
xx,'U'.

If no alternate image can be used, enter
REPLY xx,'CANCEL' cr REPLY xx,'C' to
cancel the FCB load. The system will
terminate the job if the request occurred
during execution cf an OPEN macro. If the
request occurred during execution of a
SETPRT macro and a return code (X'04')
will be placed in register 15 and control
returned to the program issuing the SETPRT
macro.

Problem Determination: Table I, items 1,
3, 5a, 15, 29.

IEC128D V xxx, VERIFY FORMS ALIGNMENT

Explanation: V indicates a verification
request. The system was requested to
verify forms alignment to the FCB image
printer xxx.

Operator Response: Verify that the forms
are aligned to the forms control buffer
image.

When forms are aligned, enter REPLY
xx,'VERIFIED' cr REPLY xx,'V'.

If the VERIFY option was specified,
entering REPLY xx,'RETRY' cr REPLY xx,'R'
causes the FCB image to be printed again.
This can be repeated until forms are
properly aligned.

If the image is incorrect or forms
alignment is not possible, enter REPLY
xx'CANCEL' or REPLY xx,'C' to cancel the
FCB image load. The system will terminate
the job if the request occurred during
execution of an OPEN macro. If the
request occurred during execution cf a
SETPRT macro a return code of X'14' is
placed in register 15 and control returned
to the program issuing the macro.

IEC129D xxx, SPECIFY FCB PARAMETER

Explanation: The current job step did not
specify FCB parameters and the image
currently loaded cn the printer xxx cannot
be assumed as a default for one of the

following reasons:
• The image is invalid because of a previous error condition.
• The image is not a default image.

Operator Response: Load the FCB buffer by entering REPLY xx,'text,' where text is the image-id to be used. STR1 or STR2 may be specified to load the IBM forms control buffer images. In addition to the image-id, VERIFY or V or ALIGN or A can be coded.

Specifying VERIFY or ALIGN allows the operator to align forms to the new image.

The VERIFY option also provides a printout of the image loaded.

To ignore the request and use the image currently loaded, enter REPLY xx,'U'.

If no image is available for the job step, enter REPLY xx,'CANCEL' or REPLY xx,'C'. The system will terminate the job if the request occurred during execution of an OPEN macro instruction.

IEC130I ddn DD STATEMENT MISSING

Explanation: An OPEN macro instruction was issued for a data control block that specified ddn as the DDNAME. However, ddn does not appear in the name field of any DD statement for the job.

System Action: Processing continues. However, abnormal termination is likely if an attempt is made to read or write the data set.

Programmer Response: Probable user error. Supply the missing DD statement, and execute the job step again.

Problem Determination: Table I, items 1, 3, 5a, 15, 30.

IEC131I xx,jjj,sss,RDJFCB ISSUED FOR DCB WITH BLANK DDNAME

Explanation: A RDJFCB macro instruction was issued. A DCB in the parameter list had a blank DDNAME field.

xx - the position of the DCB in the parameter list.
jjj - job name
sss - step name

System Action: The request for this DCB is ignored and a return code of 4 is passed in register 15.

Programmer Response: Correct the error(s) causing the DDNAME field to be blank and execute the job step again. The error is usually caused by not specifying DDNAME= when coding the DCB.

IEC134D A ddd,ser,jjj,sss,[dsn]

Explanation: A indicates that volume ser on device ddd bears a standard volume label or an American National Standard volume label; but the programmer did not specify the label type of the mounted volume in the job control statements. In the message text, ser is the 6-digit serial number of the volume and dsn is the 17 character data set name from the

existing HDR1 label. The volume is being used by step sss of job jjj.

System Action: The system waits for the operator's reply.

Operator Response: Enter REPLY xx,'U' to permit the system to create a new label or write a tape mark over the existing label. Enter REPLY xx,'M' to permit the system to rewind tape volume ser and issue a mount message for a scratch tape.

Programmer Response: Make sure that the job control statements specify standard labels or American National Standard labels if they are to be used.

Problem Determination: Table I, items 1, 2, 13, 29.

IEC140I ddn,ser $\begin{Bmatrix} \text{START} \\ \text{END} \end{Bmatrix}$ OF DATA SET NOT ON VOLUME

Explanation: For START, the data set was opened to the start of an SL or AL magnetic tape file. The file sequence number specified (default=1) in the LABEL parameter of DD statement ddn is greater than the last file on the tape volume indicated by ser, which ends with an EOV label. There are more following volume serial numbers.

For END, the data set was opened to the end of an SL or AL magnetic tape file 1. Either 1) the dsname in the HDR1, EOV1, or EOF1 label was not correct, 2) the file sequence number specified (default=1, must be 1 for this message) in the LABEL parameter of DD statement ddn is less than the first file on the tape volume indicated by ser, or 3) a tape mark was read instead of a HDR1 label. There are more previous volume serial numbers. This usually occurs when several specific volume serial numbers are specified in advance for a DISP=MOD data set to use instead of SCRTCH tapes.

System Action: For START, open will permanently increment the volume sequence number by 1 and continue on the next volume specified.

For END, open will decrement the working volume sequence number by 1 and continue on the previous volume specified.

Programmer Response: The programmer should consider changing his JCL so that he can save the time required to do this multi-volume positioning recovery. For START it may be taking about 10 minutes per 2400 foot magnetic tape reel. For END, about 2 minutes to demount and mount each reel.

For START, consider specifying a volume sequence number in the VOL parameter of the DD statement, omitting the skipped volume serial numbers, or using VOL=REF=*.ddname to get only the last volume serial number of the previous file and so the first volume serial number of this file.

For END, consider specifying a volume
sequence number in the VOL parameter of
the DD statement, omitting the excess
volume serial numbers, or omitting all
of the volume serial numbers. The latter
allows the system to assign SCRTCH volumes
as needed rather making specific requests.
If the job is to be run again, the JCL and
program should be analyzed and/or
modified to be sure that it will not get
incorrect output due to accepting the
wrong tape because one of the three
errors, such as wrong dsname, no longer
exists.

IEC141I 013-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred during
execution of an OPEN macro instruction.
In the message text, 013-rc associates
this message with system completion code
013 and with return code rc. Other fields
in the message text are:

jjj
    job name
sss
    step name
ddn[-#]
    DDname (followed by a concatenation
    number if it is part of a
    concatenation and not the first DD
    statement in the concatenation.)
ddd
    device address
ser
    volume serial number
dsn
    data set name

The values of rc and their meanings are
as follows:

Return
Code   Meaning
04   ASCII processing was specified
either in the DD statement by
specifying LABEL=(,AL) or
LABEL=(,AUL) or in the DCB by
specifying OPTCD=Q, but ASCII is not
supported by the system. Correct
the label parameter in the DD
statement or the OPTCD in the DCB.

08   ASCII labels were specified in
the LABEL parameter of the DD
statement, and the UNIT parameter
specified a 7-track tape drive.
ASCII labels are valid only for
9-track unit. Correct the LABEL
and/or UNIT parameter(s) on the
DD statement.

0C   A buffer length of 0 was
specified for a BDAM data set for
which dynamic buffering was
requested. Correct the DCB
specifying a valid buffer length.

10   An OPEN macro instruction was
issued for a null data set and
BLKSIZE and BUFL are both 0.
Correct the DCB and specify
BLKSIZE or BUFL other than 0.

14   An OPEN macro instruction was
issued with OUTPUT or OUTIN
specified. DCB specifies
DSORG=PO or POU, but the DSCB
indicates that the data set is
not partitioned. Change the DCB
macro instruction DSORG parameter
to PS; change the DD statement
DSORG subparameter to PO; imply
partitioned organization by
allocating space for the
directory in the SPACE parameter
of the DD statement; or verify
that the DSNAME and VOLUME
parameters on the DD statement
are correct.

18   An OPEN macro instruction was
issued for a partitioned data
set. The DSNAME parameter
specified a member of the data
set that could not be located.

1C   An OPEN macro instruction was
issued for a partitioned data
set, but an I/O error was
encountered searching the
directory.

20   An OPEN macro instruction was
issued for a sequential data set
using the queued access technique
with RECFM=FB, but BLKSIZE is not
a multiple of LRECL, or for
variable-length records,
blocksize (BLKSIZE) is not at least
4 bytes greater than the logical
record length (LRECL). For
RECFM=U,BLKSIZE=0.

24   An OPEN macro instruction was
issued with INPUT, INOUT, RDBACK,
or UPDAT specified, but the DCB
did not specify a MACRF of EXCP,
GET, or READ.

28   An OPEN macro instruction was
issued with OUTPUT or OUTIN
specified, but the DCB did not
specify a MACRF of EXCP, PUT, or
WRITE.

2C   A sequential data set using the
queued access technique with
exchange buffering was opened for
input, and the buffer control
block address was 0. Verify that
DCBBUFCB was not incorrectly
modified. This type of error
often occurs if a DCB is shared
by two or more tasks, or is
opened and closed several times
within one job step.

30   A sequential data set using the
queued access technique with
exchange buffering was opened for
output, but the buffer control
block address is 0. Verify that
DCBBUFCB was not incorrectly
modified. This type of error
often occurs if a DCB is shared
by two or more tasks, or is
opened and closed several times
within one job step.

34   An OPEN macro instruction was
issued for a data set with
BLKSIZE and BUFL equal to 0. The
system determined that it had to
obtain buffers but was unable to
do so.

38   An OPEN macro instruction was
issued for a sequential data set
on a direct access device with
track overflow, but the buffer
control block address was zero.
Verify that DCBBUFCB was not
incorrectly modified. This type
of error often occurs if a DCB is
shared by two or more tasks, or
is opened and closed several
times within one job step.

3C   A sequential data set was opened
for INPUT or OUTPUT, but the
buffer control block address was
0. Verify that DCBBUFCB was not
incorrectly modified. This type
of error often occurs if a DCB is
shared by two or more tasks, or
is opened and closed several
times within one job step.

40   A sequential or direct data set
was opened for input, but the
buffer control block address was
0. Verify that DCBBUFCB was not
incorrectly modified. This type
of error often occurs if a DCB is
shared by two or more tasks, or
is opened and closed several
times within one job step.

44   An OPEN macro instruction was
issued for a data set on a direct
access device for which chained
scheduling was specified, but the
buffer control block address was
0. Verify that DCBBUFCB was not
incorrectly modified. This type
of error often occurs if a DCB is
shared by two or more tasks, or
is opened and closed several
times within one job step.

48 An OPEN macro instruction was issued for a sequential data set using the queued access techniques, but the buffer control block address was 0.

4C An OPEN macro instruction was issued for a sequential data set using the queued access tech-que. The system determined a buffer pool existed for the data set and made the appropriate test shown below, with unsatisfactory results:
A) If the data was to be sent directly to a unit record device (no spooling), the buffer length value in the buffer control block had to be equal to or greater than the value specified in the DCB for LRECL.
B) Otherwise, the buffer length value in the buffer control block had to be equal to or greater than the value specified in the DCB for BLKSIZE.

50 An OPEN macro instruction issued for a data set allocated to a printer did not have OUTPUT specified as an OPEN option.

54 An OPEN macro instruction was issued for a data set allocated to a 1419. No secondary control unit could be found.

58 An OPEN macro instruction was issued for a paper tape data set and concatenation with unlike attributes was specified. (i.e., DCBOFLGS bit 4=1). Set DCBOFLGS bit 4 to 0 and do not attempt to concatenate a data set on paper tape with data sets of unlike attributes.

5C An OPEN macro instruction was issued for a sequential data set using the queued access technique. The data set contained spanned variable length records larger than 32,756, but GET locate mode was not specified.

60 An OPEN macro instruction was issued for a data set with a DCB specifying RECFM=F, and BLKSIZE was not equal to LRECL. Correct DCB parameters to specify RECFM=FB, or make LRECL and BLKSIZE equal.

64 An OPEN macro instruction was issued for a null data set using an access method other than QSAM or BSAM or was issued for a null data set using BSAM with MACRF=WL. Correct DD statement to specify a real data set, or access the data set using BSAM or QSAM.

68 An OPEN macro was issued for a data set whose DCB specified BLKSIZE greater than 32,767.

6C An OPEN macro instruction was issued for a data set with OPTCD=T in the DCB, requesting track overflow, but the direct access device allocated does not support track overflow. Correct the DCB or allocate a device that supports track overflow by a specific request in the unit parameter or a generic name that applies only to those devices.

70 An OPEN macro instruction was issued for a data set on magnetic tape. A conflict exists among LABEL parameters on the DD statement, and DCBRECFM, DCBOPTCD, DCBBUFOF, and DCBUSASI give the appearance of mixed USASI and EBCDIC attributes to the data set; or OPTCD=Q was specified in the DCB for a data set on a device other than magnetic tape.

74 An OPEN macro instruction was issued for an optical character reader data set, but the option 1 on the OPEN macro instruction did not specify input.

78 An OPEN macro instruction was issued for an optical character reader data set. The BUFL parameter in the DCB was specified as zero, or incorrectly modified during execution.

7C An OPEN macro instruction was issued for an optical character reader data set. But LRECL parameter in the DCB was zero. Specify LRECL other than zero and rerun the job.

80 An OPEN macro was issued for an optical character reader data set, but the specified BUFL was less than LRECL. Specify BUFL equal to, or greater than, LRECL and rerun the job.

84 An OPEN macro instruction was issued for an optical character reader data set. The number of buffers specified in the buffer pool control block is not the same as that specified in the DCBBUFNO field.

88 An OPEN macro instruction was issued for a telecommunications device but the DCBDSORG did not specify TSO.

8C RECFM was not specified for a direct organization (BDAM) data set. Specify the correct RECFM in the DCB.

B0 An OPEN macro instruction was issued with the RDBACK option for a DCB specifying a record format of variable spanned records. These are conflicting OPEN parameters.

B4 An OPEN macro instruction was issued with the INOUT/OUTIN

option for a DCB specifying the
QSAM MACRF values. These are
conflicting parameters.

System Action: The task is terminated.

Programmer Response: Probable user error.
Correct the errors causing abnormal
termination as indicated by the return
code in the message text. Rerun the job.

Problem Determination: Table I, items 1,
4, 5a, 16, 29. Table II, Format 3.

IEC142I 113-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred during
execution of an OPEN macro instruction or
an OPEN macro instruction with a TYPE=J
operand. In the message text, 113-rc
associates this message with system
completion code 113 and with return code
rc. Other fields in the message text are:
jjj
      job name
sss
      step name
ddn[-#]
      DDname (followed by a concatenation
      number if it is part of a
      concatenation and not the first DD
      statement in the concatenation.)
ddd
      device address
ser
      volume serial number
dsn
      data set name

The values of rc and their meanings are
as follows:

Return
Code   Meaning
04   Either an I/O error occurred
        reading the JFCB during OPEN, or
        the JFCB does not exist.

08   An I/O error occurred reading a
        JFCB extension block during OPEN.

0C   An OPEN TYPE=J was issued, but
        not JFCB exit was found in the
        DCB exit list. Specify a JFCB
        exit, supply the JFCB.

10   An I/O error occurred when
        writing back the JFCB during OPEN.

14   An I/O error occurred when
        reading a concatenated JFCB for
        an indexed sequential data set.

18   An I/O error, occurred reading a
        JFCB extension block for a direct
        or indexed sequential data set.

System Action: The task is terminated.

Programmer Response: Rerun the job.

Problem Determination: Table I, items 1,
4, 5a, 16, 29. Table II, Format 3.

IEC143I 213-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred during
execution of an OPEN macro instruction for
a data set on a direct access device. In

the message text, 213-rc associates this
message with system completion code 213
and with return code rc. Other fields in
the message text are:
jjj
      job name
sss
      step name
ddn[-#]
      DDname (followed by a concatenation
      number if it is part of a
      concatenation and not the first DD
      statement in the concatenation.)
ddd
      device address
ser
      volume serial number
dsn
      data set name

The values of rc and their meanings are
as follows:

Return
Code   Meaning
04   The format 1 DSCB for the data
        set could not be found on the
        first volume (or the volume
        indexed by the volume sequence
        number) specified by the DD
        statement, or an I/O error
        occurred reading the F1 DSCB for
        the data set. Make sure that the
        DSNAME and VOLUME parameters on
        the DD statement are correct. A
        recovery attempt request may be
        specified in the DCB ABEND exit
        routine.

08   An OPEN macro instruction was
        issued for a password protected
        data set, but the system was
        unable to locate the PASSWORD
        data set. Make sure that the
        PASSWORD data set exists on the
        system residence volume. If it
        does not exist, build it and
        execute the job step again.

0C   An I/O error occurred reading a
        format 1 DSCB for a direct or
        indexed sequential data set, or
        the format 1 DSCB could not be
        found on a volume specified by
        the DD statement for a direct or
        indexed sequential data set.
        Make sure that the dsname and
        volume parameters on the DD
        statement are correct.

10   An I/O error occurred reading a
        format 3 DSCB for a direct or
        indexed sequential data set.

18   An I/O error occurred writing
        back a format 1 DSCB. The data
        set may have been scratched or
        renamed during open processing,
        possibly by a concurrent job.

1C   An I/O error occurred reading a
        format4 DSCB in preparation for
        reading a format1 DSCB. Either
        1) the TTR of the VTOC in the UCB
        is bad due to improper volume
        label verification, 2) the VTOC
        has been overlaid by other data,
        or 3) the disk has been demounted
        and another mounted when not
        requested.

System Action: The task is terminated
unless the error is to be ignored as
specified in the DCB ABEND exit routine.

Programmer Response: Probable user error.
Correct the errors causing the abnormal
termination as indicated by the return
code in the message text. Rerun the job.

Problem Determination: Table I, items 1,
4, 5a, 16, 29. Table II, Format 3.

IEC144I 313-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred during
execution of an OPEN macro instruction for
a data set on a direct access device. In
the message text, 313-rc associates this
message with system completion code 313
and with return code rc. Other fields in
the message text are:

jjj
    job name
sss
    step name
ddn[-#]
    DDname (followed by a concatenation
    number if it is part of a
    concatenation and not the first DD
    statement in the concatenation.)
ddd
    device address
ser
    volume serial number
dsn
    data set name

The values of rc and their meanings are
as follows:

Return
Code   Meaning
04   An I/O error occurred reading a
    format 2 or format 3 DSCB.

System Action: The task is terminated
unless the error is to be ignored as
specified in the DCB ABEND exit routine.

Programmer Response: If an I/O error has
occurred, a defective volume or device may
be the cause. You should save the output
from the failing job to aid in the
analysis of the problem.

Rerun the job specifying a different
volume or device. If a scratch volume was
being used when the I/O error occurred,
request a different volume. If that does
not solve the problem, request a different
device in the UNIT parameter of the DD
statement. If a specific volume is
needed, try requesting a different device
in the UNIT parameter of the DD statement.
Rerun the job.

Problem Determination: Table I, items 1,
4, 5a, 16, 29. Table II, Format 3.

IEC145I 413-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred during
execution of an OPEN macro instruction for
a data set on magnetic tape or on a direct
access device. In the message text,
413-rc associates this message with system
completion code 413 and with return code
rc. Other fields in the message text are:

jjj
    job name
sss
    step name
ddn[-#]
    DDname (followed by a concatenation
    number if it is part of a
    concatenation and not the first DD
    statement in the concatenation.)
ddd
    device address
ser
    volume serial number
dsn
    data set name

The values of rc and their meanings are as
follows:

Return
Code   Meaning
04   No unit is available for mounting
    the specified volume. The volume
    already on the allocated unit is
    either permanently resident or
    reserved. It could not be
    demounted in order to mount the
    required volume, or the volume
    cannot be demounted because
    another DCB is open on that
    device. Specify another device
    in the UNIT parameter of the DD
    statement. This error may be due
    to a previous abnormal termination
    associated with the same unit in
    the step. If so, correct the error
    causing the previous abnormal
    termination.

08   An I/O error occurred positioning
    a magnetic tape volume.

0C   An I/O error occurred reading the
    volume label on a magnetic tape
    volume.

10   An I/O error occurred writing a
    tape mark.

14   An I/O error occurred writing
    EOF1 or EOF2 trailer label on a
    magnetic tape volume for a SYSOUT
    data set.

18   The specified data set was opened
    for input, but no volume serial
    number was specified on the DD
    statement. A recovery attempt
    request may be specified in the
    DCB ABEND exit routine.

1C   An OPEN macro instruction was
    issued for a data set, but volume
    sequence number on the associated
    DD statement was greater than the
    number of volumes containing the
    data set.

20   An I/O error occurred reading the
    volume label on a direct access
    volume.

24   An open macro instruction was
    issued for a data set on magnetic
    tape. A density was specified in
    the DCB DEN parameter which was
    incompatible with the recording
    density of the drive allocated to
    the data set. Change the DD

statement to specify a tape drive with the recording density specified in the DCB macro instruction.

28   The system was unable to parallel mount all of the required volumes for a direct or indexed sequential data set. Too few units have been allocated for the number of volumes required. Specify P or a unit control equal to the number of volumes requested in the UNIT parameter of the DD statement.

System Action: The task is terminated unless the error is to be ignored as specified in the DCB ABEND exit routine.

Programmer Response: Probable user error unless an I/O error has occurred. Correct the errors causing abnormal termination as indicated by the return code in the message text. Rerun the job.

Problem Determination: Table I, items 1, 4, 5a, 16, 29. Table II, Format 3.

IEC146I 513-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred during execution of an OPEN macro instruction for a data set on magnetic tape. In the message text, 513-rc associates this message with system completion code 513 and with return code rc. Other fields in the message text are:

jjj
    job name
sss
    step name
ddn[-#]
    DDname (followed by a concatenation number if it is part of a concatenation and not the first DD statement in the concatenation.)
ddd
    device address
ser
    volume serial number
dsn
    data set name

The values of rc and their meanings are as follows:

Return
Code   Meaning
04   An OPEN macro instruction was issued for a magnetic tape data set allocated to a device that already has an open data set on it. Make sure that the first data set is closed before the second is opened, or allocate the second data set to a different device.

System Action: The task is terminated unless the error is to be ignored as specified in the DCB ABEND exit routine.

Programmer Response: Probable user error. Correct the errors causing abnormal termination as indicated by the return code in the message text. This error may be due to a previous abnormal

termination associated with the same tape in the same step. If so, correct the error causing the previous abnormal termination. Rerun the job.

Problem Determination: Table I, items 1, 4, 5a, 16, 29. Table II, Format 3.

IEC147I 613-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred during execution of an OPEN macro instruction for a data set on magnetic tape. In the message text, 613-rc associates this message with system completion code 613 and with return code rc. Other fields in the message text are:

jjj
    job name
sss
    step name
ddn[-#]
    DDname (followed by a concatenation number if it is part of a concatenation and not the first DD statement in the concatenation.)
ddd
    device address
ser
    volume serial number
dsn
    data set name

The values of rc and their meanings are as follows:

Return
Code   Meaning
04   An I/O error occurred positioning a magnetic tape volume.

08   An I/O error occurred reading a label on a magnetic tape volume.

0C   An invalid label was read from a magnetic tape volume. Make sure that the correct volume was mounted, and that it contains standard labels. If it is the desired volume, recreate it, and rerun the job. This error may be due to a previous abnormal termination associated with the same tape since it was last mounted, possibly in a previous job or step leaving the tape mispositioned. If so, either correct the error causing the previous abnormal termination or reestablish the tape position by causing it to be unloaded and mounted again by the system.

10   An I/O error occurred writing a tape label.

14   An I/O error occurred writing a tape mark after the header labels.

System Action: The task is terminated unless the error is to be ignored or recovered as specified in the DCB ABEND exit routine.

Programmer Response: Probable user error unless an I/O error has occurred. Correct the errors causing abnormal

termination as indicated by the return
code in the message text. Rerun the job.

Problem Determination: Table I, items 1,
4, 5a, 16, 29. Table II, Format 3.

IEC148I 713-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred during
execution of an OPEN macro instruction for
a data set on magnetic tape or on a direct
access device. In the message text,
713-rc associates this message with system
completion code 713 and with return code
rc. Other fields in the message text are:

jjj
    job name
sss
    step name
ddn[-#]
    DDname (followed by a concatenation
    number if it is part of a
    concatenation and not the first DD
    statement in concatenation.)
ddd
    device address
ser
    volume serial number
dsn
    data set name

The values of rc and their meanings are as
follows:

Return
Code   Meaning
04   A data set on magnetic tape was
      opened for OUTPUT, OUTIN, or
      INOUT, but the volume contained a
      data set whose expiration date
      had not been reached. The
      operator replied 'M' to message
      IEC107D and a specific volume
      serial had been specified. Specify
      a different volume on the DD
      statement, or in the case of
      INOUT only, open for input only by
      changing the OPEN macro instruction
      or by specifying IN in the LABEL
      parameter of the DD statement.

08   An OPEN macro instruction was
      issued with OUTPUT, OUTIN, INOUT
      or UPDAT for a data set on a
      direct access device with
      DISP=OLD specified on the DD
      statement. The expiration date
      on the data set had not been
      reached. The operator replied
      'M' to message IEC107D. Specify
      a different volume on the DD
      statement, or open for input only
      by changing the OPEN macro
      instruction or by specifying IN
      in the LABEL parameter of the DD
      statement or have the operator
      reply 'U'.

System Action: The task is terminated
unless the error is to be ignored as
specified in the DCB ABEND exit routine.

Programmer Response: Probable user error.
Correct the errors causing abnormal
termination as indicated by the return
code in the message text. Rerun the job.

Problem Determination: Table I, items 1,
4, 5a, 16, 29. Table II, Format 3.

IEC149I 813-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred during
execution of an OPEN macro instruction for
a data set on magnetic tape. In the
message text, 813-rc associates this
message with system completion code 813
and with return code rc. Other fields in
the message text are:

jjj
    job name
sss
    step name
ddn[-#]
    DDname (followed by a concatenation
    number if it is part of a
    concatenation and not the first DD
    statement in the concatenation.)
ddd
    device address
ser
    volume serial number
dsn
    data set name

The values of rc and their meanings are
as follows:

Return
Code   Meaning
04   An OPEN macro instruction was
      issued for a data set on magnetic
      tape, but the data set name on
      the header label did not match
      that in the JFCB. Verify that
      the DD statement specifies the
      correct DSNAME and volume serial
      number. If they are correct,
      ensure that the JFCB was not
      incorrectly modified prior to
      issuing the OPEN macro.

System Action: The task is terminated
unless the error is to be ignored or
recovered as specified in the DCB ABEND
exit routine.

Programmer Response: Probable user error.
Correct the errors causing abnormal
termination as indicated by the return
code in the message text. Rerun the job.

Problem Determination: Table I, items 1,
4, 5a, 16, 29. Table II, Format 3.

IEC150I 913-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: In the message text, 913-rc
associates this message with system
completion code 913 and with return code
rc. Other fields in the message text are:

jjj
    job name
sss
    step name
ddn[-#]
    DDname (followed by a concatenation
    number if it is part of a
    concatenation and not the first DD
    statement in the concatenation.)
ddd
    device address

ser
    volume serial number
dsn
    data set name

The values of rc and their meanings are
as follows:

Return
Code   Meaning
04   An OPEN macro instruction was
        issued for a magnetic tape data
        set with ASCII labels. The
        volume accessibility byte (offset
        X'0A') in the volume label is not
        blank. This indicates that the
        label was not written on an IBM
        system or that it was written by
        the user. If the volume
        accessibility byte is not blank,
        the tape cannot be used on an IBM
        system. Make sure that the
        correct volume is mounted. If it
        is the correct volume, it must be
        recreated for use on an IBM
        system.

08   An OPEN macro instruction was
        issued for a magnetic tape data
        set with ASCII labels. The
        security byte in the header label
        was not blank or a 1. This means
        that the label was either not
        created on an IBM system or was
        created by the user. Make sure
        that the correct volume is
        mounted. If it is the correct
        volume, it must be recreated for
        use on an IBM system.

0C   An OPEN macro instruction was
        issued for a password protected
        data set, but the operator failed
        to supply the correct password in
        response to message IEC301A or
        IEC113A for TSO terminal users.
        Supply the operator with the
        correct password and execute the
        job step again, or have the
        correct password added to the
        PASSWORD data set.

System Action: The task is terminated
unless the error is to be ignored (unless
the return code is 0C which cannot be
ignored) as specified in the DCB ABEND
exit routine.

Programmer Response: Probable user error.
Correct the errors causing abnormal
termination as indicated by the return
code in the message text. Rerun the job.

Problem Determination: Table I, items 1,
4, 5a, 16, 29. Table II, Format 3.

IEC151I A13-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred during
execution of an OPEN macro instruction
for a data set on magnetic tape. In the
message text, A13-rc associates this
message with system completion code A13
and with return code rc. Other fields in
the message text are:

jjj
    job name
sss
    step name

ddn[-#]
    DDname (followed by a concatenation
    number if it is part of a
    concatenation and not the first DD
    statement in the concatenation.)
ddd
    device address
ser
    volume serial number
dsn
    data set name

The values of rc and their meanings are
as follows:

Return
Code   Meaning
04   An unexpected load point was
        encountered while positioning a
        tape. This may be associated with
        a previous ABEND that left the
        tape mispositioned. For NL tape
        this is probably a user error
        associated with the use of multi-
        volume multi-file NL tape. Check
        the file sequence number and
        whether the tape was demounted
        during the job.

08   The requested file sequence
        number is less than that of the
        first file on the SL or AL tape
        during an open the the start of a
        file. Probable user error.
        Check the file sequence number
        and volume serial numbers.

0C   The requested file sequence
        number is less than that of the
        first file on the SL or AL tape
        during an open the the end of a
        file. Probable user error.
        Check the file sequence number
        and volume serial numbers.

10   A tape mark was read instead of a
        HDR1 label while forward spacing
        to the desired file on an SL or
        AL tape. Thus, the multi-file
        tape ends before the desired file.
        When positioning to the end of
        file 1, this means the VOL label
        is followed by a tape mark.
        Probable user error. Check the
        file sequence number and volume
        serial numbers and that the job
        that wrote the tape wrote all
        the files.

14   A tape mark was read instead of a
        HDR1 label while opening for
        input to the start of the desired
        file on an SL or AL tape. Thus,
        the tape ends just before the
        desired file. Probable user
        error. Check the file sequence
        number and volume serial numbers
        and that the job that wrote the
        tape wrote all the files.

18   An EOV1 label was read on the last
        SL or AL tape volume while
        forward spacing to the desired
        file or just before the desired
        file. If opening to the end of
        the file, it could not be
        treated as the end of the data
        set because it was for a previous
        file sequence number. Probable
        user error. Check the volume
        serial numbers and file sequence

number.

System Action: The tape is left in a correct position except for return code 04. The task is terminated unless the error is to be ignored as specified in the DCB ABEND exit routine.

Programmer Response: Probable user error. Correct the errors causing abnormal termination as indicated by the return code in the message text. Rerun the job.

Problem Determination: Table I, items 1, 4, 5a, 16, 29. Table II, Format 3.

IEC152I B13-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: In the message text, B13-rc associates this message with system completion code B13 and with return code rc. Other fields in the message text are:

jjj
    job name
sss
    step name
ddn[-#]
    DDname (followed by a concatenation number if it is part of a concatenation and not the first DD statement in the concatenation.)
ddd
    device address
ser
    volume serial number
dsn
    data set name

The values of rc and their meanings are as follows:

Return
Code   Meaning
04   An OPEN macro instruction was issued for a data set allocated to a printer. The requested character set type could not be verified because the UCS image is not in the SYS1.IMAGELIB data set. Make sure that the correct character set type was requested. If it is the correct one, contact the system programmer and have him update SYS1.IMAGELIB to include the associated UCS image.

08   An I/O error occurred during an attempt to locate the requested UCS image in the SYS1.IMAGELIB data set.

0C   An I/O error occurred loading the UCS buffers.

10   An I/O error occurred verifying that the correct UCS image was loaded.

14   An OPEN macro instruction was issued to a data set allocated to a printer. The operator replied 'CANCEL' to message IEC121D. Specify the correct character set type, or have the operator mount the proper chain and execute the job step again.

18   An I/O error occurred loading a forms control buffer for a 3211 printer.

1C   The operator replied 'CANCEL' to message IEC128I. Verify that the correct forms control buffer is loaded.

20   An OPEN macro instruction was issued for a data set to be printed, but no main storage was available for opening SYS1.IMAGELIB.

24   An OPEN macro instruction was issued to for a data set to be printed, but the volume containing SYS1.IMAGELIB was not mounted.

28   An OPEN macro instruction was issued for a data set to be printed, but an I/O error occurred searching SYS1.IMAGELIB for the UCS image.

2C   An OPEN macro instruction was issued for a data set allocated to a printer. A permanent I/O error was detected when the BLDL macro instruction was issued to locate the requested FCB image in the SYS1.IMAGELIB data set.

30   An OPEN macro instruction was issued for a data set allocated to a printer. A permanent I/O error persisted after two attempts were made to load the forms control buffer.

34   An OPEN macro instruction was issued for a data set allocated to a printer. The operator replied 'CANCEL' to the message IEC127D because the FCB image could not be found in SYS1.IMAGELIB data set. Specify the correct FCB image-id, or have the system programmer update the SYS1.IMAGELIB to include the associated FCB image and execute the job step again.

System Action: The task is terminated unless the error is to be ignored as specified in the DCB ABEND exit routine.

Programmer Response: Probable user error unless an I/O error has occurred. Correct the errors causing abnormal termination as indicated by the return code in the message text. Rerun the job.

Problem Determination: Table I, items 1, 4, 5a, 16, 29. Table II, Format 3.

IEC153I C13-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred during execution of an OPEN macro instruction for a concatenated partitioned or graphics data set. In the message text, C13-rc associates this message with system completion code C13 and with return code rc. Other fields in the message text are:

jjj
    job name
sss
    step name
ddn[-#]
    DDname (followed by a concatenation number if it is part of a

concatenation and not the first DD
statement in the concatenation.)

ddd

device address

ser

volume serial number

dsn

data set name

The values of rc and their meanings are
as follows:

Return
Code   Meaning
04   The format 1 DSCB of a
        concatenated partitioned data set
        could not be located on the
        specified volume. Correct the
        DSNAME and VOLUME parameters of
        the DD statement.

08   An I/O error occurred reading the
        JFCB of a concatenated
        partitioned data set.

0C   An I/O error occurred reading the
        format 3 DSCB of a concatenated
        partitioned data set.

10   An OPEN macro instruction was
        issued specifying OUTPUT for
        concatenated partitioned data
        sets. Output data sets cannot be
        concatenated.

18   A device other than direct access
        has been allocated to a
        concatenated BPAM data set.

System Action: The task is terminated
unless the error is to be ignored as
specified in the DCB ABEND exit routine.

Programmer Response: Probable user error
unless an I/O error has occurred. Correct
the errors causing abnormal termination as
indicated by the return code in the
message text. Then submit the job again.

Problem Determination: Table I, items 1,
4, 5a, 16, 29. Table II, Format 3.

IEC154I 140-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred during
execution of a RDJFCB macro instruction.
In the message text, 140-rc associates
this message with system completion code

140 and with return code rc. Other fields in the message text are:

jjj
  job name
sss
  step name
ddn[-#]
  DDname (followed by a concatenation number if it is part of a concatenation and not the first DD statement in the concatenation.)
ddd
  device address
ser
  volume serial number
dsn
  data set name

The values of rc and their meanings are as follows:

Return
Code   Meaning
04   A RDJFCB macro instruction was issued, but an I/O error occurred while reading the JFCB.

System Action: The task is terminated.

Programmer Response: Execute the job step again.

Problem Determination: Table I, items 1, 4, 5a, 16, 29. Table II, Format 3.

IEC155I 240-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred during execution of a RDJFCB macro instruction. In the message text, 240-rc associates this message with system completion code 240 and with return code rc. Other fields in the message text are:

jjj
  job name
sss
  step name
ddn[-#]
  DDname (followed by a concatenation number if it is part of a concatenation and not the first DD statement in the concatenation.)
ddd
  device address
ser
  volume serial number
dsn
  data set name

The values of rc and their meanings are as follows:

Return
Code   Meaning
04   A RDJFCB macro instruction was issued, but the DCB did not contain a foundation extension block. Specify a JFCB exit in the DCB exit list. If the DCB is correct, verify that it was not modified during execution.

08   A RDJFCB macro instruction was issued, but no EXLST address was found in the DCB. Specify a JFCB exit in the DCB exit list. If the DCB is correct, verify that it was not modified during execution.

0C   A RDJFCB macro instruction was issued, but no JFCB exit was specified in the DCB exit list. Specify a JFCB exit in the DCB exit list and execute the job step again.

10   A RDJFCB macro instruction was issued, but the JFCB buffer is not within the user's main storage. Correct any errors that may have caused the exit list to be incorrectly modified and execute the job step again.

System Action: The task is terminated unless the error is to be ignored as specified in the DCB ABEND exit routine.

Programmer Response: Probable user error. Correct the errors causing abnormal termination as indicated by the return code in the message text. Rerun the job.

Problem Determination: Table I, items 1, 4, 5a, 16, 29. Table II, Format 3.

IEC156I 03D-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred during execution of a QISAM or BISAM OPEN macro instruction or a BDAM OPEN macro instruction. In the message text, 03D-rc associates this message with system completion code 03D and with return code rc. Other fields in the message text are:

jjj
  job name
sss
  step name
ddn[-#]
  DDname (followed by a concatenation number if it is part of a concatenation and not the first DD statement in the concatenation.)
ddd
  device address
ser
  volume serial number number
dsn
  data set name

The values of rc and their meanings are as follows:

Return
Code   Meaning
04   An OPEN macro instruction was issued for an indexed sequential or direct data set. The volume serial numbers on the DD statement were not specified in the same order that the data set was created. Change the JCL

respecifying the volume serial
numbers in the correct order.

08   An OPEN macro instruction was
issued for an indexed sequential
data set. The first volume of
the data set does not have a
format 2 DSCB.

<u>System Action</u>: The task is terminated
unless the error is to be ignored as
specified in the DCB ABEND exit routine.

<u>Programmer Response</u>: Probable user error.
Correct the errors causing abnormal
termination as indicated by the return
code in the message text. Rerun the job.

<u>Problem Determination</u>: Table I, items 1,
4, 5a, 16, 29. Table II, Format 3.

IEC157I C13-rc,jjj,sss,ddn[-#],ddd

<u>Explanation</u>: The error occurred during
execution of an OPEN macro instruction for
a graphic data control block. In the
message text, C13-rc associates this
message with system completion code C13
and with return code rc. Other fields in
the message text are:

jjj
      job name
sss
      step name
ddn[-#]
      DDname (followed by a concatenation
      number if it is part of a
      concatenation and not the first DD
      statement in the concatenation.)
ddd
      device address

The values of rc and their meanings are as
follows:

Return
Code   Meaning
04   The device is already open for
        another task. Check that the DD
        statement specifies the correct
        graphic device. Close the
        graphic device in the other task
        before opening it in the current
        task.

<u>System Action</u>: The task is terminated
unless the error is to be ignored as
specified in the DCB ABEND exit routine.

<u>Programmer Response</u>: Probable user error.
Correct the errors causing abnormal
termination as indicated by the return
code in the message text. See the
publication <u>IBM System/360 Operating
System: Problem Determination Aids and
Messages and Codes for GPS and GSP</u>,
GC27-6970, for more details.

<u>Problem Determination</u>: Table I, items 1,
3, 4, 5a, 15, 16, 29. Table II, Format 2
trace option keyword - <u>TRACE=SVCP</u>, event
keyword(s) - <u>SVC=(19,20,35,42,71),END</u>,
Format 3.

IEC158I D13-rc,jjj,sss,ddn[-#],ddd[,ser,dsn]

<u>Explanation</u>: The error occurred during
execution of an OPEN macro instruction for
a graphic data control block. In the
message text, D13-rc associates this
message with system completion code D13
and with return code rc. Other fields in
the message text are:

jjj
      job name
sss
      step name
ddn[-#]
      DDname (followed by a concatenation
      number if it is part of a
      concatenation and not the first DD
      statement in the concatenation.)
ddd
      device address
ser
      volume serial number (only appears if
      the device is incorrectly a tape or
      direct access device.)
dsn
      data set name (only appears if ser
      appears.)

The values of rc and their meanings are as
follows:

Return
Code   Meaning
04   The device is not a graphic
        device. Check that the DD
        statement specifies a graphic
        device. If it does, make sure
        that the DCB or other control
        information was not incorrectly
        modified by program errors.

<u>System Action</u>: The task is terminated
unless the error is to be ignored as
specified in the DCB ABEND exit routine.

<u>Programmer Response</u>: Probable user error.
Correct the errors causing abnormal
termination as indicated by the return
code in the message text. See the
publication <u>IBM System/360 Operating
System: Problem Determination Aids and
Messages and Codes for GPS and GSP</u>,
GC27-6970, for more details.

<u>Problem Determination</u>: Table I, items 1,
3, 4, 5a, 15, 16, 29. Table II, Format 3.

IEC159I E13-rc,jjj,sss,ddn[-#],ddd

<u>Explanation</u>: The error occurred during
execution of an OPEN macro instruction for
a graphic data control block. In the
message text, E13-rc associates this
message with system completion code E13
and with return code rc. Other fields in
the message text are:

jjj
      job name
sss
      step name

ddn[-#]
    CDname (followed by a ccncatenation
    number if it is part of a
    concatenation and not the first DD
    statement in the ccncatenation.)
ddd
    device address

The values of rc and their meanings are as
follows:

Return
Code   Meaning
04   The GNCP field in the DCB
            contains zero cr a number greater
            than 99. Check that this
            parameter was not incorrectly
            specified in (1) the DCB macro,
            (2) the DD statement, or (3)
            modified in a DCB exit during
            open or by program errors.

System Action: The task is terminated
unless the error is to be ignored as
specified in the DCB ABEND exit routine.

Programmer Response: Probable user error.
Correct the errors causing abnormal
termination as indicated by the return
code in the message text. See the
publication IBM System/360 Operating
System: Problem Determination Aids and
Messages and Codes for GPS and GSP,
GC27-6970, for more details.

Problem Determination: Table I, items 1,
3, 4, 5a, 15, 16, 29. Table II, Format 3.

Close Messages

IEC202E K ddd,ser[,labtyp][,den],jjj,sss
        [,SPACE=prm][,dsn]

    Explanation: K indicates that the volume
    on device ddd is to be demounted and
    returned to the library:
    • If ser is a 6-digit number, it is the
      serial number of the volume, which
      contains labels.
    • If ser begins with an L, the volume to
      be demounted is unlabeled; the number
      after the L is an internal serial number
      assigned by the system to an unlabeled
      volume and is of the form xxxyy, where
      xxx is the data set number and yy is the
      volume sequence number for the data set.

    In the message text, labtyp and den appear
    only for tape volumes. The volume has the
    type of label specified by labtyp: SL for
    standard label, AL for ANS1 label, NSL for
    nonstandard label, or NL for no label; the
    density is as specified by den.

    The volume is being used by step sss of
    job jjj.

    For direct access volumes, if a MONITOR
    SPACE command is active, the field
    SPACE=cccc,tttt,aaaa/yyyy,zzzz is
    specified:

cccc
    Total number cf free cylinders on the
    volume.
tttt
    Total number cf tracks in addition to
    the free cylinders.
aaaa
    Areas or extents dividing the
    cylinders and tracks.
yyyy
    Maximum number cf contiguous free
    cylinders cf the largest extent
    within the tctal remaining space.
zzzz
    Number cf tracks in addition to the
    free cylinders cf the largest extent
    within the tctal remaining space.

If an error occurred during the listing of
the parameters in the SPACE field, one of
the fcllowing messages is specified:
• LSPACE-PERMANENT I/O ERROR
• LSPACE-NON-STANDARD OS VOLUME
• LSPACE-NOT A CIRECT ACCESS VOL
• LSPACE-INVALID PARAMETER
• LSPACE-UCB NCT REALY

IEC

If a MONITOR CSNAME command is active,
data set dsn ccntained on the vclume is
also specified in the message text.

Cperator Respcnse: Cemount the volume.
Mark the serial number, label type, and
density on the vclume, if they are not so
marked. Then return it to the library.
If LSPACE-PERMANENT I/O ERROR was in the
message, a permanent I/O error was
encountered while trying to read the VTOC.
Execute the IEHLIST utility prcgram to
list the VTOC cf this volume. If errors
cccur, take apprcpriate action as
indicated in the message.

Prcblem Determinaticn: If LSPACE-INVALID
PARAMETER was in the message, see Table I,
items 2, 29.

IEC204E D ddd,ser[,labtyp][,den],jjj,sss
        [,SPACE=prm][,dsn]

    Explanation: D indicates that the volume
    cn device ddd is to be demounted and used
    subsequently as a scratch volume:
    • If ser is a 6-digit number, it is the
      serial number cf the volume, which
      contains labels.
    • If ser begins with a slash cr L, the
      volume to be demcunted is unlabeled; the
      number after the slash or L is an
      internal serial number assigned by the
      system to an unlabeled volume. If ser
      begins with L, the number after the L is
      cf the form xxxyy, where xxx is the data
      set number and yy is the volume sequence
      number for the data set.

    In the message text, labtyp and den appear
    cnly for tape vclumes. The volume has the
    type cf label specified by labtyp: SL for
    standard label, AL fcr ANS1 label, NSL for
    nonstandard label, cr NL fcr nc label; the
    density is as specified by den.

    The volume is being used by step sss of
    jcb jjj.

For direct access volumes, if a MONITCR SPACE command is active, the field SPACE=cccc,tttt,aaaa/yyyy,zzzz is specified:

cccc
    Total number of free cylinders cn the volume.
tttt
    Total number of tracks in addition to the free cylinders.
aaaa
    Areas or extents dividing the cylinders and tracks.
yyyy
    Maximum number of contiguous free cylinders of the largest extent within the total remaining space.
zzzz
    Number of tracks in addition to the free cylinders of the largest extent within the total remaining space.

If an error occurred during the listing of the parameters in the SPACE field, one of the following messages is specified:
* LSPACE-PERMANENT I/O ERROR
* LSPACE-NON-STANDARD OS VOLUME
* LSPACE-NOT A DIRECT ACCESS VOL
* LSPACE-INVALID PARAMETER
* LSPACE-UCB NOT READY

If a MONITOR DSNAME command is active, data set dsn contained cn the volume is also specified in the message text.

Operator Response: Demcunt the volume. Use it later when a scratch volume is requested. If LSPACE-PERMANENT I/O ERRCR was in the message, a permanent I/O error was encountered while trying to read the VTOC. Execute the IEHLIST utility program to list the VTOC of this volume. If errors occur, take apprcpriate action as indicated in the message.

Problem Determination: If LSPACE-INVALID PARAMETER was in the message, see Table I, items 2, 29.

IEC209I [jjj][ser] ddd
    TR=nnn,TW=nnn,EG=nnn,CL=nnn,
    N=nnn,SIO=nnnnn

Explanation: This message is issued to indicate the number of errors accumulated on a particular volume. (The message appears only if console output was specified for the ESV opticn at system generation (ESV=CON).) In the message text, the fields are:

jjj
    Job name. (Printed when available to the issuing progran.)
ser
    Serial number of the vclume. (Printed when available to the issuing progran.)
ddd
    Unit address of the device.
TR=nnn
    Number of temporary read errors.

TW=nnn
    Number cf temporary write errors.
EG=nnn
    Number cf erase gaps.
CL=nnn
    Number of cleaner acticns.
N=nnn
    Number cf ncise blocks.
SIC=nnnnn
    Number cf Start I/O operations.

Cperatcr Respcnse: Check the lccal operating prccedures tc see if the number cf errors specified in message text indicates that the vclume should be recconditicned.

IEC210I 214-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanaticn: The errcr occurred during executicn cf a CLOSE macro instruction for a data set cn magnetic tape. In the message text, 214-rc associates this message with system ccmpletion code 214 and with returr ccde rc. Other fields in the message text are:
jjj
    jcb name
sss
    step name
ddn[-#]
    CDname (fcllcwed by a concatenation number if it is part cf a ccncatenaticn and not the first DD statement in the concatenation.)
ddd
    device address
ser
    vclume serial number
dsn
    data set name

The values cf rc and their meanings are as fcllcws:

Return Code	Meaning
04	An I/O errcr cccurred reading a user label cn magnetic tape.
08	An I/C errcr positicning a magnetic tape volume during executicn cf a CLOSE macrc instructicn.

System Action: The task is terminated unless the errcr is tc be igncred as specified in the DCE APEND exit routine.

Prcgrammer Respcnse: If an I/O error has cccurred, a defective vclume cr device may be the cause. Save the output from the failing jcb tc aid in the analysis of the prcblem.

Rerun the job specifying a different vclume cr device. If a scratch volume was being used wher the I/O errcr cccurred, request a different vclume. If that does nct sclve the prcblem, request a different device in the UNIT parameter cf the DD statement. If a specific vclume is needed, try requesting a different device in the UNIT parameter cf the CD statement. Rerun the job.

Problem Determination: Table I, items 1,
4, 5a, 16, 29. Table II, Format 3.

IEC211I 314-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred during
the execution of a CLOSE macro instruction
for a data set on a direct access device.
In the message text, 314-rc associates
this message with system completion code
314 and with return code rc. Other fields
in the message text are:

jjj
      job name
sss
      step name
ddn[-#]
      DDname (followed by a concatenation
      number if it is part of a
      concatenation and not the first DD
      statement in the concatenation.)
ddd
      device address
ser
      volume serial number
dsn
      data set name

The values of rc and their meanings are
as follows:

Return
Code   Meaning
04   An I/O error occurred reading a
        DSCB for a data set on a direct
        access device during execution of
        a CLOSE macro instruction.

08   An I/O error occurred reading a
        format 1 DSCB during execution of
        a CLOSE macro instruction and
        standard user labels were
        specified.

0C   When reading a DSCB, the DSCB
        read did not have a Format 1 or
        Format 4 ID during the execution
        of a CLOSE macro instruction.

System Action: The task is terminated
unless the error is to be ignored as
specified in the DCB ABEND exit routine.

Programmer Response: If an I/O error has
occurred, a defective volume or device
may be the cause. Save the output from
the failing job to aid in the analysis of
the problem.

Rerun the job specifying a different
volume or device. If a scratch volume was
being used when the I/O error occurred,
request a different volume. If that does
not solve the problem, request a different
device in the UNIT parameter of the DD
statement. Rerun the job.

Problem Determination: Table I, items 1,
4, 5a, 16, 29. Table II, Format 3.

IEC212I 414-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred during
execution of a CLOSE macro instruction
for a data set on a direct access device.
In the message text, 414-rc associates
this message with system completion
code 414 and with return code rc. Other

fields in the message text are:

jjj
      job name
sss
      step name
ddn[-#]
      DDname (followed by a concatenation
      number if it is part of a
      concatenation and not the first DD
      statement in the concatenation.)
ddd
      device address
ser
      volume serial number
dsn
      data set name

The values of rc and their meanings are as
follows:

Return
Code   Meaning
04   An I/O error occurred writing a
        DSCB during execution of a CLOSE
        macro instruction.

System Action: The task is terminated
unless the error is to be ignored as
specified in the DCB ABEND exit routine.

Programmer Response: If an I/O error has
occurred, a defective volume or device
may be the cause. Save the output from
the failing job to aid in the analysis of
the problem.

Rerun the job specifying a different
volume or device. If a scratch volume
was being used when the I/O error
occurred, request a different volume. If
that does not solve the problem request a
different device in the UNIT parameter of
the DD statement. If a specific volume
is needed, try requesting a different
device in the UNIT parameter of the DD
statement. Rerun the job.

Problem Determination: Table I, items 1,
4, 5a, 16, 29. Table II, Format 3.

IEC213I 514-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred during
execution of a CLOSE macro instruction.
If the message text, 514-rc associates
this message with system completion code
514 and with return code rc. Other fields
in the message text are:

jjj
      job name
sss
      step name
ddn[-#]
      DDname (followed by a concatenation
      number if it is part of a
      concatenation and not the first DD
      statement in the concatenation.)
ddd
      device address
ser
      volume serial number
dsn
      data set name

The values of rc and their meanings are as follows:

Return
Code   Meaning
04   An I/O error occurred reading a JFCB during execution of a CLOSE macro instruction.

System Action: The task is terminated unless the error is to be ignored as specified in the DCB ABEND exit routine.

Programmer Response: Execute the job step again.

Problem Determination: Table I, items 1, 4, 5a, 16, 29. Table II, Format 3.

IEC214I 614-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred during execution of a CLOSE macro instruction for a data set on a direct access device. In the message text, 614-rc associates this message with system completion code 614 and with return code rc. Other fields in the message text are:

jjj
    job name
sss
    step name
ddn[-#]
    DDname (followed by a concatenation number if it is part of a concatenation and not the first DD statement in the concatenation.)
ddd
    device address
ser
    volume serial number
dsn
    data set name

The values of rc and their meanings are as follows:

Return
Code   Meaning
04   An I/O error occurred writing a file mark for a data set on a direct access device during execution of a CLOSE macro instruction.

System Action: The task is terminated unless the error is to be ignored as specified in the DCB ABEND exit routine.

Programmer Response: If an I/O error has occurred, a defective volume or device may be the cause. Save the output from the failing job to aid in the analysis of the problem.

Rerun the job specifying a different volume or device. If a scratch volume was being used when the I/O error occurred, request a different volume. If that does not solve the problem request a different device in the UNIT parameter of the DD statement. If a specific volume is needed, try requesting a different device in the UNIT parameter of the DD statement. Rerun the job.

Problem Determination: Table I, items 1, 4, 5a, 16, 29. Table II, Format 3.

IEC215I 714-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred during execution of a CLOSE macro instruction for a data set on magnetic tape. In the message text, 714-rc associates this message with system completion code 714 and with return code rc. Other fields in the message text are:

jjj
    job name
sss
    step name
ddn[-#]
    DDname (followed by a concatenation number if it is part of a concatenation and not the first DD statement in the concatenation.)
ddd
    device address
ser
    volume serial number
dsn
    data set name

The values of rc and their meanings are as follows:

Return
Code   Meaning
04   An I/O error occurred writing trailer label 1 for a data set on magnetic tape during execution of CLOSE macro instruction.
08   An I/O error occurred writing trailer label 2 for a data set on magnetic tape.
0C   An I/O error occurred writing a tape mark during execution of a CLOSE macro instruction.

System Action: The task is terminated unless the error is to be ignored as specified in the DCB ABEND exit routine.

Programmer Response: If an I/O error has occurred, a defective volume or device may be the cause. Save the output from the failing job to aid in the analysis of the problem.

Rerun the job specifying a different volume or device. If a scratch volume was being used when the I/O error occurred, request a different volume. If that does not solve the problem request a different device in the UNIT parameter of the DD statement. If a specific volume is needed, try requesting a different device in the UNIT parameter of the DD statement. Rerun the job.

Problem Determination: Table I, items 1, 4, 5a, 16, 29. Table II, Format 3.

IEC216I A14-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred during execution of a CLOSE macro instruction for a data set on a direct access device. In

the message text, A14-rc associates this
message with system completion code A14
and with return code rc. Other fields in
the message text are:

jjj
    job name
sss
    step name
ddn[-#]
    DDname (followed by a concatenation
    number if it is part of a
    concatenation and not the first DD
    statement in the concatenation.)
ddd
    device address
ser
    volume serial number
dsn
    data set name

The values of rc and their meanings are
as follows:

Return
Code   Meaning
04   An I/O error occurred during
       execution of a CLOSE macro
       instruction attempting a partial
       release of space on a direct
       access device.

System Action: The task is terminated
unless the error is to be ignored as
specified in the DCB ABEND exit routine.

Programmer Response: If an I/O error has
occurred, a defective volume or device
may be the cause. Save the output from
the failing job to aid in the analysis of
the problem. Rerun the job specifying a
different volume or device. If a scratch
volume was being used when the I/O error
occurred, request a different volume. If
that does not solve the problem, request
a different device in the UNIT parameter
of the DD statement. If a specific
volume is needed, try requesting a
different device in the UNIT parameter
of the DD statement. Rerun the job.

If rc is 08, check the console listing to
insure the specific pack is still mounted
and execute IEHDASDR for the VTOC of the
pack in question.

Problem Determination: Table I, items 1,
4, 5a, 16, 29. Table II, Format 3.

IEC217I B14-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred during
execution of a CLOSE macro instruction
for a partitioned data set opened for
output to a member. In the message text,
B14-rc associates this message with

system completion code B14 and with
return code rc. Other fields in the
message text are:

jjj
    job name
sss
    step name
ddn[-#]
    DDname (followed by a concatenation
    number if it is part of a
    concatenation and not the first DD
    statement in the concatenation.)
ddd
    device address
ser
    volume serial number
dsn
    date set name

The values of rc and their meanings are
as follows:

Return
Code   Meaning
04   A duplicate name was found in the
       directory of a partitioned data
       set. The close routine attempted
       to add a member name to the
       directory using the STOW macro
       instruction, but a code of 4 was
       returned, indicating that the
       member already exists. Specify a
       different member name, or remove
       the old member name using the
       IEHPROGM utility, or specify
       DISP=MOD on the DD statement.

0C   The close routine attempted to
       update the directory of a
       partitioned data set; however, a
       code of 12 was returned by the
       STOW macro instruction,
       indicating that there is no space
       left in the directory. Copy the
       data set to a scratch volume,
       reallocate space for the data set
       specifying more directory blocks,
       and then copy it back using
       IEBCOPY.

10   An I/O error occurred trying to
       update the directory of a
       partitioned data set.

14   Specified data control block is
       not opened correctly as
       determined by the STOW macro
       instruction.

18   Conditional GETMAIN issued from
       the STOW macro instruction was
       unsuccessful.

System Action: The task is terminated
unless the error is to be ignored as
specified in the DCB ABEND exit routine.

Programmer Response: Probable user error unless an I/O error has occurred. Correct the errors causing abnormal termination as indicated by the return code in the message text. Then rerun the job.

If an I/O error has occurred, a defective volume or device may be the cause. Save the output from the failing job to aid in the analysis of the problem. Rerun the job specifying a different volume or device. If a scratch volume was being used when the I/O error occurred, request a different volume. If that does not solve the problem, request a different device in the UNIT parameter of the DD statement. If a specific volume is needed, try requesting a different device in the UNIT parameter of the DD statement. Rerun the job.

Problem Determination: Table I, items 1, 4, 5a, 16, 29. Table II, Format 3.

IEC218I 117-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred during execution of a BSAM CLOSE macro instruction with a TYPE=T operand. In the message text, 117-rc associates this message with system completion code 117 and with return code rc. Other fields in the message text are:

jjj
    job name
sss
    step name
ddn[-#]
    DDname (followed by a concatenation number if it is part of a concatenation and not the first DD statement in the concatenation.)
ddd
    device address
ser
    volume serial number
dsn
    data set name

The values of rc and their meanings are as follows:

Return
Code   Meaning
04   An I/O error occurred writing a file mark for a data set on a direct access device during execution of a CLOSE macro instruction with a TYPE=T operand.

08   A CLOSE macro instruction with a TYPE=T operand was issued for a data set that was opened with the options RDBACK and LEAVE or INOUT and REREAD. An I/O error occurred in tape positioning while performing a forward space file past a tape mark.

0C   An I/O error occurred when writing the second tape mark following trailer labels during the execution of a CLOSE macro instruction with a TYPE=T operand.

10   An I/O error occurred in tape positioning during execution of a CLOSE macro instruction with a TYPE=T operand. A backspace file past the tape mark following trailer labels was being attempted.

14   An I/O error occurred in tape positioning during execution of a CLOSE macro instruction with a TYPE=T operand. The data set was opened with the options RDBACK and LEAVE or INOUT and REREAD.

18   An I/O error occurred in tape positioning during execution of a CLOSE macro instruction with TYPE=T operand. A forward space file was being performed past a tape mark preceding data for a data set with standard labels opened for RDBACK.

1C   An I/O error occurred in tape positioning during execution of a CLOSE macro instruction with a TYPE=T operand. A forward space file was being performed past a tape mark preceding data for a data set with no labels opened for RDBACK.

20   An I/O error occurred in tape positioning during the execution of a CLOSE macro instruction with a TYPE=T operand for a data set with no labels opened for input, or a data set with standard labels opened for output.

24   An I/O error occurred in tape positioning during the execution of a CLOSE macro instruction with a TYPE=T operand. A forward space file past a tape mark preceding the data was being attempted.

28   An I/O error occurred in tape positioning during execution of a CLOSE macro instruction with a TYPE=T operand. A backspace file past the tape mark following data was being attempted for a data set opened with the options INPUT and LEAVE.

2C   An I/O error occurred in tape positioning during the execution of a CLOSE macro instruction with a TYPE=T operand. A tape mark was written following the last data record. During this operation, end-of-volume

condition was encountered. The close routine attempted to backspace file past the tape mark prior to calling EOV, and encountered an I/O error.

30   An I/O error occurred in tape positioning during execution of a CLOSE macro instruction following user trailer label processing.

System Action: The task is terminated unless the error is to be ignored as specified in the DCB ABEND exit routine.

Programmer Response: If an I/O error has occurred, a defective volume or device may be the cause. Save the output from the failing job to aid in the analysis of the problem.

Rerun the job specifying a different volume or device. If a scratch volume was being used when the I/O error occurred, request a different volume. If that does not solve the problem, request a different device in the UNIT parameter of the DD statement. If a specific volume is needed, try requesting a different device in the UNIT parameter of the DD statement.

Problem Determination: Table I, items 1, 4, 5a, 16, 29. Table II, Format 3.

IEC219I 217-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred during execution of a BSAM CLOSE macro instruction with a TYPE=T operand. In the message text, 217-rc associates this message with system completion code 217 and with return code rc. Other fields in the message text are:

jjj
    job name
sss
    step name
ddn[-#]
    DDname (followed by a concatenation number if it is part of a concatenation and not the first DD statement in the concatenation.)
ddd
    device address
ser
    volume serial number
dsn
    data set name

The values of rc and their meanings are as follows:

Return Code	Meaning
04	An I/O error occurred reading the JFCB during execution of a CLOSE macro instruction with a TYPE=T operand.

System Action: The task is terminated unless the error is to be ignored as specified in the DCB ABEND exit routine.

Programmer Response: Execute the job step again.

Problem Determination: Table I, items 1, 4, 5a, 16, 29. Table II, Format 3.

IEC220I 317-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred during execution of a BSAM CLOSE macro instruction with a TYPE=T operand for a data set on a direct access device. In the message text, 317-rc associates this message with system completion code 317 and with return code rc. Other fields in the message text are:

jjj
    job name
sss
    step name
ddn[-#]
    DDname (followed by a concatenation number if it is part of a concatenation and not the first DD statement in the concatenation.)
ddd
    device address
ser
    volume serial number
dsn
    data set name

The values of rc and their meanings are as follows:

Return Code	Meaning
04	An I/O error occurred reading a DSCB during the execution of a CLOSE macro instruction with a TYPE=T operand.
08	When reading either a format 1 or 4 DSCB, the DSCB read did not have either a format 1 or format 4. Format ID during the execution of a close macro instruction with TYPE=T operand.

System Action: The task is terminated unless the error is to be ignored as specified in the DCB ABEND exit routine.

Programmer Response: If an I/O error has occurred, a defective volume or device may be the cause. Save the output from the failing job to aid in the analysis of the problem.

Rerun the job specifying a different volume or device. If a scratch volume was being used when the I/O error occurred, request a different volume. If that does not solve the problem, request a different device in the UNIT parameter of the DD statement. If a specific volume is needed, try requesting a different device in the UNIT parameter of the DD statement. Rerun the job.

Problem Determination: Table I, items 1, 4, 5a, 16, 29. Table II, Format 3.

IEC221I 417-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred during execution of a BSAM CLOSE macro instruction with a TYPE=T operand for a data set on a direct access device. In the message text, 417-rc associates this message with system completion code 417 and with return code rc. Other fields in the message text are:

jjj
    job name
sss
    step name
ddn[-#]
    DDname (followed by a concatenation
    number if it is part of a
    concatenation and not the first DD
    statement in the concatenation.)
ddd
    device address
ser
    volume serial number
dsn
    data set name

The values of rc and their meanings are
as follows:

Return
Code   Meaning
04   An I/O error occurred writing an
        updated DSCB during execution of
        a CLOSE macro instruction with a
        TYPE=T operand.

System Action: The task is terminated
unless the error is to be ignored as
specified in the DCB ABEND exit routine.

Programmer Response: If an I/O error has
occurred, a defective volume or device
may be the cause. Save the output from
the failing job to aid in the analysis of
the problem.

Rerun the job specifying a different
volume or device. If a scratch volume
was being used when the I/O error
occurred, request a different volume. If
that does not solve the problem, request
a different device in the UNIT parameter
of the DD statement. If a specific
volume is needed, try requesting a
different device in the UNIT parameter
of the DD statement. Rerun the job.

Problem Determination: Table I, items 1,
4, 5a, 16, 29. Table II, Format 3.

IEC222I 717-rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred during
execution of a BSAM CLOSE macro
instruction with a TYPE=T operand for a
data set on magnetic tape. In the
message text, 717-rc associates this
message with system completion code 717
and with return code rc. Other fields
in the message text are:

jjj
    job name
sss
    step name
ddn[-#]
    DDname (followed by a concatenation
    number if it is part of a
    concatenation and not the first DD
    statement in the concatenation.)
ddd
    device address
ser
    volume serial number
dsn
    data set name

The values of rc and their meanings are
as follows:

Return
Code   Meaning
04   An I/O error occurred writing a
        tape mark following the last data
        record during execution of a
        CLOSE macro instruction with a
        TYPE=T operand.

08   An I/O error occurred during
        execution of a CLOSE macro
        instruction with a TYPE=T
        operand, writing trailer label 1
        or trailer label 2.

0C   An I/O error occurred writing the
        first tape mark following the
        trailer labels during execution
        of a CLOSE macro instruction with
        a TYPE=T operand.

10   An I/O error occurred reading
        trailer label 1 in order to
        update the DCB block count during
        execution of a CLOSE macro
        instruction with a TYPE=T
        operand.

System Action: The task is terminated
unless the error is to be ignored as
specified in the DCB ABEND exit routine.

Programmer Response: If an I/O error has
occurred, a defective volume or device
may be the cause. Save the output from
the failing job to aid in the analysis
of the problem.

Rerun the job specifying a different
volume or device. If a scratch volume
was being used when the I/O error
occurred, request a different volume. If
that does not solve the problem, request
a different device in the UNIT parameter
of the DD statement. If a specific
volume is needed, try requesting a
different device in the UNIT parameter
of the DD statement. Rerun the job.

Problem Determination: Table I, items 1,
4, 5a, 16, 29. Table II, Format 3.

IEC223I rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred when
the system discovered an invalid control
block. In the message text, the fields
are:

rc
    the values of rc and their meanings
    are as follows:

    Return
    Code   Meaning
    00   Either the data extent block
            (DEB) or the task control
            block (TCB) was incorrectly
            modified, or the DEB was not
            on the TCB DEB chain, or the
            protect key of the DEB in the
            DEBDEBID field was different
            from that of the TCBPKF
            field in the TCB.
jjj
    job name
sss
    step name

ddn[-#]
    DDname (followed by a concatenation
    number if it is part of a
    concatenation and not the first DD
    statement in the concatenation.)
ddd
    device address
ser
    volume serial number
dsn
    data set name

System Action: Processing is bypassed
for the DCB in error. Other DCBs in the
CLOSE parameter list will be processed.

Programmer Response: Probable user error.
Correct any errors causing the control
block(s) to be incorrectly modified.
Rerun the job.

Problem Determination: Table I, items 1,
4, 5a, 16, 29. Table II, Format 3.

IEC225I rc,jjj,sss,ddn[-#],ddd,ser,dsn

Explanation: The error occurred during
execution of a BSAM CLOSE macro
instruction with a TYPE=T operand. The
macro instruction was issued for the
specified data set, but an invalid
condition was encountered, indicated by
the return code rc. Other fields in the
message text are:

jjj
    job name
sss
    step name
ddn[-#]
    DDname (followed by a concatenation
    number if it is part of a
    concatenation and not the first DD
    statement in the concatenation.)
ddd
    device address
ser
    volume serial number
dsn
    data set name

The values of rc and their meanings are
as follows:

Return Code	Meaning
00	The DCB specified an invalid DSORG.
04	The DCB was opened for input to a member of a partitioned data set.
08	The LEAVE option was specified for an invalid data set organization (input processing only).
0C	OUTPUT processing was requested for an invalid data set organization.
10	The REREAD option was specified for an invalid data set organization.

System Action: Processing is bypassed
for the DCB error. Other DCBs in the
CLOSE (TYPE=T) parameter list will be
processed normally.

Programmer Response: Probable user error.
Consult Data Management Macro
Instructions, GC26-3784, correct the error
and run the job again.

Problem Determination: Table I, items 1,
4, 15, 19, 25b, 29. Table II, Format 3.

Password Security Messages

IEC301A S{JOB jjj, STEP sss, DDNAME ddn [,CONC n]}
      {DSNAME dsn   }

Explanation: S indicates that the data
set referred to in the message text is
security protected, and a password is
required before the data set can be
accessed.

If the message has the first format, a
program is attempting to open the security
protected data set defined in the DD
statement whose data definition name is
ddn; the data set is being opened by step
sss of job jjj. If the data set is part
of a concatenated data set, CONC n appears
in the message text to identify the
concatenation number or the sequence
position of the data set in question.
If the message has the second format, a
program is attempting to scratch or rename
the security protected data set.

System Action: The system gives the
operator two opportunities to supply a
valid password. If both passwords are
invalid, message IEC150I is issued and
the task is terminated with a system
completion code of 913.

Operator Response: If the indicated OPEN,
SCRATCH, or RENAME function is authorized,
enter REPLY xx,'yyyyyyyy', where yyyyyyyy
is the programmer supplied password for
the data set referred to in the message
text. The password can have a maximum of
eight characters. For a data set that is
part of a concatenation, the password
entered must be the one supplied for
concatenation number n. If the indicated
function is not authorized or if no
password was supplied, cancel the job.

If the program is attempting to scratch
or remove the data set, a WRITE password
must be supplied.

IEC302I SYSCTLG I/O ERROR,ser,dsn

Explanation: An I/O error has occurred
while Catalog Management routines were
reading or writing in the system catalog.
In the message text, 'ser' is the volume
serial number of the volume containing
the catalog that was being processed, and
'dsn' is the fully-qualified index level
or data set name that was being processed.

System Action: The Catalog Management
routine exits directly to the caller
without performing any further processing
on the catalog data set. Return code is
28.

Operator Response: Report this message
to the programmer responsible for the
system. He should check the catalog
for missing or damaged entries.

Problem Determination: Table I, items 2,
25d, 28.

Checkpoint/Restart Messages

IEC400A M ddd,ser/dsn

Explanation: M indicates that a tape
volume is to be mounted on device ddd for
data set dsn. The ser is the six-digit
serial number of the volume.

Operator Response: Mount the volume on the device. Then, ready the device.

IEC401A F ddd,ser/dsn

Explanation: F indicates that the volume on device ddd for output data set dsn is file protected; that is, its file protection ring is not inserted, so it can only be read. However, the volume is to be written on. The ser is the six-digit serial number of the volume.

System Action: The system rewinds and unloads the volume.

Operator Response: Insert a file protection ring in the volume, mount the volume, and ready the device.

IEC402D F ddd,ser/dsn

Explanation: F indicates that the volume on device ddd for input/output data set dsn is file protected; that is, its file protection ring is not inserted, so it can only be read. However, the volume is to be written on. The ser is the six-digit serial number of the volume.

Operator Response: If the volume should be file protected, enter REPLY xx,'U'.

If the volume must have a file protection ring, enter REPLY xx,'F'; the system will rewind and unload the volume. Then insert a file protection ring in the volume, mount the volume, and ready the device.

IEC403A M ddd,ser

Explanation: M indicates that a direct access volume is to be mounted on device ddd. If ddd is followed by a slash, the number after the slash is the bin number of a 2321 device. The ser is the six-digit serial number of the volume.

Operator Response: Mount the volume on the device. Then, ready the device.

Direct Access Device Space Management Messages

IEC601D M ddd,ser REPLY=SKIP VOL OR MOUNTING

Explanation: M indicates that a volume is to be mounted on device ddd, so that a data set can be scratched. The ser is the 6-digit serial number of the volume to be mounted.

Operator Response: If the volume can be mounted, enter REPLY xx,'MOUNTING'; then, mount the volume and ready the device.

If the volume cannot be mounted but the job step is to continue, enter REPLY xx,'SKIP VOL'; the system will ignore the volume.

If the volume cannot be mounted and the job step must not continue unless the data set or volume is scratched, terminate the job step.

Tape Label Creation Messages

IEC701D M ddd, VOLUME TO BE LABELED ser

Explanation: M indicates that a volume is to be mounted on device ddd. If ser is a 6-digit serial number, a standard label containing the serial number will be written on the volume. If ser is absent, a nonstandard label will be written on the volume.

Operator Response: For the first appearance of this message, mount a volume on device ddd, ready the device, and enter REPLY xx,'M'. The volume mounted should be a scratch volume, unless the programmer supplied a volume to be used.

If this message is repeated immediately after message IEC703I a label cannot be written on the volume because the volume is file protected:
• If the volume is to be labeled, insert a file protection ring in the volume, mount the volume, ready the device, and enter REPLY xx,'M'.
• If the volume is not to be labeled, demount the volume, mount a new scratch volume with a file protection ring, ready the device, and enter REPLY xx,'M'.
• If only this message is repeated, enter REPLY xx,'S'. Report the message sequence to the programmer.

Problem Determination: Table I, items 1, 2, 15, 28, 29. Table II, Format 3.

IEC703I ddd, VOLUME IS FILE PROTECTED

Explanation: The volume on device ddd is file protected; that is, its file protection ring is not inserted, so it can only be read. A label cannot be written on the volume.

System Action: The system rewinds and unloads the volume. Immediately or in a short time, the system issues message IEC701D.

Operator Response: Respond as indicated for message IEC701D, which follows this message.

IEC704A L ddd

Explanation: L indicates that label information is required for the output tape volume mounted on device ddd.

System Action: The system will write a standard volume label containing information supplied by the operator.

Operator Response: Enter REPLY
xx,'ser,yyyy' where ser is the 1 to 6
character serial number of the volume and
yyyy consisting of 1 to 10 characters
specifying the owner's name or similar
identification. (The yyyy field may be
omitted.) The 1 to 6-character volume
serial number may include special
characters but not embedded blanks or
commas. The 1 to 10-characters of the
owner-identification is not so restricted.
If the tape volume is not to be used,
enter REPLY xx,'M'.

IEC705I TAPE ON ddd, ser IS labtyp,den BPI

Explanation: A standard volume label has
been created, rewritten, or destroyed on
output tape mounted on device ddd.

In the message text, ser is the serial
number of the volume. The volume has the
type of label specified by labtyp: SL for
standard label, NSL for nonstandard label,
or NL for no label; the density is as
specified by den.

Operator Response: At the end of the job,
make any necessary changes to the contents
label.

Problem Determination: Table I, items 1,
2, 15, 28, 29. Table II, Format 3.

BTAM/QTAM Messages

IEC801I lna THRESHOLD TRANS=nnn DC=nnn IR=nnn
TO=nnn

Explanation: During QTAM or BTAM certain
errors before a specified transmission
count was reached on a line. The errors
are data check errors, intervention
required errors, or non-text time-out
errors.

In the message text, the fields are:

lna
    Line address, in hexadecimal.
TRANS=nnn
    Number of transmissions, in decimal,
    before an error threshold was
    reached.
DC=nnn
    Number of data check errors, in
    decimal, in the above number of
    transmissions.
IR=nnn
    Number of intervention required
    errors, in decimal, in the above
    number of transmissions.
TO=nnn
    Number of non-text time-out errors,
    in decimal, in the above number of
    transmissions.

Operator Response: None.

IEC802I lna LINE TOTALS TRANS=nnnnnnnn DC=nnnnn
IR=nnnnn TO=nnnnn

Explanation: This message is produced, at
the request of the user, to indicate total
counts for a line being used in BTAM
processing.

In the message text, the fields are:
lna
    Line address, in hexadecimal.
TRANS=nnnnnnnn
    Total number of transmissions, in
    decimal.
DC=nnnnn
    Total number of data check errors, in
    decimal.
IR=nnnnn
    Total number of intervention required
    errors, in decimal.
TC=nnnnn
    Total number of non-text time-out
    errors, in decimal.

Operator Response: None.

IEC804A lna CONTROL UNIT NOT OPERATIONAL. REPLY
CONT OR POST

Explanation: A not operational SIO
condition occurred in a line during BTAM
or QTAM processing. In the message text,
lna is the line address.

Operator Response: Make sure the control
unit is operational. Enter one of the
following replies:
• REPLY xx,'CONT'. The system retries the
  condition. If the retry is successful,
  processing continues; if the retry is
  not successful, this message is issued
  again.
• REPLY xx,'POST', for BTAM. The
  operation is posted comple-with-error
  and the not-operational SIO bit will be
  on in the DECERRST field of the data
  event control block (DECB).
• REPLY xx,'POST', for QTAM. The system
  ignores the line until a STARTLN macro
  instruction is issued or sent.

If a reply is not entered before the
requesting job is canceled, the system may
enter wait state. If the problem recurs,
call IBM for hardware support.

IEC805I I/O ERROR - CHECKPOINTS TERMINATED

Explanation: An uncorrectable
input/output error occurred while writing
the current checkpoint record in the
checkpoint data set. The record could not
be written.

System Action: Processing continues, but
no checkpoint records are written.

Operator Response: Either allow the job
to continue, or restart the job at the
last checkpoint by reloading the program.
If the job is restarted, processing will
continue as usual and checkpoint records
will be written as specified.

Problem Determination: Table I, items 1, 2, 3, 5a, 15, 29.

IEC806I lna, LINE UNAVAILABLE, ENDING STATUS NCT RECEIVED

Explanation: The error occurred during execution of the QTAM open line group. The line, lna, failed to return ending status to commands within 30 seconds.

Operator Response: Check the control unit to determine whether the line is in CE mode. If the line is in CE mode, it should be taken out of that mode, ending status should be sent for that command, and the line should be restarted.

To send ending status for that command, the customer engineer should return the following sequence:

    Channel End
    Device End
    Unit Check
    Equipment Check

To restart the line, the appropriate message must be sent to a QTAM message processing program. The message processing program will then issue a STARTLN macro instruction for that line. If the system has the operator control facility, a STARTLN operator control message for that line may be entered directly from the telecommunications control terminal. If the line is not in CE mode and the problem recurs, call IBM for hardware support.

IEC807I cuu ONLINE TEST xx yy tt nn id

Explanation: This message reports the results of an online test in which BTAM sends test messages to a remote computer or terminal, or in which BTAM sends a request-for-test message specifying a test type (X field) of 0. This message appears once for each online test, following transmission of all requested test messages.

In the message text, the fields are:

cuu
    Address of the communication line (channel and unit).
xx
    Test type specified in the request-for-test message.
yy
    Number of test message transmissions requested, as specified by the Y field of the request-for-test message.
tt
    Number of time-out errors that occurred during the test message transmissions.
nn
    Number of NAK responses to BTAM-transmitted test messages.

id
    Terminal identification sequence of the terminal to which the BTAM-transmitted test message or request-for-test message was sent, for multipoint terminals only.
Operator Response: None.

IEC808I cuu ONLINE TEST xx yy tt ll dd

Explanation: This message reports the results of an online test in which BTAM receives test messages from a remote computer or terminal. This message appears once for each online test, following receipt of all test messages from the remote computer or terminal.

In the message text, the fields are:
cuu
    Address of the communication line (channel and unit).
xx
    Test type specified in the request-for-test message received from the remote computer or terminal.
yy
    Number of test message transmissions received from the remote computer or terminal.
tt
    Number of time-out errors that occurred while receiving test messages.
ll
    Number of lost-data errors that occurred while receiving test messages.
dd
    Number of data checks that occurred while receiving test messages.

Operator Response: None.

IEC809I lna CONTROL UNIT NOT OPERATIONAL

Explanation: This message indicates that a not operational SIO condition occurred in a line during BTAM or QTAM processing. In the message text, lna is the line's address.

Operator Response: Reactivate the appropriate control unit.

IEC815I cuu tttt yy ERS z
cuu xx tttt THRESHLD
cuu xx tttt yy eeee zzzz yy eeee zzzz yy
    eeee zzzz yy eeee zzzz
cuu ww tttt eeeeeee zzzz eeeeeee zzzz
    eeeeeee zzzz eeeeeee zzzz

Explanation: This message provides the results of a scan of the error file of an IBM 2715 Transmission Control Unit. The scan occurs when the error threshold for one of the area stations connected to the 2715 is exceeded (threshold value is eight) or when manually requested at the 2715, the 2740 terminal attached to the 2715, or the central system console. BTAM prints the message on the master console, the teleprocessing console, or the system maintenance console, depending on the routing code specified at the 2715.

In all four formats of the message text, cuu is the address in EBCDIC of the communications line (channel and unit), xx is the address in hexadecimal of the area station for which the error scan is reported, tttt is the time (0001 - 2400) when the error occurred, and ww is the address in hexadecimal cf a particular adapter within the 2715. Fields appearing uniquely within a message fcrmat are described below.

The first format of the message is issued when five or more of the eight errors involved a particular one cf the devices attached to the area staticn. In the message text, yy is the address in hexadecimal of the device fcr which the errors occurred, and z is the number of errors (frcm decimal 5 to 8) that occurred for the device.

The second format of the message indicates that the threshold value of eight has been reached for the area staticn whose address is xx, but that no one device attached to the station accounted fcr as many as five of the errors.

The third format of the message is issued twice whenever an error scan for a particular area station is manually requested at the 2715, the 2740 terminal attached to the 2715, or the central system console. The address of device yy for which the error data eeee was recorded at time zzzz is given fcur times in each message; the two messages tcgether thus provide information abcut the eight most recent error occurrences fcr area station xx.

The fourth format of the message is issued twice whenever an error scan for a particular 2715 adapter is manually requested at the 2715, the 2740 terminal attached to the 2715, or the central system console. The error data eeeeeee for adapter ww recorded at time zzzz is given fcur times in each message; the two messages together thus provide information about the eight most recent error occurrences for adapter ww.

Operator Response: None.

IEC900I INVALIC ABEND CODE PASSED TO MODULE
xxxxxxxx

Explanation: The module xxxxxxxx is an OPEN/CLOSE/EOV Problem Determination routine. It did not recognize the passed abnormal termination code, sc it issued an Fxx abnormal termination code where xx=

13 for OPEN or OPEN TYPE=T
14 fcr CLOSE
17 for CLOSE TYPE=T
37 for EOV or FEOV

Register 12 contains the abnormal termination code passed to the module.

System Action: The task is terminated.

Programmer Response: None.

Problem Determination: Table I, items 1, 4, 5a, 7b, 16, 29. Table II, Format 3.

IEC901I UNABLE TO RECOVER DUE TO I/O ERR ON JCEQUEUE

Explanation: An error was encountered in CPEN/CLCSE/EOV and reccvery was attempted. During the reccvery attempt, an I/O error occurred reading cr writing a JFCB extensicn block.

System Action: The task is terminated with the system ccmpletion code of the earlier error unless the error is to be ignored as specified in the DCB ABEND exit routine.

Programmer Response: Correct the errors causing recovery tc be attempted. Then resubmit the jcb.

Problem Determination: Table I, items 1, 4, 5a, 16, 29. Table II, Fcrmat 3.

IEC950I 003-x 3525 ASSCCIATED DATA SET I/O SEQUENCE ERROR

Explanation: This is an explanatory message for the system completicn code 003. A sequence I/O error has cccurred fcr a 3525 reader punch. In the message text, x defines the nature of the error.
• If x is 1, the error occurred because of a READ I/O sequence error.
• If x is 2, the error occurred because of a PUNCH I/O sequence error.
• If x is 3, the error occurred because of a PRINT I/O sequence error.

System Action: The system terminates the task.

Programmer Response: Probable user error. Specify the I/O macrc instructicns in the prcper sequence and rerun the jcb.

Problem Determination: Table I, items 1, 5a, 15, 16, 29.

IEC951I 004 INVALID FCRMAT CARD OR INVALID DEVICE FCR OMR

Explanation: Either the fcrmat card for Read Column Eliminate (RCE) cr for Optical Mark Read (OMR) is invalid, or the device indicated with CMR is ineligible for OMR. Register 15 has the return code X'05.'

System Action: The system terminates the task.

Programmer Response: Probable user error. Verify the referenced fields and rerun the job.

Problem Determination: Table I, items 1, 5a, 15, 16, 29.

IEC

IEC952I 004 CONFLICTING/INVALID DCB FUNC OR
RELATED PARAMETER

Explanation: This is an explanatory
message for system completion code 004. A
conflicting or invalid DCB parameter (FUNC
or related parameter) was specified. The
contents of register 15 indicate the
nature of the error:

Register 15
Contents in
Hexadecimal   Explanation
'01'   An invalid DCB FUNC
               parameter was specified.

'02'   An invalid combination of
               the DCB FUNC parameter and
               CNTRL macro instruction was
               specified.

'03'   Conflicting associated data
               set access methods were
               specified.

'04'   An invalid DCB was specified
               with a 3505 or 3525.

System Action: The system terminates the
task.

Programmer Response: Probable user error.
Verify the referenced fields and rerun the
job.

Problem Determination: Table I, items 1,
5a, 15, 16, 29.

IEC953I 004 DATA PROTECTION IMAGE NOT FOUND

Explanation: This is an explanatory
message for the system completion code
004. A data protection image was not
found. This is indicated by a X'06'
return code in register 15.

The image was not found for one of the
following reasons:

1. It is not in the SYS1.IMAGELIB data
   set.
2. The volume containing SYS1.IMAGELIB
   is not mounted.
3. The SYS1.IMAGELIB data set is not
   cataloged.

System Action: The system terminates the
task.

Programmer Response: Probable user error.
Verify the referenced fields and rerun the
job.

Problem Determination: Table I, items 1,
5a, 15, 16, 29.

Component Name	IFD
IEDnnns: Program Producing Message	TCAM (Telecommunications Access Method)
Audience and Where Produced	For operator: console For system programmer: console or operator ccntrcl station.

Message Format	xx IEDnns
	xx
	    Message identifier (absent, if operatcr reply not required).
	
	nnn
	    Message serial number.
	s
	    Type code:
	    A Action; operator must perform a specified action.
	    D Decision; operator must chcose an alternative.
	    I Information; no operator action is required.

Associated Publications	IBM System/360 Cperating System:
	    TCAM Programmer's Guide and Reference Manual, GC30-2024.
	    TCAM User's Guide, GC30-2025.

Problem Determination	Refer to the fold-out in part VI cf this publicaticn for problem determination instructions.

***IED9nn: Program Producing Message	Assembler program during expansion of TCAM message handler macro instructions.
Audience and Where Produced	For system programmer: assembler listing in SYSPRINT data set.

Message Format	ss, ***IED9nn text
	ss
	    Severity code indicating effect of errcr cn executicn cf program
	    being assembled:
	    * Information only, does nct affect executicn.
	    4 Warning; successful execution prcbable.
	    8 Error; execution may fail.
	    12 Serious error; successful executicn imprcbable.
	    16 Terminal error; successful executicn impossible.
	
	nn Message serial number.
	text Message text.

Associated Publications	IBM System/360 Cperating System: TCAM Programmer's Guide and Reference Manual, GC30-2024.
Problem Determination	Refer to the fold-out in part VI of this publicaticn for prcblem determination instructions.

IED001I TCAM JOB jjj,sss,proc ADDRESS OF AVT addr

Explanation: A TCAM Message Control Program (MCP) identified in the message text by the job name jjj, the step name sss, and the procedure step name proc, is being started. In the message text, addr is the absolute address in main storage of the beginning cf the Address Vector Table (AVT).

System Action: Prccessing continues.

Programmer Respcnse: Ncne.

Cperator Respcnse: Ncne required. This address may be used to alter the MCP from

the console, if requested by the systems
programmer.

IED002A SPECIFY TCAM PARAMETERS

   Explanation: At least one of the
   following operands has been omitted from
   the INTRO macro instruction:
   STARTUP=(S=), KEYLEN=(K=), LNUNITS=(B=)
   or, if DISK=YES is coded in INTRO,
   CPB=(D=). If any of these operands is
   omitted from the INTRO macro instruction
   at assembly, it must be specified at
   execution time.

   System Action: The system enters a wait
   state until the proper response is
   received. The message will then be
   repeated until the required keywords and
   "U" are specified.

   Programmer Response: If the operator
   enters REPLY xx,'U', the system will issue
   message IED004A, which identifies and asks
   for the missing keyword, unless 'U' is the
   missing keyword. Provide the required
   values according to the directions for
   dynamic specification of INTRO operands at
   INTRO execution time as provided in the
   TCAM Programmer's Guide (GC30-2024).

   Operator Response: Enter the Values for
   the required operands that were omitted
   and for other INTRO operands according to
   the detailed directions for dynamic
   specification of INTRO operands that
   should have been provided by the system
   programmer. If the system programmer has
   not provided the information, contact him.

   Problem Determination: Table I, items 2,
   10, 29.

IED003A INVALID KEYWORD xxxx

   Explanation: An invalid response keyword
   has been entered in a response to message
   IED002A. In the message text, xxxx
   represents the four characters of the
   unrecognizable keyword.

   System Action: The system enters a wait
   state until the response is provided. All
   keywords to the right of the unidentified
   four characters are ignored.

   Operator Response: Probable user error.
   Enter a new response, respecifying the
   keyword in error, if required. Since all
   operands to the right of the keyword in
   error are ignored, all such operands must
   be respecified.

   Problem Determination: Table I, items 2,
   10, 29.

IED004A REQUIRED PARAMETER MISSING. SPECIFY xxx

   Explanation: A "U" has been coded at the
   end of a response to message IED002A at
   execution time, indicating that all
   operands have been specified, but a value
   has not yet been specified for one or more
   of the following operands:

STARTUP=, KEYLEN=, LNUNITS= or, if
DISK=YES is coded, CPB=.

In the message text, xxx is the name of
the missing operand.

   System Action: The system enters a wait
   state until the response is received.

   Programmer Response: Provide the operator
   with the necessary information to complete
   the response.

   Operator Response: Probable user error.
   Enter a value for the specified operand in
   your response to this message. If the
   system programmer has not provided you
   with this information, contact him.

   Problem Determination: Table I, items 2,
   10, 29.

IED005A MSUNITS (M) SPECIFICATION NOT PERMITTED.
        CONTINUE RESPONSE

   Explanation: Either MSUNITS=0 was coded
   in the INTRO macro instruction or the
   MSUNITS= operand was omitted from the
   INTRO macro instruction. As a result, the
   operator may not assign buffer units to a
   main storage message queues data set in
   response to the message IED002A.

   System Action: The system enters a wait
   state until the response is continued.

   Programmer Response: If a message queues
   data set in main storage is required,
   cancel the job, code a positive integer in
   the MSUNITS= operand of the INTRO macro
   instruction, and reassemble and reexecute
   the MCP.

   Operator Response: Probable user error.
   Either continue with the response, or
   contact the system programmer for
   information.

   Problem Determination: Table I, items 2,
   10, 29.

IED006A INVALID OPERAND ON KEYWORD. RESPECIFY xxx

   Explanation: The keyword indicated by xxx
   was coded with an incorrect value in the
   operator's response to the previous
   message. Either a decimal value was not
   within an acceptable range, or a
   non-decimal integer was coded when a
   decimal value was needed, or a character
   string more than eight characters long was
   coded.

   System Action: The system enters a wait
   state until the response is entered. All
   keywords to the right of the invalid
   keyword are ignored.

   Programmer Response: Provide a valid
   value for the incorrect keyword.

   Operator Response: Probable user error.
   Enter a new response, specifying (if
   required) the keyword with a valid value.
   Since all keywords to the right of the one

in error are ignored, all such keywords should also be respecified. If you do not know what a valid value is, notify the system programmer.

Problem Determination: Table I, items 2, 10, 29.

IED007I xxx IS AN ILLEGAL DESTINATION

Explanation: This message is generated whenever the terminal name table sort routine is unable to calculate a valid offset into the terminal name table after it has been sorted into collating sequence. The destination named in the message to be in an invitation, cascade or distribution list. A terminal which has been specified as an alternate destination by the ALTDEST= operand of a TERMINAL or TPROCESS macro instruction, or a station that does not have the capability to accept messages will also generate this message.

System Action: A return code of X '10' is passed to the initialization routine (IEDQOA) in register 15. IEDQOA does not call any of the other INTRO non-resident initialization routines but writes out the error message IED065I and returns to INTRO which passes control to the next instruction.

Programmer Response: Probable user error. The incorrect ALTDEST= operand (indicated by xxx), or the invalid cascade or distribution list entry (indicated by xxx) should be corrected, and the message control program should be reassembled and executed again.

Problem Determination: Table I, items 5a, 10, 29.

IED008I TCAM OPEN ERROR cde-y descriptor IN DCB ddn

Explanation: In attempting to open the data set represented by the DD statement named zzz, TCAM's Open Executors encountered an error. xxx is a three-digit code indicating what type of data set was being opened when the error was encountered. Possible codes and their meanings are as follows:

Code	Explanation
040	The error occurred in opening a line group data set.
041	The error occurred in opening a message queues data set.

In the message text, y is a reason code naming the specific error that was encountered, and descriptor is a one-word abbreviation corresponding to y.

If no asynchronous error routine is provided, the value in register 0 following the ABEND will be meaningless. Possible values for y upon entry to the user's asynchronous error routine are:

Code in Reg. 0	xxx-y Console Code	y	Meaning
01	040-1	DEBCORE	There is not enough main storage to build a data extent block (DEB) for a line group data set.
02	040-2	DEVLINE	Incompatible stations are specified in the same line group.
03	040-3	NOTPDEV	The device class field of the first unit control block (UCB) for a station in the line group specifies something other than telecommunications or graphics.
04	040-4	CTLUNIT	An unsupported control unit is specified for this line group.
05	040-5	BRIXUCB	The adapter-type and model-code bits in a unit control block (UCB) specify something other than those devices supported by TCAM.
06	040-6	DEVCHAR	The device characteristics specified for stations in this line group are not consistent with the devices specified on the DD statement.
07	040-7	LCBCORE	There is not enough main storage to build a line control block. (LCB) for a line group.
08	040-8	SCBCORE	There is not enough main storage to build a station control block (SCB) for a switched line.
09	040-9	BSCINER	The binary synchronous interface specified in the data control block does not agree with that specified in a unit control block (UCB) for a line in this line group.
11	040-A	NVALUCB	No valid unit control block (UCB) addresses were found for this line group; all UCB addresses checked were zero.
12	040-B	HPSZLRG	The sum of the header prefix size plus the number of bytes reserved in the first buffer of each message by the RESERVE= operand of the line group DCB macro is equal to, or greater than, the size of the buffers assigned to the lines in the group for input; thus, there is no room in the buffers for data.
13	040-C	NODATST	There is no data set for the type of queuing

14	040-D	NOLINES	The QUEUES= operand of a TERMINAL macro specified an unopened data set because each terminal entry for each line in this line group specified an unopened data set. The data set for this line group cannct be opened.
15	040-E	RELINE0	A queue ccntrol block (QCB) was found that specified a relative line number of zero.
16	040-F	CHARERR	The opticnal features specified in the unit control block (UCB) do not agree with those reflected in the device characteristics entry for this line.
17	040-G	DSPAREA	There was not enough main storage to specify a GETMAIN request to build a TCAM control area in the subpool.
18	040-H	INVLIST	An invitation list is not specified for each line in the line group.
0A	041-1	DISKAVT	An incorrect length is specified for the address vector table (AVT) in crder to suppcrt switched message queuing. Disk queuing is specified in a DCB macro defining a message queues data set, but the INTRO macro that generates the AVT specifies DISK=NO.
0B	041-2	KEYLNGR	The key length specified by the KEYLEN= cperand of the INTRO macro does not agree with the key length specified in the IEDQDATA DD statement of the IEDQXA utility used to format the message queues data set.
0C	041-3	DEVUCBS	Dissimilar disk types are defined for message queuing.
0D	041-4	QUEUING	The OPTCT= operand for this DCB specifies something other than reusable or nonreusable queuing.
0E	041-5	MDEBCOR	A GETMAIN macro was issued by TCAM to obtain main storage to build a data extent block (DEB) for a message queues data set, but there was not enough main storage to satisfy the request.

specified by the terminal table entry for a line or line group.

0F	041-6	MIOBCOR	A GETMAIN macro was issued by TCAM to obtain main storage to build input/output blocks (IOBs) for a message queues data set, but there was not enough main storage to satisfy the request.
10	041-7	NOFORMT	The message queues data set was allocated but nct formatted ccrrectly; the last reccrd number written cn a track is zero.
17	041-G	DSPAREA	There was not enough main stcrage to satisfy a GETMAIN request to build a TCAM control area in the subpool.

System Action: The action taken depends upcn the return ccde provided by the user's asynchrcncus error routine. If no error routine is prcvided, TCAM will terminate with the system ccmpletion code indicated in the message text by xxx.

Programmer Respcnse: Probable user error. No action is required if the programmer has provided a user ABEND entry in the prcblem program exit list named by the EXIST= cperand of the DCB macro instruction whcse DD statement is named zzz. The routine specified by the entry is given contrcl frcm the TCAM Open Error Handler routine. If nc user rcutine is provided, TCAM issues an ABEND macro instructicn fcr the MCP causing it to terminate abncrmally with the system ccmpletion code indicated in the message text by xxx. Prcgrammer respcnses for possible values fcr y are:

Code in Req. 0	xxx-y Ccnsole Ccde	y	Programmer Response
01	040-1	DERCORE	Specify a larger region cr partiticn size on the JOB statement for the MCP.
02	040-2	DEVLINE	Specify similar stations in the line group; reassemble and rerun the MCP.
03	040-3	NOTPDEV	Check the addresses specified in the line group DD statements to be sure that the line addresses are valid.
04	040-4	CTLUNIT	Check the addresses specified in the line grcup DD statements to be sure that the line addresses are valid.
05	040-5	BRIXUCB	Check the addresses specified in the line group DD statements to be sure that the line addresses are valid.
06	040-6	DEVCHAR	Check the addresses specified in the line grcup DD statements to be sure that the line addresses are valid.

07	040-7	LCBCORE	Specify a larger region or partition size on the JOB statement for the MCP.
08	040-8	SCBCORE	Specify a larger region or partition size on the JOB statement for the MCP.
09	040-9	ESCINER	Check the type of interface specified in the INVLIST= operand of the DCB macro against the bit settings specified in the UCBs for each line in this line group.
11	040-A	NVALUCB	Specify DD statements with valid UNIT= operands.
12	040-B	BPSZLRG	Specify a larger buffer size for input on the BUFSIZE= and BUFIN= operand of the line group DCB macro, reassemble and rerun the job. (If a DD statement is used instead of specifying the RESERVE= operand, a reassembly is not required.)
13	040-C	NODATST	If main-storage queuing is being used, verify that data sets were provided at INTRO execution time; if disk queuing is being used, ensure that the disk message queues data sets are opened before opening any line groups.
14	040-D	NOLINES	If main-storage queuing is being used, verify that data sets were provided at INTRO execution time; if disk queuing is being used, ensure that the disk message queues data sets are opened before opening any line groups.
15	040-E	RELINE0	Each TERMINAL macro must specify an unframed decimal integer between 1 and 255, inclusive (zero is invalid).
16	040-F	CHARERR	Verify that all DD statements specify the correct type of UCB for the lines being opened.
17	040-G	DSAREA	Specify a larger region or partition size on the JOB statement for the MCP.
18	040-H	INVLIST	Either remove excessive DD cards or reassemble the MCP with an invitation list included for each line in the group.

0A	041-1	DISKAVT	Specify DISK=YES in the INTRO macro, reassemble, and execute again.
0B	041-2	KEYLNGR	Reassemble the job with the proper length specified in the KEYLEN= operand of the INTRO macro and rerun the MCP, or restart the TCAM job and override the KEYLEN= value by entering REPLY xx,'K=nn U' to message IED002A, or reformat the disk to the proper key length using the IEDQXA utility and rerun the MCP.
0C	041-3	DEVUCBS	Ensure that the disk types specified for message queuing are similar.
0D	041-4	QUEUING	Check and correct the contents of the DCB field.
0E	041-5	MDEBCOR	Specify a larger region or partition size on the JOB statement for the MCP.
0F	041-6	MIOBCOR	Specify a larger region or partition size on the JOB statement for the MCP.
10	041-7	NOFORMT	Reformat the data set using the IEDQXA utility and rerun the MCP job.
17	041-G	DSAREA	Specify a larger region or partition size on the JOB statement for the MCP.

Problem Determination: Table I, items 5a, 10, 29.

IED009I CHECKPOINT DISK ALLOCATION ERROR - DATA SET NOT OPENED

Explanation: The amount of disk space specified on the DD statement for the checkpoint data set is insufficient for minimum checkpoint requirements. The checkpoint data set is not opened.

System Action: The checkpoint facility is not available to the Message Control Program (MCP). Limited processing continues without checkpoint.

Programmer Response: Probable user error. If the checkpoint facility is required, terminate the MCP, reallocate the checkpoint data set giving it more space, and run the MCP job again with DISP=NEW coded in the DD statement for the checkpoint data set.

Problem Determination: Table I, items 5a, 10, 29.

IED010I CHECKPOINT - INSUFFICIENT CORE
     /DATA SET NOT OPEN xxx \
     | ENVIRON xxx |
     { INCIDENT xxx   }
     | CKREQ name xxx |
     \INCIDENT RECORD IGNORED/

    Explanation: A GETMAIN macro instruction
    issued by a checkpoint routine cannot be
    satisfied because insufficient
    main-storage is available. The xxx
    qualifier is the number of bytes of
    storage requested. For a checkpoint
    request record the name qualifier is the
    name of the process entry in the terminal
    table for which a checkpoint request
    record would have been taken had
    sufficient main storage been available.

    System Action: If the data set was not
    opened, processing will continue without
    the checkpoint facility. If the data set
    has been opened successfully, the
    checkpoint record indicated in the message
    was not taken, but the checkpoint facility
    is still active and will continue
    processing, or the incident record was not
    used by TCAM in reconstructing the
    environment during restart.

    Programmer Response: Probable user error.
    Specify a larger region or partition and
    do a TCAM warm restart. A warm restart
    uses the checkpoint facility to recreate
    the environment prior to a normal
    closedown. The warm restart is specified
    as the STARTUP=W operand of the INTRO
    macro instruction or as a REPLY xx,'S=W,U'
    response to message IED002A.

    Problem Determination: Obtain an ABEND
    dump of the Message Control Program taken
    immediately after the error message was
    issued.

IED011I SYSTEM INTERVAL CANNOT BE ALTERED

    Explanation: A system interval of zero or
    no system interval at all was specified in
    the INTVAL= operand of the INTRO macro
    instruction or in the operator's response
    to a message issued at execution time, or
    the Time-Sharing Option (TSO) is active
    and an operator command was entered to
    modify the value of the interval. The
    interval, a time during which polling and
    addressing are suspended on multipoint
    lines to polled stations, cannot be
    altered.

    System Action: The requested action is
    not taken. Normal processing continues.

    Operator Response: If the interval
    feature is required, close down the
    system. Either reassemble with a positive
    value specified in the INTVAL= operand of
    the INTRO macro instruction and restart,
    or restart the job with a non-zero value
    provided in the REPLY xx,'I=nn,U' response
    to message IED00IA. If the interval
    feature is not required, refrain from
    entering the MODIFY id,
    INTERVAL=SYSTEM[,nn] operator commands.

    Problem Determination: If a non-zero
    system interval is specified and this
    response is received, check Table I, items
    2, 29.

    Have a listing of the Message Control
    Program available.

    Have the console listing or the terminal
    listing for the device which entered the
    command available.

IED012I TSC SESSION ON LINE xxx COMMAND REJECTED

    Explanation: An operator command to stop
    the line xxx has been entered, but a TSO
    session is currently in progress on the
    line.

    System Action: The command is rejected.
    Normal processing continues.

    Operator Response: None. Information
    only. If the line must still be stopped,
    wait until the TSO session has been
    completed and reenter the command.

    Problem Determination: Table I, items 2,
    10, 29. If TSC is not currently active,
    or if xxx in the response does not agree
    with the value specified in the command.
    Instruct the terminal user to retain the
    terminal listing or record what is
    currently displayed on the graphics
    device.

IED013I STCP REQUEST FOR SELF - VARY COMMAND
    REJECTED

    Explanation: An operator command to stop
    a line was entered, but the line specified
    is associated with the station that
    entered the command.

    System Action: The line is not stopped.
    Normal processing continues.

    Operator Response: None.

IED014I TCAM ALREADY IN SYSTEM

    Explanation: The TCAM initialization
    routine has detected the presence of
    another Message Control Program (MCP) in
    this system.

    System Action: Initialization of the
    second MCP is terminated. A return code
    of X'04' is returned to the user code
    immediately following the INTRO macro
    instruction in the MCP. If the MCP is not
    halted, results are unpredictable, and may
    cause the previous MCP to also become
    unpredictable.

    Programmer Response: Close down the MCP
    currently in the system before attempting
    to restart the MCP for which this message
    is issued. An invalid procedure in
    closing down the previous MCP may leave a
    non-zero value in CVT+X'F0'. When TCAM
    starts, the word must be zero to avoid
    this error condition. Make sure there is
    no other TCAM MCP operating before
    attempting to set this word to zero.

Problem Determination: Table I, items 2, 29.

IED015I TCAM AP OPEN ERROR 043-x yyy zzz

Explanation: In attempting to open the application program data set represented by the DD statement named yyy in the job named zzz, TCAM's Open Executors encountered an error. In the message text, x is a one-byte reason code naming the specific error that was encountered. Possible values for x and their explanations are:

01 An application program OPEN has been issued but there is no Message Control Program (MCP) active in the system.

02 The QNAME= parameter of a DD statement for an application program is not the name of a process entry in the terminal table, or the process entry named is inconsistent with the DCB macro instruction format.

03 A process entry named on a DD statement associated with an application program is currently being used by another data control block.

04 Insufficient main storage was available in the MCP to build internal control blocks.

05 Insufficient main storage was available in the application program area to build internal control blocks.

System Action: TCAM will terminate the application program with a system completion code of 043.

Operator Response: Report this message to the system programmer.

Programmer Response: The possible values of x and their appropriate responses are:

01 Verify that an MCP is active before attempting to start an application program.

02,03 Recode the QNAME= parameter specifying the name of a valid process entry.

04 Specify a larger region or partition size in the JOB statement for the MCP.

05 Specifying a larger region or partition size in the JOB statement for the application program or restart the system, specifying a larger system queue space.

Problem Determination: Table I, items 2, 10, 29.

IED016I STATION xxx NOT FOUND

Explanation: An operator command referring to a station named xxx was entered, but xxx is not an entry in the TCAM terminal table.

System Action: The action requested by the command is not taken. Normal processing continues.

Operator Response: Verify the spelling of the station name. Remember that lower-case characters entered from a station other than the system console are not generally equivalent to upper case characters. Respecify the command.

Problem Determination: If the station name is correct, and the response is still received, see Table I, items 2, 10, 29. Instruct the terminal user to retain the terminal listing or record what is currently displayed on the graphics device.

IED017I LINE xxx NOT OPEN

Explanation: An operator command referring to a line named xxx is entered, but the command was not honored for one of the following reasons:
- The line was not open.
- The OPEN macro for the line specified IDLE.
- The group name specified had no matching DD statement.
- The relative line number specified was either zero or higher than any relative line number in the line group.

System Action: The requested action is not taken. Normal processing continues.

Operator Response: Verify that the line referred to is open and active. Reenter the command. If the line is open but inactive, it may be activated with a VARY (line), ONTP operator command before reentering the command which provided this response.

Problem Determination: Table I, items 2, 10, 29. Instruct the terminal user to retain the terminal listing or record what is currently displayed on the graphics device.

IED018I xxx COMMAND INVALID

Explanation: An operator command is entered, and a field in the operand list is incorrectly formatted, or required operands are missing, or operands are in the incorrect order. In the message text, xxx is the verb of the command in error.

System Action: The requested action is not taken. Normal processing continues.

Operator Response: Check the required format of the operator command and correct the operand in error. Respecify the command.

Problem Determination: Table I, items 2, 10, 29. Instruct the terminal user to retain the terminal listing or record what is currently displayed on the graphics device.

IED019I xxx ALREADY STARTED

    Explanation: An operator command to start
the line or station named by xxx is
entered. The line or station is already
active.

    System Action: The command is ignored and
normal processing continues.

    Operator Response: None.

IED020I xxx STARTED

    Explanation: An operator command to start
the line or station named xxx is entered.
The line or station is started, and the
message is a confirmation of the action
taken.

    System Action: The line or station is
started. Normal processing continues.

    Operator Response: None.

IED021I AUTO POLL STARTED FOR xxx

    Explanation: An operator command to start
autopolling on the line named xxx was
entered. This response confirms that the
action was taken.

    System Action: Autopolling begins for the
line named xxx. Normal processing
continues.

    Operator Response: None.

IED022I AUTO POLL ALREADY STARTED FOR xxx

    Explanation: A request to start
autopolling on the line named xxx was
entered. The line is already being
autopolled.

    System Action: Normal processing
continues.

    Operator Response: None.

IED023I TRACE STARTED FOR xxx

    Explanation: An operator command to start
TCAM's line I/O interrupt trace was
entered for the line named xxx. This
message confirms that the action has been
taken. The line I/O interrupt trace is a
sequential recording in main storage of
I/O interrupts on a line.

    System Action: I/O trace is started on
the line named xxx. Normal processing
continues.

    Operator Response: None.

IED024I TRACE ALREADY STARTED FOR xxx

    Explanation: An operator command to start
TCAM's line I/O interrupt trace for the
line named xxx was entered, but I/O trace
was already active for this line.

    System Action: Normal processing
continues.

    Operator Response: None.

IED025I xxx ALREADY STOPPED

    Explanation: An operator command to stop
the line or station named xxx is entered.
This line or station is not currently
active.

    System Action: Normal processing
continues.

    Operator Response: None.

IED026I xxx STOPPED

    Explanation: An operator command to stop
the line or station named xxx is entered.
The line or station is stopped. This
message confirms the action taken.

    System Action: The line or station stops.
Normal processing continues.

    Operator Response: None.

IED027I AUTO POLL STOPPED FOR xxx

    Explanation: A request to stop
autopolling on the line named xxx was
entered. This message confirms that
autopolling has been stopped.

    System Action: Autopolling stops on the
line. Processing continues.

    Operator Response: None.

IED028I AUTO POLL ALREADY STOPPED FOR xxx

    Explanation: An operator command to stop
autopolling on the line named xxx was
entered. Autopolling on the line is not
in progress at this time.

    System Action: Processing continues.

    Operator Response: None.

IED029I TRACE STOPPED FOR xxx

    Explanation: An operator command to stop
line I/O interrupt trace for the line
named xxx was entered. This response
confirms that tracing is stopped.

    System Action: Line I/O trace is stopped
on the line. Processing continues.

    Operator Response: None.

IED030I TRACE ALREADY STOPPED FOR xxx

    Explanation: An operator command to stop
line I/O interrupt trace on the line named
xxx is entered. Line I/O trace is not
currently active on this line.

    System Action: Processing continues.

    Operator Response: None.

IED031I xxx QUEUE SIZE=yyy QUEETYP=bb,
STATUS=zzz,...PRIORITY=aaa,...

Explanation: An operator command to
display the queue for the station named
xxx is entered. This message displays the
fields of the queue. In the message text,
yy is the number of messages currently on
the queue; zzz is the equivalent of the
status bits currently on; aaa represents
the priority levels for the priority
queues associated with the master queue
for the station; and bb is the queuing
type for this queue.

System Action: Processing continues.

Operator Response: None.

IED032I xxx LNSTAT=zzz,...ERR=aaa,...

Explanation: An operator command to
display the status of the line named xxx
is entered. In the message text, zzz is
the equivalent of the status bits
currently on in the line control block,
and aaa represents the equivalent of the
bits currently on in the message error
record for the line.

System Action: Processing continues.

Operator Response: None.

IED033I xxx STATUS=yyy,...INTENSE=zz IN-SEQ=aaa
OUT-SEQ=bbb

Explanation: An operator command to
display the fields of the entry for the
station named xxx is entered. In the
message text, yyy represents the
equivalents of the status bytes of the
entry, zz is the setting of the error
recording field, and aaa and bbb are the
input and output sequence numbers,
respectively.

System Action: Processing continues.

Operator Response: None.

IED034I xxx HAS NO yyy OPTION

Explanation: An operator command to
display or modify the contents of the
option field named yyy for the station
named xxx is entered. No option field
named yyy exists for this station.

System Action: The requested action is
not taken. Processing continues.

Programmer Response: Verify that the
option named yyy is spelled correctly and
is defined for the station named xxx.
Reenter the command.

Problem Determination: If the option
field named by yyy exists for the station
named xxx, and the message recurs check
Table I, items 2, 10, 29. Instruct the
terminal user to retain the terminal
listing or record what is currently
displayed on the graphics device.

IED035I xxx OPTION yyy=zzz

Explanation: An operator command to
display the contents of the option field
named yyy for the station xxx is entered.
In the message text zzz represents the
requested contents.

System Action: Processing continues.

Operator Response: None.

IED036I xxx ACTIVE=yyy,...

Explanation: An operator command to
display the list of active stations
associated with the line named xxx is
entered. In the message text, yyy
represents the entries which meet this
requirement.

System Action: Processing continues.

Operator Response: None.

IED037I xxx INACTIVE=yyy,...

Explanation: An operator command to
display the list of inactive stations
associated with the line named xxx is
entered. In the message text, yyy
represents the names of the entries which
meet this requirement.

System Action: Processing continues.

Operator Response: None.

IED038I xxx IS ON LINE yyy zzz aaa

Explanation: An operator command to
display the line information associated
with the station named xxx is entered. In
the message text, yyy is the ddname of the
line on which the station is an entry, zzz
is the relative line number and aaa is the
unit control block identification (the
hardware address) of the line associated
with the station.

System Action: Processing continues.

Operator Response: None.

IED039I NO STATIONS INTERCEPTED

Explanation: An operator command
requesting the display of the list of all
currently intercepted (held) stations in
the system is entered. No stations are
currently being held.

System Action: Processing continues.

Operator Response: None.

IED040I INTERCEPTED STATIONS=xxx,...

Explanation: An operator command
requesting display of the list of all
stations which are currently intercepted
(held) is entered. In the message text,
xxx represents the name of the stations
which meet this requirement.

System Action: Processing continues.

Operator Repsponse: None.

IED041I PRIMARY=xxx

Explanation: An operator command
requesting display of the name of the
current primary operator control station
is entered. In the message text, xxx is
the name of the current primary control
station.

An operator command requesting that the
station named xxx be made the primary
operator control station is entered. This
response confirms that the action was
taken.

System Action: Processing continues. If
the command entered was MODIFY
id,PRIMARY=xxx, the named station is made
the primary operator control station.

Operator Response: Retry the command.

IED042I xxx ALREADY PRIMARY

Explanation: An operator command
requesting that the station named xxx be
made the primary operator control station
was entered, but xxx is already the
primary operator control station.

System Action: Processing continues.

Operator Response: None.

IED043I SECONDARY=xxx,...

Explanation: An operator command
requesting display of the list of all
secondary operator control stations is
entered. In the message text, xxx
represents the names of all entries which
meet this requirement. The system console
(SYSCON) will not be listed as a secondary
operator control station unless there are
no other secondary stations. If the
primary operator control station is not
the system console, it will be listed as a
secondary station.

System Action: Processing continues.

Operator Response: None.

IED044I xxx NOT ELIGIBLE FOR PRIMARY

Explanation: An operator command
requesting that the station named xxx be
made the primary operator control station
was entered, but xxx is not eligible to be
made the primary (i.e., it is not defined
as a secondary operator control station).

System Action: The primary operator
control station remains unchanged.
Processing continues.

Operator Response: Retry the command.

Problem Determination: If the station is
a valid secondary operator control

station, see Table I, items 2, 10, 29.
Save the terminal listing for the device
which entered the command available.

IED045I SYSTEM INTERVAL ALREADY ACTIVE

Explanation: An operator command to
activate the system interval is entered,
but a previous request has already been
honored.

System Action: Processing continues. The
system interval is being activated
already.
Operator Response: None.

IED046I LINE FOR xxx IS OUTPUT ONLY STATION

Explanation: An operator command to start
or stop a terminal for entering messages
is received, but the line has no
capability to enter messages. In the
message text, xxx is the name of the
station to be started or stopped.

System Action: The requested action is
not taken. Processing continues.

Operator Response: Retry the command.

Problem Determination: If the station
named xxx in the response is not an output
only station or is not identical to the
named specified in the command, check
Table I, items 2, 29. Instruct the
terminal user to retain the terminal
listing or record what is currently
displayed on the graphics device.

IED047I SYSTEM INTERVAL IS $\begin{Bmatrix} xxx \\ ACTIVE \end{Bmatrix}$

Explanation: If the message text includes
xxx, an operator request to change the
system interval has been entered and the
response (this message) confirms that the
requested action has been taken. If the
message text contains ACTIVE, an operator
request to start or stop a line group has
been entered but the system interval is
active, the message indicates that the
request is rejected.

System Action: The value of the system
interval has been changed to xxx, or the
command has been rejected.

Operator Response: None.

IED048I POLLING DELAY FOR xxx IS yyy

Explanation: An operator command to
change the polling interval for the line
on which the station named xxx is a member
to a new value of yyy is entered. This
message verifies that the requested action
is taken.

System Action: The polling delay for the
line group on which the named station is a
member is changed to yyy. Processing
continues.

Operator Response: None.

IED049I OLT CONTROLS LINE xxx COMMAND REJECTED

> **Explanation:** A command to start or stop a line was entered, but the line is currently controlled by the Online Test (OLT) feature.
>
> **System Action:** The requested function is not performed. Processing continues.
>
> **Operator Response:** Refrain from attempting to start or stop the line until it is freed for use by OLT.
>
> **Problem Determination:** If the line named by xxx is not identical to that specified in the command, or if on-line test is not active in the system, see Table I, items 2, 10, 29. Save the terminal listing for the device which entered the command.

IED050I xxx OPTION yyy MODIFIED

> **Explanation:** An operator command to modify the contents of the option field named yyy associated with the station named xxx is entered. This message confirms that the requested action is taken.
>
> **System Action:** The option field is modified as requested. Processing continues.

IED051I xxx SET FOR HOLD, SEQ-OUT=yyy

> **Explanation:** An operator command to intercept (hold) the station named xxx is entered. This message confirms that the action is taken. In the message text, yyy is the output sequence number associated with the station at the time the station is intercepted.
>
> **System Action:** The named station is intercepted. Processing continues.
>
> **Operator Response:** None.

IED052I xxx ALREADY SET FOR HOLD

> **Explanation:** An operator command to hold the station named xxx was entered, but the station is already intercepted.
>
> **System Action:** The requested action is not taken. Processing continues.
>
> **Operator Response:** Retry the command.

IED053I xxx ALREADY RELEASED

> **Explanation:** An operator command to release the station named xxx is entered. The station is already released.
>
> **System Action:** The requested action is not taken. Processing continues.
>
> **Operator Response:** None.

IED054I xxx RELEASED, SEQ-OUT=yyy

> **Explanation:** An operator command to release the station named xxx is entered. This message confirms that the station is released. In the message test, yyy is the sequence number for output currently associated with the station.
>
> **System Action:** The station named xxx is released. Processing continues.
>
> **Operator Response:** None.

IED055I I/O TRACE CANNOT BE ALTERED

> **Explanation:** An operator command to start or stop the TCAM line I/O interrupt trace facility was entered, but there is no trace table available into which entries can be made.
>
> **System Action:** The requested action is not taken. Processing continues.
>
> **Operator Response:** If the trace feature is required, close down the system and restart; when message IED002A is issued, enter REPLY xx,'T=nn,U,' where nn is a non-zero value. Otherwise, refrain from attempting to start or stop the trace facility.
>
> **Problem Determination:** If a non-zero value is specified for trace and the message recurs, check Table I, items 2, 10, 29. Instruct the terminal user to retain the terminal listing or record what is currently displayed on the graphics device.

IED056I xxx OPTION yyy DATA FORMAT INVALID

> **Explanation:** An operator command to modify the contents of the option field named yyy associated with the station named xxx is entered, but the data format specified in the command differs from the definition of the option field format.
>
> **System Action:** The option field is not modified. Processing continues.
>
> **Operator Response:** Verify that the type specified in defining the option matches that specified in the command. Respecify the command.
>
> **Problem Determination:** If the types are identical and the problem recurs, or if the station named xxx or the option named yyy in the response do not agree with the corresponding values in the command, check Table I, items 2, 10, 29. Instruct the terminal user to retain the terminal listing or record what is currently displayed on the graphics device.

IED057I xxx NOT CAPABLE OF AUTOPOLL

> **Explanation:** An operator command to start or stop autopolling on the line named xxx is entered, but the line is not capable of being autopolled (per its unit control block).

System Action: The requested action is not taken. Processing continues.

Operator Response: None.

IED0581 xxx SENSE COUNT=yy SETTING=zz

Explanation: An operator command to modify the setting of the sense information for the station or line named by xxx is entered. yy is the requested sense count and zz is the requested sense type. This message confirms that the requested action is taken.

System Action: Sense information is modified for the station or line named. Processing continues.

Operator Response: Retry the command.

Problem Determination: If the line or station named xxx, the sense count or the setting in the response do not agree with the corresponding values in the command, check Table I, items 2, 8, 29. Instruct the terminal user to retain the terminal listing or record what is currently displayed on the graphics device.

IED0591 xxx LIST STATUS=zzz,...

Explanation: An operator command to display the status of the invitation list for the line named xxx is entered. In the message text, zzz represents the equivalents of the status information bits.

System Action: Processing continues.

Operator Response: None.

IED0601 xxx CANNOT BE HELD

Explanation: An operator command to hold the station named xxx is entered, but the station is not capable of being held (for instance, it is associated with a main-storage only queue, it is on a line which is not open or has been opened idle, or no HOLD macro has been coded in the Message Control Program).

System Action: The requested action is not taken. Processing continues.

Operator Response: None.

IED0611 POLLING DELAY FOR xxx CANNOT BE ALTERED

Explanation: An operator command to modify the polling interval for the line associated with the station named xxx is entered, but the line is a switched (dial) line.

System Action: The requested action is not taken. Processing continues.

Operator Response: None.

IED0621 xxx OPTION yyy CANNOT ACCEPT SPECIFIED DATA

Explanation: An operator command to modify the contents of the option field named yyy associated with the station named xxx is entered, but the data to replace the current setting of the option field is greater in length than the field.

System Action: The requested action is not taken. Processing continues.

Operator Response: Verify that the data length defining the option is not less than that specified in the command. Reenter the corrected command.

Problem Determination: If the replacement data will fit in the option field and the problem recurs, or if the station named xxx or the option named yyy in the response do not agree with the corresponding values in the command, check Table I, items 2, 29. Instruct the terminal user to retain the terminal listing or record what is currently displayed on the graphics device.

IED0631 CLOSEDOWN IN PROGRESS COMMAND REJECTED

Explanation: System closedown is in progress. All further operator commands will be rejected.

System Action: The requested action is not taken. System closedown continues.

Operator Response: Refrain from entering TCAM operator commands.

IED0641 LINE addr CONTROL UNIT NOT OPERATIONAL

Explanation: The Transmission Control Unit (TCU) to which the specified line is connected is not operational. The line is not immediately available for message transmission.

System Action: Processing continues, but stations on the line named by addr cannot be used for message transmission.

Operator Response: Probable user error. The TCAM job that is being started may be cancelled and restarted after the control unit is made operational, or after the TCU is made operational this line may be activated by entering VARY (line), ONTP. If the control unit is online and the problem recurs, call IBM for hardware support.

IED0651 INITIALIZATION ERROR xxx

Explanation: The non-resident initialization routines have returned a decimal return code, represented in the message text by xxxx, to the INTRO macro instruction. This code is passed on to the user's next instruction by the INTRO macro instruction. The values of xxxx and their meanings are:

0004 The Message Control Program (MCP) initialization routine has detected the presence of another MCP in this system.

0008 Sufficient main storage was not available to satisfy a GETMAIN request in one of the non-resident initialization routines.

0012 Sufficient main storage was not available to satisfy a FREEMAIN request in one of the non-resident initialization routines.

0016 A terminal definition error. The module has found one or more incorrectly specified TERMINAL macro instructions, while sorting the terminal name table.

0020 One of the following errors in defining the primary operator control terminal:
- The terminal defined as the primary operator terminal could not be found in the terminal name table.
- The primary operator control terminal did not have send and receive capabilities.
- The primary operator control terminal was not defined as being a possible secondary operator control terminal.

0024 One of the following occurred while sorting the device ID table for a concentrator terminal:
- The terminal name table offset in the device ID table was not found in the offset table.
- The device dependent fields of the terminal entry pointed to by the device ID entry did not indicate a concentrator or attached terminal.

System Action: Initialization of the MCP is terminated. The error code is returned to the user in register 15 by the INTRO macro instruction. If the MCP is not halted when INTRO's return code is non-zero, results are unpredictable.

Programmer Response: If xxxx is 0008 or 0012, either increase the region or partition size, or specify smaller optional features. If xxxx is 0004, close down the MCP currently in the system before attempting to restart the MCP for which this message is issued. If xxxx is 0016 or 0020, verify that the terminal table entries are correct in the assembly, close down the MCP currently in the system, and reassemble and restart the job with the corrected entries.

Operator Response: Contact the system programmer.

Problem Determination: Table I, items 5a, 10, 29.

IED067I TCAM INITIALIZATION BEGUN

Explanation: The parameters on the IEDQDATA DD statement have been examined and found to be satisfactory. Formatting of the message queues data set by the IEDQXA utility has begun.

System Action: Processing continues.

Programmer Response: None. Information only.

Operator Response: None. Information only.

IED068I UNABLE TO OPEN IEDQDATA

Explanation: An attempt has been made to format a message queues data set on disk by the IEDQXA utility program, but the IEDQDATA DD statement for this utility is missing. This message may be due to a possible error while attempting to read the JFCB for the IEDQDATA DD statement.

System Action: The IEDQXA utility abnormally terminates with an error code of 20 in register 15.

Programmer Response: Probable user error. Supply the missing DD statement and resubmit the initialization job. Have a listing of the utility JCL available before calling IBM for programming support.

Operator Response: Contact the system programmer.

IED069I INVALID KEYLEN FOR IEDQDATA

Explanation: Either the DCB= operand of the IEDQDATA DD statement for the IEDQXA formatting utility program has been omitted, or DCB=KEYLEN=integer has been coded on this DD statement and the integer is less than 31.

System Action: The IEDQXA utility abnormally terminates with a return code of 8 in register 15.

Programmer Response: Probable user error. Supply a correct IEDQDATA DD statement and resubmit the initialization job. If the problem recurs, have a listing of the utility JCL available before calling IBM for programming support.

Operator Response: Contact the system programmer.

IED070I IEDQDATA DOES NOT SPECIFY CONTIG SPACE IN CYLINDERS

Explanation: The SPACE= keyword on the IEDQDATA DD statement for the IEDQXA disk-initialization utility has specified CYL but not CONTIG, or CONTIG but not CYL, or neither. The following is an example of a properly coded SPACE= parameter:

//IEDQDATA DD (other operands),SPACE=(CYL,(2,2),,CONTIG)

System Action: The IEDQXA utility abnormally terminates with a return code of 16.

Programmer Response: Probable user error. Correct the SPACE= parameter on the IEDQDATA DD statement and resubmit the

IED

initialization job. If the problem
recurs, have a listing of the utility JCL
available before calling IBM for
programming support.

Operator Response: Contact the system
programmer.

IED071I UNEQUAL PRIMARY AND SECONDARY EXTENTS ON
IEDQDATA

Explanation: The SPACE= keyword on the
IEDQDATA DD statement for the IEDQXA
disk-initialization utility does not
specify a number of cylinders for
secondary allocation equal to the number
of cylinders specified for primary
allocation; TCAM requires that the primary
and secondary allocation be equal.

System Action: The IEDQXA utility
abnormally terminates with a return code
of 16 in register 15.

Programmer Response: Probable user error.
Respecify the SPACE= parameter of the
IEDQDATA DD statement so that the primary
and secondary allocation are equal, and
resubmit the initialization job. Have a
listing of the utility JCL available
before calling IBM for programming
support.

Operator Response: Contact the system
programmer.

IED072I I/O ERROR ON IEDQDATA

Explanation: An I/O error from which
recovery cannot be made has occurred
during an attempt to format a message
queues data set by means of the IEDQXA
utility.

System Action: Initialization is
terminated with a return code of 12 in
register 15. The data set is not
completely formatted.

Programmer Response: Use the IEHPROGM
system utility to scratch the data set,
and resubmit the initialization job. If
possible, try to avoid the allocation of
the same area, as it probably contains a
bad track.

Operator Response: Start TCAM only if it
does not require the message queue data
set defined by the IEQDATA DD statement in
the message text. Otherwise, contact the
system programmer. If the problem recurs,
use the IBCDASDI independent utility to
assign alternates for defective tracks on
the volume being used.

Operator Response: To temporarily bypass
the error, substitute SYSPRINT DD DUMMY
for the existing SYSPRINT DD statement.
The SYSPRINT data set is only a copy of
the messages displayed at the console.
Then scratch the old IEDQDATA data set and
rerun the job. If the problem recurs,
call IBM for hardware support.

IED074I TCAM INITIALIZATION COMPLETE

Explanation: A message queues data set on
disk has been completely formatted by the
IEDQXA utility program, and is ready for
use by a RCAM Message Control Program.

System Action: Normal end of job.

Operator Response: None. Information
only.

IED075I END OF EXTENT. RECORD COUNT IS rrrrrrrr,
TIME IS nnnn SEC

Explanation: One extent (volume) of a
message queues data set residing on disk
has been formatted by the IEDQXA utility
program. The record count, indicated by
xxx, is the cumulative total. That is,
xxx is the total number of records
formatted thus far in the entire data set,
and not just in this one extent.

rrrrrrrr= cumulative record count
nnnn= cumulative elapsed time

System Action: Processing continues.

Operator Response: None. Information
only.

IED076I TCAM NON-REUSABLE DISK THRESHOLD CLOSEDOWN

Explanation: The message queues data set
located on nonreusable disk has received
enough messages so that the percentage of
the data set area on disk specified by the
THRESH= operand of the DCB macro
instruction for the data set has been
exceeded.

System Action: The system begins a flush
closedown of the TCAM MCP. A flush
closedown sends all queued messages to
their destinations before closing.

Operator Response: Contact the system
programmer.

Programmer Response: Reformat the
non-reusable disk message queue data set
with the IEDQXA utility, and start the job
with S=C coded for the INTRO macro
instruction. If this message is followed
by a system completion code 045 with a
user code of 001, the THRESH= value
specified was too high, and register 6
points to a CPB.

Problem Determination: If the value in
CPB+X'2D' (3 bytes in length) greatly
exceeds the total number of records
formatted in the non-reusable disk data
set, check Table I, items 5a, 10, 29.

IED077I xxx OPTION yyy DATA CHARACTER INVALID

Explanation: An operator command to
modify the contents of the option field
named yyy associated with the station
named xxx is entered, but the contents of
the modification data do not agree with
the framing characters surrounding the
data.

System Action: The requested action is not taken. Processing continues.

Operator Response: Verify that the data specified within the framing characters is invalid for the framing characters used. Reenter the correct command.

Problem Determination: If the data is valid and the problem recurs, or if the station named xxx or the option named yyy in the response do not agree with the corresponding values in the command, check Table I, items 2, 10, 29. Instruct the terminal user to retain the terminal listing or record what is currently displayed on the graphics device.

IED078I DLQ TERM ERROR

Explanation: The station named in the DLQ= operand of the INTRO macro is not eligible to be a dead-letter queue, since it is a TSO station.

System Action: The terminal number of the terminal defined as the dead-letter queue is not stored in the address vector table (AVT) and normal processing continues.

Programmer Response: Probable user error. If no action is taken, the dead-letter queue is not defined for this Message Control Program (MCP). If a dead-letter queue is desired, terminate the job, specify a valid station for the DLQ=operand of INTRO (either by recoding INTRO and re-assembling, or by entering REPLY xx,'Q=name,U' to message IED002A at execution time) and resubmit the job.

Problem Determination: Table I, items 5a, 10, 29.

IED079I ENDING STATUS NOT RECEIVED FROM LINE addr-LINE UNAVAILABLE

Explanation: The Transmission Control Unit to which this line is connected is not operational. An interrupt indicating successful completion of the initial channel program has not occurred for this line, and the line is not available for sending or receiving.

System Action: The error message is written to the console and the next line in the line group is checked to see if the initial channel program has completed. If it has not, the error message is written again.

Operator Response: Attempt to start the line by entering VARY (addr),ONTP. If the problem recurs, call IBM for hardware support.

IED080I START OF TCAM SYSTEM DELAY

Explanation: Someone has entered MODIFY id,INTERVAL= SYSTEM which activated the system interval.

System Action: Polling and addressing on multipoint lines are suspended for the duration of the interval currently defined for the system. Switched (dial) lines are not affected. If there are no dial lines in the system, this message will be followed by what seems to be a system WAIT state. At the end of the interval, operations will automatically resume.

Operator Response: None. At the end of the system interval, normal operations will resume. Changing the length of the delay interval with an operator command will not affect this delay, only subsequent ones. TCAM may be stopped or cancelled during a system delay.

IED081I END OF TCAM SYSTEM DELAY

Explanation: The system interval has expired.

System Action: The Message Control Program is resuming normal operations.

Operator Response: None. Information only.

IED082I CHECKPOINT DISK ERROR -- DATA SET NOT OPENED

Explanation: Either the control record for the checkpoint data set could not be read during a restart, or none of the environment records could be read during a restart. As a result, the checkpoint data set is not open.

System Action: The checkpoint data set is not opened, the environment is not reconstructed, and the checkpoint facility is not available to the Message Control Program. Limited processing continues.

Programmer Response: The IBCDASDI utility program should be used following closedown to clean up the disk on which the data set is located, if the checkpoint facility is desired. If the problem recurs, call IBM for hardware support.

IED083I CHECKPOINT DISK ERROR -- RECOVERY FROM PREVIOUS RECORD

Explanation: TCAM's checkpoint routine could not read the environment record that was to be used to reconstruct the environment. If possible, the next-most-recent environment is used to reconstruct.

System Action: The next-most-recent environment record is used to reconstruct the TCAM environment.

Programmer Response: Information -- the environment is not as well reconstructed when older records are used. If the problem recurs frequently, the IBCDASDI utility program should be used to clean up the disk on which the data set is located. In this case, a cold restart only can be performed. If the problem recurs, call IBM for hardware support.

IED084I CHECKPOINT DISK ERROR -- RECOVERED

    Explanation: An error occurred while TCAM
was writing an environment, checkpoint
request or incident record into the
checkpoint data set, but space for another
such record was available in the data set.

    System Action: Since space was available,
TCAM wrote the record into the available
space and processing continues. No data
was lost.

    Programmer Response: Information. If
this message recurs often, DASDI utility
program should be used following
closedown. If the problem recurs after
DASDI has been run, call IBM for hardware
support.

IED085I CHECKPOINT DISK ERROR -- $\begin{Bmatrix} \text{CKREQ} \\ \text{INCIDENT} \end{Bmatrix}$ RECORD
IGNORED

    Explanation: The specified record
(checkpoint request or incident) could not
be read at restart time, and was therefore
not used by TCAM in reconstructing the
environment.

    System Action: The system environment is
reconstructed, but the specified record is
not included. Processing continues.

    Programmer Response: Information -- the
reconstructed environment is not as
up-to-date as it would be otherwise. If
this message recurs frequently, the
IBCDASDI utility program may be used
following closedown to clean up the disk
on which the checkpoint data set is
located. The restart following disk
cleanup must be a cold restart. If the
problem recurs after DASDI, call IBM for
hardware support.

IED086I CHECKPOINT DISK ERROR -- $\begin{Bmatrix} \text{ENVIRONMENT} \\ \text{CKREQ,name} \end{Bmatrix}$

    Explanation: Due to a faulty disk, no
environment or checkpoint request record
area is available to hold the latest such
record taken.

    System Action: The data in the record is
lost. Processing continues.

    Programmer Response: If a complete
checkpoint facility is desired, close down
the Message Control Program, use the
IBCDASDI utility program to clean up the
disk, and do a cold restart. A cold
restart is the same as the original
start-up. If the problem recurs, call IBM
for hardware support.

IED087I CHECKPOINT DISK ERROR -- CONTROL RECORD

    Explanation: Due to an I/O error on disk,
the control record does not reflect the
latest environment checkpoint taken. As a
result, this environment checkpoint record
will not be used for restart.

    System Action: Processing continues.

    Programmer Response: Information -- the
environment reconstructed after restart
becomes increasingly less accurate as
older records are used. The ICBDASDI
utility program may be used to clean up
the disk after closedown of the Message
Control Program. If it is, only a cold
restart (identical to the original
start-up) can be performed. If the
problem recurs, call IBM for hardware
support.

IED088I xxx ON DIAL LINE - CANNOT BE VARIED

    Explanation: An operator command to start
or stop the station named xxx for
accepting is entered, but the station is
on a switched (dial) line.

    System Action: The requested action is
not taken. Processing continues.

    Operator Response: None.

IED089I LINE ACTIVE - VARY TERMINAL COMMAND
REJECTED

    Explanation: An operator command to start
or stop a station from entering, accepting
or both is received, but the line for the
station has not been previously stopped.

    System Action: The requested action is
not taken. Processing continues.

    Operator Response: If the station is to
be started or stopped, enter VARY (line),
OFFTP,C to stop the line, reenter the
original command, and then enter VARY
(line),ONTP to restart the line.

IED090I xxx IS NOT SINGLE ENTRY

    Explanation: An operator command
requesting display or modification of
station information for the station named
xxx is entered, but xxx is not a single
station entry.

    System Action: Processing continues.

    Operator Response: None.

IED091I LINE FOR xxx NOT OPEN

    Explanation: An operator command
requesting display or modification of
status for the station named xxx is
entered, but the line for the station is
not open or has been opened idle.

    System Action: Processing continues.

    Operator Response: Retry the command.

IED092I BISYNC ERROR - LINE xxx CANNOT BE STARTED

    Explanation: An operator command
requesting that the line named xxx be
started is entered, but it is a
binary-synchronous line with an invalid
dual communication interface preventing it
from being started.

System Action: The requested action is
not taken. Processing continues.

Operator Response: Retry the command.

IED093I SET SYSTEM INTERVAL COMMAND ACCEPTED

Explanation: The operator entered a
command requesting activation of the
system interval, which suspends polling
and addressing on multipoint lines to
polled stations. This message confirms
that the command has been accepted.

System Action: A system interval is
activated. Processing continues.

Operator Response: None.

IED094I CORE REQUESTED FOR ON-LINE TEST NOT
AVAILABLE

Explanation: The amount of main storage
requested by the OLTEST= operand of the
INTRO macro instruction is not available.
However, the minimum amount of main
stroage required to run one on-line test
is available.

System Action: Only one on-line test may
be run at a time. Limited processing
continues.

Programmer Response: Probable user error.
If more than one on-line test is to be run
simultaneously, close down the Message
Control Program (MCP) and rerun with a
larger region specified.

Problem Determination: Table I, items 10,
29.

IED095I MODIFY OLT REJECTED - OLT NOT ACTIVE

Explanation: The request for an on-line
test (OLT) is rejected because the subtask
that handles the requests has either
terminated or was never activated (because
OLTEST=0 (o=0) was specified in the INTRO
macro).

System Action: The command is rejected.
Normal processing continues.

Operator Response: Close down the TCAM
MCP and rerun; when message IED002A is
issued, enter REPLY xx,'O=nn,U', where nn
is a non-zero value.

Problem Determination: Table I, items 10,
29.

IED096I (CHECKPOINT)   CONTROL NO LONGER ACTIVE
       {OPERATOR }
       (COMWRITE)

Explanation: The indicated subtask of
TCAM has abnormally terminated, and the
related functions will no longer be
performed.

System Action: Limited processing
continues.

Programmer Response: Determine the reason
for the abnormal termination, correct and
rerun. Close down the TCAM job and rerun.

Operator Response: Closedown the TCAM job
and rerun.

Problem Determination: Table I, items 5a,
10, 29.

IED097I TCAM IS CLOSED DOWN

Explanation: A TCAM closedown has been
completed and control has returned to the
code which follows the READY macro
instruction coded in the Message Control
Program.

System Action: Normal end of job.

Programmer Response: None.

Operator Response: None.

IED098I DCB NOT CLOSED FOR MESSAGE PROCESSING
PROGRAM - jjj

Explanation: A TCAM closedown has
started, but a TCAM DCB in an application
program is still open.

System Action: The closedown will not
complete until the closedown is performed
for the DCB(s).

Operator Response: Cancel the job named
jjj. Inform the application programmer
that his job was cancelled so that
closedown of the Message Control Program
could proceed.

IED099I ROUTINE LOADED

Explanation: The routine that was called
by the command MODIFY id,DEBUG=L,yyy is
loaded and initialized.

System Action: Normal processing
continues.

Operator Response: None. Information
only.

IED100I ROUTINE DEACTIVATED

Explanation: The routine designated in
the command MODIFY id,DEBUG=D,yyy is
deactivated and deleted.

System Action: Normal processing
continues.

Operator Response: None. Information
only.

IED101I RESTART IN PROGRESS

Explanation: The requested operation
cannot be processed because TCAM is being
restarted.

System Action: The command is ignored.
Normal processing continues.

Operator Response: Reenter the command
after the restart is completed. If the
problem recurs, obtain a SYSABEND dump of
the region in which the Message Control
Program resides before calling IBM for
programming support.

IED102I INVALID OPERAND

Explanation: The format of the command
MODIFY id,DEBUG=subparameter, routine is
incorrect.

System Action: The command is ignored.
Normal processing continues.

Operator Response: Probable error caused
by improper command specification. Check
for errors in one or more of the following
operands:
• A subparameter other than L or D is
specified.
• An invalid routine named is specified.
Valid names are IEDQFE10, IEDQFE20 and
IEDFE30. Reenter the command with the
correct format.

Problem Determination: Table I, items 2,
29.

IED103I ROUTINE ALREADY ACTIVE

Explanationd An operator command
requesting activation of a debugging
routine is entered, but the routine is
already active.

System Action: The command is ignored.
Normal processing continues.

Operator Response: None.

Problem Determination: Table I, items 2,
11, 29. Have available the IMDSADMP
output, formatted using IMDPRDMP showing
the nucleus and the TCAM REGION.

IED104I ROUTINE NOT ACTIVE

Explanation: A request has been made to
deactivate a debugging routine that is not
active.

System Action: The command is ignored.
Normal processing continues.

Operator Response: None.

Problem Determination: Table I, items 2,
11, 29. Have the operator control console
listing available. Have available the
IMDSADMP output, formatted using IMDPRDMP
and showing the nucleus and the TCAM
region.

IED105I RETURN CODE = xx

Explanation: A user-written routine has
passed a return code to a debugging
routine of the operator control facility.

System Action: Normal processing
continues.

Programmer Response: The indicated return
code probably denotes an exceptional
condition in the user routine. Determine
the problem from the return code given and
correct the problem.

IED106I MULTIPLE REQUEST

Explanation: The routine requested is
already active in the system.

System Action: The request is ignored.
Normal processing continues.

Programmer Response: The requested
routine was probably not loaded via a
program other than by the MODIFY id,
DEBUG=x,yyy operator command. Determine
how the module was loaded previously and
correct.

Problem Determination: Table I, items 2,
11, 29. Have available the IMDSADMP
output, formatted using IMDPRDMP and
showing the nucleus and the TCAM region.

Operator Response: Notify the system
programmer.

IED107I COMWRITE NOT ACTIVE

Explanation: A request has been made to
activate a debugging routine which
requires that the FE Common Write task
(COMWRITE) be active. COMWRITE is not
active because COMWRTE=YES was not
specified on the INTRO macro instruction.

System Action: The request is ignored.
Normal processing continues.

Programmer Response: Probable user error.
Instruct the operator to enter REPLY
xx,'G=YES' as a response to message
IED002A to insure proper initialization of
the debugging aids. Make sure that a DD
card is present specifying the COMWRITE
data set, either on magnetic tape or disk.

Operator Response: Notify the system
programmer.

Problem Determination: Table I, items 2,
11, 29. Have available the output of
IMDSADMP, formatted by IMDPRDMP showing
the nucleus and the TCAM region.

IED109I ROUTINE NOT DELETED

Explanation: A request has been made to
deactivate a routine, and the SVC 9
(DELETE) function failed.

System Action: The routine is not
deleted. Normal processing continues.

Programmer Response: This message is a
result of a failure of the DELETE function
of the OS supervisor. The requested
module to be deleted could not be found by
OS; however, it was found by the TCAM
operator control facility.

Problem Determination: Table I, items 2, 11, 29. Have available the IMDSADMP output, formatted by IMDPRDMP showing the nucleus and TCAM region.

IED110I LESS THAN 4 ENTRIES

Explanation: An attempt has been made to activate the subtask control block (STCB) trace dump, but there are less than four STCB trace entry slots in the STCB trace table.

System Action: The STCB trace dump is not activated. Normal processing continues.

Programmer Response: Probable user error. The IEDQFE20 printing utility requires a minimum of four trace entries in order to properly function. If this message recurs frequently, instruct the operator to restart the MCP, specifying a larger value for nn in the response REPLY xx,'A=nn,U' to the message IED002A.

Operator Response: Contact the system programmer.

Problem Determination: Table I, items 2, 5a, 10, 13, 29.

IED111I NO TRACE TABLE

Explanation: An attempt has been made to activate the subtask control block (STCB) trace dump, but no STCB trace table has been provided.

System Action: The STCB trace dump is not activated. Normal processing continues.

Programmer Response: Probable user error. If a trace facility is required, close down and restart the Message Control Program (MCP), specifying a non-zero integer value for nn in the response REPLY xx,'A=nn,U' to message IED002A.

Operator Response: Contact the system programmer.

Problem Determination: Table I, items 2, 5a, 10, 29.

IED112I TCAM REQUESTED COMWRITE CLOSEDOWN

Explanation: TCAM is closing down and is closing the FE Common Write (COMWRITE) subtask.

System Action: Normal end of job follows.

Operator Response: None. Information only.

IED113I I/O ERROR
addr,statsens,recordtype,COMWRITE CLOSING

Explanation: A permanent error has been detected on the indicated device. In the message text, addr, is the hardware line address, statsens is the CSW status byte and sense byte, and recordtype is the type of record (BUFF, IOTR, or STCB) being written when the I/O error occurs.

System Action: The FE Common Write (COMWRITE) task terminates abnormally with a system completion code of 044.

Operator Response: Probable hardware error. Check recording medium (tape or disk) for damage. If COMWRITE is required, TCAM must be stopped and restarted specifying another device for COMWRITE.

Problem Determination: Table I, items 18, 30.

IED114I Sxxx ABEND COMWRITE CLOSING

Explanation: The FE Common Write (COMWRITE) task has abnormally ended with the system completion code indicated by xxx.

System Action: The COMWRITE task is terminated with the indicated code.

Programmer Response: A system completion code of 044 is normally caused by invalid or missing JCL. Examine the job control statements, and ensure that a COMWRITE DD card exists and is valid. Rerun the job.

Operator Response: Contact the system programmer.

Problem Determination: Table I, items 5a, 29.

IED115I userid DATA AREA EXCEEDS CORE

Explanation: This message is caused by an invalid parameter list being passed to the FE Common Write (COMWRITE) task.

System Action: The request is ignored. Normal processing continues.

Operator Response: Contact system programmer.

Programmer Response: Probable user error. Examine the user routine using "userid" and correct any errors.

Problem Determination: Table I, items 2, 11, 29. Have the COMWRITE output data set. Have available the IMDSADMP output, formatted by IMDPRDMP, showing the nucleus and the TCAM region.

IED116I userid PARMLIST NOT ON FULLWORD BOUNDARY

Explanation: This message is caused by an invalid parameter list being passed to the FE Common Write (COMWRITE) task.

System Action: The request is ignored. Normal processing continues.

Operator Response: Contact system programmer.

Programmer Response: Probable user error. Examine the user routine using "userid" and correct any errors.

IED

Problem Determination: Table I, items 2, 11, 29. Have the COMWRITE output data set. Have available the IMDSADMP output formatted by IMDPRDMP, showing the nucleus and the TCAM region.

IED117I userid BLKSIZE EXCEEDS DEVICE SPECS

Explanation: A parameter list passed to the FE common write (COMWRITE) task describes a block of data whose length exceeds the maximum that the device containing the COMWRITE data set can handle.

System Action: The request is ignored. Normal processing continues.

Operator Response: Contact system programmer.

Programmer Response: Probable user error. Examine the user routine using "userid" and correct any error.

Problem Determination: Table I, items 2, 11, 29. Have the COMWRITE output data set. Have available the IMDSADMP output, formatted by IMDPRDMP, showing the nucleus and the TCAM region.

IED118I PERMANENT I/O ERROR ON TRACE UNIT

Explanation: While reading the SYSUT1 data set, a permanent I/O error has been encountered.

System Action: Processing terminates.

Operator Response: Check the recording medium (tape or disk) of the trace data set for damage. If the medium is tape, clean the device.

Problem Determination: Table I, items 18, 30.

IED119I UNABLE TO OPEN ddname

Explanation: The system was unable to open the data set named ddname.

System Action: Processing terminates.

Operator Response: Probable user error. Check and correct the job control language for the indicated data set and rerun the job. This message is normally caused by the lack of a DD statement or by the ddname being misspelled.

Problem Determination: Table I, items 1, 2, 29.

IED120I BLOCK= PARM REQUIRES TAPE INPUT

Explanation: The BLOCK= keyword parameter was specified in the EXEC statement for the COMEDIT formatting utility, but the SYSUT1 DD card specified a direct access device.

System Action: The trace data set is formatted with the BLOCK= parameter ignored. Normal processing continues.

Programmer Response: None.
Problem Determination: Table I, items 1, 5a, 29. Instruct the operator to cancel the job, requesting a dump and save the output.

IED121I REQUESTED TIME NOT FOUND

Explanation: The time specified in the BLOCK= parameter of EXEC statement for the COMEDIT printing utility was not found on the tape data set described by the SYSUT1 DD statement. Two conditions may cause the error:
• There were no subtask control blocks (STCBs) or buffers on the trace data set.
• The time specified is later than the latest time recorded in the trace data set.

System Action: Processing terminates. No printout is provided.

Programmer Response: Probable user error. Ensure that STCEs are being traced and the BLOCK= parameter is correctly specified. The time stamp fields in the various trace records on tape are chronologically earlier than the BLOCK= parameter.

Problem Determination: Table I, items 1, 2, 29. Have a listing of the COMWRITE data set available.

IED122I INVALID MESSAGE CHAIN

Explanation: The chaining sequence of the message queues data set has been invalidated.

System Action: Processing terminates.

Programmer Response: None.

Problem Determination: Before calling IBM for programming support make sure that listing of the message queues data set is available.

IED123I INVALID PARAMETERS

Explanation: While scanning the EXEC statement parameters for the IEDQXB or IEDQXC printing utilities, an error has been detected.

System Action: If the IEDQXB utility is being used, the error is noted on the SYSPRINT data set. For either utility, processing terminates.

Programmer Response: Probable programmer error. Check and correctly specify the parameters on the EXEC statement. For the proper specification of parameters, refer to the _TCAM Programmer's Guide_ GC30-2024).

Problem Determination: Table I, items 1, 2, 29.

IED124I QUEUE HAS BEEN WRAPPED

>**Explanation:** While running the IEDQCX printing utility, the message queues data set has run out of space and started to overlay the beginning of the data set (wrap-around).

>**System Action:** Since the message queues data set can no longer be formatted reliably, the IEDQXA printing utility is terminated.

>**Programmer Response:** In order to obtain the printed output from the message queues, process it via a system utility. To avoid the wrap-around in the future, format a larger message queues data set with the IEDQXA utility.

>**Problem Determination:** Before calling IBM for programming support, make sure that a listing of the message queues data set is available.

IED125I xxx BYTES NEEDED

>**Explanation:** The operator entered MODIFY id,DEBUG=x,yyy, but insufficient main storage exists for loading the requested debugging aid.

>**System Action:** The requested debugging aid is not loaded. Normal processing continues.

>**Programmer Response:** Specify a larger region or partition size for the TCAM Message Control Program (MCP).

>**Operator Response:** Specify a larger region or partition size for the TCAM MCP, if possible. Otherwise, contact the system programmer.

>**Problem Determination:** Table I, items 2, 10, 11, 29. Have available the IMDSADMP output formatted by IMDPRDMP showing the nucelus and TCAM region.

IED126I OLT REQUEST REJECTED, NO DCHB FOR CONTROL TERMINAL

>**Explanation:** This message is issued when a Test Request Message (TRM) specifies a control terminal which does not have a Device Characteristics Record in the Device Characteristics Block (DCHB) library. Before a terminal can be used as an on-line test control terminal, it is necessary to define the device characteristics by executing a Telecommunications On-line Test Executive (TOTE) configuration run.

>**System Action:** The TRM is cancelled. Normal processing continues.

>**Operator Response:** Before a terminal can be used as an on-line test control terminal it is necessary to define the device characteristics by executing a TCTE configuration run. If the configuration

has been run, check the contents of the DCHB to ensure that the configuration is correct. Reenter the TRM.

>**Problem Determination:** If there is a record in the DCHB for the control terminal and problem recurs, obtain and have available the following before calling IBM for programming support:
>* The TRM that was cancelled.
>* The configuration for the terminal.
>* The contents of the DCHB.
>* Any error printouts received.

IED127I OLT REQUEST REJECTED, CONTROL TERMINAL UNIDENTIFIED

>**Explanation:** This message is issued when the symbolic name of the control terminal specified in the Test Request Message (TRM) is not contained in the TCAM terminal table.

>**System Action:** The TRM is cancelled. Normal processing continues.

>**Operator Response:** Reenter the TRM and specify a valid control terminal. If there is a valid translate table for the TRM, no more than eight characters between the prefix and the first slash, and the control terminal is identical to the name of an entry in the TCAM terminal table, obtain and have available the following and call IBM for programming support:
>* A listing of the TCAM Message Control Program.
>* The TRM that was cancelled.
>* The control terminal printout.

IED128I ALTERNATE PRINTER REQUESTED BY OLT ALREADY IN USE

>**Explanation:** This message is issued when the alternate printer requested in the option field of a Test Request Message (TRM) has already been assigned to another On-line Test (OLT). The TRM is cancelled and must be reentered to initiate an OLT.

>**System Action:** The TRM is cancelled. Normal processing continues.

>**Operator Response:** Reenter the TRM and specify an alternate printer not in use.

>**Problem Determination:** If this problem recurs and the alternate printer is not in use, obtain and have available the following before calling IBM for programming support:
>* A listing of the TCAM Message Control Program.
>* The TRM that was cancelled.
>* The control terminal printout.

IED129I OLT REQUEST REJECTED, C. T. LINE CANNOT BE STARTED

>**Explanation:** This message is issued when TCAM cannot start the control terminal line and returns an error code to the request to start a line. The Test Request Message (TRM) is cancelled.

System Action: The TRM is cancelled.
Normal processing continues.

Operator Response: Attempt to restart the
line by entering VARY (line),ONTP.
Reenter the TRM.

Problem Determination: If the problem
recurs, obtain and have available the
following before calling IBM for
programming support:
• The TRM.
• The control terminal printout.

IED130I OLT REQUEST REJECTED, CONTROL TERMINAL NOT
OPEN

Explanation: This message is issued when
TCAM cannot open the control terminal.
The problem could be that the required DD
card is missing from the TCAM JCL. The
Test Request Message (TRM) is cancelled.

System Action: The TRM is rejected and
normal processing continues.

Operator Response: Check JCL for a DD
card for the control terminal. Restart
the Message Control Program with a valid
DD card for this terminal. Reenter the
TRM.

Problem Determination: If the problem
recurs, obtain and have available the
following before calling IBM:
• The TRM.
• The control terminal printout.

IED131I TRM CANCELLED, NOT ENTERED FROM SWITCHED
C. T.

Explanation: This message is issued when
a Test Request Message (TRM) has specified
a control terminal on a switched line but
the TRM was entered from some other
terminal. To use a switched terminal as
control terminal, the TRM must be entered
from the terminal.

System Action: The TRM is cancelled and
normal processing continues.

Operator Response: Reenter the TRM from
the specified control terminal.

Problem Determination: If the problem
recurs when the TRM is entered from the
control terminal, obtain and have
available the following before calling
IBM:
• The TRM that was entered.
• The control terminal printout.

IED132D CAN OLT USE FOR NON-CONCURRENT MODE LINES
xxx,xxx,xxx,xxx... (up to 11 lines)

Explanation: This message is issued when
exclusive use of specified lines
xxx,...,xxx is needed for the duration of
testing, where xxx is the physical address
of the line(s).

System Action: TCAM continues normal
processing. The On-line Test (OLT) enters
a wait state for three minutes. If the
response is not received at the end of
this time, the OLT is cancelled, and
normal processing continues.

Operator Response: If all activity on
specified lines can be suspended for the
duration of the test, enter REPLY
xx,'YES'. Otherwise enter REPLY xx,'NO'.

IED133I C. T. REQUESTED BY OLT ASSIGNED TO ANOTHER
OLT

Explanation: This message is issued when
the control terminal device requested in
the Test Request Message (TRM) has already
been assigned to another On-line Test
(OLT). The TRM is cancelled and must be
reentered to initiate an OLT.

System Action: The TRM is cancelled.
Normal processing continues.

Operator Response: Reenter the TRM and
specify a control terminal not in use.

Problem Determination: If this problem
recurs and the control terminal is not in
use, have the following available before
calling IBM for programming support:
• A listing of the TCAM Message Control
  Program.
• The TRM that was cancelled.
• The control terminal printout.

IED134I xxxxxxxx TERMINAL FAILED, OLT CANCELLED

Explanation: This message is issued when
an unrecoverable error occurs while the
telecommunications on-line test executive
or an On-line Test (OLT) is trying to
communicate with a remote control terminal
or alternate printer terminal, where
xxxxxxxx is the symbolic name of the
terminal. The OLT is cancelled.

System Action: Normal processing
continues. The OLT is cancelled.

Operator Response: Reenter the Test
Request Message (TRM).

Problem Determination: If the problem
recurs, obtain and have available the
following before calling IBM:
• The TRM that was entered.
• The control terminal printout.

IED135I message

Explanation: Messages with this number
are directed to the control terminal for
CE communication. The meaning of the
message is found in the TCAM User's Guide,
GC30-2025.

System Action: Normal processing
continues.

Operator Response: Refer to
'TCTE/Configurator User's Guide'.

IED136D message

Explanation: Messages with this number are directed to the control terminal for CE communication and require a response. The meaning of the message and the proper responses are found in the TCAM User's Guide, GC30-2025.

System Action: The On-line Test goes into wait state until response is received. Normal processing continues.

Operator Response: Refer to TCAM User's Guide, GC30-2025.

IED138I ERROR SORTING DEVICE ID TABLE, xxxx

Explanation: An error occurred while sorting the device ID table. xxxx identifies the terminal name being processed when the error occurred.

System Action: A return code of X'18' is passed to the initialization routine (IEDQOA) in register 15. IEDQOA issues error message IEDQ65I, suspends calling other INTRO, non-resident, initialization routines, and returns to INTRO, which passes control to the next instruction.

Programmer Response: None.

Problem Determination: Execute the IMASPZAP service aid program to obtain a dump of module IEDQOA at the point the error message was issued. Table I, items 3, 13, 16, 29.

IED139I PRINTING STOPPED

Explanation: TCAM disk error message IED140I has been printed the maximum of five times.

System Action: Printing of further messages is suppressed.

Programmer Response: None.

IED140I TCAM DISK ERROR
aa,bbbbbbbb,cccccccccccccccc,dd,eeffffff

Explanation: An error occurred while reading from, or writing to disk. The fields of the message text are as follows:
aa   Contents of IOBECBCC (completion code).
bbbbbbbb Hexadecimal equivalent of IOBFLAG1-2 and IOBSENS0-1.
cccccccccccccccc Hexadecimal equivalent of 8-byte IOBCSW (first byte of IOBFLAG3).
dd Character UCB id.
ee Either RD (Read) or WR (Write).
ffffff Hexadecimal equivalent of 3-byte CPDADDR (disk record number).

See the I/O Supervisor PLM, GY28-6616, for further explanation of these fields.

Programmer Response: None.

Operator Response: None.

IED143I xxx GENERAL POLL STARTED

Explanation: An operator command was entered to activate the general poll invitation characters associated with station xxx.

System Action: The general poll invitation characters are activated and all specific poll characters on the control unit are deactivated.

Programmer Response: None.

Operator Response: None.

IED144I xxx GENERAL POLL STOPPED

Explanation: An operator command was entered to deactivate the general poll invitation characters associated with station xxx.

System Action: The general poll invitation characters are deactivated and all specific poll characters on the control unit are activated.

Programmer Response: None.

Operator Response: None.

IED145I xxx GENERAL POLL ALREADY STARTED

Explanation: An operator command was entered to activate the general poll invitation characters associated with the station xxx.

System Action: The command is ignored because the general poll invitation characters were active already; normal processing continues.

Operator Response: None.

Programmer Response: None.

IED146I xxx GENERAL POLL ALREADY STOPPED

Explanation: An operator command was entered to deactivate the general poll invitation characters associated with station xxx.

System Action: The command is ignored because the general poll invitation characters were inactive already; normal processing continues.

Programmer Response: None.

Operator Response: None.

IED147I xxx COMMAND INVALID FOR GENERAL POLL

Explanation: An operator command was entered to hold or release the general poll station xxx.

System Action: The command is ignored because it was not a valid command for general poll stations; normal processing continues.

Programmer Response: None.

Operator Response: None.

IED148D IS CONTROL UNIT FOR ADDRESS xxx CONNECTED TO THIS CPU?

Explanation: TCAM's on-line test (TOTE) facility was asked to test unit address xxx. Configuration data indicates that this address is shared between two CPUs. Before TOTE can test this unit, it must be ensured that the control unit for the line is connected to this CPU.

System Action: TOTE waits for the operator to reply.

Programmer Response: None.

Operator Response: If the control unit is not already connected to this CPU, switch it and reply R xx,'YES'. If you cannot switch the control unit to this CPU reply R xx,'NO' and TOTE will cancel the TRM request.

IED148I OLT ABEND xxxyyy

Explanation: An OLT abended with a system ABEND code of xxx and a user ABEND code of yyy.

System Action: None.

Operator Response: For a response of xxx000, refer to the corresponding system completion code to determine the nature of the failure. For a response of of 000yyy, notify IBM hardware support of the user ABEND code.

IED149I TOTE BUSY

Explanation: All storage available to TOTE for running OLTs is currently in use. The TRM that was entered cannot be processed and is rejected. This message is issued to the terminal entering the TRM except when the requesting terminal is:
• A concentrator or a terminal attached to a concentrator.
• A 3270 terminal when general poll is active.
When either of these exceptions occurs, the message is issued to the system console.

System Action: None.

Programmer Response: If the problem recurs, increase the value of n in the OLTEST= operand of the INTRO macro.

IED150D TCAM REUSABLE Q WRAPPED - REPLY 'D' TO DUMP ENTIRE MSG DATA SET OR 'C' TO CANCEL

Explanation: This message is **not** issued at the time the reusable queue wraps. Rather, it is issued when the IEDQXC utility is used to format and print data from a reusable DASD message queues data set that wrapped previously. Individual queues cannot be dumped since the first record number of an individual queue

cannot be determined. Only the entire message data set can be dumped.

System Action: The system waits for the operator to reply.

Programmer Response: None.

Operator Response: Reply R xx,'D' to dump the entire message data set or R xx,'C' to cancel the dump. Notify the system programmer of the action taken.

IED151I
```
cuu tttt yy ERS z
cuu xx tttt THRESHLD
cuu xx tttt yy eeee zzzz yy eeee zzzz yy
    eeee zzzz yy eeee zzzz
cuu ww tttt eeeee zzzz eeeee zzzz
    eeeee zzzz eeeee zzzz
```

Explanation: This message provides the results of a scan of the error file of an IBM 2715 Transmission Control Unit. The scan occurs when the error threshold for one of the area stations connected to the 2715 is exceeded (threshold value is eight) or when manually requested at the 2715 or at the 2740 terminal attached to the 2715. TCAM prints the message on the master console, the teleprocessing console, or the system maintenance console, depending on the routing code specified at the 2715. In all four formats of the message text, cuu is the address in EBCDIC of the communications line (channel and unit), xx is the address in hexadecimal of the area station for which the error scan is reported, tttt is the time (0001 - 2400) when the error occurred, and ww is the address in hexadecimal of a particular adapter within the 2715. Fields appearing uniquely within a message format are described below.

The first format of the message is issued when five or more of the eight errors involved a particular one of the devices attached to the area station. In the message text, yy is the address in hexadecimal of the device for which the errors occurred, and z is the number of errors (from decimal 5 to 8) that occurred for the device.
The second format of the message indicates that the threshold value of eight has been reached for the area station whose address is xx, but that no one device attached to the station accounted for as many as five of the errors.
The third format of the message is issued twice whenever an error scan for a particular area switch is manually requested at the 2715 or at the 2740 terminal attached to the 2715. The address of device yy for which the error data eeee was recorded at time zzzz is given four times in each message; the two messages together thus provide information about the eight most recent error occurrences for area station xx.
The fourth format of the message is issued twice whenever an error scan for a particular 2715 adapter is manually requested at the 2715, the 2740 terminal

attached to the 2715, or the central system console. The error data eeeeee for adapter ww recorded at time zzzz is given four times in each message; the two messages together thus provide information about the eight most recent error occurrences for adpater ww.

Operator Response: None.

IED152I CHECKPOINT BLKSIZE TOO SMALL - 300 WAS USED

Explanation: A block size of less than 300 bytes was specified for environment checkpoint records for a checkpoint data set. TCAM used the default value of 300.

System Action: None.

Programmer Response: Change the value of the BLKSIZE= operand of the checkpoint DCB macro instruction. Specify a value between 300 and 3520, inclusive.

Operator Response: None.

IED153I CHECKPOINT BLKSIZE TOO BIG - 3520 WAS USED

Explanation: A block size cf more than 3520 bytes was specified for environment checkpoint records for a checkpoint data set. TCAM assigned a value cf 3520.

System Action: None.

Programmer Response: Change the value of the BLKSIZE= operand of the checkpoint DCB macro instruction. Specify a value between 300 and 3520, inclusive.

Operator Response: None.

IED154I TOTE CANNOT RETURN DEVICE xxx TO ORIGINAL STATUS

Explanation: TOTE remembers the status of a device (terminal or line) from the point that testing of that device begins. When TOTE completed testing the device at address xxx, it was unable to return that device to its original status.

System Action: None.

Programmer Response: None.

Operator Response: Determine the status of the device at address xxx through operator control facilities. Since the device is not in the same status as it was at the beginning of the test, use TCAM operator control to return it to the same status.

IED156I xxx ON CONCENTRATOR - CANNOT BE VARIED

Explanation: An operator command was received for starting or stopping station xxx from accepting or entering, but the station is attached to a concentrator.

System Action: The requested action is not taken. Processing continues.

Programmer Response: None.

Operator Response: None.

IED157I TCAM SYSTEM DELAY ACTIVE - HALT COMMAND REJECTED

Explanation: A TCAM HALT command was issued during a TCAM system delay.

System Action: The requested action is not taken. Processing continues.

Programmer Response: None.

Operator Response: Reissue the TCAM HALT command after the system delay expires.

IED901 ALL TERMINAL MACROS MUST PRECEDE TSINPUT

Explanation: The TSINPUT macro instruction was placed improperly in the source program (TSO).

System Action: The TSINPUT macro is not expanded properly. (Severity code = 12.)

Programmer Response: Probable user error. Place the TSINPUT macro after all TERMINAL macros and resubmit the job.

Problem Determination: Table I, items 15, 29.

IED902 TYPE=xxxC AND SECTERM=YES MUTUALLY EXCLUSIVE

Explanation: Control unit entries do not represent actual terminals and therefore are not eligible as secondary consoles.

System Action: The TERMINAL macro instruction is not expanded properly. (SEVERITY CODE = 12.)

Programmer Response: Probable user error. Either omit the SECTERM= operand or specify SECTERM=NO cn all TERMINAL macros representing control unit entries; resubmit the jcb.

Problem Determination: Table I, items 15, 29.

IED903 FEATURE=NODIAL SPECIFIED ON INTRO

Explanation: Although a terminal is defined as switched, the FEATURE= operand of the INTRO macro specifies that this MCP does not require dial support.

System Action: The INTRO macro instruction is expanded. (Severity = 12).

Programmer Response: Probable user error. Either specify FEATURE=DIAL, cr modify the TERMINAL macros to include nonswitch terminals only.

Operator Response: None.

IED904　OLTERM GREATER THAN 255

Explanation: The maximum value of the OLTERM= operand of the TTABLE macro is 255. This MNOTE notifies the programmer that he exceeded the maximum value allowed.

System Action: The TTABLE macro is expanded. (Severity code = 12.)

Programmer Response: Change the OLTERM= operand of the TTABLE macro instruction to a value between 1 and 255 inclusive.

Operator Response: None.

IED905　xxx OPERAND INCONSISTENT WITH yyy OPERAND

Explanation: In the TCAM MH macro associated with this MNOTE, the value specified for operand xxx is inconsistent with the value specified for yyy.

System Action: The MH macro is partially expanded. (Severity code = 12.)

Programmer Response: Probable user error. Recode the macro. If xxx and yyy are mutually exclusive, code only one of them. If they both may be coded, change the value for one or both, to make them compatible.

Operator Response: None.

Problem Determination: Table I, items 4, 19, 29.

IED906　INBLOCK MACRO INVALID IN A TSO MH

Explanation: An INBLOCK macro was coded in a TSO message handler.

System Action: The INBLOCK macro instruction is not expanded. (Severity code = 12.)

Programmer Response: Remove the INBLOCK macro from the TSO message handler and resubmit the job.

Operator Response: None.

IED907　RESERVE OPERAND VALUE TOO LARGE - 221 WAS USED

Explanation: The RESERVE= operand of the MHPUT macro specified a value greater than the maximum of 221.

System Action: The MHPUT macro is expanded using a value of 221.

Programmer Response: Either reassemble the MHPUT macro with a value of less than 222 specified on the RESERVE= operand, or omit the operand to get a default value of 221.

Operator Response: None.

Component Name	IEE
Program Producing Message	Master scheduler.
Audience and Where Produced	For operator: console.

Message Format	xx IEEnnns text [Pnn]
	
	xx
	    Message reply identification (absent, if operator reply not required).
	nnn
	    Message serial number.
	s
	    Type code:
	
	    A Action; operator must perform a specific action.
	    D Decision; operator must choose an alternative.
	    E Eventual action; operator must perform action when he has time.
	    I Information; no operator action is required.
	    W Wait: processing stopped until action is determined and performed.
	text
	    Message text.
	Pnn
	    Partition which issued the message (systems with MFT only).

Comments	None.
Problem Determination	Refer to the fold-out in part VI of this publication for problem determination instructions.

IEE019I cm QUOTE(S) MISSING.

Explanation: In the cm command, one or more apostrophes that should appear are missing.

System Action: The system did not execute the command.

Operator Response: Probable user error. Enter the command again, making sure that the required apostrophes are used.

Problem Determination: Table I, items 2, 7ab, 29.

IEE023I cm CLASSNAME ERROR.

Explanation: In the cm command, the class specified was not a valid job class or system output class.

System Action: The system did not execute the command.

Operator Response: Probable user error. Enter the command again, making sure that the class name is correct.

Problem Determination: Table I, items 2, 7ab, 29.

IEE025I UNIT ddd HAS NO PATHS

Explanation: In a Model 65 Multiprocessing system, a vary command was entered for a device having no available path.

System Action: The command is not executed.

Operator Response: Enter a VARY PATH command to make a path available.

Problem Determination: Table I, items 2, 11, 29.

IEE026I cm NOT SUPPORTED.

Explanation: If cm is LOG or WRITELOG, the system log is not being supported for one of the following reasons:
- The system log was deleted at system generation time.
- One or both of the log data sets, SYS1.SYSVLOGX and SYS1.SYSVLOGY, were not cataloged and mounted during system start.
- The system log task terminated abnormally.

If cm is an RJE central command, remote job entry was not in the system or had not completed initialization when the command

was issued. (If cm is RJE, a START RJE command was issued.)

If cm is DDR (or SYSRES), dynamic device reconfiguration (or the SYSRES option of dynamic device reconfiguration) is not in the system. The system cannot complete the SWAP request entered by the operator.

If cm is HIARCHY, a START or MOUNT command specifying the 'H=' parameter was issued. However, Hierarchy support was not included in the system during system generation.

System Action: The system did not execute the command.

Operator Response: Probable user error. If cm is LOG or WRITELOG, and if the system log is supposed to be kept, report the message to the system programmer at the installation. If cm is an RJE central command, reenter the command after RJE is started and has completed initialization. If cm is DDR or SYSRES, no action is necessary. If cm is HIARCHY, reenter the command omitting the 'H=' parameter.

Problem Determination: Table I, items 2, 7ab, 17ab, 29. If the function denoted by the command is supported, and any necessary data sets are cataloged and mounted, and you must have the function before proceeding, check Table I, items 11, 29.

IEE032I WRITELOG COMMAND PENDING. CLASSNAME = x.

Explanation: A WRITELOG command was entered to write the currently recording system log data set, SYS1.SYSVLOGX or SYS1.SYSVLOGY, on the system output writer of class x. However, execution of a previously entered WRITELOG command is still pending.

System Action: The WRITELOG command will be honored after execution of the previously issued WRITELOG command has completed.

Operator Response: None.

IEE033I HALT OR WRITELOG CLOSE COMMAND HAS BEEN ISSUED

Explanation: A HALT or WRITELOG CLOSE command was entered to close the data control block of the data set currently recording. However, the execution of a previously entered HALT or WRITELOG CLOSE command has not completed.

System Action: The second HALT or WRITELOG CLOSE command is ignored. After execution of the first command has completed, the log is no longer supported.

Operator Response: None.

IEE034I WRITELOG EXECUTION DEFERRED. NO BACKUP DATASET

Explanation: A WRITELOG command was entered to write a system log data set (either SYS1.SYSVLOGX or SYS1.SYSVLOGY) on a SYSOUT device. However, the other system log data set is currently being written, or waiting to be written, on a SYSOUT device.

System Action: The log data sets are not switched.

Operator Response: Reenter the command after the alternate log data set has been written to the SYSOUT device.

IEE037I LOG NOT SUPPORTED

Explanation: For this loading of the system, the system log is not being supported for one of the following reasons:
• Both log data sets, SYS1.SYSVLOGX and SYS1.SYSVLOGY, were not cataloged during system start.
• The job abnormally terminated.
• A WRITELOG command was issued before log initialization occurred.

Operator Response: None, unless the system log should be supported. In that case, report this message to the programmer responsible for the system. If the data sets are not cataloged, they should be cataloged and the system started again.

Problem Determination: If you must have the log function before proceeding, see Table I, items 2, 7ab, 29.

IEE038I LOG NOT SUPPORTED. ser NOT MOUNTED.

Explanation: For this loading of the system, the system log is not being supported because a volume containing a system log data set (SYS1.SYSVLOGX and SYS1.SYSVLOGY) is not mounted. The volume's serial number is ser.

Operator Response: None, unless the system log should be supported. In that case, mount volume serial number ser and start the system again.

Problem Determination: Table I, items 2, 7ab, 29. If you must have the log function before proceeding, check item 11.

IEE039I LOG SYS1.SYSVLOG{X/Y} NOT FOUND ON ddd

Explanation: The data control block for the SYS1.SYSVLOGX or SYS1.SYSVLOGY data set, as indicated in the message text, could not be opened because the data set could not be found on the volume on device ddd.

System Action: The log is no longer supported.

Operator Response: Report this message to the programmer responsible for the system at the installation.

Problem Determination: Table I, items 7a, 25bd, 29.

IEE040I LOG I/O ERROR ON ddd

Explanation: During execution of a LOG command or a WTL macro instruction, an uncorrectable input/output error occurred while writing text into the system log data set, SYS1.SYSVLOGX or SYS1.SYSVLOGY, on device ddd.

System Action: The text is written in the alternate system log data set.

Operator Response: None.

Problem Determination: Table I, items 2, 29.

IEE041I LOG NOW RECORDING ON SYS1.SYSVLOG$\begin{Bmatrix} X \\ Y \end{Bmatrix}$ ON ddd

Explanation: The SYS1.SYSVLOGX or SYS1.SYSLVOGY data set, as indicated in the message text, is located on device ddd and is currently recording.

Operator Response: None.

IEE042I LOG DATA SET SYSVLOG$\begin{Bmatrix} X \\ Y \end{Bmatrix}$ ON ddd CLOSED

Explanation: The data control block for the SYS1.SYSVLOGX or SYS1.SYSVLOGY data set, as indicated in the message text, was closed for one of the following reasons:
• At IPL time, if both the SYS1.SYSVLOGX and SYS1.SYSVLOGY data sets are not empty, the data control block for the data set containing the least data is closed.
• The data set is full.
• An input/output error occurred while processing the data set.
• A WRITELOG command was issued.

Operator Response: None.

IEE043I LOG DATA SET$\begin{Bmatrix} X \\ Y \end{Bmatrix}$ QUEUED TO SYSOUT CLASS x

Explanation: The SYS1.SYSVLOGX or SYS1.SYSVLOGY data set, as indicated in the message text, was queued to be written on the system output writer of class x for one of the following reasons:
• The data set is full.
• An input/output error occurred.
• A WRITELOG command was issued.

System Action: The data set is queued to system output and the alternate data set is opened and made available for log entries.

Operator Response: None.

IEE044I $\begin{Bmatrix} LOG \\ SMF \end{Bmatrix}$ ABEND COMPLETION CODE = hhh

Explanation: During the execution of the system log or System Management Facilities function, the task abnormally terminated with the completion code hhh, in hexadecimal.

System Action: The system log or System Management Facilities function is no longer supported.

Operator Response: Report this message to the programmer responsible for the system at the installation.

Problem Determination: If the indicated function is required before proceeding, see Table I, items 2, 7ab, 11, 29.

IEE045I LOG INACTIVE

Explanation: Both log data sets, SYS1.SYSVLOGX and SYS1.SYSVLOGY, are currently being written or waiting to be written on system output devices. During this time, all previously entered log records are held in main storage.

System Action: Subsequent log records will be honored when a log data set is written on system output and becomes available for log entries. Until then, incoming log entries will be sent to the operator via message IEF147I.

Operator Response: None, unless a system output device needs to be started.

IEE046I LOG NOW ACTIVE

Explanation: A log data set was written on system output (SYSOUT) and is now available for log entries.

System Action: Log records are now written in the log data set currently recording.

Operator Response: None

IEE047I WRITELOG DEFERRED, INSUFFICIENT QUEUE SPACE

Explanation: The operator entered the WRITELOG command to have the contents of a log data set put in one of the output queues. However, there was not enough system queue space to allow the log to be written.

System Action: The system will retry the WRITELOG operation each time a task enters allocation until the operation has completed.

Operator Response: As active jobs and system tasks start and stop, display the output queues until it is evident that the log has been written. It is not necessary to reenter the WRITELOG command. If the

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transfer does not complete and there are
no tasks starting or stopping, it may be
necessary to start a task (perhaps an
initiator) so that the WRITELOG operation
can complete.

IEE050A SMF OPTION CANCELED - REPLY U TO CONTINUE

Explanation: During execution of the
System Management Facilities function, the
task abnormally terminated.

System Action: No jobs in the system will
terminate until the reply U is given. All
data currently residing in the System
Management Facilities buffers will be
preserved. It is necessary to restart the
system in order to reinstate the System
Management Facilities function.

Operator Response: If the system should
proceed without recording System
Management Facilities records, enter REPLY
xx,'U'. If the System Management
Facilities function must be active,
restart the system and inform the
programmer responsible for the system.

Problem Determination: If the indicated
function is required before proceeding,
see Table I, items 2, 7ab, 11, 29.

IEE051I SQA $\begin{cases} \text{addr1 addr2 fffff} \\ \text{addr1K addr2K fffff} \end{cases}$

Explanation: In response to a DISPLAY
command with SQA in its operand, the
message gives the high and low boundries
of the system queue area and the amount of
free space within.

The first case of the message text
represents the message for systems with
MFT. addr1 is the 8 byte address of the
low boundary, addr2 is the 8 byte address
of the high boundary and fffff represents
the amount of free space within.

The second text represents the format of
the message for systems with MVT. addr1
is the 5 byte address of the low boundary,
addr2 is the 5 byte address of the high
boundary, fffff is the amount of free
space and K indicates that the address is
rounded to the nearest multiple of 1024.

Operator Response: None.

IEE070I hh.mm.ss   CPU/CHANNEL [id]
AB0123456
yyxxxxxxx

Explanation: This message is issued in
response to a display configuration matrix
(DISPLAY M) command and indicates the
status of both the control units and all
channels in the Model 65 multiprocessing
system where:

hh.mm.ss
     specifies the hour (00-24), the
     minute (00-59), and the second
     (00-59) that the message is issued.

id
     is a three-digit decimal
     identification number used with the K
     C,D command to stop status displays
     from being written on consoles.
yy
     indicates the status of central
     processing units A and B.
     # - in multisystem mode, but offline
     P - in partitioned mode
     S - in multisystem mode, and online
     . - not in the system
xxxxxxx
     indicates the status of channels 0
     through 6.
     # - offline to both central
          processing units
     A - online to central processing unit
          A only
     B - online to central processing unit
          B only
     S - online to both central processing
          units
     . - not in the system

Operator Response: None.

IEE071I hh.mm.ss DEVICE STATUS [id]
     0123456789ABCDEF
cc xxxxxxxxxxxxxxxx

Explanation: This message is issued in
response to a display configuration matrix
(DISPLAY M) command and indicates the
status of all devices in the Model 65
multiprocessing system.

In the message text, the first and second
lines appear once. The third line appears
for each unique channel/control unit
address in the system where:

hh.mm.ss
     specifies the hour (00-24), the
     minute (00-59), and the second
     (00-59) that the message is issued.
id
     is a three-digit decimal
     identification number used with the K
     C,D command to stop status displays
     from being written on consoles.
cc
     indicates a unique channel/control
     unit address in the system and is
     read in conjunction with the
     hexadecimal digits in the second line
     (0132456789ABCDEF) to form unique
     unit addresses such as device cc0 and
     device ccF.
xxxxxxxxxxxxxxxx
     indicates the status of each device
     represented by the first two digits
     (cc) in the third line and the
     hexadecimal digits in the second
     line.
     # - offline to both central
          processing units
     A - online to central processing unit
          A only
     B - online to central processing unit
          B only
     S - online to both central processing
          units
     . - not in the system

Operator Response: None.

IEE072I NO STORAGE OFFLINE

    Explanation: In response tc a DISPLAY
configuration matrix command, this message
indicates that no storage is offline.

    System Action: The system ccntinues
processing.

    Operator Response: None.

IEE073I cm IMPROPER CHANNEL NUMBER SPECIFICATICN

    Explanation: In the cm command, a channel
number was specified for a channel that
was not in the system at system
generation.

    System Action: The command was not
executed.

    Operator Response: Prcbable user error.
Enter the command again correctly,
specifying a channel that is in the
system.

    Problem Determination: Table I, items 11,
29.

IEE090I cm-x I/O ERROR DUMP TERMINATED

    Explanation: During executicn of a dump
command, an uncorrectable input/output
error occurred. If x is 1, the error
occurred before the dump was taken. If x
is 2, a partial dump was taken.

    System Action: Dump command processing is
terminated.

    Operator Response: If x is 2, invoke the
IMDPRDMP service aid program to print the
partial dump. If x is 1, enter the
command again.

    Problem Determination: Table I, items 2,
7a, 29.

IEE091I cm-x SYS1.CUMP DATA SET FULL OR IN USE

    Explanation: While writing a core image
dump into the SYS1.DUMP data set, one of
the following occurred:
• If x is 1, a unit excepticn was detected
  on tape.
• If x is 2, the data set is full.
• If x is 3, the data set is in use.

    System Action: Dump command processing is
terminated.

    Operatcr Response: If x is 1, rewind and
unload the tape and mount another nonlabel
tape. Reissue the command. If x is 2,
execute the IMDPRDMP service aid program
to print the dump or mount a new SYS1.DUMP
tape, and reissue the command. If x is 3,
enter the command again when the current
dump is complete.

IEE092I CCRE DUMP SUCCESSFULLY COMPLETED

    Explanaticn: The prccessing of the dump
ccmmand has successfully completed.

    Cperatcr Respcnse: Execute the IMDPRDMP
service aid prcgram tc print the dump data
set.

IEE093I cp CPERAND IS INVALIC REPLY FOR DUMP
CCMMAND

    Explanation: In respcnse to a dump
ccmmand, the cperand cp is invalid.

    System Acticn: The command was not
executed.

    Cperatcr Respcnse: Prcbable user error.
Ccrrect the operand, and reissue the dump
ccmmand.

IEE094D SPECIFY OPERAND(S) FOR DUMP COMMAND

    Explanaticn: A dump ccmmand has been
issued from the cperatcr's console. This
message allows the cperator tc specify the
stcrage lccaticns tc be dumped.

    System Acticn: Dump command processing
waits pending the cperator's reply.

    Cperator Respcnse: If a full core dump is
desired, reply ALL cr U. If the dump is
tc represent stcrage lccaticns, reply
STCR=(x,y,[x,y]) where x represents
starting addresses in decimal or
hexadecimal, and y represents ending
addresses in decimal cr hexadecimal
format. The decimal addresses must
represent a multiple cf 1024 (1K). For
example:
   STOR=(0BA040,0CA044) - HEX
   STOR=(00456K,00508K)   - DEC

    Ncte: SDATA may alsc be specified with
STOR. Refer tc Cperatcr Reference Manual
for further explanation.

IEE095I cm-x-retcde INVALIC RETURN CODE FROM SVC
DUMP

    Explanaticn: During execution cf a dump
command an unusual ccnditicn cccurred. If
x is 1, the return ccde (retcde) from SVC
dump is not valid. If x is 2, there is a
system error in the SVC dump interface.

    System Action: Dump command prccessing is
terminated.

    Operator Respcnse: Enter the command
again.

IEE096I cm-x SYS1.DUMP DEVICE NOT SPECIFIEC OR
SUPPORTED

    Explanation: During execution cf a DUMP
ccmmand, one cf the fcllowing occurred:
• If x is 1, nc SYS1.DUMP data set was
  specified at system initialization.
• If x is 2, the SYS1.DUMP data set is not
  allocated tc tape cr direct access (2321
  direct access is nct supported).

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System Action: DUMP command processing is terminated.

Operator Response: Probable user error. The SYS1.DUMP data set must be allocated to tape or direct access at IPL time.

Problem Determination: Table I, items 2, 7a, 29.

IEE101A READY

Explanation: Nucleus initialization has been completed and the master scheduler has received control.

System Action: The system entered wait state to receive a SET DATE command.

Operator Response: Enter a SET DATE command.

IEE102I hh.mm.ss ACTIVE DISPLAY [id]

```
STRADDR  ENDADDR SQA
xxxxxxx  xxxxxxx xxxx

R SUBT NAME1    NAME2     NAME3
x xx   xxxxxxxx xxxxxxxx  xxxxxxxx
```

Explanation: This is the control line of the Status Display indicated by the DISPLAY A or MONITOR A commands entered to an MVT system. The label line names the fields of data.

[id]
A three-digit decimal identification number. It is used in conjunction with the CONTROL C,D command for canceling status displays being written on typewriter or printer consoles or being displayed in-line (not in a display area) on a display (CRT) console. This identification number does not appear when the display is presented in a display area on a display console.

STRADDR
Starting address, in decimal of the region (or part of the region located within a hierarchy) occupied by the task. This field is zero for an initiator waiting for main storage, a data set, or work.

ENDADDR
Ending address, in decimal, of the region (or part of the region located within a hierarchy) occupied by the task. This field is zero for an initiator waiting for main storage, a data set, or work.

SQA
Number of bytes, in decimal, at supervisor queue area required to control the job step.

R
This field is one of the following:
• Blank is the region occupied by the task is owned.
• B if the region occupied by the task is borrowed.
• R if the region occupied by the task is rolled out.

SUBT
Number, in decimal, of subtasks created in the step.

NAME1
This field is one of the following:
• The jobname for a job attached by an initiator.
• The procedure name for a system task.
• The initiator identifier for an initiator.
• MASTER SCHEDULER for the master task.

NAME2
This field is one of the following:
• The stepname for a job attached by an initiator.
• The identifier for a system reader or system writer.
• The jobname for an initiator processing a job step.
• Blank for the master task or for an initiator waiting for work.
• The procedure stepname for a procedure called by a step.

NAME3
This field is one of the following:
• The stepname for a step that called a cataloged procedure.
• Blank if there is no cataloged procedure.

Note: The STRADDR,ENDADDR and R fields are repeated for each additional region occupied by the task.

Operator Response: None.

IEE102I TIME SHARING y a1 a2 qs x

Explanation: As a result of Display Active command, the Time Sharing regions will be shown as above where:

y
is the region number.
a1
is the beginning address of the time sharing region.
a2
is the end address of the time sharing region.
qs
is the amount of LSQS within that region.
x
is the number of users for that region. All of the above are decimal numbers.

Operator Response: None.

IEE103I S proc[.ident][,ddd][,ser][,DSNAME=dsn] *

Explanation: In systems with automatic START commands, this message is issued at system initialization to permit the operator to retain or reject the automatic commands.

In the message text, the fields are:

proc
Cataloged procedure name.

ident
        Identifier.
ddd
        Device name.
ser
        Serial number of the volume.
dsn
        Data set name.
*
        Indicates an automatic START command.

System Action: The commands retained in
response to this message are executed.

Operator Response: Enter a SET command to
indicate which of the automatic commands
are to be retained:
• In the AUTO subparameter, specify Y if a
  command is to be retained and N if a
  command is to be rejected. (For
  example, if three messages are issued
  and the three commands are to be
  rejected, include the subparameter
  AUTO=NNN. If only the third command of
  the three commands specified is to be
  rejected, include the subparameter
  AUTO=YYN.)
• If all the commands are to be retained,
  the AUTO subparameter may be omitted.
• If all the commands are to be rejected,
  the subparameter AUTO=NONE may be
  included.

IEE110I [REPLY IDS: xx][READY UNITS: ddd]
        [AVR MOUNT PENDING]

Explanation: In response to a DISPLAY
command with R in its operand, the system
is displaying the following information:

REPLY IDS: xx
        The messages whose message
        identifiers, xx, are listed above are
        awaiting replies.
READY UNITS: ddd
        The devices, ddd, listed above are
        waiting for mount requests to be
        fulfilled. If one of the devices is
        a data cell, the message text will
        appear as ddd/b where ddd is the
        device address and b is the bin
        number.
AVR MOUNT PENDING
        A volume listed in message IEF504A is
        waiting to be mounted.

Operator Response: For each xx listed,
find the last message on the console
printout with that identifier and reply as
indicated by the message.

For each ddd listed, find the last mount
message on the console printout for that
device (and bin number, if applicable) and
mount the indicated volume.

If AVR MOUNT PENDING is specified, find
the last message (or group of messages)
numbered IEF504A on the console printout
and mount each unmounted volume as
indicated by the message.

IEE111I NO OUTSTANDING REQUESTS

Explanation: In response to a DISPLAY
command with R in its operand, this
message indicates that there are no
messages awaiting replies and there are no
unfulfilled mount requests.

Operator Response: None.

IEE114A DATE=yy.ddd, CLOCK=hh.mm.ss REPLY WITH SET
        PARAMETERS OR U.

Explanation: The time-of-day clock is
operative, and the current date and time
are displayed to the operator for
verfication. In the message text, yy
specifies the year (60-99), ddd specified
the day (001-366), hh specifies the hour
(00-23), mm specifies the minute (00-59),
and ss specifies the second (00-59).

System Action: The system waits until the
operator enters a reply.

Operator Response: If the date and time
indicated in the message text are correct,
and if you do not want to use any SET
command parameters, enter REPLY xx,'U'.

If the date and time indicated in the
message text are correct and you want to
use one or more of the SET command
parameters, enter REPLY xx, parm, where
parm may be Q, AUTO, or PROC or any
combination of the three. Do not depress
the TOD clock enable switch.

If the date and/or time indicated in the
message is incorrect, enter REPLY xx,
parm, where parm may be CLOCK=hh.mm.ss
and/or DATE=yy.ddd (use the date and time
format indicated in the explanation
above). If you wish to use any other SET
command parameters, they may be included
in the reply as shown above. After you
have typed the appropriate response,
depress the TOD enable switch and hold it
down while you signal end-of-block.

(Note: The TOD clock settings are
entirely dependent on the way the operator
responds to this message. If both the
TIME= and DATE= parameters are specified,
the clock will be updated in accordance
with both parameters. If only one
parameter is specified, the clock will be
updated in accordance with that parameter
and the value not specified will be
assumed to be correct.)

IEE115I INSUFFICIENT STORAGE AVAILABLE TO PROCESS
        SELECTED OPTION

Explanation: Sufficient storage is not
available at the moment for the control
program to produce the display associated
with the selected option.

System Action: The option is discarded
and the display is not produced.

Operator Response: Select the desired
option again at a later time.

IEE116A TOD CLOCK INVALID- REPLY WITH SET
PARAMETERS

Explanation: The value of the time-of-day
clock is incorrect because of a power-down
or a hardware error. The problem may or
may not have been resolved when this
message is issued.

System Action: The system waits for the
operator's reply.

Operator Response: Enter REPLY
xx,'DATE=yy.ddd' where yy is the year
(60-99) and ddd is the day (001-366). Any
other valid SET command parameters may
also be specified in the REPLY command.
If this response fails to reset the clock
correctly, call IBM for hardware support.

IEE117A INTERVENTION REQUIRED ON TOD CLOCK ENABLE
SWITCH

Explanation: During initial program load,
the time-of-day clock enable switch was
not depressed at the right time for the
command setting the clock to be
registered.

System Action: This message is issued
fifteen seconds after the command setting
the time-of-day clock was entered, if the
enable switch was not depressed properly.
If the switch still has not been depressed
after one minute, the system issues this
message again. If after another minute
the switch has not been depressed, the
system will terminate the initialization
procedure and issue message IEE119I.

Operator Response: Depress the enable
switch and hold it until the system issues
message IEE118I to indicate that the
command setting the clock has been
accepted.

Problem Determination: If message IEE118I
does not appear, see Table I, items 2,
17a, 29.

IEE118I SET PARAMETER(S) ACCEPTED.

Explanation: The time-of-day clock has
been updated and any other valid SET
command parameters have been processed
successfully.

System Action: Processing continues.

Operator Response: None.

IEE119I SET PARAMETER(S) NOT ACCEPTED - ENABLE
SWITCH NOT DEPRESSED.

Explanation: The time-of-day clock
enables switch was not depressed within
two minutes and fifteen seconds after the
command setting the clock was entered.
The parameters specified in the command
are not accepted, and the original value
of the clock is retained.

System Action: If this message appears
during initial program load, the system
issues message IEE112I and then reissues
message IEE101A, and the SET command
parameters must be reentered.

If this message appears after the system
has been started, processing continues as
if the SET command parameters has not been
entered.

Operator Response: If this message is
issued during initial program load respond
as indicated to message IEE112I.
Otherwise, enter the command with the SET
parameters again, specifying the correct
time. Be sure to depress the enable
switch and hold it down until message
IEE118I is issued.

Problem Determination: If message IEE118I
does not appear and the correct procedures
have been followed, see Table I, items 2,
29.

IEE120I Q SEARCH I/O ERROR

Explanation: An uncorrectable
input/output error occurred while the
queue manager was reading or writing in
the SYS1.SYSJOBQE data set.

System Action: The read or write
operation was not performed. Processing
continues.

Operator Response: Report the message to
the programmer responsible for the system.

Problem Determination: If unable to
continue, see Table I, items 2, 8a, 11,
29.

IEE121I JOB QUEUE I/O ERR DURING COMMAND EXEC

Explanation: During processing of a START
or MOUNT command, an uncorrectable
input/output error occurred in reading or
writing the input work queue entry in the
SYS1.SYSJOBQE data set.

System Action: The system did not execute
the command.

Operator Response: Enter the command
again.

Problem Determination: Table I, items 2,
8a (b if known), 11, 29.

IEE122I START COMMAND JCL ERROR

Explanation: Either a START RDR or START
WTR command was specified incorrectly, or
the cataloged reader procedure or
cataloged writer procedure invoked by the
command contains incorrect job control
statements.

System Action: The system did not execute
the command.

Operator Response: Probable user error.
Look in the SYSOUT data set for message(s)
associated with this command; these
messages will describe any errors found in
the reader or writer procedure or in the
overriding job control statements
generated from the START RDR or START WTR
command. After making corrections, enter
the command again.

Problem Determination: Table I, items 2,
4, 7ab, 26d, 29.

IEE124I MOUNT COMMAND JCL ERR

Explanation: The procedure invoked by a
MOUNT command contains invalid job control
statements.

System Action: The system did not execute
the command.

Operator Response: Probable user error.
Look in the SYSOUT data set for message(s)
beginning with IEF and associated with
this command; these messages will describe
any errors found in the procedure. If
possible, correct the job control
statements in the procedure; otherwise,
report this message to the programmer
responsible for the system at the
installation.
Problem Determination: Table I, items 2,
4, 7ab, 26d, 29.

IEE130I TIMEOUT - TERMINAL RESET

Explanation: The 2740 console, upon which
this message appears, timed out because
the operator did not terminate his input
message with EOB (end-of-block) within 28
seconds of requesting entry to the console
or entering the last character of data.

System Action: The system reset the
terminal to stand by state and ignored the
operator's incomplete input message.

Operator Response: Reenter the input
message and terminate with EOB.

IEE132I START COMMAND DEV ALLOC ERR

Explanation: During processing of a START
RDR or START WTR command, an error was
detected during allocation of the device
specified in the command.

System Action: The system did not execute
the command.

Operator Response: Probable user error.
Make corrections indicated by other
messages on the console or in the SYSOUT
data set. Then enter the command again.

Problem Determination: Table I, items 2,
4, 7ab, 26d, 29.

IEE134I MOUNT COMMAND DEV ALLOC ERR

Explanation: During processing of a MOUNT
command, an error was detected during
allocation of the device specified in the
command.

System Action: The system did not execute
the command.

Operator Response: Probable user error.
Make corrections indicated by other
messages on the console or in the SYSOUT
data set. Then enter the command again.

Problem Determination: Table I, items 2,
4, 7ab, 26d, 29.

IEE135I ERR - REQUESTED DEVICE RESERVED

Explanation: A MOUNT command specified a
device that is either reserved or
permanently resident.

System Action: The system did not execute
the command.

Operator Response: Probable user error.
Change the MOUNT command to specify a
different device, or enter an UNLOAD
command and wait for the device that was
specified to be released.

Problem Determination: Table I, items 2,
4, 7ab, 29.

IEE136I TIME=hh.mm.ss DATE=yy.ddd

Explanation: In response to a DISPLAY T
command, this message indicates the time
of day and the date.
In the message text, hh specifies the hour
(00-23), mm specifies the minute (00-59),
ss specifies the second (00-59), yy
specifies the year, and ddd specifies the
day (001-366).

Operator Response: None.

IEE137I cm VALID ONLY IN MCS

Explanation: Command cm was issued in an
environment without multiple console
support (MCS). However, the command is
valid only in an environment with multiple
console support.

System Action: The command was not
executed.

Operator Response: None.

IEE138I cm ALREADY IN SYSTEM

Explanation: Command cm was issued.
However, the command is currently being
processed in the system.

System Action: The system did not execute
the command.

Operator Response: None.

IEE139I INITIALIZATION FAILED CODE=nn

Explanation: During system
initialization, the master scheduler
failed to recatalog the SYS1.PROCLIB data
set. The code supplied in the message
text (nn) is the return code from the
catalog routines:

CODE   MEANING

04   The SYSCATLG data set cound nct
       be found

08   The existing catalog structure is
       inconsistent with the operation
       performed.

20   The SYSCATLG data set is full.

28   A permanent I/O error occurred
       while the catalog was being read.

System Action: The system will reissue
the autcmatic start commands and the
"READY" message to allow the operator to
retry initialization.

Operator Response: In all cases, retry
initialization by setting the date again.
If the error recurs, initialize an
alternate system and list the catalog data
set of the original system using the
IEHLIST utility program. Give the catalog
list to the system programmer or
installation manager.

Programmer Response: SYS1.PROCLIB must be
found and cataloged befcre initialization
can continue. The most commcn return code
from catalog is 20, in which case some
entries in the catalog should be delted or
the size of the catalog expanded. If the
return code is 4, insure that the catalog
has not been lost. If the code is 28,
move the volume containing the catalog to
another drive. Retry initialization.

Problem Determinaticn: Table I, items 2,
13, 18, 25d, 29.

IEE140I SYSTEM CONSOLES
```
 (CONSOLE/ALT) COND  AUTH   ID  AREA   RCUTED
 (console/alt) H    auth1   nn  x,a-b  routcd
 SYSLOG
 console/alt (M )        auth2   nn  x,a-b  routcd
            (A )
            (N )
```

Explanation: After the conscles have been
initialized, this message prcvides a
display of the system ccnsole
configuration. The first fcrmat of the
message appears if a hard ccpy device is
indicated; the second fcrmat appears for
each other console.

In the message text, the fields are:

CONSOLE
    console
      ddd
        device address of the primary
        ccnsole, which is either an
        output device cr an input/output
        device.
      ddd,ddd
        device addresses of the composite
        primary console.
SYSLOG
    the SYSLOG is the hard copy device.

ALT
    alt
      ddd
        device address of the alternate
        console.
      ddd,ddd
        device addresses of the composite
        alternate ccnsole.
COND
    H
      hard ccpy device.
    M
      master ccnscle.
    A
      active ccnsole.
    N
      non-active ccnscle.
AUTH
    auth1
      CMDS
        Operatcr and system commands and
        all respcnses are to be written
        cn the hard copy log.
      STCMDS
        Operatcr and system ccmmands and
        status disrlays are tc be written
        on the hard copy lcg.
      INCMDS
        Operatcr and system commands and
        inline respcnses are to be
        written cn the hardccpy log.
      NOCMDS
        Operatcr and system commands and
        respcnses are not to be written
        cn the hardccpy lcg.
    auth2
      SYS
        Commands authcrized for console
        are CANCEL, CENOUT, CEFINE, HALT,
        HOLD, MODE, MODIFY, QUIESCE,
        RELEASE, RESET, SET, START, STOP,
        USERIC, and WRITELOG.
      IO
        commards authcrized for ccnsole
        are MOUNT, UNLOAC, and VARY.
      CONS
        commard authcrized fcr console is
        VARY, plus use of the routing
        lccaticn cperand.
      INFO
        commands authcrized fcr ccnsole
        are BRCCST, CISPLAY, LOG, MSG,
        and SHOW, CONTROL, MONITOR,
        MSGRT, STOPMN, REPLY
      ALL
        commands authcrized for console
        are all the ccmmands listed above
        under SYS, IO, CONS, and INFO.
      NONE
        no command authority, which
        cccurs with an output only
        device.
ID nn
    the system identification number for
    the conscle (used with the routing
    lccaticn cperand).
AREA
    x,a-b specifies the range of display
    area idertifiers for this console,
    where x is the idertifier of the
    message area, a is the bcttom display
    area, and b is the tcp display area.

ROUTCD
    routcd
        x,x,...
            the routing codes assigned to the
            console or hard copy device; if a
            composite console, the routing
            codes assigned to the output
            device.
        ALL
            all of the routing codes.
        NONE
            none of the routing codes.

Operator Response: Examine the console
configuration for errors, omissions and
consoles that should be in a different
status. Enter a VARY command for each
console that requires modification.

Note: In an MCS system which has no CRT
consoles sysgened, the AREA column will
not be displayed. This message also
exists as a single line of data pertaining
to each console in the system. Each
single line of data from the larger
display is routed separately to the
console that it describes.

**IEE141A MASTER AND ALL ALTERNATES UNAVAILABLE -
ISSUE VARY MSTCONS**

Explanation: An attempt to switch from a
master console to an alternate console has
failed because no alternate consoles are
active. The attempt to switch consoles
was either initiated automatically by the
device support processor because of an
uncorrectable input/output error, or by
the operator pressing the external
interrupt key.

System Action: The system continues
processing.

Operator Response: Any operator receiving
this message can enter a VARY MSTCONS
command declaring his console or another
active secondary console as the master
console. The VARY MSTCONS command will be
accepted from the first console to issue
the command. The console identified as
the master console in the command will
assume the functions of the master console
and will receive message IEE143I. (Since
the system continues to queue messages to
the master console while it is waiting for
the VARY MSTCONS command to be entered,
the command should be entered as soon as
possible.)
If the console switch was caused by the
pressing of the interrupt key, no
additional response is required.

Problem Determination: If the console
switch occurred as a result of an
uncorrectable input/output error, see
Table I, items 2, 30.

IEE142I ddd NOW RECEIVING HARDCOPY

Explanation: The hard copy log function
has been assumed by console ddd for one of
the following reasons:
• The system log data sets are
  unavailable.

• A VARY MSTCONS command was entered, but
  the hard copy function was being
  performed by the master console.
• The system was erroneously asked to
  switch the hard copy log to a graphic
  console.

System Action: The hard copy log is
switched to console ddd.

Operator Response: If ddd is an
acceptable hard copy log, no response is
necessary. Otherwise, a VARY HARDCPY
command must be issued from the master
console to switch the log to an acceptable
console.

IEE143I OLD=console NEW=console VALDCMD=auth
IEE143I ROUTCDE=routcd T=a H=b

Explanation: This message provides a
display of the console's attributes after
a console switch has occurred. The switch
occurred for one of the following reasons:
• The system detected an uncorrectable
  input/output error on a console.
• A VARY MSTCONS command was entered.
• The INTERRUPT key was pressed on the
  operator's control panel.

In the message text, the fields are:
console
    ddd
        device address of the console.
    ddd,ddd
        device addresses of the
        composite console.
auth
    SYS
        commands authorized for console
        are CANCEL, CENOUT, DEFINE,
        HALT, HOLD, MODE, MODIFY,
        QUIESCE, RELEASE, RESET, SET,
        START, STOP, USERID, and
        WRITELOG.
    IO
        commands authorized for console
        are MOUNT, UNLOAD, and VARY.
    CONS
        command authorized for console
        is VARY.
    INFO
        commands authorized for console
        are BRDCST, DISPLAY, LOG, MSG,
        REPLY and SHOW.
    ALL
        commands authorized for console
        are all the commands listed
        above under SYS, IO, CONS, and
        INFO.
    NONE
        no command authority, which
        occurs with an output only
        device.
routcd
    x,x,...
        the routing codes assigned to
        the console or hard copy device;
        if a composite console, the
        routing codes assigned to the
        output device.
    ALL
        all of the routing codes.
    NONE
        none of the routing codes.

a

   M

      master console.

   S

      secondary console.

b

   Y

      yes; hard copy log.

   N

      no; not a hard copy log.

System Action: The system continues processing.

Operator Response: If the console switch was caused by a VARY MSTCONS command or by the pressing of the INTERRUPT key, no response is required.

NOTE: The failing console is left in an online, unallocated status.

Problem Determination: If the console switch occurred as a result of an uncorrectable input/output error, see Table I, items 2, 30.

IEE147I 'text'

Explanation: If the log is being supported, both log data sets (SYS1.SYSVLOGX and SYS1.SYSVLOGY) are currently being written or waiting to be written on system output devices.

If the log is not being supported, a WTL macro instruction was issued by a problem program.

System Action: The system sends each incoming log record as the text of this message.

Operator Response: If the log is being supported, none, unless a system output device needs to be started.

If the log is not being supported, report the message to the system programmer at the installation.

IEE150I CHANGE OPTIONS IF DESIRED

Explanation: The operator at a CRT console issued a REFerence type CONTROL command, requesting a display of some current CONTROL options. The display, in CONTROL command format, appears in the entry area.

System Action: None.

Operator Response: If no changes are desired, perform the CANCEL action. If desired, change the command and ENTER it. The new values become effective immediately.

IEE151I DELETE REQUEST
     INCONSISTENT - ⎧ NO DELETABLE MESSAGES ⎫
                ⎪ INVALID RANGE   ⎪
                ⎪ SEG=0   ⎪
                ⎨ INVALID OPERAND   ⎬
                ⎪ NO DISPLAY ON SCREEN ⎪
                ⎪ NO DISPLAY IN AREA   ⎪
                ⎩ USE STOPMN TO DELETE ⎭

Explanation: One of the following error conditions occurred:

NO DELETABLE MESSAGE
CONTROL E,F, CONTROL E,SEG, or CONTROL E,nn [,nn] was issued, but there were no messages that could be erased by this request.

INVALID RANGE
CONTROL E,nn [,nn] was issued, but one or more of the message numbers specified was not displayed in the visible message area.
CONTROL E,nn [,nn] was issued, but the specified message numbers were invalid.
CONTROL E,nn [,nn] was issued, but the specified message numbers included blank lines.

SEG = 0
CONTROL E,SEG was issued, but SEG was specified with a value of zero.

INVALID OPERAND
CONTROL EX - comma does not follow E.

NO DISPLAY ON SCREEN
CONTROL E,N was issued, but the message line numbers were already removed.
CONTROL E,D was issued, but no status display is on the screen.

NO DISPLAY IN AREA
CONTROL E,D,I=cca was issued, but no status display is in the area specified by cca.

USE STOPMN TO DELETE
CONTROL E,D[,id] was issued to erase a dynamic display. The STOPMN command must be used to tell the system the dynamic display is no longer required. This results in an automatic erase of the display currently on the screen.

System Action: The command is not executed.

Operator Response: Correct the command and reissue it. D C,K may be entered to obtain a display which explains the CONTROL command.

IEE152I *ENTER* *CANCEL* *D C,K*

Explanation: This message appears upon initialization only if the console device is a 2250 Display Unit. It permits the operator to use the light pen for ENTER and CANCEL actions, and to request a display of the CONTROL command. The message appears whenever the instruction line is not required for another message.

(Positioning the light pen on ENTER has
the same effect as pressing the alternate
coding (ALTN CODING) and numeric 5 (END)
keys. Positioning the light pen on CANCEL
has the same effect as pressing the
alternate coding (ALTN CODING) and numeric
0 (CANCEL) keys. Positioning the light
pen on D C, K has the same effect as
typing D C,K in the entry area and
performing an ENTER action; this action
will cause a display of the CONTROL
command with a brief explanation of all
its operands.)

System Action: None.

Operator Response: If desired, position
the light pen on D C,K for an explanation
of the CONTROL command (displayed in the
status display area.) If an ENTER or
CANCEL action is desired, position the
light pen on the word that represents the
desired action.

IEE153E ERROR - ENTRY GREATER THAN 126 CHARACTERS

Explanation: The 127th position in the
entry area contains a character other than
a blank (or EOM symbol on the 2260.) The
cursor appears under the 127th character
to aid the operator in correcting the
command.

System Action: Until the 127th position
contains a blank (or EOM symbol), the
system ignores all commands.

Operator Response: Correct the command
that appears in the entry area and make
sure that a blank is typed in the 127th
position. Then perform an ENTER action.

If it is desired to clear the entry area
before making the correction, perform the
CANCEL action. Then enter the command
correctly and perform an ENTER action.

IEE154I ILLEGAL CURSOR OPERATION - CURSOR
REPOSITIONED

Explanation: The following are the only
valid places for positioning the cursor:
• Any position on a non-action message
  line.
• The asterisk on an action message line.
• Instruction line detects on ENTER or
  CANCEL or D C,K.
• Any position in the entry area.
• On any one of the detectable options in
  the control line of a display which is
  equivalent to a CONTROL command.

If the cursor is positioned at any other
place, it is an error.

System Action: The screen remains the
same and the cursor is repositioned to the
left of the entry area.

Operator Response: Position the cursor
properly to perform the desired operation.

IEE155E NO HARD COPY-CCN=Y, DEL=N

Explanation: This message appears on the
instruction line if the operator specifies
CCN=N and either DEL=Y, DEL=R or DEL=RD
but there is no device available to
provide hard copy.

This message appears on the warning line
at all times if there is no hard copy
device. The message is removed when the
hard copy device is fixed.

System Action: The system does not accept
the option; it remains in conversational
mode (CCN=Y) and no automatic message
deletion (DEL=N).

Operator Response: When the message
appears on the instruction line and
conversational mode is not desired, or if
roll mode or automatic message deletion is
desired, allocate a device to provide hard
copy. If the operand was not the only or
last operand specified in the command,
reenter the command, specifying the other
operands. Any valid operands specified
previous to the invalid operand are
accepted by the system.

When the message appears on the warning
line, have the hard copy device fixed.
Meanwhile, verify all messages that are to
be deleted.

IEE156I cm INVALID OPERAND - xxxxxx

Explanation: In the CONTROL command, one
of the following error conditions
occurred:
• The specification (S) operand was
  invalid.
• The first character after CONTROL (or K)
  was not E, S, D, M, N, or A.
• The operand following CONTROL D (of K D)
  was not N, or N, HOLD, or F, or H, or U.
• The operand S, DL=nn was used to define
  a display area. The DL operand has been
  replaced by the command CONTROL A,nn (or
  K A,nn). See SRL Form number GC27-6949
  for a complete explanation of the A
  operand.
• RNUM or RTME specified a value of zero.
• The K N,PFK command contains an error.
  The type of error is indicated by the
  location of the cursor:
  a. If the cursor is positioned under
     the first letter of a keyword (CMD,
     KEY, PFK, or CON), that keyword or
     its trailing equal sign is
     incorrect.
  b. If the cursor points to the number
     of the key being defined, that key
     is either not a numeric character,
     not defined during system
     generation, or is being defined as a
     list of keys when it is already
     contained within another list of
     keys.
  c. If the cursor points to a key number
     after the KEY=parameter, that key is
     either not a numeric character, the
     number of the key that is being

defined, a key which has been
defined as a list of keys, or a key
that was not defined during system
generation.
   d. If the cursor points to some other
       location, a syntax error exists at
       the position indicated by the
       cursor.

In the message text, XXXXXX represents the
first six characters of the invalid
operand.

The first character after 'CONTROL' (or K)
can be a 'C' if the ID matches the ID of
a MLWTO now in process.

Note: If the MLWTO has already completed
and a cancel command is issued message
IEE156I will be issued, (invalid operand
XXX).

System Action: The command was not
executed.

Operator Response: Correct the command
by positioning the cursor under the
characters to be changed and typing the
correct information. Then perform the
ENTER action.

If the DL operand was being used to define
display areas, the command should be
changed to the correct form of K A command
and the ENTER action performed.

If desired, the command may be cancelled.

IEE157E DELETION REQUESTED

Explanation: The operator issued a
deletion request in conversational mode.
The deletion request appears in command
form in the entry area, and the messages
selected for deletion are indicated by
vertical lines displayed in position 3 of
the message line.

System Action: No messages are deleted
until the operator has responded to this
message.

Operator Response: Respond in one of the
following ways:
• To remove the indicated messages,
  perform an ENTER action, or position the
  light pen on the same message.
• To change the deletion request, position
  the cursor under the proper character(s)
  and type the desired information.
  (Also, the light pen may be positioned
  on message line.) Then perform an ENTER
  action. All messages that are to be
  deleted will be marked with vertical
  lines. Verify that the messages so
  marked are correct and perform an ENTER
  action.
• To retain the messages, perform a CANCEL
  action. This restores the screen,
  blanks the entry area, and repositions
  the cursor at the left side of the entry
  area.

IEE158I K REQUEST INCONSISTENT
$$\left\{ \begin{array}{l} \text{STATUS ALREADY EXISTS} \\ \text{NO DISPLAY ON SCREEN} \\ \text{NO DISPLAY IN AREA} \\ \text{LAST FRAME DISPLAYED} \\ \text{FRAME NOT COMPLETE} \\ \text{DISPLAY IS NOT DYNAMIC} \end{array} \right\}$$

Explanation: One of the following error
conditions occurred when the CONTROL (K)
command was issued.

STATUS ALREADY EXISTS
    A CONTROL option was requested which
    is already in effect. For example K
    S,DEL=R is entered when the console
    is in roll mode.
NO DISPLAY ON SCREEN
    A CONTROL option for a display, such
    as framing or erasing, was requested
    and there is no display on the
    screen.
NO DISPLAY IN AREA
    A CONTROL option, such as framing or
    erasing, was requested for a display
    in a particular area and there is no
    display in that area.
LAST FRAME DISPLAYED
    K D, F or K D,F,id was issued but the
    last frame of the display is already
    on the screen.
FRAME NOT COMPLETE
    A framing request was issued, but the
    frame of the display currently on the
    screen is not complete yet.
DISPLAY IS NOT DYNAMIC
    "Hold" or "update" of a display was
    requested, but the display is not
    dynamic. These options apply only to
    a dynamic display, which is initiated
    by use of the MONITOR command.

System Action: The command is not
executed.

Operator Response: In the first case,
change the command and re-enter, or CANCEL
the command since the condition already
exists.

In the second case, CANCEL the command
since the conditions required by the
command do not exist.

In the third case, change the command to
specify the correct area and re-enter, or
CANCEL the command.

In the fourth case, CANCEL the command
since no more frames can be displayed.

In the fifth case, enter the request again
after the entire frame has been displayed.

In the sixth case, change the command to
specify the correct display and re-enter,
or CANCEL the command.

IEE159E MESSAGE WAITING

Explanation: All message lines are
filled, but another message is waiting to
be displayed. This message appears if
automatic message deletion was not in
effect (DEI=N) of if automatic message
deletion was in effect (DEL=Y) but no
messages in the message area contained
vertical lines in position 3.

This message also appears if the screen is
full of Intervention Required (INT REQ)
messages, or WTORs.

System Action: No new messages are
displayed until some messages are deleted
either by the operator, by a system task,
or by a problem program. (Messages are

deleted by a problem program or system
task only if automatic message deletion is
in effect.)

Operator Response: Delete the messages by
using either the CONTROL command, a light
pen, or the cursor. (In conversational
mode, it will be necessary to perform an
ENTER action a second time without making
any changes to signal verification of the
deletion request.) If enough messages are
removed so that all waiting messages are
displayed, this message is removed.

If the screen is full of Intervention
Required (INT REQ) messages, perform the
actions where possible; then, if automatic
message deletion is not in effect, delete
those messages from the screen.

If the screen is full of WTORs, start
replying to them; then, delete those
messages from the screen.

IEE160I UNVIEWABLE MESSAGE

Explanation: A status display is
temporarily replacing one or more
messages.

System Action: If a system task or a
problem program has issued a DOM macro
instruction, and if DEL=Y is in effect,
automatic message deletion occurs.
Otherwise, the system continues queueing
the new messages until the operator either
removes the status display or removes some
messages above the status display.
(Message IEE159E replaces this message if
there are more messages waiting than are
currently being displaced by the status
display.)

Operator Response: Respond in one of the
following ways:
• Enter a CONTROL E,D command or position
  the light pen on *E* in the title line
  to remove the display, thereby freeing
  the bottom portion of the message area
  for displaying messages.
• Request message deletion by using the
  cursor or light pen or by entering a
  CONTROL command, thereby removing one or
  more messages above the display so that
  more messages can be displayed.

IEE161I WARNING - CON=N,DEL=Y

Explanation: One of the following
occurred:
• Automatic message deletion was in effect
  (DEL=Y) when the operator entered a
  CONTROL S,CON=N command, requesting
  non-conversational mode.
• Conversational mode was not in effect
  (CON=N) when the operator entered a
  CONTROL S,DEL=Y command, requesting
  automatic message deletion.
• The operator entered a CONTROL
  S,CON=N,DEL=Y command, requesting
  non-conversational mode and automatic
  message deletion.

This message is a warning that, in
response to an erase (E) request, some

messages other than the requested messages
may be lost.

System Action: None.

Operator Response: If automatic message
deletion is in effect, it is strongly
recommended that conversational mode be
used so that messages can be verified
before they are deleted. If
conversational mode is not desired, delete
the messages manually before the message
area is filled.

IEE162I hh.mm.ss K COMMAND [id]

Explanation: This is the control line of
the Status Display initiated by the
DISPLAY C,K command.

[id]
    A three-digit decimal identification
    number. It is used in conjunction
    with the CONTROL C,D command for
    canceling status displays being
    written on typewriter or printer
    consoles or being displayed in-line
    (not in a display area) on a display
    (CRT) console. This identification
    number does not appear when the
    display is presented in a display
    area on a display console.

Operator Response: None.

IEE163I MODE=$\begin{Bmatrix} R \\ RD \end{Bmatrix}$

Explanation: The operator entered a
CONTROL S,DEL=R or CONTROL S,DEL=RD
command, as indicated in the message text,
requesting that roll mode be in effect.
When the message area is filled, the
number of messages specified by the RNUM
parameter (of the CONTROL command) is
removed at the interval specified by the
RTME parameter (of the CONTROL command) or
as long as there are messages waiting to
be displayed.

System Action: None.

Operator Response: None.

IEE164I ILLEGAL LIGHT PEN - CURSOR DETECT

Explanation: An error occurred because
the light pen or the cursor was not
positioned in a valid location. The only
valid locations for positioning the light
pen or the cursor are:
• In any position on a nonaction message
  line.
• On the asterisk on an action message
  line.
• On a detectable CONTROL command option
  (such as *F or *E) in the control line
  of a status display.
• On *ENTER*, *CANCEL*, or *D C,K* in the
  instruction line.

System Action: The system does not act
upon the invalid request; the screen
remains the same.

Operator Response: Position the light pen or cursor properly to perform the desired operation.

IEE165I DEL UNCHANGED, NO TIMER

Explanation: The operator entered a CONTROL S,DEL=R or CONTROL S,DEL=RD command, requesting that roll mode be in effect. However, the timer was not enabled at initialization.

System Action: The system does not accept the option.

Operator Response: If it is desired to operate in roll mode, make sure a timer is enabled at system start.

IEE167E OUTPUT IN HOLD MODE

Explanation: No new messages will be written on the screen until the operator takes some action, such as confirming a command or canceling a request. This message appears only on 2260 console devices.

System Action: No more messages are displayed until the operator has responded to this message.

Operator Response: Enter data or perform a CANCEL action by repositioning the cursor next to the START MI symbol and pressing the ENTER key.

IEE170E RETRYABLE ERROR.   RECENT ACTION MAY NEED TO BE REPEATED.
IEE170E PRESS THE CANCEL KEY TO RESTORE THE SCREEN.

Explanation: A hardware error occurred that was not caused by operator action. If the same error occurs again, the device is considered unusable and the error is logged. In addition, multiple console support will transfer the routing codes and the command input capability of this console to an active alternate console, and will issue message IEE143I. (Anything in the entry area at the time of the error will be lost.)

System Action: If the operator does not perform a CANCEL action, the system automatically rewrites the screen after approximately 30 seconds have elapsed (this results in the same effect as a CANCEL action). If the operator requests that the consoles be switched, the system writes all succeeding messages on the new console device.

Operator Response: Probable hardware error. To continue, perform a CANCEL action. The messages are rewritten on the screen. However, any status displays are lost. The request must be reentered.

Problem Determination: Table I, items 2, 30.

IEE171E CONDITIONAL ERROR.   RECENT ACTION MAY NEED TO BE REPEATED.
IEE171E PRESS CANCEL TO CONTINUE, OR SWITCH CONSOLES.

Explanation: A hardware error occurred. However, the device may still be usable.

System Action: If the operator does not perform a CANCEL action, the system automatically rewrites the screen after approximately 30 seconds have elapsed (this results in the same effect as a CANCEL action). If the operator requests that the consoles be switched, the system writes all succeeding messages on the new console device.

Operator Response: Probable hardware error. If the device is still usable, perform a CANCEL action to continue operating. However, keyboard, cursor, or light pen actions may need to be repeated.

NOTE: The 2260 display console does not have a CANCEL key; the system will automatically restore the screen in about 30 seconds.

If it is desired not to continue, use the multiple console support option to remove this device as a console.

Problem Determination: Table I, items 2, 30.

IEE191I REQUIRED DD ENTRY MISSING FROM PROCEDURE

Explanation: The cataloged reader procedure invoked by a START RDR or START RDRA command does not contain a required DD statement. The name fields of the required DD statements are IEFRDER, IEFPDSI, and IEFDATA.

System Action: The system did not execute the command.

Operator Response: Probable user error. Supply the missing DD statement, if possible, and enter the command again. Otherwise, report this message to the programmer responsible for the system at the installation.

Problem Determination: Table I, items 2, 4, 7ab, 26d, 29.

IEE192I INVALID PROCEDURE PARM FIELD FORMAT

Explanation: The reader procedure invoked by a START RDR or START RDRA command or the writer procedure invoked by a START WTR command contains an EXEC statement with an invalid PARM parameter.

System Action: The system did not execute the command.

Operator Response: Report this message to the system programmer at the installation.

```
IEE250I hh.mm.ss CONSOLES [id]
        CONSOLE/ALT  COND  AUTH  ID   AREA    ROUTCD
        console/alt  H     auth1 nn   x,a,-a₂ routcd
        SYSLOG                                routcd
        console/alt  ⎧M    ⎫auth2
                     ⎨A[,P]⎬
                     ⎩N[,P]⎭
```

Explanation: In response to a DISPLAY
CONSOLES command, this message provides a
display of the system console
configuration. The first format of the
message always appears; the second format
appears if a hard copy device is
available; the third format appears for
each console specified at system
generation.

In the message text, the fields are:

[id]
   A three-digit decimal identification
   number. It is used in conjunction
   with the CONTROL C,D command for
   canceling status displays being
   written on typewriter or printer
   consoles or being displayed in-line
   (not in a display area) on a display
   (CRT) console. This identification
   number does not appear when the
   display is presented in a display
   area on a display console.
CONSOLE
   console
      ddd
         device address of the
         primary console, which is
         either an output device or
         an input/output device.
      ddd,ddd
         device addresses of the
         composite primary console.
   SYSLOG
      the SYSLOG is the hard copy
      device.
ALT
   alt
      ddd
         device address of the
         alternate console.
      ddd,ddd
         device addresses of the
         composite alternate
         console.
COND
   H
      hard copy device.
   M
      master console.
   A
      active console.
   A,P
      in the process of becoming an
      active console.
   N
      non-active console.
   N,P
      in the process of becoming a
      non-active console.
AUTH
   auth1
      CMDS
         operator and system
         commands and responses are
         to be written on the hard
         copy log.

STCMDS
   Operator and system
   commands and status
   displays are to be written
   on the hard copy log.
INCMDS
   Operator and system
   commands and inline
   responses are to be written
   on the hardcopy log.
NOCMDS
   operator and system
   commands and responses are
   not to be written on the
   hard copy log.
auth2
   SYS
      commands authorized for
      console are CANCEL, CENOUT,
      DEFINE, HALT, HOLD, MODE,
      MODIFY, QUIESCE, RELEASE,
      RESET, SET, START, STOP,
      USERID, and WRITELOG.
   IO
      commands authorized for
      console are MOUNT, SWAP,
      UNLOAD, and VARY.
   CONS
      command authorized for
      console is VARY.
   INFO
      commands authorized for
      console are BRDCST,
      DISPLAY, LOG, MSG, and
      SHOW, CONTROL, MONITOR,
      MSGRT, STOPMN, REPLY.
   ALL
      commands authorized for
      console are all the
      commands listed above under
      SYS, IO, CONS, and INFO.
   NONE
      no command authority, which
      occurs with an output only
      device.
   ID nn
      the system identification
      number for this console.
   AREA
      x, a₁ - a₂ the range of
      area designators defined
      for this console, where x
      is the id of the message
      area, a₁ is the bottom area
      and a₂ is the top area.
ROUTCD
   routcd
      x,x,...
         the routing codes assigned
         to the console or hard copy
         device; if a composite
         console, the routing codes
         assigned to the output
         device.
      ALL
         all of the routing codes.
      NONE
         none of the routing codes.

Operator Response: None.

Note: In an MCS system which has no CRT
consoles sysgened, the AREA column will
not be displayed.

IEE298I cm INVALID CHARACTER

> Explanation: In the cm command, an invalid character (not enclosed in apostrophes) was found in the operation, operand, or comment field.

> System Action: The command was not executed.

> Operator Response: Probable user error. Enter the command again, correctly. (If the command was originally entered through the input stream, the command may be reissued through the console in response to this message.)

> Problem Determination: Table I, items 2, 7b, 29. If unable to continue system operation see Table I, item 11.

IEE299I {SYSLOG / ddd} REQ'D FOR HARDCOPY

> Explanation: The operator entered the VARY HARDCOPY, OFF command without first reassigning the hardcopy function to either the system log, a stand-alone console, or an operator's console. If more than one console is active, or if a single graphics console is active, the hardcopy function is required.

> System Action: The command is not executed.

> Operator Response: Enter the VARY HARDCOPY command specifying a new hardcopy device, or the system log. Then re-enter the previous command.

IEE300I ddd/aaa INVALID ALTCON

> Explanation: In a VARY ddd,CONSOLE command, parameter ALTCON specified an invalid alternate console aaa:
> • ddd and aaa are the same device.
> • ddd has input/output capabilities and aaa has only output capabilities.
> System Action: In the first case, the command is not processed for device ddd. In the second case, if device ddd was previously a console, the previous alternate console is maintained; otherwise, device ddd is made a console, and the alternate console specified at system generation is maintained.

> Operator Response: In the first case, choose another alternate console and reenter the command. In the second case, choose an alternate console with input/output capabilities and reenter the command.

IEE301I jjj CANCEL COMMAND ACCEPTED

> Explanation: Job jjj was canceled in response to a CANCEL command, by the remote job entry (RJE) procedure or the conversational remote job entry (CRJE) procedure, or by the system. If the job was canceled by the system, messages will follow explaining the reason for the cancellation.

> System Action: All reference to the job are deleted from the system.

> Operator Response: None.

IEE302I dddy ONLINE

> Explanation: One of the following occurred:
> • In response to a VARY device online command, the system has placed device ddd online.
> • In response to a VARY PATH online command, the path to device ddd has been placed online. In the message text, central processing unit y appears only for multiprocessing systems.

> Operator Response: None.

IEE303I dddy OFFLINE

> Explanation: One of the following occurred:
> • In response to a VARY device offline command, the system has placed device ddd offline.
> • In response to a VARY PATH offline command, the path to device ddd has been placed offline. In the message text, central processing unit y appears only for multiprocessing systems.
> Operator Response: None.

IEE304I jjj JOB RESET

> Explanation: In response to a RESET command, the system has changed the priority, class and/or output class of the job named jjj.

> Operator Response: None.

IEE305I {cm / NO CORE / (blanks) / CSCB USE / MODE} COMMAND INVALID

> Explanation: The command cm is invalid for one of the following reasons:
> • The command is misspelled or punctuated incorrectly.
> • A command valid only at Initial Program Load (IPL) was used after IPL.
> • A command was issued without a prerequisite command.

> NO CORE indicates that main storage was not available to process the central command.

> If blanks appear, the operand of the central command was too long, or a framing quote was not found within 62 bytes.

> CSCB USE indicates that the maximum number of central commands had been enqueued when another central command was submitted. Also, CSCB USE may indicate that the CRJE system has been started, but is not yet active or that the system has been stopped, but has not yet ended. MODE indicates that ECC was requested in record mode while HIR was in quiet mode.

System Action: The system did not execute the command.

Operator Response: Probable user error. When NO CORE or CSCB USE is printed, resubmit the command at a later time. For CSCB USE, if the condition persists, have the remote job entry program reassembled with a greater number of central command queuing buffers. If blanks or cm appear, enter the command again correctly. For MODE, if desired, enter the command to place BIR into record mode before resubmitting the command to place ECC into record mode.

Problem Determination: Table I, items 2, 29.

IEE306I cm INVALID NUMERICS

Explanation: In the cm command, a parameter value that is supposed to be numeric either contains one or more characters that are not numbers or has too large a value.

Example: D U,DASD,,,27B - where the last operand is supposed to be a decimal number between 0 and 999.

System Action: The system did not execute the command.

Operator Response: Probable user error. Enter the command again correctly.

Problem Determination: Table I, items 2, 29.

IEE307I cm DELIMITER ERROR

Explanation: In the cm command, either the punctuation for a parameter is incorrect, or the operand field is not followed by a blank.

Example: D Q=(A,B - where the list of queue classes should be delimited by a right parenthesis.

System Action: The system did not execute the command.

Operator Response: Probable user error. Issue the command again correctly.

Problem Determination: Table I, items 2, 29

IEE308I cm TERM LENGTH ERROR

Explanation: In the cm command, a parameter is too long or short. Either the parameter is not spelled correctly or a comma is not in the correct location.

Example: D Q=(A,B,C,D,E) - where the list cannot consist of more than four members.

System Action: The system did not execute the command.

Operator Response: Probable user error. Enter the command again correctly.

Problem Determination: Table I, items 2, 29.

IEE309I cm UNIDENTIFIABLE KEYWORD

Explanation: In the cm command, a keyword is misspelled.

System Action: The system did not execute the command.

Operator Response: Probable user error. Issue the command again correctly.

Problem Determination: Table I, items 2, 29.

IEE310I cm KEYWORD MISSING

Explanation: In the cm command, a required keyword parameter is missing.

System Action: The system did not execute the command.

Operator Response: Probable user error. Enter the command again correctly.

Problem Determination: Table I, items 2, 7ab, 29.

IEE311I cm PARAMETER MISSING

Explanation: In the cm command, a required parameter is missing.

System Action: The system did not execute the command.

Operator Response: Probable user error. Enter the command again correctly.

Problem Determination: Table I, items 2, 29.

IEE312I cm PARAMETERS CONFLICT

Explanation: In the cm command, either a keyword parameter appears more than once or conflicts with another parameter.

System Action: The system did not execute the command.

Operator Response: Probable user error. Enter the command again correctly.

Problem Determination: Table I, items 2, 29.

IEE313I ⎰utn   ⎱ UNIT REF INVALID
**   ⎱HARDCOPY⎰**

Explanation: In a command, the unit name utn is invalid or indicates a device type that cannot be used for the purpose intended by the command. In systems with Multiple Console Support, if a V, HARDCOPY, OFF command is entered, and there is no currently recording hardcopy log, HARDCOPY will replace utn in the message text. In the case of an invalid composite

specification, both the I-unit and the
O-unit device addresses will appear.

Example: D U,,,3EQ - where Q is not a
valid hexadecimal number.

System Action: The system did not execute
the command.

Operator Response: Probable user error.
Enter the command again, correcting the
unit name.

Problem Determination: Table I, items 2,
7ab, 29.

IEE314I cm UNIT NOT AVAILABLE

Explanation: In the cm command, one or
more units specified are unavailable; that
is, they are already in use. If an UNLOAD
command was entered, cm specifies the unit
name.

System Action: The system did not execute
the command.

Operator Response: Probable user error.
Enter the command again correctly.

Problem Determination: Table I, items 2,
7b, 29.

IEE315I cm UNIT NOT SUPPORTED

Explanation: In the cm command, one or
more units specified are invalid; that is,
they cannot be used for the purpose
intended by the command.

System Action: The system did not execute
the command.

Operator Response: Probable user error.
Enter the command again correctly.

Problem Determination: Table I, items 2,
7ab, 29.

IEE316I jjj JOB NOT FOUND

Explanation: A CANCEL, DISPLAY, HOLD,
RELEASE, or RESET command specified job
jjj; however, the job cannot be found.
Possibly the job name in the command was
misspelled.
• If the job was specified in the RESET
  command, this message is issued if an
  output queue entry for the job existed,
  but the job had been selected by a
  writer or the queue search had been
  limited to a specific queue.
• If the job was specified in the CANCEL
  command and no system output class was
  indicated, the job may be on an output
  queue.
• If the job was specified in the CANCEL
  command and a specific system input or
  system output class was indicated, the
  job is not on the indicated queue but
  may be on another queue.
• If the job was specified in the Cancel
  command, the job may be active but
  marked non-cancellable. A subsequent
  Display Active command should show the
  jobname as an active task.
• If jjj is a system task, either the task
  is starting or it is too late to cancel
  the task.

• If the job was specified in the DISPLAY
  command it is possible for the job to
  have been removed from the job queue
  and to be in initialization. A
  subsequent DISPLAY ACTIVE command
  should show the jobname as an active
  task.

System Action: The system did not execute
the command.

Operator Response: Enter the command
again correctly. If the job was specified
in the CANCEL command, enter the command
again specifying a system output class or
specifying a different system input or
system output class, as necessary. If jjj
is a system task, enter a DISPLAY A
command to see if the task is starting.
If the task is starting, enter a CANCEL
STARTING command; otherwise, enter a STOP
command.

Problem Determination: Table I, items 2,
7ab, 29. If unable to continue system
operation, see Table I, items 8a, 11.

IEE317I jjj JOB SELECTED

Explanation: A DISPLAY, HOLD, RELEASE, or
RESET command specified job jjj; the
system found the job, but it is too late
to execute the command.

If the job was specified on the CANCEL
command, system input or system output
classes were specified and the job is
still running.

System Action: The system did not execute
the command.

Operator Response: If the job was
specified on the CANCEL command and it is
desired to cancel the system output,
reenter the command upon completion of the
job. If it is desired to cancel the job
while it is still running, enter the
CANCEL jjj command.

IEE318I QUEUE EMPTY

Explanation: In response to a DISPLAY N
or DISPLAY Q command, a search of the
SYS1.SYSJOBQE data set indicated that
there were no jobs on the queue.

System Action: No display was created.

Operator Response: None.

IEE319I INVALID LOG COMMAND - TEXT LENGTH EXCEEDS
MAXIMUM

Explanation: The text portion of the LOG
command was too long to be written into
the system log. The maximum length for
the text is 128 characters.

System Action: The command was not
executed.

Operator Response: Reenter the LOG
command; do not exceed 128 characters.

IEE320I jjj ALL SYSOUT CANCELLED

> Explanation: In response to a CANCEL command, all system output for job jjj has been canceled.
>
> Operator Response: None.

IEE321I jjj SYSOUT CLASS x CANCELLED

> Explanation: In response to a CANCEL command, all system output for class x of job jjj has been cancelled.
>
> Operator Response: None.

IEE322I jjj JOB CANCELLED

> Explanation: Job jjj was cancelled in response to a CANCEL command entered by the operator.
>
> System Action: All references to the job are deleted from the system.
>
> Operator Response: None.

IEE323I cm CLASSNAME ERROR

> Explanation: In the cm command, a classname subparameter in the CLASS parameter contains a nonalphameric character.
>
> System Action: The system did not execute the command.
>
> Operator Response: Reenter the command correctly.
>
> Problem Determination: Table I, items 2, 29.

IEE324I xxxx NOT LOGGED ON

> Explanation: The operator has entered a CANCEL U=xxxx, but the specified user, xxxx, is currently not running in the system.
>
> System Action: The command was not executed.
>
> Operator Response: None.

IEE325I xxxx REJECTED - TSO NOT ACTIVE

> Explanation: The operator has entered a command that references the foreground (i.e., MN SESS, P SESS, or C U=jjj), but the Time Sharing Option is not active in the system. xxxx is the command verb entered (i.e., CANCEL, C, STOP, P, etc.)
>
> System Action: The command was not executed.
>
> Operator Response: None.

IEE326I {CRJE } NOT SUPPORTED
{RJE/CRJE}

> Explanation: RJE or CRJE was not in the system or had not completed initialization when an RJE or CRJE central command was submitted.
>
> System Action: The command is rejected.

Operator Response: Probable user error. Resubmit the command after RJE or CRJE is started and has completed initialization.

Problem Determination: Table I, items 2, 7ab, 29. If unable to continue system operation, see Table I, items 11.

IEE327I USERS=nnnn id(regno) id(regno)

> Explanation: As a result of the DISPLAY USER command the number of active users and the user identification of each will be given as shown above where:
>
> nnnn
> > is the number of active users on the system.
> id
> > is the identification of each active user on the system.
> regno
> > is the region number of each active user if the userid is STARTING the regno may be invalid.
>
> When USER=NMBR is specified, only the number of active users will be displayed.
>
> Operator Response: None.

IEE328I cm COMMAND ABORTED

> Explanation: Due to an insufficient amount of storage in the system queue space, the system was unable to schedule a DISPLAY ACTIVE command for execution.
>
> System Action: The system did not execute the command.
>
> Operator Response: Reenter the command at a later time.

IEE329I unitaddr UNDER TEST BY OLTEP

> Explanation: The user issued a V unitaddr,ONLINE command or, in systems with Multiple Console Support, a V unitaddr,CONSOLE command. The Specified device is presently under test by OLTEP and cannot be made available to OS until completion of the online test.
>
> System Action: The system does not process the request.
>
> Operator Response: Re-issue the command when OLTEP has completed.

IEE330I jjj JOB HELD

> Explanation: In response to a HOLD command, the system is temporarily preventing the job named jjj from being selected for processing. The job is in the hold queue in the SYS1.SYSJOBQE data set.
>
> In response to a RELEASE command the job named jjj was found on the hold queue, but it has failed with a JCL error and will remain there until a CANCEL command is issued for it.

Operator Response: None.

IEE331I jjj JOB RELEASED

Explanation: In response tc a RELEASE
command, the system is again able to
select the job named jjj for processing,
unless the job is in a queue held by a
HOLD Q command.

Operator Response: Check the HOLD command
that was entered preceding this RELEASE
command. If it was a HOLD command, job
jjj has been released; no other action is
needed. But, if it was a HCLD Q command,
job jjj has not been released, despite
this message; enter a RELEASE Q command to
release the input work queue, including
job jjj.

IEE332I QUEUE HELD

Explanation: In response tc a HOLD Q
command, the system is temporarily
preventing all jobs in the input work
queue, which is in the SYS1.SYSJOBQE data
set, from being selected for processing.
Operator Response: None.

IEE333I QUEUE RELEASED

Explanation: In response to a RELEASE Q
command, the system is again able to
select all jobs from the input work queue
in the SYS1.SYSJOBQE for processing.

Operator Response: None.

IEE334I HALT EOD SUCCESSFUL

Explanation: In response tc a HALT EOD
command, the system has stored internal
input/output device errcr counts in the
SYS1.LOGREC data set.

Operator Response: The power can be
turned off.

IEE335I VOL PARAMETER MISSING

Explanation: In a MOUNT command, the VCL
parameter is missing.

System Action: The system did not execute
the command.

Operator Response: Probable user error.
Enter the command again correctly.

Problem Determination: Table I, items 2,
7ab, 29.

IEE338I ddd INACTIVE AS HARDCPY

Explanation: In response tc a VARY
HARDCPY,OFF command, the hard copy
capabilities have been varied out of
device ddd. Since hard copy is not
required, the command has been accepted by
the system.

Operator Response: None.

IEE339I ddd CHANGING STATUS

Explanation: A VARY command was issued
for device ddd. However, the device is
currently in the process of changing
status. In the case cf an invalid
composite specification, both the I-unit
and the O-unit device addresses will
appear.

System Action: The system did not execute
the command.

Operator Response: Use the DISPLAY
CONSOLES command tc determine the status
of the device. After the device has
completed its status change, reenter the
command.

IEE341I ttt NOT ACTIVE

Explanation: A command was received which
applies to the task named ttt; however, no
task with this name is currently active.

System Action: The command was not
executed.

Operator Response: Verify that the task
has been started by issuing a 'DISPLAY A'
command or make sure that the task name
was specified correctly in the command.

Problem Determination: Table I, items 2,
7ab, 29. If unable to continue system
operation, see Table I, item 11.

Note: After a swap from a started reader
or writer, all console communication must
be with the old device address until the
reader or writer in the swap is closed.
Then the new device address can be used.

IEE342I cm REJECTED - TASK BUSY.

Explanation: The command named cm was
received; however, either the command
applies to a task that has not finished
processing a previous command or the
command was entered for a job or task that
is in a "must complete" mode.

Example: DA

System Action: The command was not
executed.

Operator Response: Reenter the command
after the previous commands have completed
execution.

IEE343E ser, dsn, NOT MOUNTED

Explanation: In attempting tc locate the
SYS1.SYSJOBQE cr SYS1.PROCLIB data set,
indicated by dsn in the message text, the
catalog was searched. The catalog
indicated that the data set would be found
on the volume whose serial number is ser.
However, the indicated volume is not
mounted.

System Action: The SET command was not
executed.

Operator Response: Probable user error.
If the volume containing the data set is
mounted but is not the volume indicated in
the message text, reenter the SET command
using the Q= or PROC= parameter to specify
the unit on which the data set can be
found. If the indicated volume has to be
mounted or if the device was offline,
ready the volume or device and restart the
system.

Problem Determination: Table I, items 2,
7ab, 25d, 29. If unable to continue
system operation, see Table I, item 11.

IEE344E dsn, NOT FOUND ON ser, ddd

Explanation: In attempting to locate the
SYS1.SYSJOBQE or SYS1.PROCLIB data set,
indicated by dsn in the message text, the
system considered device ddd on which was
mounted the volume whose serial number is
ser. This device and volume were
considered for one of the following
reasons:
• The device was specified in the SET
  command.
• The catalog indicated that the data set
  would be found on the volume whose
  serial number is ser.
• The device was specified at system
  generation.
• As a default, the IPL volume was
  considered.

However, the data set was not on the
indicated volume.

System Action: The SET command was not
executed.

Operator Response: Probable user error.
If the volume containing the data set is
mounted on a device other than that
specified in the message text, reenter the
SET command using Q= or PROC= parameter to
specify the unit on which the data set can
be found. If the indicated volume has to
be mounted, mount the volume and restart
the system. If the indicated device was
offline, ready the device and restart the
system.

Problem Determination: Table I, items 2,
7ab, 25bd, 29. If unable to continue
system operation, see Table I, item 11.

IEE345I cm AUTHORITY INVALID

Explanation: Command cm was entered in an
environment with multiple console support.
However, the command was entered from a
console without the proper command
authority.

Example: K M,UTME=20 entered from any
console other than the master console.

System Action: The system did not execute
the command. However, if a VARY command
was entered, the command will not be
processed only for the device specified in
the message text.

Operator Response: Probable user error.
Reenter the command from a console with
the proper command authority.

Problem Determination: Table I, items 2,
7ab, 17ab, 29. Issue a 'DISPLAY CONSOLES'
command.

If unable to continue system operation,
see Table I, item 11.

IEE346I INPUT RDR JOBNAME OVER 8 CHARS

Explanation: in a START RDR or START RDRA
command, the jobname parameter value
specified a name longer than 8 characters.

System Action: The system did not execute

Operator Response: Probable user error.
Enter the command again, making sure that
the jobname specified does not consist of
more than 8 characters. If the problem
recurs, do the following before calling

Problem Determination: Table I, items 2,
7ab, 29. If unable to continue system
operation, do see Figure 1, item 11.

IEE348I ddd UNAVAILABLE CONSOLE.

Explanation: Device ddd, specified as the
primary or master console at system gene-
ration, is not available for system use.

System Action: The system will use the
alternate or secondary console. If no
alternate or secondary console is
available, the system enters a wait.

Operator Response: Continue system
communication on the alternate or
secondary console.
Problem Determination: Table I, items 2,
7ab, 29.

IEE349I HARDCOPY CONSOLE
IEE349I CONSOLES

```
   CONSOLE/ALT  COND   AUTH  ID AREA     ROUTCD
 ( console/alt ) H      auth1 nn x,a,-a₂ routcd
 ( SYSLOG      )                          routcd
   console/alt ( M    ) auth2
              ( A[,P] )
              ( N[,P] )
              ( N[,T] )
```

Explanation: In response to a VARY
command, this message provides a display
of the console configuration. In response
to a VARY HARDCPY command, the first
format of the title line and the data line
appears with the label line. In response
to a VARY CONSOLE command, the second
format of the data line appears with the
title and label lines.

In the message text, the fields are:
CONSOLE
    console
        ddd
            device address of the
            primary console, which is
            either an output device or
            an input/output device.

```
                ddd,ddd
                      device addresses of the
                      composite primary console.
SYSLOG
      the SYSLOG is the hard copy device.
ALT
      alt
                ddd
                      device address of the
                      alternate console.
                ddd,ddd
                      device addresses of the
                      composite alternate
                      console.
COND
      H
                hard copy device.
      M
                master console.
      A
                active console.
      A,P
                in the process of becoming an
                active console.
      N
                non-active console.
      N,P
                in the process of becoming a
                non-active console.
      N[,T]
                cannot be made a console until
                the Online Test Executive
                Program (OLTEP) completes its
                online test program.
AUTH
      auth1
            CMDS
                      Operator and system
                      commands and all responses
                      are to be written on the
                      hard copy log.
            STCMDS
                      operator and system
                      commands and status
                      displays are to be written
                      on the hard copy log.
            INCMDS
                      Operator and system
                      commands and inline
                      responses are to be written
                      on the hardcopy log.
            NOCMDS
                      Operator and system
                      commands and responses are
                      not to be written on the
                      hardcopy log.
      auth2
            SYS
                      Commands authorized for the
                      console are CANCEL, CANCUT,
                      DEFINE, HALT, HOLD, MODE,
                      MODIFY, QUIESCE, RELEASE,
                      RESET, SET, START, STOP,
                      USERID, and WRITELOG.
            IO
                      Commands authorized for the
                      console are MOUNT, UNLOAD,
                      and VARY.
            CONS
                      Command authorized for the
                      console is VARY, plus use
                      of the routing location
                      operand.
```

INFO

commands authorized for console are
BRDCST, DISPLAY, LOG, MSG, and SHOW,
CONTROL, MONITOR, MSGRT, STOPMN,
REPLY.

ALL

commands authorized for console are
all the commands listed above under
SYS, IO, CONS, and INFO.

NONE

no command authority, which occurs
with an output only device.

ID nn

the system identification number for
this console.

AREA

x, a₁ - a₂ the range of area
designators defined for this console,
where x is the id of the message
area, a₁ is the bottom area and a₂ is
the top area.

ROUTCD

routcd
      x,x,...
                the routing codes assigned
                to the console or hard copy
                device; if a composite
                console, the routing codes
                assigned to the output
                device.
      ALL
                all of the routing codes.
      NONE
                none of the routing codes.

Operator Response: None.

Note: If the console specified is not a
CRT console, the AREA column will not be
displayed.

IEE350I SMF SYS1.MAN $\begin{Bmatrix} X \\ Y \end{Bmatrix}$ NOT DEFINED

Explanation: The SYS1.MANX or SYS1.MANY
data set, as indicated in the message
text, is required but was not defined in
the SMFDEFLT member or by the operator
from the keyboard.

System Action: System operation
continues, but no records are written in
the SYS1.MAN data set.

Operator Response: Probable user error.
Inform the programmer responsible for the
system to define the SYS1.MAN data set in
the SMFDEFLT member.

Problem Determination: Table I, items 2,
7ab, 29.

IEE351I SMF SYS1.MAN RECORDING NOT BEING USED

Explanation: During SMF initialization,
one of the following occurred:
• Space was not allocated for the SYS1.MAN
  data set or SYS1.MAN data set could not
  be opened. In this case, message
  IEE350I, IEE358I, or IEE363I precedes
  this message, indicating the cause of
  the error.
• MAN=NONE was specified, indicating that
  no data records were to be written in
  the SMF data set.

System Action: System operation
continues, but no records are written in
the SYS1.MAN data set.

Operator Response: In the first case,
inform the system programmer to properly
define the SMFDEFLT member, as indicated
in the response to the preceding message.

In the second case, none.

IEE352A SMF MEMBER MISSING - REPLY WITH SMF VALUES

Explanation: During SMF initialization,
the SMFDEFLT member was not found in the
SYS1.PARMLIB data set.

System Action: SMF initialization will
not continue until the operator has
responded to this message.

Operator Response: Probable user error.
Enter REPLY xx,'keyword=value,
keyword=value', listing all the required
SMFDEFLT parameters as defined by the
programmer responsible for the system at
your installation. Inform the programmer
responsible for the system to define the
SMFDEFLT member in the SYS1.PARMLIB data
set, thereby eliminating the need to
redefine the SMFDEFLT parameters from the
keyboard at every SMF initialization.

Problem Determination: Table I, items 2,
7ab, 29. Execute the IEHLIST utility
program to list members of SYS1.PARMLIB
and save the output.

IEE353A I/O ERROR ON SMFDEFLT READ - REPLY WITH
SMF VALUES OR RE-IPL

Explanation: During SMF initialization,
an uncorrectable input/output error
occurred while reading or searching for
the SMFDEFLT member in the SYS1.PARMLIB
data set.

System Action: SMF initialization will
not continue until the operator has
responded to this message.

Operator Response: Restart the system.
If the error persists, enter REPLY
xx,'keyword=value,keyword=value', listing
all the required SMFDEFLT parameters as
defined by the system programmer at your
installation.

Problem Determination: Table I, items
2,7ab, 29.

IEE354I SMF PARAMETERS

Explanation: This message is issued if
OPI=YES was specified in the SMFDEFLT
member. All the parameters of the
SMFDEFLT member are listed, one parameter
to a line, following this message; each
parameter is listed in the format
keyword=value. Message IEE357A follows,
permitting changes to be made.

System Action: None.

Operator Response: None.

IEE355I SMF PARAMETER ERRORS
IEE355I (xxxx UNRECOGNIZABLE KEYWORD/FORMAT
        |keyword=value INVALID VALUE SPECIFIED
        |keyword - KEYWORD NOT SPECIFIED

Explanation: During SMF initialization, a
parameter was specified incorrectly either
in the SMFDEFLT member or in a reply from
the console. The specific error is listed
in the second line of the message:

xxxx UNRECOGNIZABLE KEYWORD/FORMAT
    An unrecognizable keyword was
    detected; xxxx specifies up to 25
    characters of the keyword in error.

keyword=value INVALID VALUE SPECIFIED
    The keyword specified is valid, but
    the value specified is invalid.

keyword - KEYWORD NOT SPECIFIED
    The keyword specified is required,
    but was not found in the SMFDEFLT
    member.

Message IEE356A follows, permitting
changes to be made.

System Action: None.
Operator Response: None.

IEE356A REPLY WITH SMF VALUES

Explanation: This message follows message
IEE355I, and permits corrections to be
made to the parameters in error.

System Action: SMF initialization will
not continue until the operator has
responded to this message.

Operator Response: Enter REPLY
xx,'keyword=value,keyword=value',
correcting the parameters in error
indicated in message IEE355I (as defined
by the system programmer at your
installation). Inform the system
programmer to correct the errors in the
specification of the SMFDEFLT member.

IEE357A REPLY WITH SMF VALUES OR U

Explanation: This message follows message
IEE354I, and permits changes to be made to
the parameters listed.

System Action: SMF initialization will
not continue until the operator has
responded to this message.

Operator Response: If any parameters are
to be changed, enter REPLY
xx,'keyword=value,keyword=value',
specifying the changes desired (as defined
by the programmer responsible for the
system at your installation). If
parameters are not to be changed, enter
REPLY xx,'U'.

Problem Determination: Table I, items 2,
7ab, 29. Execute the IEBPTPCH utility
program to list the member SMFDEFLT from
SYS1.PARMLIB, and save the output.

IEE358I SMF SYS1.MAN{X}{Y} NOT FOUND ON utn

> Explanation: The SYS1.MANX or SYS1.MANY
> data set, as indicated in the message
> text, was specified for the device whose
> unit address is utn. However, no space
> was allocated for the data set on that
> device.
>
> System Action: System operation
> continues, but no records are written in
> the SYS1.MAN data set. the SYS1.MAN data
> set.
>
> Operator Response: Probable user error.
> Inform the programmer responsible for the
> system either to allocate space for the
> data set on the indicated device or to
> redefine the set in the SMFDEFLT data
> member.
>
> Problem Determination: Table I, items 2,
> 7ab, 25bd, 29.

IEE359I INCOMPATIBLE SMF VALUES FOR OPT AND DSV.
OPT=2 SUBSTITUTED.

> Explanation: The value OPT=1 is not
> compatible with the value DSV=2 or DSV=3
> for the recording of STEP and/or VOLUME
> information for SMF. The value OPT=2 is
> required to create preliminary records
> needed for the above SMF information.
>
> System Action: The value OPT=2 is
> substituted. Processing continues and SMF
> information is recorded.
>
> Programmer Response: Probable user error.
> If STEP and/or VOLUME information is not
> desired, re-initialize the system and
> specify SMF parameter value DSV=0 or
> DSV=1.
>
> Probelm Determination: List SYS1.PARMLIB
> member SMFDEFLT to verify the parameter
> defaults specified. The user may change
> these defaults in SYS1.PARMLIB, or
> override them through the console at
> system initialization, to conform to his
> current SMF requirements.

IEE360I SMF NOW RECORDING ON SYS1.MAN{X}{Y} ON utn

TIME=hh.mm.ss

> Explanation: Records are being written in
> the SYS1.MANX or SYS1.MANY data set, as
> indicated in the message text, on the
> device whose unit address is utn. The
> message also indicates the time of day,
> where hh specifies the hour (00-23), mm
> specifies the minute (00-59), and ss
> specifies the second (00-59).
> Note: These records are initially placed
> in a buffer; when the buffer is full, the
> data in the buffer is written in the
> indicated data set. If the system fails
> before the buffer is full, the records are
> lost.
>
> System Action: None.
>
> Operator Response: None.

IEE361I SMF DATA LOST -- SYS1.MANX/Y NOT AVAILABLE
TIME=hh.mm.ss

> Explanation: The SYS1.MANX and SYS1.MANY
> data sets are both full. Therefore, no
> more records can be written. The message
> also indicates the time of day, where hh
> specifies the hour (00-23), mm specifies
> the minute (00-59), and ss specifies the
> second (00-59).
>
> System Action: System operation
> continues, but no records are written in
> the SYS1.MAN data sets. Until a data set
> becomes available, a record is kept of the
> number of records lost and of the starting
> and ending times of the period during
> which no records were written. When a
> data set becomes available, an SMF data
> lost record (type 7) is written.
>
> Operator Response: Initiate execution of
> the IFASMFDP program. If a dump program
> is currently executing, ensure that it
> completes as soon as possible.

IEE362A SMF ENTER DUMP FOR SYS1.MAN{X}{Y} ON utn

> Explanation: The SYS1.MANX or SYS1.MANY
> data set, as indicated in the message
> text, is full or end-of-day was specified.
> The data set is on the device whose unit
> address is utn.
>
> System Action: None.
>
> Operator Response: Initiate execution of
> the IFASMFDP program for the indicated
> data set.

IEE363I SMF {ser}{utn} / DEVICE CAPACITY TOO SMALL FOR
BUFFER
DEVICE NOT IN SYSTEM
INCORRECT DEVICE TYPE
NOT DIRECT ACCESS
OFFLINE
PRIVATE
IS BUSY

> Explanation: Space for the SYS1.MAN data
> set defined in the SMFDEFLT member cannot
> be allocated for one of the following
> reasons:
>
> DEVICE CAPACITY TOO SMALL FOR BUFFER
>   The specified device cannot contain
>   the largest possible SYS1.MAN record.
>
> DEVICE NOT IN SYSTEM
>   No unit control block exists for the
>   specified device.
>
> INCORRECT DEVICE TYPE
>   The wrong device type was specified
>   for the SYS1.MAN data set.
>
> NOT DIRECT ACCESS
>   A device other than a direct access
>   device was specified for the
>   SYS1.MANY data set.
>
> OFFLINE
>   The unit control block for the device
>   is marked offline.

PRIVATE
The volume is private and the volume
serial was not specified for the
SYS1.MAN data set in the PRM and/or
the ALT parameter.

IS BUSY
A tape device specified for the
SYS1.MAN data set was already
allocated to another data set.

In the message text, ser is the serial
number of the volume and utn is the unit
address of the device containing the
SYS1.MAN data set.

System Action: System operation
continues, but no records are written in
the SYS1.MAN data set.

Operator Response: Probable user error.
Inform the programmer responsible for the
system to properly define the device in
the SMFDEFLT member or to make the
specified device available.

Problem Determination: Table I, items 2,
7ab, 29. Execute the IEBPTPCH utility
program to list the member SMFDEFLT from
SYS1.PARMLIB, and save output. If unable
to continue system operation, see Table I,
item 11.

IEE364I SMF I/O ERROR ON utn

Explanation: A permanent input/output
error occurred while writing in the
SYS1.MAN data set on the device whose unit
address is utn.

System Action: For direct access: if an
alternate data set is available, records
will be written on that data set; if no
alternate data set is available, no
records will be written.

For tape: the data control block for the
data set is closed; however, the system
will request another tape volume to be
mounted, and the data control block will
be subsequently reopened.

Operator Response: Inform the programmer
responsible for the system to define a
different data set in the SMFDEFLT member.

Problem Determination: Table I, items 2,
7ab, 29.

IEE371I D M COMMAND IGNORED

Explanation: The operator issued an
invalid Display Matrix command. This
command is only valid in a Model 65
multiprocessing system.

System Action: The command was ignored
and the system continues processing.

Operator Response: Probable user error.

Problem Determination: Table I, items 2,
29.

IEE376I PATHdddy LAST PATH TO DEVICE

Explanation: A VARY PATH command
requested that the last path to device ddd
be varied offline.

In the message text, central processing
unit y appears only for multiprocessing
systems.

System Action: The command is not
executed. The system continues operation.

Operator Response: Probable user error.
If ddd does not indicate the desired path,
enter the command again correctly. The
last path to a device cannot be varied
offline.

Problem Determination: Table I, items 11,
29.

IEE377I PATHdddy TP - CANNOT BE VARIED

Explanation: A VARY PATH command
requested that the path to
telecommunications device ddd be varied.
However, alternate path retry does not
support teleprocessing.

In the message text, central processing
unit y appears only for multiprocessing
systems.

System Action: The command is not
executed. The system continues operation.

Operator Response: If ddd does not
indicate the desired path, enter the
command again correctly.

Problem Determination: Table I, items 11,
29.

IEE378I PATHdddy DOES NOT EXIST

Explanation: A VARY PATH command
requested that a non-existant path to
device ddd be varied online or offline.
However, the path does not exist in the
system.

In the message text, central processing
unit y appears only for multiprocessing
systems.

System Action: The command is not
executed. The system continues operation.

Operator Response: Probable user error.
If ddd does not indicate the desired path,
enter the command again correctly.

Problem Determination: If ddd does
indicate the desired path, or if the
problem recurs, see Table I, items 11, 29.

IEE379I PATHdddy NOT AVAILABLE

Explanation: A VARY PATH command
requested that the path to shared direct
access storage device ddd be varied
offline. However, the path is temporarily
reserved and cannot be varied.

In the message text, central processing unit y appears only for multiprocessing systems.

System Action: The command is not executed. The system continues operation.

Operator Response: Probable user error. If desired, enter the VARY PATH command again after the shared device has been released.

Problem Determination: Table I, items 11, 29.

IEE380I ddd DEVICE TYPE INVALID

Explanation: A SWAP command was entered; however, either device ddd is not supported by dynamic device reconfiguration or device ddd is not the same device type as the other device specified in the command:

Note:
• Teleprocessing devices are not supported.
• Emulator 7-track "native mode" tapes are not supported.
  • The system residence volume cannot be swapped unless the operator enters a SWAP SYSRES command specifying the current sysres address as the "from" device.
  ex: SWAP SYSRES "from" TO "to"
• The following unit record swaps are supported:
• 1403/1404 to 1403/1404.
  • 1442 to 1442.
  • 1443 to 1443.
  • 2501 to 2501.
  • 2520 to 2520.
  • 2540 to 2540.
  Unit record devices must be out of the ready state when a swap is performed.

Note: When swapping printers, both printers must either have or not have the UCS option; that is, one printer cannot have the option when the other does not.
• The system will not initiate requests for DDR on readers, punches and printers but the operator may request DDR for these devices during "intervention required" conditions only.
• Shared direct access storage devices can only be removed from and remounted on themselves.
• The following tape swaps are supported:
  • 7-track to 7-track.
  • 9-track 800 bpi to 9-track 800 bpi. and 9-track 800 dual density to 9-track 800 bpi or dual density.
  • 9-track 1600 bpi to 9-track 1600 bpi, and 9-track 1600 dual density to 9-track 1600 bpi or dual density.
• An allocated tape device may not be specified as the yyy device in a SWAP command.
• Permanently resident volumes cannot be swapped.

System Action: The command is not executed. The system continues operation.

Operator Response: Probable user error. If a swap is still desired, enter the command again correctly.

Problem Determination: Table I, items 11, 29.

IEE381I ddd DEVICE UNALLOCATED

Explanation: A SWAP command was entered for device ddd that has not been allocated to a job. Therefore, a swap cannot be performed.

System Action: The command is not executed. The system continues operation.

Operator Response: Probable user error. If movement of the volume on device ddd is not desired, none.

If movement of the volume on device ddd is desired, issue a VARY DEVICE offline command for the device and move the volume. If the VARY DEVICE command is not executed successfully, then the device has since been allocated and the SWAP command can be reentered.

Problem Determination: Table I, items 11, 29.

IEE382I DDR CURRENTLY ACTIVE

Explanation: A SWAP command was entered; however, a dynamic device reconfiguration request is outstanding.

System Action: The command was not executed.

Operator Response: Wait for the outstanding dynamic device reconfiguration request to complete. Then, if desired, reenter the SWAP command.

NOTE: Canceling the affected job will purge the outstanding request.

CAUTION: If you decide to cancel the job that was running when DDR got control or if that job ABENDS, you must reply to any outstanding DDR messages that require replies.

Problem Determination: Table I, items 11, 29.

IEE390I NO ALTERNATE CONSOLE

Explanation: No device has been designated as an alternate console.

System Action: The system continues processing.

Operator Response: If an alternate console is desired, ready the device and restart the system. Otherwise, ignore the message.

IEE391I ALTERNATE CONSOLE IS adr

Explanation: A device has been designated
as an alternate console. In the message
text, adr is either the address of the
console device (adr) or in the case of a
composite console, the addresses of both
devices (adr,adr).

System Action: The system continues
processing.

Operator Response: None.

IEE395W MASTER SCHEDULER INITIALIZATION FAILED -
RE-IPL

Explanation: During master scheduler
initialization, abnormal termination
occurred.

System Action: The master scheduler task
goes into a permanent wait state.

Operator Response: Restart the system.

Problem Determination: Table I, items 2,
7ab, 11, 29.

IEE400I THESE MESSAGES CANCELLED - xx,xx,xx

Explanation: The program that issued the
messages whose message identifiers, xx,
are listed above has abnormally
terminated. Therefore, the replies
previously asked for by these messages
are no longer needed.

System Action: The system continues
processing.

Operator Response: None.

IEE401I INVALID ATTEMPT TO INVOKE SYSTEM READER

Explanation: An attempt to invoke the
system reader has been made but the
Interpreter Entrance List (NEL) being
passed to the reader is invalid.

System Action: The reader was not invoked.
Return is made via Register 14.

Operator Response: Probable user error.
Report this to the programmer responsible
for the job that invoked the reader.

Problem Determination: Table I, items 1,
2, 4, 29.

IEE403I cm COMMAND ABORTED

Explanation: The cm command was unable to
complete its execution because of a system
failure. Message IEE404I, which usually
precedes this message, indicates the
probably cause of the failure.

System Action: The system did not execute
the command.

Operator Response: Enter the command
again.

Problem Determination: Have both the
console sheet containing this message and
the master console sheet available.
Provide the storage dump if message
IEE404I indicates that one has been taken.

IEE404I $\left\{\begin{matrix} M \\ S \end{matrix}\right\}$ dd [rr] xx yyy z

Explanation: While the Master Scheduler
(indicated by M in the message text) or
the Command Scheduler (indicated by S) was
processing a command, a system task
abnormally terminated with the system
completion code yyy. The system entered
processing recovery routines to perform
corrective action as indicated by xx. In
the message text, dd is the dump
identification used to correlate this
message with a system produced storage
dump, rr is the return code from the SVC
Dump routine, and z represents the program
status word at the time of the failure.

If z consists of zeroes, insufficient core
was available to the ABEND/STAE routines
at the time of failure to save the psw at
the time of the failure.

System Action: The system takes one of
the following corrective actions, as
indicated by xx in the message text:
  00 - All control block chains were found
       to be valid and no corrective action
       was taken.
  02 - A LOGON Communication Element (LCE)
       chain pointer was not within System
       Queue Space (SQS). The invalid
       pointer was zeroed, truncating the
       LCE chain.
  03 - An LCE pointer was not on a
       doubleword boundary. The invalid
       pointer was zeroed, truncating the
       LCE chain.
  04 - A Command Scheduler Control Block
       (CSCB) chain pointer was not on a
       doubleword boundary. The invalid
       pointer was zeroes, truncating the
       CSCB.
  06 - A CSCB chain pointer was not within
       SQS. The invalid pointer was
       zeroed, truncating the chain.
  08 - An abnormal termination occurred
       when this task was enqueued on the
       Group Control Block (GCB) chain. A
       DEQ macro instruction was issued to
       free the GCB resource.
  10 - A GCB chain pointer was not on a
       doubleword boundary. The invalid
       pointer was zeroed, truncating the
       GCB chain.
  12 - A GCB chain pointer was not within
       SQS. The invalid pointer was
       zeroed, truncating the GCB chain.
  14 - A Command Input Buffer (CIB) chain
       pointer was not on a doubleword
       boundary. This CIB chain was
       pointed to by a CSCB. The invalid
       pointer was zeroed, truncating the
       CIB chain.
  16 - A CIB chain pointer was not within
       SQS. This CIB chain was pointed to
       by a CSCB. The invalid pointer was
       zeroed, truncating this CIB chain.
  18 - A CIB chain pointer was not on a
       doubleword boundary. This CIB
       chain was pointed to by a GCB. The
       invalid pointer was zeroed,
       truncating the CIB chain.
  20 - A CIB chain is not within SQS.
       This CIB chain was pointed to by a
       GCB. The invalid pointer was
       zeroed, truncating the CIB chain.
  22 - The Master Scheduler task or
       Display Active task terminated
       abnormally. The system freed main
       storage that had been obtained by
       these tasks.
  24 - A Reply Element chain pointer was
       not on a doubleword boundary. The
       invalid pointer was zeroed,
       truncating the Reply Queue Element
       chain.

25 - A Reply Queue Element chain pointer was not within SQS. The invalid pointer was zeroed, truncating the Reply Queue Element chain.

29 - The Display Acive task terminated abnormally. The Master Region Busy (also known as the Display Active) bit in the Master Resident Area was turned off (set to 0).

30 - A dump of all main storage was attempted to help isolate the problem. The following are possible values of the rr field and their meanings:

00   Successful completion of dump to SYS1.DUMP data set.
04   DCB invalid, or not opened.
08   Caller not in supervisor state.
12   Dump device not supported.
16   Recursion to dump routine occurred.
20   Dump data set full.
24   Invalid parameter list given.
28   Permanent I/O error--no dump taken.
32   Permanent I/O error--partial dump taken.
36   End-of-file on tape.
NOTE: The rr field will only be present when a code of 30 is given.

31 - The Master Scheduler task or Display Active task terminated abnormally. Some storage obtained by these tasks was not freed.

After these corrective actions have been taken, the system will continue processing, but at a reduced capability. Performance may be affected in the following ways:
• If xx is 04 or 06, some MODIFY, STOP, CANCEL, and DISPLAY commands may result in other error messages.
• If xx is 10, 12, 14, 16 ,18, or 20, some previously entered MODIFY or STOP commands will not be executed.
• If xx is 24 or 25, some outstanding replies may not be valid.
• If xx is 31 and message IEE403 indicates that the Display Active task was aborted, future Display Active tasks may not execute.

Operator Response: Respond as follows:
• If xx is 00, 02, 03, 08, 10, 12, 14, 16, 18, 20, 22, or 29, no action is required.
• If xx is 04 or 06, quiesce and restart the system.
• If xx is 24 or 25, determine which outstanding replies are required by entering a DISPLAY R command. Because the Reply Queue Element chain has been truncated, the system may no longer be aware of tasks waiting for outstanding replies. Therefore, some problem programs may terminate abnormally and some system tasks may wait indefinitely. If system tasks appear to be waiting for this reason, quiesce ans restart the system.
• If xx is 30, use the IMDPRDMP Service Aid program to print the dump data set.

• If xx is 31 and message IEE403I indicates that the Display Active task was aborted, quiesce and restart the system.

Problem Determination: Table I, items 2, 29. If the xx field in the message text is 30, indicating that a storage dump has been taken, have the dump available. If rr is 04, 08, 12, 16, or 24, see Table I, items 2, 30.

IEE415I INVALID PROCEDURE ON START cm

Explanation: The procedure specified in a START command contained more than one step, at least one of which was a system task.

System Action: The command was not executed.

Operator Response: Probable user error. Report the message to the programmer responsible for the system at the installation.

Problem Determination: Table I, items 2, 7ab, 26d, 29.

IEE450I hh.mm.ss UNIT STATUS [id]

Explanation: In response to a DISPLAY U command, this message provides a display of the requested information. The message may appear in either of two formats:
• If OFFLINE is not specified in the DISPLAY U command, the following headings will appear on the second line of this message -- UNIT, TYPE, STATUS, VOLSER, and VOLSTATE. If two or more units are being described, the headings will appear twice on the second line. The third line, and each succeeding line, will contain information as described by the headings.
The following alphabetic characters may appear in the STATUS field with these meanings:
O - online   BSY - busy
S - SYSRES   MTP - mount pending
C - console   NRD - not ready
A - allocated   R - reserved, shared DASD
• If OFFLINE is specified in the DISPLAY U command, the following headings appear on the second line -- UNIT and TYPE. Up to seven units may be described on the third line and each succeeding line of the display.
[id]
  A three-digit decimal identification number. It is used in conjunction with the CONTROL C,D command for canceling status displays being written on typewriter or printer consoles or being displayed in-line (not in a display area) on a display (CRT) console. This identification number does not appear when the display is presented in a display area on a display console.

System Action: None.

Operator Response: None.

IEE452I UNIT STATUS NUMBER OF UNITS REQUESTED
        EXCEEDS NUMBER AVAILABLE

> Explanation: In the DISPLAY U command,
> the number of devices specified for which
> information was to be supplied exceeded
> the number of devices in the system with
> the requested attributes. This message
> appears as the last line of the display.
>
> System Action: The command was executed.
>
> Operator Response: None.

IEE453I UNIT STATUS, INVALID OPERAND. RE-ENTER

> Explanation: In the DISPLAY U command,
> invalid parameters were specified.
>
> System Action: No display was created.
>
> Operator Response: Enter the command
> correctly, specifying valid parameters.

IEE454I UNIT STATUS, DEVICE DOES NOT EXIST

> Explanation: In the DISPLAY U command,
> the single device specified did not
> correspond to any device in the system.
>
> System Action: No display was created.
>
> Operator Response: Enter the command
> correctly, specifying a valid device
> description.

IEE455I UNIT STATUS, NO DEVICES WITH REQUESTED
        ATTRIBUTES

> Explanation: In the DISPLAY U command,
> attributes were specified that did not
> correspond to any devices in the system.
>
> System Action: No display was created.
>
> Operator Response: Enter the command
> correctly, specifying valid device
> descriptions.

IEE475I TASK jjj sss ABENDED. COMPLETION CODE hhh

> Explanation: A system task being
> performed for the step named sss of the
> job named jjj abnormally terminated with a
> completion code of hhh, in hexadecimal.
>
> System Action: The task was terminated.
>
> Operator Response: Examine the conditions
> causing completion code hhh to be produced
> and, if possible, correct the error and
> start the task again. At some convenient
> time, either start or restart the system,
> whichever is necessary, to ensure against
> a possible loss of system resources.
>
> Problem Determination: Table I, items 2,
> 7ab, 29. If unable to continue system
> operation, see Table I, item 11. If hhh
> is associated with the job queue see Table
> I, item 8a.

IEE500E CHANNEL xy NOT OPERATIONAL

> Explanation: A test of channel x of
> central processing unit y indicated that
> the channel was not operational.
>
> System Action: The VARY channel online
> command was not executed.
>
> Operator Response: Probable user error.
> Set the channel on and reenter the VARY
> command.
>
> Problem Determination: Table I, items 2,
> 29.

IEE502I CH xy ONLINE

> Explanation: In response to a VARY
> channel online command, channel x of
> central processing unit y has been placed
> online or was already online.
>
> System Action: The system continues
> processing.
> Operator Response: None.

IEE503I CH xy OFFLINE

> Explanation: In response to a VARY
> channel offline command, channel x of
> central processing unit y has been marked
> offline in the channel table or was
> already offline.
>
> System Action: The system continues
> processing.
>
> Operator Response: None.

IEE504I CPU y ONLINE [:CHANNELS OFFLINE ARE x]

> Explanation: In response to a VARY CPU
> online command, central processing unit
> (CPU) y has been placed online. In the
> message text, channels x are offline.
>
> System Action: The system continues
> processing.
>
> Operator Response: None.

IEE505I CPU y OFFLINE

> Explanation: In response to a VARY CPU
> offline command, central processing unit
> (CPU) y has been placed offline.
>
> System Action: The system continues
> processing.
>
> Operator Response: None.

IEE506E 2ND CPU DID NOT RESPOND TO EXTERNAL START

> Explanation: A VARY CPU online command
> was entered for the second central
> processing unit in the Model 65
> Multiprocessing System. However, the
> central processing unit already online was
> unable to start the second central
> processing unit electronically.
>
> System Action: The system continues
> processing.

Operator Response: Probable user error.
Enter the QUIESCE command, check to see if
power is up on the central processing unit
to be varied online, and check the
configuration panel to insure that the
switches are set correctly.

Problem Determination: Table I, items 11,
29.

IEE507E TIMER ON SECOND CPU NOT WORKING. VARY
COMMANDS MAY BE AFFECTED

Explanation: In response to a VARY CPU
online command, the timer for the
externally started central processing unit
(CPU) was not enabled. Therefore, VARY
channel, VARY CPU, and QUIESCE commands
may give unpredictable results.

System Action: The system continues
processing.

Operator Response: Probable user error.
Vary the second CPU offline, enable the
timer, then vary the second CPU back
online.

Problem Determination: Table I, items 2,
11, 29.

IEE508E BOTH PREFIX SWITCHES SET THE SAME

Explanation: In response to a VARY CPU
online command, it was discovered that the
prefix switches, located on the
configuration control panel, for both
central processing units were set in the
same position (ENABLE or DISABLE). This
causes both central processing units to
use the same prefixed storage area.

System Action: The command was not
executed. The system continues
processing.

Operator Response: Probable user error.
Change the prefix switch for the central
processing unit that is being brought
online to a setting (ENABLE or DISABLE)
that is opposite to the setting of the
switch for the central processing unit
that is running. Then reenter the
command.

Problem Determination: Table I, items 2,
11, 29.

IEE509I VARY REJECTED, CHANNEL ERROR

Explanation: During execution of a VARY
channel online command, a channel error
was encountered.

System Action: The command was not
executed. The system continues
processing.

Operator Response: Probable hardware
error. Enter the VARY command again.

Problem Determination: Table I, items 2,
11, 29. Table II, Format 1: trace option
- TRACE=IO.

IEE510I STORAGE LOCATIONS xxxxxx TO yyyyyy OFFLINE

Explanation: In response to a VARY
storage offline command, storage has been
placed offline. In the message text,
xxxxxx is the starting address and yyyyyy
is the ending address, in hexadecimal, of
the storage placed offline.

This message is also issued in response to
a DISPLAY configuration matrix command
requesting the status of storage.

System Action: The system continues
processing.

Operator Response: None.

IEE511E QUIESCE IS NOT POSSIBLE. BUSY DEVICES
ARE: ddd

Explanation: A QUIESCE command was
entered, but the input/output activity has
not completed. In the message text,
devices ddd are busy.

System Action: The command was not
executed. The system continues
processing.

Operator Response: Reply in one of the
following ways:
• Allow the input/output activity to
complete and reenter the command.
• Make the busy device not ready, and
reenter the command.
• Cancel the jobs whose input/output is
making the devices busy.

Problem Determination: Table I, items 2,
5a, 29. Table II, Format 1: trace option
- TRACE=IO.

IEE512E ddd BUSY. COMMAND IGNORED

Explanation: A VARY CPU offline command
was entered, but the input/output activity
on device ddd did not complete within
three minutes.

System Action: The command was not
executed. The system continues
processing.

Operator Response: Probable user error.
Reply in one of the following ways:
• Allow the input/output activity to
complete, and reenter the VARY command.
• Make the busy devices not ready, and
reenter the VARY command.
• If necessary, cancel the jobs whose
input/output is making the channel busy.

Problem Determination: Table I, items 2,
11, 29. Record the system configuration
at the time of failure and have it
available.

IEE514I taskname ABENDING COMPLETION CODE xxx

Explanation: The system task control
failed with a completion code of xxx while
processing a START or MOUNT command for
the indicated task, or terminating the
indicated task.

System Action: Processing for the
indicated task terminates, and all
resources of that task are returned to the
system. A D03 ABEND and DAR dump may
occur upon exit from the system task
control STAE exit routine that is used to
return the failing task's storage to the
system. For a complete clean-up of the
task, ABEND will DEQ all resources that
were not dequeued and return them to the
system.

Operator Response: Inform the system
programmer that this message has been
issued.

Programmer Response: Examine the
conditions causing the termination of the
indicated task, and if possible, correct
the error. Then request that the operator
restart the task.

Problem Determination: Table I, items 2,
7ab, 29.

IEE515E STORAGE PHYSICALLY REMOVED FROM SYSTEM

Explanation: A VARY storage online
command was issued, but the storage unit
specified has been dialed out of the
system and cannot be addressed.

System Action: The command was not
executed. The system continues
processing.

Operator Response: Probable user error.
If a VARY online command was entered, dial
the storage box back into the system and
reenter the VARY command. Otherwise, no
response is necessary.

Problem Determination: Table I, items 2,
11, 29.

Record the system configuration at the
time of failure and have it available.

IEE517I INVALID ADDRESS SPECIFIED IN VARY STORAGE

Explanation: In a VARY storage online or
offline command, one of the following
errors was made:
● The number of the storage unit was not 1
  through 8.
● The storage address contained a
  non-hexadecimal digit.
● The address range was above the highest
  range selected at IPL time.
● The address range was specified in the
  wrong order.
System Action: The command was not
executed. The system continues
processing.
Operator Response: Probable user error.
Enter the command again correctly.
Problem Determination: Table I, items 2,
11, 29.

IEE518I VARY STORAGE OFFLINE OVERLAPS SUPERVISOR

Explanation: The storage address range
specified in a VARY storage offline
command overlaps the supervisor storage
area.

System Action: The command was not
executed. The system continues
processing.

Operator Response: Probable user error.
Enter the command again correctly.

Problem Determination: Table I, items 2,
11, 29.

IEE519E STORAGE ONLINE HAS IMPERFECT OVERLAP

Explanation: In a VARY online command,
the storage addresses overlap but do not
exactly match the addresses specified in a
previous VARY offline command which has
not yet completed.

System Action: The command is ignored.
The system continues processing.

Operator Response: Probable user error.
If the intention is to cancel the previous
VARY offline command, then reenter the
VARY online command specifying the same
addresses as in the VARY offline command.
Otherwise, wait until the VARY offline
command completes and reenter the VARY
online command specifying addresses that
do not overlap the addresses of the VARY
offline command.

Problem Determination: Table I, items 2,
11, 29.

IEE520I VARY STORAGE OFFLINE CANCELLED DUE TO
SUBSEQUENT ONLINE

Explanation: A VARY offline command had
previously been issued, but had not
completed. In response to a VARY online
command for the same space, the VARY
offline command was canceled.

System Action: The system continues
processing.

Operator Response: None.

IEE521I CH xy INVALID

Explanation: In a VARY command, channel x
of central processing unit y was specified
incorrectly and was not recognized by the
system.

System Action: The command was not
executed. The system continues
processing.

Operator Response: Probable user error.
Enter the command again correctly.
Problem Determination: Table I, items 2,
11, 29.

IEE522I CPU y INVALID

Explanation: In a VARY command, central
processing unit (CPU) y was not recognized
by the system. Either an invalid
character was specified for the CPU ID, or
the CPU is not active.

System Action: The command was not
executed. The system continues
processing.

Operator Response: Probable user error.
Enter the command again correctly.

Problem Determination: Table I, items 2,
11, 29.

IEE523I INVALID COMMAND IN ONE CPU SYSTEM

Explanation: The command cannot be
executed in a partitioned system. The
message is also issued if an attempt is
made to remove the only central processing
unit in multisystem mode.

System Action: The command was not
executed. The system continues
processing.

Operator Response: Probable user error.
Enter only commands valid for systems with
one central processing unit.

Problem Determination: Table I, items 2,
11, 29.

IEE524I STORAGE LOCATIONS xxxxxx TO yyyyyy ONLINE

Explanation: In response to a VARY
storage online command, storage has been
placed online. In the message text,
xxxxxx is the starting address and yyyyyy
is the ending address, in hexadecimal, of
the storage placed online.

System Action: The system continues
processing.
Operator Response: None.

IEE525I LOGICAL STORAGE UNIT z IS NOW OFFLINE

Explanation: In response to a VARY
command, storage has been placed offline.
In the message text, z is the number
(1,2,3,4,5,6,7, or 8) of the logical
storage 1nit.

System Action: The system continues
processing.

Operator Response: None.

IEE526I LOGICAL STORAGE UNIT z IS NOW ONLINE

Explanation: In response to a VARY
command, storage has been placed online.
In the message text, z is the number
(1,2,3,4,5,6,7 or 8) of the logical

System Action: The system continues
processing.

Operator Response: None.

IEE527E VARY REJECTED, WOULD REMOVE ACCESS TO
CONSOLE

Explanation: In response to a VARY CPU
offline or VARY channel offline command,
access to the system console would be
lost.

System Action: The command was not
executed. The system continues
processing.

Operator Response: Probable user error.
Do not enter a VARY command that
eliminates access to the system console.

Problem Determination: Table I, items 2,
11, 29.

IEE528I COMMAND PROCESSING ABEND xxx HAS OCCURRED

Explanation: An abnormal termination
occurred during execution of a queue
manipulation command. The system
completion code is indicated by xxx.

System Action: Processing of the queue
command terminates, and the subpools and
the region allocated to the queue-alter
routine are freed.

Operator Response: Inform the system
programmer or installation manager that
this message has been issued.

Programmer Response: Examine the
conditions causing the system completion
code xxx. If possible, correct the error
and re-enter the command.

Problem Determination: Table I, items 2,
7ab, 29.

IEE541E VARY REJECTED, VARYING OUT LAST PATH TO
DEVICE ddd

Explanation: In response to a VARY CPU
offline or VARY channel offline command,
the last path to device ddd or an element
of the reserved path to shared direct
access device ddd would be removed from
the system.

Note: A VARY command that removes the
last path to a resident data set, an
unallocated device, or a tape drive, will
always be rejected.

System Action: The command was not
executed. The system continues
processing.

Operator Response: Probable user error.
Do not enter a VARY command that
eliminates access to a device.

Problem Determination: Table I, items 2,
11, 29.

IEE549I ONLINE: ddd[,...ddd]

Explanation: In response to a VARY
channel offline command in a system with
multiple console support (MCS) online
consoles ddd would be placed offline by
executing the command.

System Action: The command was not
executed and the system continues
processing.

Operator Response: None. Message IEE527E
follows.

IEE550I ONLINE: ddd[,...ddd]

Explanation: In response to a VARY CPU offline command in a system with multiple console support (MCS), online consoles ddd would be placed offline by executing the command.

System Action: The command was not executed and the system continues processing.

Operator Response: None. Message IEE527E follows.

IEE600I REPLY TO xx IS text

Explanation: This message notifies all console operators that received a message request with identification xx that a reply has been accepted to the message. The first thirty characters of the accepted reply appear as 'text'. The text may or may not be enclosed in quotes depending on whether or not the reply was enclosed in quotes.

System Action: The system continues processing.

Operator Response: None.

IEE699I REPLY xx IGNORED; NON-DECIMAL ID

Explanation: A REPLY xx command was entered specifying a non-decimal id. The reply id must be entered as decimal digits with or without a leading zero in ids 01 through 09.

System Action: The REPLY xx command is ignored. The system continues processing.

Operator Response: Probable user error. Enter the REPLY command again correctly.

Problem Determination: Table I, items 2, 29.

IEE700I REPLY xx IGNORED; REPLY TOO LONG FOR REQUESTOR

Explanation: A REPLY xx command was entered and the reply text was too long for the user's buffer.

System Action: The REPLY xx command is ignored. The system continues processing.

Operator Response: Probable user error. Enter the REPLY command again correctly.

Problem Determination: Table I, items 2, 29.

IEE701I REPLY xx IGNORED; NO REPLIES OUTSTANDING

Explanation: REPLY xx was entered when a reply was not being requested.

System Action: The unexpected REPLY xx was ignored. The system continues processing.

Operator Response: None.

IEE702I REPLY xx IGNORED; IMPROPER USE OF DELIMITERS

Explanation: REPLY xx was invalid for one of the following reasons:
• A closing apostrophe did not follow the text when the text was preceded by an apostrphe.
• An invalid character (a character other than a comma, space, or EOB) followed the id.

System Action: The REPLY xx was ignored. The system continues processing.

Operator Response: Probable user error. Enter the REPLY command again correctly.

Problem Determination: Table I, items 2, 29.

IEE703I REPLY xx NOT REQUESTED FROM THIS CONSOLE

Explanation: In systems with multiple console support (MCS), a REPLY xx command was entered by a secondary console in response to a message that the console did not receive.

System Action: The REPLY xx command is ignored. The system continue processing.

Operator Response: Probable user error. Enter the command again from the master console or from a console that received the message.

Problem Determination: Table I, items 2, 29.

IEE704I REPLY xx NOT OUTSTANDING

Explanation: A REPLY xx command was entered; however, there is no outstanding reply request with the identification xx. Either the message request has already been answered or the message reply identification xx is incorrect.

System Action: The REPLY xx command is ignored. The system continues processing.

Operator Response: Probable user error If the reply identification was incorrect, enter the command again correctly.

Problem Determination: Table I, items 2, 29.

IEE706I {SWITCH} NOT SUCCESSFUL
       {HALT }

Explanation: One of the following occurred:
• The SWITCH SMF command was entered in a system not supporting SMF.
• The SWITCH SMF or the HALT EOD command was entered while the SMF recording data sets were being switched or while there was no SMF data set available.

System Action: The command was not executed.

Operator Response: Reenter the command as soon as the data set switch has completed.

Problem Determination: Table I, items 2, 7ab, 29.

IEE720I NO PFK ALLOCATION

Explanation: The operator has entered the CONTROL command with either the N, PFK, D, PFK, or E, PFK operand with PFK support has not been included within the system.

System Action: The command is not executed.

Operator Response: Check with the system analyst to insure PFK support has been included in the system during system generation. If so, prior to calling for IBM support, do the following:
• Execute the IMASPZAP service aid program to dump load module IEEPFKEY from CCMLIB.
• Save the output.

IEE721I PFK nn NOT SUPPORTED

Explanation: The operator pressed PFK nn for which support had not been requested at system generation.

System Action: None.

Operator Response: Retry the operation. Check the PFK specification for correctness. If the problem recurs, do the following before calling for IBM support:
• Issue D PFK command from the console.
• Have the hardcopy printout available.

IEE722I PFK nn NOT DEFINED

Explanation: This message indicates that the operator has pressed PFK key nn or positioned the light pen over PFK key number nn, and either of the following conditions occurred:
• The selected key has no commands defined for it.
• A zero length command is contained within the key definition.

System Action: None.

Operator Response: Use the DISPLAY PFK command to request a display of the commands associated with the PFK keys. If the selected key is undefined, select another key or use the CONTROL N,PFK command to define commands for the key. If the selected key is defined, check the command syntax. A semi-colon incorrectly located immediately behind the first quote or immediately in front of the last quote, or two semi-colons together within the command, can cause a zero length indication.

Problem Determination: Table I, items 2, 29.

IEE723I PFK IN PROCESS. LAST INTERRUPT IGNORED

Explanation: The operator pressed a nonconversational PFK (or selected a nonconversational PFK number with the light pen) and then pressed a second PFK (or selected a second PFK number) before processing of the first request was complete.

System Action: The system does not recognize the second request. This message is displayed in the instruction line until processing of the first request is complete; then it is removed.

Operator Response: Wait until the message is removed from the instruction line, then reenter the second request.

Problem Determination: Table I, items 2, 29.

IEE724I hh.mm.ss PFK DEFINITIONS [id]
KEY# CON DEFINITIONS
nn   ccc   ttttt...

Explanation: This message is displayed on a CRT console in response to a DISPLAY PFK command. It provides a display of the operator commands associated with each PFK key.

In the heading, KEY # refers to the number of the PFK key (or displayed PFK key number), CON refers to conversational mode, and DEFINITION refers to the current definition of the key.

In the message text the fields are:

hh.mm.ss
    the time of day, where hh specifies the hour (00-24), mm specifies the minute (00-59), and ss specifies the second (00-59).
[id]
    A three-digit decimal identification number. It is used in conjunction with the CONTROL C,D command for canceling status displays being written on typewriter or printer consoles or being displayed in-line (not in a display area) on a display (CRT) console. This identification number does not appear when the display is presented in a display area on a display console.
nn
    the number of the key whose definition is displayed on this line.
ccc
    the status of the conversational mode: YES, if conversational mode is in effect; NO, if conversational mode is not in effect; and blank, if the key is not defined.
ttttt...
    the current definition for the key. This field can contain up to 108 characters or 52 key numbers separated by commas; this field will be continued on a second line, if necessary. If the key is not defined, this field contains NOT DEFINED.

Operator Response: None.

IEE801D CHANGE PARTITIONS - REPLY YES/NO (,LIST)

Explanation: The nucleus initialization program (NIP) has finished processing. This message asks if partitions are to be redefined and if a listing of partition definitions, job classes being serviced, and time slicing is desired.

Operator Response: In response to this message, enter REPLY xx, 'parameters' where the parameters are:
- YES if partitions are to be redefined, or NO if partitions are not to be redefined.
- LIST if a listing of partition definitions, job classes being serviced, and time slicing is desired. If LIST is specified but neither YES nor NO is specified, NO is assumed as the default parameter.

If more than one parameter is specified, the parameters must be separated by commas. If LIST is specified in the reply, then messages IEE804I, IEE816I, and IEE817I follow, listing the desired information.

IEE802A ENTER DEFINITION

Explanation: In response to this message, the operator can specify redefinitions with respect to partition sizes, job classes, and time slicing.

Operator Response: In response to this message, enter REPLY xx, 'parameters' where the parameters are:

- Pn=jclass to redefine the job class(es). The n is the partition number and the jclass is the job class or classes of the partition. The job class(es) can be expressed as:
  RDR A resident reader partition.
  WTR A resident writer partition.
  xxx One, two, or three alphabetic characters from A through O.

  If jclass is xxx, each character identifies a job class that the partition is to service. The first character identifies the primary job class, the second the secondary job class, and the third the tertiary job class. Jobs will be selected for the partition from the primary job class as long as there are entries in that job class queue. If there are no entries in the primary job class queue, the scheduler attempts to select a job from the secondary class assignment. If there are no entries in the secondary class queue, the tertiary queue is checked. If there are no entries in any of the job class queues serviced by the partition, the partition remains dormant until a job is enqueued for one of its classes. If the partition being defined was inactive and is being made active, at least one job class (jclass) must be assigned.

- Pn=(,psize) to redefine the partition size, in systems without main storage hierarchy support for IBM 2361 models 1 and 2. The n is the partition number, the leading comma indicates the absence of the jclass subparameter, and the psize is the new size of partition n. The partition size can be expressed either as an absolute decimal value (such as 40960) or as a multiple of 1024 followed by the letter K (such as 40K). The minimum acceptable partition size is 8192, or 8K. If the system has storage protection, partition sizes that are not expressed as multiples of 2K will be increased to the next multiple of 2K. If a partition size is specified as zero, the partition will remain inactive. When a partition size is increased or decreased, another partition size should correspondingly be decreased or increased.

- Pn=(,psize,H1=psize) or Pn=(,psize) or Pn=H1=psize to redefine the partition size, in systems with main storage hierarchy support for IBM 2361 Models 1 and 2. The n is the partition number, the leading comma indicates the absence of the jclass subparameter, the psize is the new partition size in hierarchy 0 (processor storage), and the H1=psize is the new partition size in hierarchy 1 (IBM 2361 core storage). The first format of the parameter is used to redefine both hierarchies; the second format is used to redefine hierarchy 0; the third format is used to redefine hierarchy 1. The restrictions for psize are as describes under the parameter Pn=(,psize). When a partition size is increased or decreased, another partition size within the same hierarchy should correspondingly be decreased or increased.

- Pn=LAST to specify the last partition which is to be active. The n is the partition number. All partitions with partition numbers higher than n will be considered inactive. If LAST is entered in error, a new partition definition may be reentered, omitting LAST. LAST may not be specified for more than one partition. If 'Pn=LAST' refers to a partition that was previously inactive, a size must be specified in the definition; otherwise, the partition will remain inactive.

- LIST to request a listing of all current partition definitions. At system initialization, all job classes being serviced by active partitions and all time slicing information are also listed.

- CLASS to request a listing of all job classes being serviced by active partitions. At system initialization, it is unnecessary to specify this parameter if LIST is specified.

- END to indicate that no further redefinition is desired. When END is specified at the end of a reply, the

system will implement all the replies
entered since the last occurrence of
this message. If more than one
partition definition is entered for a
partition, the system will implement the
most recent definition entered for that
partition.

- CANCEL to indicate that all definitions
  entered since the last occurrence of
  this message are to be canceled. When
  CANCEL is entered at the end of a reply,
  the partition definitions will remain as
  they were before the last occurrence of
  this message.

- TMSL to request a listing of time
  slicing partitions and the time slice
  value. At system initialization, it is
  unnecessary to specify this parameter
  if LIST is specified.

- TMSL=CANCEL to indicate that the time
  slicing, as specified, is to be
  canceled.

- TMSL=(Px-Py) to respecify the
  time-slicing group from partition x
  through partition y (where x is less
  than y).

- TMSL=nnnn to respecify the length, in
  milliseconds, of the time slice. The
  nnnn is expressed as a one to four digit
  value and is greater than 19.

- TMSL=(Px-Py,nnnn) to respecify the
  time-slicing group from partition x
  through partition y (where x is less
  than y) and the length, in milliseconds,
  of the time slice. The nnnn is
  expressed as a one to four digit value
  and is greater than 19.

More than one parameter can be specified
in a reply:
- The psize, jclass, H1=psize, and LAST
  subparameters of the Pn parameter can be
  used in any combination. However, the
  jclass subparameter must appear first
  and the LAST subparameter must appear
  last. If the jclass subparameter is
  omitted, a leading comma must be
  specified. If the subparameters are
  used in combination, they must be
  separated by commas and enclosed in
  parentheses.
- The keyword parameters LIST, TMSL,
  CLASS, END, and CANCEL can be used in
  any combination and in any order.
  However, the parameters must be
  separated by commas.
- A partition belonging to the TMSL group
  cannot be defined as being inactive by
  specifying a prior partition as LAST.
  For example:
  You may specify:
  P1=(A,30K),P2=0K,P3=LAST,
  TMSL=(P1-P3),END

  You may not specify:
  P1=(A,30K),P2=LAST,TMSL=(P1-P3),END
- A reply cannot occupy more than one line
  (126 characters).

Two examples follow:

REPLY xx,'P0=(AB,58K,H1=240K),
        P1=(RDR,30K),P4=(WTR,H1=12K),
        P2=(,0,H1=0),P3=(,20K,H1=80K),
        P5=(DEC,LAST),
        TMSL=(P3-P5,200),END'

In this example, P0 is redefined as a
problem program partition having a
primary job class A, a secondary job
class B, 58K bytes in hierarchy 0, and
240K bytes in hierarchy 1. P1 is
redefined as a 30K reader partition in
hierarchy 0. P4 is redefined as a 12K
writer partition in hierarchy 1. P2 is
to be inactive. P3 is redefined having
20K bytes in hierarchy 0 and 80K bytes
in hierarchy 1. P5 is redefined as a
problem program partition having a
primary job class D, a secondary job
class E, and a tertiary job class C.
All partitions numbered higher than 5
are to be inactive. The time-slicing
group will contain partitions 3, 4, and
5, and the time slice will be 200
milliseconds. No further redefinition
is desired and the replies entered since
the last occurrence of this message can
now be implemented by the system.

REPLY xx,'P2=(JFE,10K,H1=40K),
        P3=(MO,10K,H1=40K),END'

This example reactivates P2, which was
made inactive in the previous example.
P2 is redefined as a problem program
partition having a primary job class J,
a secondary job class F, a tertiary job
class E, 10K bytes in hierarchy 0, and
40K bytes in hierarchy 1. P3 is
assigned primary job class M and
secondary job class O, and is decreased
from 20K to 10K bytes in hierarchy 0 and
from 80K to 40K bytes in hierarchy 1.
Note that for each hierarchy, P3 was
decreased to allow for the increase in
P1.

IEE803A CONTINUE DEFINITION

Explanation: If message IEE802A precedes
this message, the redefinitions have been
accepted by the system and the
redefinitions may now continue.
Otherwise, corrections to the previous
redefinitions are to be made as indicated
by preceding messages IEE806I and IEE809I.

Operator Response: Respond as indicated
for message IEE802A:
- If message IEE802A precedes this
  message, continue the redefinitions.
- Otherwise, enter the reply again
  correctly.

IEE804I Pn= $\begin{cases} \text{(jclass,psize)} \\ \text{(jclass,psize0 H0,psize1 H1)} \\ \text{(INACTIVE)} \end{cases}$

Explanation: In redefining the
partitions, a listing was requested of
all current partition definitions.

In the message text, two partition definitions are listed per line. The fields in the message text are:

n
   The partition number.
psize
   The size of the partition, in decimal.
psize0
   The size of the partition in hierarchy 0, in decimal, for systems with main storage hierarchy support for IBM 2361 models 1 and 2.
psize1
   The size of the partition in hierarchy 1, in decimal, for systems with main storage hierarchy support for IBM 2361 models 1 and 2.
jclass
   The job class or classes of the partition. The job class(es) may be expressed as:

   RDR A resident reader partition.
   WTR A resident writer partition.
   xxx One, two, or three alphabetic characters from A through O.
INACTIVE
   The partition size was defined as zero.

If the jclass field is followed by the parameter LAST, then all partitions with higher partition numbers are considered inactive.
Operator Response: None.

IEE805I DEFINITION COMPLETED

Explanation: In redefining the partitions, the parameter END was specified at the end of a reply. When this message occurs, the redefinitions have already been implemented by the system.

Operator Response: Enter a START INIT command for each of the redefined partitions or, if desired, enter a START INIT.ALL command.

IEE806I TOTAL SIZE OF PARTITIONS IS x BYTES TOO LARGE FOR STORAGE

Explanation: In redefining the partition, the total bytes needed for all partitions exceeds the amount of main storage available by the amount indicated by x. Message IEE803A follows, permitting corrections to be made.

Operator Response: Respond as indicated for message IEE803A.

IEE807A DEFINITION PARAMETER ERROR, REPLY AGAIN

Explanation: In redefining the partitions, either a partition size or job class was specified incorrectly, no job class was specified for a previously inactive partition being made active, RDR was specified for a small partition, LAST was specified more than once in the same reply, or another syntax error was specified.

Note: A small partition is one that is less than scheduler size. Scheduler size can be determined at system generation time with the 'MINPART' parameter or at IPL time with the 'MIN=' parameter. That is, if 'MIN=100' is specified at IPL time, a RDR partition cannot be defined with less than 100K bytes of main storage.

Operator Response: Probable user error. Enter the reply again correctly.

Problem Determination: Table I, items 2, 7ab, 29.

IEE808A P n NOT DEFINABLE - REPLY AGAIN

Explanation: In redefining the partitions, one of the following conditions was detected:
- Partition n was not defined at system generation.
- Partition n was previously defined as a resident reader partition and is being redefined as a small partition.
- The command specified a value for partition n which was less than the minimum acceptable size.
- Partition n contains an active program which, because of continuous requests for its services by programs running in other partitions, could take an indefinite amount of time to stop processing and allow redefinition.
- Partition n has been marked permanently non-dispatchable.

Operator Response: Probable user error. In the first case, enter the reply again correctly, omitting the undefined partition.

In the second case, either enter the reply again specifying a large partition size, or enter another reply to redefine the job class(es) for the small partition.

In the third case, enter the reply again specifying the minimum acceptable partition size.

In the fourth case, do the following:
- Terminate this definition; then, if possible, redefine the partitions omitting n from the redefinition.
- If partition n must be defined:
  1. Terminate this definition.
  2. Enter a STOP Pn command to terminate the program running in partition n.
  3. When the program processing in partition n has stopped, enter another DEFINE command specifying the desired definition for partition n.

In the fifth case, terminate this definition; then enter a DISPLAY ACTIVE command to determine if the partition is non-dispatchable.

Problem Determination: Table I, items 2, 7ab, 17ab, 29. If unable to continue system operation, see Table I, item 11.

IEE809I SIZE DEFINITION OF Pxx OR LOWER EXCEEDS
AVAILABLE SPACE

Explanation: In redefining the
partitions, the total bytes specified for
the adjacent partitions exceeded the
original amount of space. Pxx, as an
individual partition, has requested more
bytes than the total amount of main
storage available for partition
definition.

In the message text, Pxx is the lowest
priority partition that is to remain
active.

System Action: The system issues
message IEE803A.

Operator Response: Respond as indicated
for message IEE803A.

IEE810A PROBLEM PROGRAM PARTITIONS EXCEED 15,
RESPECIFY

Explanation: In redefining the
partitions, more than 15 problem program
partitions were specified.

Operator Response: Probable user error.
Enter the reply again correctly,
specifying no more than 15 problem
program partitions.

Problem Determination: Table I, items 2,
29.

IEE811A CHANGED PARTITIONS NOT ADJACENT, RESPECIFY

Explanation: In redefining the
partitions, an attempt was made to
redefine non-adjacent partitions.

Operator Response: Probable user error.
Enter the reply again correctly,
specifying adjacent partitions. The
partition that was omitted must be
specified.

Problem Determination: Table I, items 2,
29.

IEE812I P n HAS xxxx EXCESS BYTES ADDED IN Hy

Explanation: In redefining the
partitions, the total bytes specified for
all the defined partitions is less than
the amount of main storage available.

In the message text, n is the partition
number, xxxx is the number of excess bytes
available, and y is the hierarchy number
(0 or 1).

System Action: The excess bytes available
in the specified hierarchy are added to
the lowest priority problem program
partition redefined in the series of
replies just entered.

Operator Response: None.

IEE813I cm yyy - FAILED

Explanation: Command cm could not be
performed by the system for one of the
following reasons:

• The partition specified in a START
command does not exist or was being
redefined when the command was entered.
• The partition specified in a START INIT
command is not a problem program
partition.
• A START command for a system-assigned
reader has been entered, but no problem
program partition of sufficient size to
contain the scheduler program exists.
• The command START INIT.ALL was entered,
but no problem program partition exists.
• A START command was entered for a
system-assigned procedure when a
system-assigned procedure was already
active.

In the message text, yyy represents up to
14 characters of the PARM parameter of
command cm.

System Action: The system did not execute
the command.

Operator Response: Probable user error.
Enter the command again correctly if the
command was in error.

Problem Determination: Table I, items 2,
29.

IEE814I DEFINITION CANCELLED

Explanation: In redefining the
partitions, a request was issued that all
definitions entered since the last
occurrence of message IEE802A be canceled.

System Action: All partition definitions
are canceled.

Operator Response: None.

IEE815A DEFINITION DELIMITER ERROR, REPLY AGAIN

Explanation: In redefining the
partitions, a partition definition
contained an incorrect parenthesis, comma,
blank space, or other delimiter.

Operator Response: Probable user error.
Enter the reply again correctly.

Problem Determination: Table I, items 2,
29.

IEE816I CLASSES=jclass

Explanation: In redefining the
partitions, a listing was requested of all
job classes being serviced by active
partitions. In the message text, jclass
is the listing of the job classes.

Operator Response: None.

IEE817I TMSL=xxxx

Explanation: The operator requested a
listing of time slicing that has
previously been specified.

In the message text, xxxx is one of the
following:
• NONE if there is no time-slicing group.

- (Px-Py,nnnn) if the time-slicing group from partition x through partition y has previously been specified; the nnnn is the length, in milliseconds, of the time slice.

Operator Response: None.

IEE818A TMSL SPECIFICATION NOT ACCEPTABLE, RESPECIFY

Explanation: One of the following occurred:
- In redefining time slicing, the parameter TMSL (Px-Py,nnnn) was specified incorrectly. For example: the value of x (in Px) is less than y (in Py).
- A partition belonging to a TMSL group was defined as being inactive by specifying a prior partition as LAST.

For example:

You may specify:
P1=(A,30K),P2=0K,P3=LAST,TMSL=(P1-P3),END

You may not specify:
P1=(A,30K),P2=LAST,TMSL=(P1-P3),END

Operator Response: Probable user error. Enter the reply again correctly.

Problem Determination: Table I, items 2, 29.

IEE819I TIME SLICING IS NOT SUPPORTED IN THIS SYSTEM

Explanation: During DEFINE processing, the TMSL parameter was specified for a listing of the time-slicing partitions; however, time slicing is not supported in this system.

System Action: The time-slicing specification is ignored, and processing continues.

Operator Response: None.

IEE820I TMSL VALUE LESS THAN MINIMUM; 20 MILLISEC DEFAULT USED.

Explanation: The time-slice value specified by the operator is less than 20, the minimum value permitted.

System Action: The system assumes a time-slice value of 20 milliseconds.

Operator Response: None.

IEE821I hh.mm.ss ACTIVE DISPLAY [id]
PNO JOBNAME STEPNAME SUBT PNO JOBNAME
xxx xxxxxxxx xxxxxxxx xx   xxx xxxxxxxx
STEPNAME SUBT
xxxxxxxx xx

Explanation: This is the control line of the Status Display initiated by the DISPLAY A or MONITOR A command entered to an MFT system. The label line describes the fields of data.

[id]
A three-digit decimal identification number. It is used in conjunction with the CONTROL C,D command for canceling status displays being written on typewriter or printer consoles or being displayed in-line (not in a display area) on a display (CRT) console. This identification number does not appear when the display is presented in a display area on a display console.
PNO
Partition number

JOBNAME
This field is one of the following:
- Name of currently active job
- Procedure name of STARTed task

STEPNAME
This field is one of the following:
- Name of current step for active job
- Identifier of procedure of STARTed task

SUBT
Number, in decimal, of subtasks created in the step if subtasking is included.
Note: If there are no active tasks in the system, the fields of data in the third line of the message will be replaced with NO ACTIVE TASKS. If the partition has become permanently non-disptachable, the fields of data in the third line of the message will be replaced with TASK NON DISPATCH.

Operator Response: None.

IEE822A NO PARTITION SPECIFIED FOR EXCESS BYTES, RESPECIFY

Explanation: In redefining the partitions, the total bytes specified for the defined partitions is less than the amount of storage available in either hierarchy 0, hierarchy 1, or both hierarchies. No partition active in the affected hierarchy was redefined to receive the excess bytes.

Operator Response: Probable user error. Redefine the next lowest priority problem program partition that is active in the affected region.

Problem Determination: Table I, items 2, 7ab, 17ab, 29. If unable to continue system operation, see Table I, item 11.

IEE823A xxxx IS NOT SUPPORTED - REPLY AGAIN

Explanation: In redefining partitions, one of the following occurred:
- If xxxx is TIME SLICING, time slicing was specified by the operator, but time slicing is not supported in this system.
- If xxxx is MAIN STORAGE HIERARCHY, a partition was redefined specifying a size in hierarchy 1, but main storage hierarchy support is not supported in this system.

Operator Response: Probable user error.
Enter the reply again correctly, omitting
the specification in error.

Problem Determination: Table I, items 2,
7ab, 17ab, 29. If unable to continue
system operation, see Table I, item 11.

IEE866I DEFINE COMMAND BEING PROCESSED

Explanation: In response to a DEFINE
command or in response to a reply to
message IEE801D, the DEFINE command is now
being processed.

System Action: All task-creating commands
issued to the system will be ignored until
message IEE805I (or message IEE814I) has
been issued, at which time normal command
processing will continue.

Operator Response: None.

IEE870I hh.mm.ss NAME DISPLAY [id]
       QUEUE JOBNAME STAT JOBNAME STAT
       xxxx x xxxxxxx   xxxxxxx x-xxx
       JOBNAME STAT JOBNAME STAT
       xxxxxxx x-xxx xxxxxxx x-xxx

Explanation: This is the control line of
the Status Display initiated by the
DISPLAY N or DISPLAY N,(list) command.

[id]
       A three-digit decimal identification
       number. It is used in conjunction
       with the CONTROL C,D command for
       canceling status displays being
       written on typewriter or printer
       consoles or being displayed in-line
       (not in a display area) on a display
       (CRT) console. This identification
       number does not appear when the
       display is presented in a display
       area on a display console.

The label line describes the fields of
data.

JOBNAME
       The name of a job placed on one of
       the system queues.

QUEUE
       This field is one of the following:
       • JOB x, where x is the class identifier
               of an input queue.
       • HOLD, which contains all jobs assigned
               to the HOLD queue by the HOLD
               command, or by the TYPRUN=HOLD
               parameter of the JOB statement.
       • SOUT x, where x is the class identifier
               of an output queue.
STAT
       HELD if queue is held. Originating
       queue identifier if job is on HOLD
       queue.

Operator Response: None.

IEE901I xxx NOT VERIFIED

Explanation: In a command, xxx was not
recognized by the system; xxx could be the
operation field or a parameter or keyword

in the operand field. For example, xxx
could be the name of a device that is not
in the system, or it could be the name of

This message also appears if a device that
is not ready is specified by the PROC or Q
parameter of the initial SET command
issued immediately after system start.

System Action: The system did not execute
the command.

Operator Response: Probable user error.
If a command was entered to a device that
was not ready, either ready the device and
restart the system or enter a command
specifying another device. Otherwise,
enter the command again correctly.

Problem Determination: Table I, items 2,
7ab, 29. If unable to continue system
operation, see Table I, item 11.

IEE902I ddd ONLINE

Explanation: In response to a VARY
command, device ddd has been placed
on-line.

Operator Response: None.

IEE903I ddd OFFLINE

Explanation: In response to a VARY
command, device ddd has been placed
off-line.

Operator Response: None.

IEE904I ddd LOADED. NO MOUNT.

Explanation: A MOUNT command specified a
device, ddd, that had a volume on it and
was in ready status; the system had not
issued a message containing K (keep), R
(retain), or D (demount) for the volume on
that device.

Normally a MOUNT command should specify
only devices that do not have volumes on
them or, if they have volumes on them, are
not ready. However, a MOUNT command can
be entered to a device that has a volume
on it and is ready if the system had
previously issued a K, R, or D message for
the volume.

System Action: The system did not execute
the command.

Operator Response: Probable user error.
Enter an UNLOAD command specifying the
device; the system will unload the volume
from the device; then enter the MOUNT
command again.

Problem Determination: Table I, items 2,
7ab, 29. If unable to continue system
operation, see Table I, item 11.

IEE905I ddd REFERENCE ILLEGAL

Explanation: In a command, device
specification ddd is invalid. For
example, an UNLOAD command might have

specified a system residence volume, which cannot be unloaded, or a START WTR or RDR command might have been entered for an offline device.

System Action: The system did not execute the command.

Operator Response: Probable user error. Enter the command again correctly, checking the unit name parameter.

Problem Determination: Table I, items 2, 7ab, 29. If unable to continue system operation, see Table I, item 11.

IEE906I jjj CANCEL IGNORED

Explanation: The last CANCEL command entered for job jjj was ignored for one of the following reasons:
- A CANCEL command was previously entered for the job.
- The scheduler was in control when the command was entered.
- The job was in the process of being either normally or abnormally terminated.

System Action: The command was not executed.

Operator Response: None.

IEE907I xxx ABEND-$\begin{Bmatrix} SEND \\ D \end{Bmatrix}$CMD ABORTED

Explanation: The system has encountered an error while processing the SEND or DISPLAY USER command, as indicated in the message text; the command processing routine has terminated abnormally. In the message text, xxx is the system completion code for the failing task.

System Action: The task is terminated. System processing continues.

Operator Response: Reenter the command. For an explanation of system completion code xxx, refer to the System Completion Codes section of this publication.

IEE908I cm CMD LENGTH EXCEEDS MAX

Explanation: In the cm command, the length of the operand field exceeds the maximum number of characters.

System Action: The system did not execute the command.

Operand Response: Probable user error. Enter the command again with a shorter operand field.

Problem Determination: Have available the master console sheet or the listing from a terminal in operator mode.

IEE920I NO MN A UPDATE AT hh.mm.ss

Explanation: A time interval has elapsed at hh.mm.ss signaling that an Active display be created on behalf of the

MONITOR command while an Active display was being built on behalf of the DISPLAY command.

System Action: No display was created on behalf of the MONITOR command. A new time interval was established.

Operator Response: None. However, if this condition occurs frequently, it is suggested that the time interval be increased by entering K M,UTME=nn from the master console.

IEE921I cm or REJECTED $\left\{\begin{array}{l} \text{NO TIMER} \\ \text{DISPLAY ALREADY EXISTS} \\ \text{NO DISPLAY AREA AVAILABLE} \\ \text{NO CRT CONSOLES} \\ \text{DEVICE NOT SUPPORTED} \\ \text{NEEDS DISPLAY AREA} \\ \text{DISPLAY AREA BUSY} \end{array}\right\}$

Explanation: The MONITOR A (or MN A) command was entered and one of the following error conditions occurred:
- NO TIMER - A request for a dynamically updated status display of the active tasks was entered into a system which has no interval timer, or one in which the interval timer was not operational at IPL.
- DISPLAY ALREADY EXISTS - A MN A command requested a dynamically updated status display at a console already displaying a dynamic display.
- NO DISPLAY AREA AVAILABLE - A dynamically updated status display was requested for a CRT console which has no display areas defined, or was routed to a non-CRT console.
- NO CRT CONSOLES - A dynamic display time specification or a DISPLAY PFK command was entered to a system that has no CRT consoles.
- DEVICE NOT SUPPORTED - An attempt was made to K V a 2250 console or to K V a CRT console to message stream (MS) on a system with no hard copy.
- NEEDS DISPLAY AREA - A MN A (monitor active) command was entered with the L operand specifying either a non-CRT device or an out-of-line display (z), or the MN A command was issued to a console with no available display areas.
- DISPLAY AREA BUSY - A monitor (MN) A command was issued to a console with no available display area, or a display (D) command was issued to a non-message stream (MS) console with no available display areas.

System Action: The command was not executed.

Operator Response:
- NO TIMER - Turn on the interval timer, if one is available, before the next IPL. The interval timer must be in operation before the system is IPLed if the MONITOR A is to be used.
- DISPLAY ALREADY EXISTS - If the operator wishes to place the display in a different display area from the one it is now in, he must first stop and erase the existing display with the STOPMN A

command and then enter MN A. If the
operator does not wish to do this he
need make no response.
- NO DISPLAY AREA AVAILABLE - The CONTROL
(K) command may be used to define a
display area on a CRT console and then
enter the MN A command. If the
receiving console is a non-CRT console,
the DISPLAY A command may be used to
request a static display of the active
jobs. If this message appears when
display areas exist, a core dump of the
nucleus may be taken.
- NO CRT CONSOLES - None.
- DEVICE NOT SUPPORTED - Reissue the
command to a valid console.
- NEEDS DISPLAY AREA - Reissue the command
with the L operand specifying a defined
area (a) on a CRT console (cc).
- DISPLAY AREA BUSY - Reissue the command.

Problem Determination: Table I, items 2,
29.

IEE922I K M,UTME=nnn

Explanation: This message is issued in
response to a K M,REF command issued on a
non-CRT console. The value specified by
nnn is the number of seconds in the time
interval for updating of dynamic displays.
It represents the CONTROL (K) command that
set the time interval.

System Action: None.

Operator Response: Change the time
interval, if desired.

IEE924I INVALID AREA DEFINITION
{SCREEN SIZE EXCEEDED   }
{DISPLAY IN OR ABOVE AREA}
{AREA TOO SMALL   }

Explanation: One of the following things
was wrong with the display area definition
requested.

SCREEN SIZE EXCEEDED
    The sum of the lengths of the areas
    defined exceeded the size of the
    message area on the console for which
    the definition was requested.
DISPLAY IN OR ABOVE AREA
    Redefinition was requested which
    affects an area with a display in or
    above it. Any area definition
    requested while a display is on the
    screen may differ from the previous
    definition only above the display.
AREA TOO SMALL
    An attempt was made to define a
    display area of less than four lines.

System Action: The command is not
executed.

Operator Response: Correct the command
and reissue it if desired. If the problem
recurs, have the hardcopy log available
before calling IBM for support.

IEE925I K COMMAND OPERAND xxxxxx {FOR CRT ONLY   }
                                {FOR NON CRT ONLY}

Explanation: The CONTROL (K) command
operand xxxxxx applies:
- FOR CRT ONLY - if entered from a
non-CRT; it must be routed to a CRT
console.
- FOR NON CRT ONLY - if entered from a
CRT; it must be routed to a CRT console.

System Action: The command is not
executed.

Operator Response: Correct the command
and reissue it if desired. D C,K may be
entered for an explanation of the CONTROL
command.

Problem Determination: Table I, items 2,
29.

IEE926I L=cca OPERAND INVALID
{cca NOT AN AREA   }
{cc NOT A CONSOLE   }
{cc FULL CAPACITY   }
{DYNAMIC DISPLAY IN AREA}
{CN THIS COMMAND   }
{cc OUTPUT ONLY   }

Explanation: One of the following error
conditions occurred as a result of the
location operand, L=cca (cca in the
message text will be replaced with the
invalid operands).
- cca NOT AN AREA - The area specified by
the L=cca operand does not exist.
- cc NOT A CONSOLE - The console ID
specified by the L=cca operand is not an
existing console.
- cc FULL CAPACITY - The console ID
specified is not the requestor's own
console, a message stream console, or
status display console. No routing is
allowed from one full capacity console
to another.
- DYNAMIC DISPLAY IN AREA - The area
specified by the L=cca operand contains
a dynamic display.
- CN THIS COMMAND - The L=cca operand is
invalid on any command issued from a TSO
terminal and on certain K commands.
- cc OUTPUT ONLY - An attempt was made to:
  - K V an output-only console to full
  capacity (FC).
  - define areas on a message stream (MS)
  only console.

System Action: The command is not
executed.

Operator Response: In the first case,
change the area specification and reenter
the command. If the problem recurs, a
console switch may have taken place. If
one has, re-enter the command specifying
the valid area for the alternate console.

In the second case, change the console id
specification and re-enter the command.
If the problem recurs, a console switch
may have taken place. If one has,
re-enter the command specifying the
alternate console's id.

In the third case, specify your own
console or a message stream or status
display console and re-enter the command.

In the fourth case, specify another area
and re-enter the command.

In the fifth case, reissue the command
without the L operand.

In the sixth case, reissue the K V command
to an input-output console, or define
areas on a status display (SD) or full
capability (FC) console.

Problem Determination: Table I, items 2,
29.

IEE927I {K / CONTROL} REQUEST AMBIGUOUS
{SPECIFY DISPLAY ID}
{SPECIFY L OPERAND}

Explanation: The Control (K) command
cannot be executed without further
information.
- SPECIFY DISPLAY ID - A CONTROL C,D (or K
  C,D) command was entered without the id
  operand. To cancel a display (K
  C,D,id), the id of the display to be
  terminated must always be specified.
- SPECIFY L OPERAND - A CONTROL command
  for an out of line display, such as a
  frame or erase command, was issued
  without the routing location parameter
  (L=cca), and more than one display
  exists on the screen. The area id of
  the display area to be controlled must
  be specified by using the L operand.

System Action: The command is not
executed.

Operator Response: Reissue the command
specifying the missing operand.

Problem Determination: Table I, items 2,
11, 29.

IEE928I DISPLAY AREA ID's FOR CONSOLE cc ARE id,
id,...

Explanation: This message is written in
response to the operator defining areas
for console cc. The display area
identifiers are listed in the order in
which the areas were defined, from the
bottom of the screen to the top.

System Action: None.

Operator Response: The operator may route
displays to the areas defined by using the
display area id.

IEE929I K A,   NONE
          length,... ,L=cc

Explanation: This message is issued, on
non-CRT consoles only, in response to the
operator issuing a K A,REF command. It
represents the CONTROL (K) command which
defined the display areas for the console
whose address is specified.

System Action: None.

Operator Response: Change the display
area definition, if desired.

IEE930I MR [[(D=[(]display operand
[,display operand]...,
L={a / cc / cca})][,(MN=A,L={a / cc / cca})][,(K,L={a / cc / cca})]]

Explanation: This message is issued, on
non-CRT consoles only, in response to the
operator issuing a MR REF command. It
represents the MSGRT (MR) command which
specified the routing defaults currently
in effect. If the operand portion of the
message is blank, no routing defaults have
been established.

System Action: Processing continues.

Operator Response: Change the routing
defaults and enter the MR command, if
desired.

IEE931I INSUFFICIENT STORAGE FOR cm op

Explanation: While attempting to fulfill
the request specified by the CM, OP
command, a GETMAIN was issued requesting
a region or main storage from system
queue area to build a control block and/or
work area. The requested region or main
storage was not available. This condition
may occur during definition of display
areas or when routing to a console other
than the requesting console.

System Action: The command cm op was not
executed.

Operator Response: Re-enter the command
at a later time.

Problem Determination: Table I, items 2,
29.

IEE932I nnn

Explanation: A multiple line WTO macro
instruction was issued with descriptor
code 9 and no control line text was
supplied. The number, nnn is used with
the CONTROL (K) command to cancel the
display.

System Action: SVC 35 has supplied this
message as a control line. The number
nnn, is the display identification number.

Operator Response: None.

IEE933I DCMLIB OPEN FAILED

Explanation: When attempting to open the
display control module library
(SYS1.DCMLIB) in secondary storage, the
system was either unable to locate the
library, unable to open the library, or
the volume containing the library was
off-line during IPL.

System Action: The transient DCM facility is inoperative. The DCM of the first console in the transient group is made resident, and the other consoles in the transient group are inactivated.

Operator Response: Note the status of the system consoles. Use only the consoles that the system activates. Report the problem to the programmer responsible for the system.

Note: Since PFK definitions are maintained in SYS1.DCMLIB, this situation also causes a PFK update error indication for the affected console. See message IEE934I.

IEE934I PFK UPDATE ERROR

Explanation: An I/O error occurred: (1) when the system attempted to read the permanent PFK definition from secondary storage during IPL, or (2) when the system attempted to write a new PFK definition in secondary storage after the operator issued a CONTROL N,PFK command.

System Action: If an error occurs on a read during IPL, the permanent PFK definitions will be unavailable for the system operation following the current IPL. If an error occurs for a PFK update, the permanent copies of the PFK definitions will not be altered, and the PFK updates will not carry over to subsequent IPLs.

Operator Response: If an error occurs on a read during IPL, the operator will have to define each PFK key for the current IPL. If an error occurs during a PFK update, the new definition will be effective only for the current IPL. Report this problem to the programmer responsible for the system.

IEE935I DCM I/O ERROR FOR CONSOLE xxx

Explanation: An I/O error occurred when processing the transient display control module (DCM) for the console whose address is xxx.

System Action: A console switch is initiated, and control is passed to console xxx's alternate.

Operator Response: Use the alternate console for system operation. Report this problem to the programmer responsible for the system.

Note: The affected console's address may not appear in the message. This occurs when the system fails to obtain sufficient main storage to format the message; it does not affect the meaning of the message or the indicated action in any way.

Component Name	IEF
Program Producing Message	Job scheduler.
Audience and Where Produced	For programmer: listing of job control statements in SYSOUT data set. For operator: console.

Message Format	IEFnnnI text (in SYSOUT)
	xx IEFnnns text [Pnn] (cn console)
	
	nnn
	    Message serial number.
	text
	    Message text.
	xx
	    Message reply identification (absent, if operator reply not required).
	s
	    Type code:
	
	    A Action; operator must perform a specific action.
	    D Decision; operator must choose an alternative.
	    E Eventual action; operator must perform action when he has time.
	    I Information; no operator action is required.
	    W Wait; processing stopped until action is determined and performed.
	Pnn
	    Partition which issued the message (systems with MFT only).

Comments	None.
Problem Determination	Refer to the fold-out in part VI of this publication for problem determination instructions.

IEF

IEF110I Q MGR I/O ERR FOR jjj RETURN CODE x

Explanation: An unusual condition occurred while the system was trying to access the SYS1.SYSJOBQE data set. The Queue Manager returned the return code indicated by x.

In systems with MVT and MFT, jobname is the applicable jobname as found on the JOB statement.

The return codes are as follows:

4 - No job queue space was available in the SYS1.SYSJOBQE data set.

12 - An uncorrectable input/output error or unusual condition occurred. (Message IEF440I will normally have also been issued.)

System Action: The access of the SYS1.SYSJOBQE data set was not performed. System completion code 030 is issued following the message for the task which received the return code.

Operator Response: Report the message to the programmer or the installation manager. The message indicates a potential problem with the SYS1.SYSJOBQE data set. If the message is repeated, reformat the SYS1.SYSJOBQE data set at the first convenient opportunity.

Problem Determination: Table I, items 1, 2, 4, 7ab, 29.

IEF125I jjj LOGGED ON [TIME=hh.mm.ss]

Explanation: In response to a DISPLAY or MONITOR command with JOBNAMES or SESS in its operand, this message indicates that a user has logged on to the system under time sharing and his session name is jjj.

If T is also specified in the operand of the command, then the time of day appears, where hh specifies the hour (00-23), mm specifies the minute (00-59), and ss specifies the second (00-59).

System Response: Session jjj is entering allocation.

Operator Response: No response required. However, if the user shculd not be logged on at this time, issue CANCEL U=jjj command and the session will be terminated.

IEF126I jjj LOGGED OFF [TIME=hh.mm.ss]

Explanation: In response tc a DISPLAY or MONITOR command with JOBNAMES or SESS in its operand, this message indicates that the session jjj has terminated (been logged off of the system). This message is not issued if session jjj has terminated abnormally.

If T is also specified in the operand of the command, then the time cf day appears, where hh specifies the hour (00-23), mm specifies the minute (00-59), and sss specifies the second (00-59).

System Response: Session jjj has completed termination.

Operator Response: None.

IEF127I NO SPACE PARAMETER GIVEN FOR A NEW DATA SET OR ZERO SPACE REQUEST AT ABSTR ZERC

Explanation: No SPACE parameter appears in a CC statement defining a new data set on a direct access device cr an absolute track request was made for nc space (zero space) beginning at absclute track zero.

System Action: The job is terminated.

Programmer Response: Probable user error. If the data set is not new, correct the CISP parameter by specifying OLD, SHR, or MOD. If the data set is new, make sure that a SPACE parameter appears. Then rerun the job.

Problem Determinaticn: Table I, items 2, 7a, 25a, 29.

IEF128I INVALID REQUEST FOR ISAM INDEX

Explanation: For one of the fcllowing reasons, the control program is unable to allocate space for the index cf a new indexed sequential data set:
• An embedded index was requested for the index or overflow area by a DD statement specifying the index quantity subparameter in its SPACE request.
• An embedded index was requested for multivolume prime area. The request was made by a DD statement specifying an index quantity in the SPACE parameter, CSNAME=name(PRIME), and a device number greater than 1 in the UNIT parameter.

System Action: The job is terminated.

Programmer Response: Probable user error. Correct the faulty DD statement, and rerun the job. In the first case, delete the index quantity subparameter. In the second case, delete the index quantity subparameter or change the device number subparameter to 1.

Problem Determinaticn: Table I, items 2, 7a, 29.

IEF129I MULTIVOLUME INDEX NOT ALLOWED

Explanation: The ccntrol program is unable to allccate a multivolume index for a new indexed sequential data set. The request was made by a device number greater than 1 in the UNIT parameter of a DD statement specifying DSNAME=name(INDEX).

System Action: The jcb is terminated.

Programmer Response: Delete the device number subparameter, cr reduce it to 1. Then rerun the jcb.

Problem Determination: Table I, items 2, 7a, 29.

IEF130I DSNAME ELEMENT WRONG - MUST BE INDEX, CVFLCW, OR PRIME

Explanation: In cne cf the CD statements defining an indexed sequential data set, the element part cf the DSNAME parameter is other than PRIME, INDEX, or OVFLOW.

System Action: The jcb is terminated.

Programmer Response: Probable user error. Ccrrect the element subparameter. List the vclume table cf contents (VTOC) of each vclume that will contain the data set using the IEHLIST utility program. If the name cf this data set appears in any VTOC, remove it using the IEHPROGM utility. Then rerun the jcb.

Problem Determinaticn: Table I, items 1, 2, 3, 7a, 14, 29.

IEF131I MULTIVOLUME OVFLCW REQUEST NOT ALLOWED

Explanation: A CD statement is requesting a multivolume cverflcw area fcr a new indexed sequential data set by specifying a device number greater than 1 in the UNIT parameter and CSNAME=name(OVFLOW). This is nct allcwed.

System Action: The jcb is terminated.

Programmer Response: Probable user error. Change the device number subparameter to 1. List the vclume table cf ccntents (VTCC) cf each vclume that will contain the data set using the IEHLIST utility program. If the name cf the data set appears in any VTOC, remove it using the IEHPRCGM utility. Rerun the jcb.

Problem Determinaticn: Table I, items 1, 2, 4, 7a, 29.

IEF132I SPACE PARAMETER WRONG - ABSTR AND CYL CCNFLICT

Explanation: The SPACE parameter in one of the CD statements defining an indexed sequential data set is incorrect. One of the CD statements defining this data set specified ABSTR and ancther specified CYL.

Space for cne area cf an indexed sequential data set cannot be allocated using the CYL subparameter while the space for another area is allccated using the ABSTR subparameter.

System Action: The job is terminated.

Programmer Response: Probable user error. Correct the SPACE parameter. List the volume table of contents (VTOC) of each volume that will contain the data set using the IEHLIST utility program. If the name of this data set appears in any VTCC, remove it using the IEHPROGM utility. Then rerun the job.

Problem Determination: Table I, items 2, 7a, 14, 29.

IEF133I SPACE PARAMETER WRONG - CYL AND CONTIG CONFLICT

Explanation: The SPACE parameter in one of the DD statements defining an indexed sequential data set is inccrrect. The CONTIG subparameter appears for a CYL request in one of the DD statements, while not in another. Space for cne area of an indexed sequential data set cannot be allocated contiguously if space for another area is not.

System Acticn: The job is terminated.

Programmer Response: Probable user error. Correct the SPACE parameter. List the volume table of contents (VTOC) of each volume that will contain the data set using the IEHLIST utility program. If the data set name appears in any VTOC, remove it using the IEHPROGM utility. Rerun the job.

Problem Determination: Table I, items 2, 7a, 14, 29.

IEF134I SUBPARAMETER WRONG IN SPACE PARAMETER - MUST BE CYL OR ABSTR

Explanation: The SPACE parameter in a DD statement defining a new indexed sequential data set is inccrrect. A subparameter other than CYL cr ABSTR is present in the statement.

System Action: The job is terminated.

Programmer Response: Probable user error. Correct the invalid subparameter. List the volume table of contents (VTOC) of each volume that will contain the data set using the IEHLIST utility program. If the name of the data set appears in any VTCC, remove it using the IEHPROGM utility. Then rerun the job.

Problem Determination: Table I, items 2, 7a, 14, 29.

IEF135I PRIMARY SPACE REQUEST CANNOT BE ZERO

Explanaticn: In a DD statement defining an indexed sequential data set, the primary space subparameter is zero. This is nct a valid space request.

System Action: The jcb is terminated.

Programmer Response: Probable user error. Change the primary space request tc a ncn-zerc positive value, and rerun the jcb.

Problem Determinaticn: Table I, items 1, 4, 7a, 29.

IEF136I DUPLICATION IN ALLCCATION - INDEX AREA RECUESTED TWICE

Explanaticn: Twc DD statements defining the same indexed sequential data set are requesting space fcr the index area. Fcllcwing the allccaticn cf an index area requested by a DD statement ccntaining DSNAME=name(INDEX), either a DD statement ccntaining DSNAME=name(PRIME) requested an embedded index thrcugh an index quantity in its SPACE parameter, or ancther DD statement was fcund specifying DSNAME=name(INDEX).

System Action: The jcb is terminated.

Programmer Response: Probable user error. Either eliminate the DD statement that specifies DSNAME=name(INDEX) cr eliminate the index quantity subparameter in the DD statement specifying DSNAME=name(PRIME). List the volume table cf ccntents (VTOC) cf each volume that will ccntain the data set using the IEHLIST utility program. If the name cf the data set appears in any VTCC, remcve it using the IEHPROGM utility. Rerun the jcb.

Problem Determinaticn: Table I, items 2, 7a, 14, 29.

IEF137I SUBALLOC DATA SET NOT FOUND

Explanaticn: In a DD statement, space allccation is requested by a SUBALLOC parameter. The ccntrcl prcgram can not find the data set referred to by the SUBALLCC parameter cn the specified vclume.

System Action: The jcb is terminated.

Programmer Response: Probable user error. Replace the SUBALLCC parameter with a SPACE parameter, cr recreate the data set allcwing fcr suballccation. Then rerun the jcb.

Problem Determination: Table I, items 2, 7a, 29.

IEF138I SUBALLOC DATA SET HAS MORE THAN 1 EXTENT - NCT ALLCWED

Explanaticn: In a DD statement, space allocation is requested by a SUBALLOC parameter. The data set specified in the

SUBALLOC parameter has more than one extent.

System Action: The job is terminated.

Programmer Response: Probable user error. Replace the SUBALLOC parameter with a SPACE parameter or define another data set. Then rerun the job by specifying the CONTIG subparameter from which to suballocate.

Problem Determination: Table I, items 2, 7a, 29.

IEF139I SUBALLOC DATA SET IS PASSWORD PROTECTED

Explanation: In a DD statement, space allocation was requested by a SUBALLOC parameter. The data set specified in the SUBALLOC parameter had security protection.

System Action: The job is terminated.

Programmer Response: Probable user error. Replace the SUBALLOC parameter with a SPACE parameter or define another data set from which to suballocate. Then rerun the job.

Problem Determination: Table I, items 2, 7a, 29.

IEF140I DIRECTORY SPACE REQUEST IS LARGER THAN THE AMOUNT AVAILABLE ON THIS VOLUME

Explanation: The directory for a new partitioned data set was not allocated because the space requested for the directory by the SPACE parameter of the associated DD statement exceeded the space available on the specified volume.

System Action: The job is terminated.

Programmer Response: Probable user error. Reduce the directory quantity subparameter or request a different volume. Then rerun the job.

Problem Determination: Table I, items 2, 7a, 25a, 29.

IEF141I INDEX REQUEST MUST PRECEDE PRIME FOR ISAM DATA SET

Explanation: In the DD statement defining an indexed sequential data set, a statement containing DSNAME=name(PRIME) was found to precede a statement containing DSNAME=name(INDEX).

System Action: The job is terminated.

Programmer Response: Reorder the DD statements for the data set, making sure that INDEX is placed before PRIME. List the volume table of contents (VTOC) of each volume that will contain the data set using the IEHLIST utility program. If the name of the data set appears in any VTOC, remove it using the IEHPROGM utility. Then rerun the job.

Problem Determination: Table I, items 1, 4, 7a, 14, 29.

IEF142I STEP WAS EXECUTED - COND CODE xxxx

Explanation: The step for which this message appears was executed, and the condition code for the step is xxxx.

Note: This condition code originates from the contents of general purpose register 15 at the end of the step. If the last task of the step did not set a completion code in register 15, the xxxx field of the message is meaningless.

System Action: The system will continue to process further steps of the associated job if so allowed by the COND= parameter of subsequent EXEC statements.

Programmer Response: None.

IEF143I LAST CONCATENATED DD CARD UNNECESSARY OR INVALID FOR THIS DATA SET

Explanation: In processing the DD statement defining an indexed sequential data set, two or three DD cards were processed successfully and INDEX, PRIME, and OVFLOW areas were allocated. It was then found that at least one more concatenated DD statement was present for the data set. Since all three areas had already been requested, the DD card is unnecessary.

System Action: The job is terminated, and the extra DD statements were not processed.

Programmer Response: Remove the extra DD statements. List the volume table of contents (VTOC) of each volume that will contain the data set using the IEHLIST utility program. If the name of the data set appears in any VTOC, remove it using the IEHPROGM utility. Then rerun the job.

Problem Determination: Table I, items 1, 4, 7a, 14, 29.

IEF144I CANNOT SUBALLOCATE FROM A SPLIT CYLINDER DATA SET

Explanation: In a DD statement, suballocation is requested by the SUBALLOC parameter, and the data set from which the space is to be allocated is a split cylinder data set. Suballocation from a split cylinder data set is not allowed.

System Action: The job is terminated.

Programmer Response: Probable user error. Either replace the SUBALLOC parameter with a SPACE parameter or define another data set from which to suballocate. To insure that the error does not recur, use the SPACE parameter when defining a data set from which suballocation is desired. Then rerun the job.

Problem Determination: Table I, items 1, 4, 7a, 25a, 29.

IEF145I SPACE REQUEST MUST BE ABSTR FOR DOS VOLUME

Explanation: In a DD statement defining an indexed sequential data set with multivolume prime area, the space for one of the prime volumes (except the first one) was requested on a volume where the DOS bit (bit 0 of the D54VTOCI field) is set in the format 4 DSCB, but the SPACE parameter for the DD statements defining the data set specified CYL.

System Action: The job is terminated.

Programmer Response: Probable user error. Request space by coding ABSTR for the SPACE parameter or request a different volume. List the volume table of contents (VTOC) of each volume that will contain the data set using the IEHLIST utility program. If the name of the data set appears in any VTOC, remove it using the IEHPROGM utility. Then run the job again.

Problem Determination: Table I, items 1, 4, 7a, 25a, 29.

IEF146I DUPLICATE DATA SET NAMES WITHIN SPLIT CYLINDER REQUEST

Explanation: The data sets of a split cylinder request have the same name. Data sets on the same volume cannot have the same name.

System Action: The job is terminated.

Programmer Response: Specify unique names for the data sets involved. List the volume table of contents (VTOC) of the associated volume to insure that the names selected do not already exist on that volume. If either of the selected names already exists on the volume, either remove the existing data set from the volume using the SCRATCH function of IEHPROGM or select an alternate name for the new data set whose name is a duplicate.

Problem Determination: Table I, items 1, 3, 4, 7a, 14, 29.

IEF161I ddd - READER CLOSED

Explanation: The SYSIN reader closed its input data set on device ddd and stopped itself for one of the following reasons:
• End of file occurred on ddd.
• A STOP RDR or STOP RDRA command was entered.
Operator Response: Unload device ddd.

IEF163I I/O ERROR TERMINATED DISPOSITION PROCESSING

Explanation: An uncorrectable I/O error was encountered while attempting to read a step input/output table (SIOT) from the SYS1.SYSJOBQE.

System Action: The job is terminated. No disposition processing is performed on data sets for which no disposition messages appear in the SYSOUT listing.

Programmer Response: If a disposition of KEEP,PASS or RETAIN was specified, no action is required.

If a disposition of DELETE,CATLG or UNCATLG was specified, do the following:
• Compare the disposition messages with the allocation messages and the job control statements to determine which data sets received incomplete disposition processing. The position of this message in the SYSOUT listing corresponds to the position of the allocation messages and the job control statements.
• From the previous examination determine the data set names, unit types and volume serial numbers desired.
• Execute the IEHLIST utility program to list any temporary data set names.
• Execute the IEHPROGM utility program to give the disposition of DELETE,CATLG or UNCATLG.

Problem Determination: Table I, items 2, 3, 4, 29.

IEF164I INVALID DSNAME OR VOLUME REFERBACK

Explanation: In a DD statement that defines a direct access data set that has a status of OLD, one of the following was encountered:
• The VOL=REF parameter refers to a DD statement in the same step.
• The DSNAME parameter specifies the same data set name as a DD statement in the same step.
• The DSNAME parameter has a backward reference to a DD statement in the same step.

In all instances the referenced DD statement defines a NEW non-specific volume request.

System Action: The job is terminated.

Programmer Response: Probable user error. An OLD data set must exist prior to the step in which it is referenced. Correct the VOLUME, DSNAME and/or the DISP parameter and run the job again.

Problem Determination: Table I, items 1, 4, 29.

IEF165I cm

Explanation: Command cm was entered through the input stream. If the operator is requested to authorize execution of commands entered through the input stream, message IEF166D follows to permit the operator to respond.

Operator Response: None.

IEF166D REPLY Y/N TO EXECUTE/SUPPRESS COMMAND

Explanation: This message permits the operator to authorize execution of the command displayed in message IEF165I, which precedes this message.

Operator Response: If the command
displayed in preceding message IEF165I is
to be executed, enter REPLY xx,'Y'.

If the command displayed in preceding
message IEF165I is not to be executed,
enter REPLY xx,'N'.

IEF182I jjj WILL RESTART IN Pn

Explanation: In systems with MFT, a
checkpoint restart for job jjj will be
executed in problem program partition n.
At this time, no redefinition of the
partition is pending.

System Action: The system places the job
on the hold queue. The job will
automatically be scheduled into the
partition (that is, the operator will not
have to enter a RELEASE command), subject
to the following conditions:
• Any job already executing in the
  partition must first terminate.
• If a START command for a transient
  reader (user-assigned) or transient
  writer is pending in the partition, the
  command will first be executed.
• If the partition contains a transient
  reader (system-assigned or
  user-assigned) or transient writer, the
  reader or writer must first be removed
  from the partition. For a writer, the
  operator must enter a STOP command.
• The operator must start an initiator in
  the partition if one has not already
  been started.

Operator Response: If the partition
contains a transient writer, stop the
writer. To hasten the restart when the
partition contains a job or a transient
reader, cancel the job or stop the reader,
as desired. (The DISPLAY A command may be
used to determine if there are jobs,
transient readers, or transient writers in
the partition.)

If the partition is redefined, the
redefinition will not occur until the
restart job has been executed. To
immediately redefine the partition, the
restart job should be canceled.

IEF183E PY=(aaaK,bbbbK,x) AFTER (cccK,ddddK)
NEEDED TO RESTART jjj

Explanation: In systems with MFT, a
checkpoint restart for job jjj must be
executed in the main storage areas
designated in the message text. Either a
partition containing the required areas
has not been defined or has been defined
but has a redefinition pending.

In the message text, aaaK is the number of
bytes of required processor storage
(hierarchy 0), and bbbbK is the number of
bytes of required IBM 2361 core storage
(hierarchy 1). These areas must be
located cccK bytes and ddddK bytes,
respectively, from the beginning of the
dynamic areas of hierarchy 0 and hierarchy
1. The x is the job class of the restart
job.

System Action: The system places the job
on the hold queue.

Operator Response: If the job is to be
restarted, a partition must be defined
that contains the required areas and that
can process jobs of the indicated job
class:
• Enter a DEFINE LIST command to get a
  listing of all current partition
  definitions.
• Add the sizes of partitions 0, 1, 2, and
  so on until a total of cccK bytes (for
  hierarchy 0) and ddddK bytes (for
  hierarchy 1) is reached.
• For hierarchy 0, the required partition
  must be no more than cccK bytes from the
  beginning of the dynamic area of
  hierarchy 0. To do this, decrease the
  size of the last partition encountered
  so that the total size of that partition
  and the preceding partitions is at most
  cccK bytes. Then increase the size of
  the next partition by the size decreased
  from the last partition. (The same
  procedure should also be followed for
  hierarchy 1.)
• For hierarchy 0, the required partition,
  which is now no more than cccK bytes
  from the beginning of the dynamic area
  of hierarchy 0, must be at least aaaK
  bytes in size. If the partition is not
  at least aaaK bytes in size, increase
  the size of the partition so it is at
  least the required size, and
  correspondingly decrease the size of the
  following partition. (The same
  procedure should also be followed for
  hierarchy 1.)
• Enter a DEFINE command to redefine the
  partitions as described above, making
  sure that the required partition can
  process jobs of job class x.
• Then start an initiator in the required
  partition and enter a RELEASE command to
  release the job from the hold queue.

If the job is not to be restarted, cancel
the job.

Note that the response to this message can
be delayed until redefinition is
convenient.

IEF184E JOBCLASS x NEEDED IN Pn TO RESTART jjj

Explanation: In systems with MFT, a
checkpoint restart for job jjj must be
executed in a main storage area contained
in partition n. However, partition n is a
resident reader or writer partition. And,
at this time, no redefinition of the
partition is pending.

In the message text, x is the job class
needed to process the job.

System Action: The system places the job
on the hold queue.

Operator Response: If the job is to be
restarted, stop any reader or writer
active in the partition and redefine the
partition so that it will process jobs of
the indicated job class. Then start an

initiator in the partition and enter a
RELEASE command to release the job from
the hold queue.

If the job is not to be restarted, cancel
the job.

Note that the response to this message can
be delayed until redefinition is
convenient.

IEF185I COMMAND CANCELLED BY RESTART READER:
START xxx

Explanation: In systems with MFT, the
operator authorized an automatic restart.
In starting the restart reader (IEFREINT),
the system found that a START command was
pending. In the message text, xxx
represents up to 19 characters of the
operand of the pending START command.

System Action: The command was not
executed. The restart reader was started.

Operator Response: If desired, reenter
the command.

IEF189E REDEFINE Pn WITHOUT HIERARCHY ZERO TO
RESTART jjj

Explanation: During execution of a
checkpoint restart for job jjj, it was
found that partition n was defined to
contain both hierarchy 0 and hierarchy 1
storage. However, hierarchy 0 storage
should not be specified -- that is, during
the initial execution of the job when
checkpoints were taken, only hierarchy 1
storage was specified.

System Action: The system places the job
on the hold queue.

Operator Response: If the job is to be
restarted, redefine the partition to
eliminate the hierarchy 0 storage. Then
start an initiator in the partition and
enter a RELEASE command to release the job
from the hold queue.

If the job is not to be restarted, cancel
the job.

IEF190I COMD REJECTED FOR INITIATOR 'ident' -
LIMIT MORE THAN 15

Explanation: In a START or MODIFY command
for an initiator, the limit value
associated with the initiator was greater
than 15.

In the message text, 'ident' specifies the
identifier assigned to the task when it
was started.

Operator Response: Probable user error.
Issue the START or MODIFY command again,
specifying a limit value of 15 or less.

Problem Determination: Table I, items 1,
2, 4, 7a, 29.

IEF191I COMD REJECTED FOR INITIATOR 'ident' -
FORCE MORE THAN 15

Explanation: In a START or MODIFY command
for an initiator, a force value associated
with a class was greater than 15.

In the message text, 'ident' specifies the
identifier assigned to the task when it
was started.

Operator Response: Probable user error.
Enter the START or MODIFY command again,
specifying a force value of 15 or less.

Problem Determination: Table I, items 1,
2, 4, 7a, 29.

IEF198I ddd VOLUME HAS WRONG LABEL OR VOLUME
SERIAL

Explanation: The tape volume on drive ddd
was not the volume requested by the MOUNT
command.

The tape mounted contained either the
wrong label type or the wrong volume
serial. This message is followed by
message IEF234E and IEF199A.

System Action: The volume was not mounted
by the system. Processing continues.
Operator Response: None.

IEF199A REISSUE MOUNT COMMAND ddd, labtyp, ser

Explanation: The tape specified in the
MOUNT command was not the tape mounted by
the operator. In the message text ddd is
the unit address of the drive requiring a
mount, labtyp is the label type and ser is
the volume serial of the tape specified in
the MOUNT command. This message is
preceded by message IEF198I and IEF234E.

System Action: The volume is not mounted;
the tape is rewound and unloaded.

Operator Response: Reenter the mount
command and mount the correct volume.

IEF200I ddn - ONE OR MORE GENERATIONS BYPASSED
DURING GDG RETRIEVAL

Explanation: In a DD statement, the data
set name in the DSNAME parameter specified
a generation data group (GDG) name and
indicated all of the data sets in the
group. Some of these data set names were
cataloged, but represented non-existing
data sets (the volume serial number in the
catalog was FF40404040). In the message
text, ddn is the name of the DD statement
that specified the GDG.

System Action: No allocation or
disposition processing is performed for
the bypassed data sets. All other data
sets are processed normally. For example,
if the GDG ALL DD statement specified a
disposition of DELETE, at step termination
all retrieved data sets will be deleted
and uncataloged. However, any data sets
bypassed (because of a FF40404040 volume
serial number) will remain cataloged.

IEF

Programmer Response: None required. The IEHLIST utility program may be used to list the catalog to determine what generation levels remain, and IEHPROGM may be used to delete those entries if desired.

IEF201I JOB TERMINATED BECAUSE OF CONDITION CODES

Explanation: A problem program terminated either normally or abnormally by issuing a RETURN or ABEND macro instruction that specified a completion code. This completion code satisfied a condition test specified by a code and operator subparameter in the COND parameter of the JOB statement. (Note: This message does not appear if the condition code from the last step of the job satisfied a condition test).

System Action: The job was terminated, so the remaining steps in the job were not executed.

Programmer Response: If termination was intentional, no action is needed.

If termination was not intentional, do the following:
- Correct the error that caused the completion code to be issued by the problem program.
- Change the condition test specified in the COND parameter of the JOB statement, if the problem program contained no errors.
- Submit for execution the remainder of the job, including the problem program if it contained an error.

Problem Determination: Table I, items 1, 2, 4, 7a, 29.

IEF202I STEP - 'sss,' WAS NOT RUN BECAUSE OF xxx

Explanation: If xxx is CONDITION CODES, a problem program terminated by issuing a RETURN macro instruction that specified a completion code. This completion code satisfied a condition test (specified by a code, operator, and job step name subparameter) in the COND parameter of an EXEC statement.

If xxx is COND=ONLY, the COND parameter of an EXEC statement specified ONLY, but no previous job steps had abnormally terminated.

In the message text, sss is the job step name of the EXEC statement containing the COND parameter.

System Action: The job step specified by the succeeding EXEC statement was not executed. The remainder of the job was or was not executed, depending on the condition tests specified in the EXEC statement for each step.

Programmer Response: If termination was intentional, no action is needed.

If termination was not intentional, do the following:
- Correct the error that caused the completion code to be issued by the problem program.
- Change the condition test specified in the COND parameter of the succeeding EXEC statement, if the problem program contained no errors. Then execute the problem program, if it contained an error, and the job step that was not executed.

Problem Determination: Table I, items 1, 2, 4, 7a, 29.

IEF203I COMD REJECTED FOR INITIATOR 'ident' - TOO MANY OPERANDS

Explanation: In a START or MODIFY command, parameters were specified which do not pertain to classes.

In the message text, 'ident' specifies the identifier assigned to the task when it was started.

Operator Response: Probable user error. Enter the command again correctly, specifying only those parameters which pertain to classes.

Problem Determination: Table I, items 1, 2, 4, 7a, 29.

IEF204I COMD REJECTED FOR INITIATOR 'ident' - TOO MANY CLASSES

Explanation: More than eight job classes were specified in a START or MODIFY command. However, a maximum of eight job classes is permitted.

In the message text, 'ident' specifies the identifier assigned to the task when it was started.

Operator Response: Probable user error. Enter the START or MODIFY command again correctly, specifying no more than eight job classes.

Problem Determination: Table I, items 1, 2, 4, 7a, 29.

IEF205I COMD REJECTED FOR INITIATOR 'ident' - INVALID OPERAND

Explanation: An error occurred for one of the following reasons:
- An invalid class was specified in a START or MODIFY command.
- The CLASS keyword of a MODIFY command was not specified correctly.

In the message text, 'ident' specifies the identifier assigned to the task when it was started.

Operator Response: Probable user error. Enter the command again correctly.

Problem Determination: Table I, items 1, 2, 4, 7a, 29.

IEF206I COMD REJECTED FOR INITIATOR 'ident' - NC
CLASSES SPECIFIED

    Explanation: An error occurred for one of
the following reasons:
- No job classes were specified either in
the START command or in the cataloged
procedure.
- No job classes were specified in the
MODIFY command.

    In the message text, 'ident' specifies the
identifier assigned to the task when it
was started.

    Operator Response: Probable user error.
Enter the command again correctly,
specifying the proper job classes.

    Problem Determination: Table I, items 1,
2, 4, 7a, 29.

IEF207I COMD REJECTED FOR INITIATOR 'ident' -
STORAGE KEY UNAVAILABLE

    Explanation: When a START command was
entered, fifteen initiators were already
operating. Therefore, no more storage
protection keys are available.

    In the message text, 'ident' specifies the
identifier assigned to the task when it
was started.

    Operator Response: None.

IEF208I INVALID REGION PARAMETER

    Explanation: In a JOB or EXEC statement,
the REGION parameter specified a value
larger than dynamic main storage.

    System Action: The job was terminated.

    Programmer Response: Probable user error.
Correct the REGION parameter and resubmit
the job.

    Problem Determination: Table I, items 1,
2, 4, 7a, 29.

IEF209I MAIN STORAGE UNAVAILABLE FOR jjj.sss.ppp

    Explanation: During execution of a
checkpoint restart for procedure step ppp
of step sss of job jjj, it was found that
all or part of the main storage for the
restart job was not available for one of
the following reasons:
- In systems with MFT, the nucleus
expanded into the required main storage
area.
- In systems with MFT, or MVT, a deferred
restart was being performed on an
alternate system that did not have the
required main storage area.
- In systems with MVT, the system queue
space expanded into the required main
storage area.
- In systems with MVT, a deferred restart
was being performed, but the requested
main storage area was larger than the
area used originally. Since the

original area was adjacent to the link
pack area, the main storage area could
not be increased.
- In systems with MVT, a deferred restart
was being performed, but after IPL the
link pack area had expanded into the
required main storage area.
- In a Model 65 Multiprocessing System,
the requested storage was already
offline or, because of a storage error,
was reconfigured out of the system.

    System Action: Restart for job jjj is
terminated.

    Programmer Response: Probable user error.
Request the use of a system known to be
adequate for the restart.

    Operator Response: Rerun the job when the
system is started again. At that time,
specify the same options as those used
when the checkpoint was taken. If such a
rerun fails or is not feasible, report the
message to the programmer.

    Problem Determination: Table I, items 1,
2, 4, 7a, 29.

IEF210I ddn - UNIT FIELD SPECIFIES INCORRECT
DEVICE NAME

    Explanation: In a DD statement, the unit
name subparameter in the UNIT parameter
was invalid:
- The unit was not defined when the system
was generated.
- In systems with MFT or MVT, the SYSOUT
and UNIT parameters were specified, but
the unit was not a direct access device.
- If a cataloged data set was being
referenced, the unit field in the
catalog entry is incorrect.

    In the message text, ddn is the data
definition name in the name field of the
DD statement.

    System Action: The job was terminated.

    Programmer Response: Probable user error.
Correct the unit name subparameter, and
submit the job again.

    Problem Determination: Table I, items 1,
2, 4, 7a, 29.

IEF211I ddn - REQUIRED CONTROL VOLUME NOT MOUNTED

    Explanation: A required control volume
for a cataloged data set was not mounted
for one of the following reasons:
- No device type information for the
control volume was contained in the
SYSCTLG data set.
- No SYSCTLG data set was contained on the
required volume.

    Therefore, it was impossible to locate the
cataloged data set.

    In the message text, ddn is the data
definition name in the name field of the
DD statement that specified the cataloged
data set.

IEF

System Action: The job was terminated.

Programmer Response: Probable user error. In the first case, make sure the device type information for the control volume is included in the SYSCTLG data set. (This can be done by using the IEHPROGM utility program to first release and then reconnect the control volume.)

In the second case, make sure the SYSCTLG data set exists on the volume.

Problem Determination: Table I, items 1, 2, 4, 7a, 25d, 29.

IEF212I ddn - DATA SET NOT FOUND

Explanation: In processing a DD statement, the job scheduler found one of the following:
• The data set name in the DSNAME parameter did not contain all the levels of qualification, making it impossible to locate the cataloged data set.
• The data set had been deleted from the volume table of contents (VTOC) of the volume on which it had been placed when cataloged.
• The DCB parameter or the REF subparameter of the VOLUME parameter contained invalid information.
• The data set was not cataloged.
• A level of index was either missing or incorrect in a generation data group.
• In a step, an attempt was made to receive a passed data set. However, a data set with the same name was previously received in this step.

In the message text, ddn is the data definition name in the name field of the DD statement.

System Action: The job was terminated.

Programmer Response: Probable user error. If the data set name was specified incorrectly, correct it. If the DCB or VOLUME parameters were incorrect, correct them. If the data set was not cataloged, either catalog it or, on the DD statement, specify the volume serial number of the volume on which the data set resides. But, if the DD statement was correct, recatalog the data set. Then submit the job again.

Problem Determination: Table I, items 1, 2, 4, 7a, 25d, 29.

IEF213I ddn - DSNAME FIELD SPECIFIES INDEX BLOCK, NOT DATA SET

Explanation: In a DD statement, the data set name in the DSNAME parameter did not contain the lowest level of qualification, making it impossible to locate the cataloged data set. The lowest level specified in the data set name was an index block, instead of a data set. In the message text, ddn is the data definition name in the name field of the DD statement.

System Action: The job was terminated.

Programmer Response: Probable user error. Correct the data set name, and submit the job again.

Problem Determination: Table I, items 1, 2, 4, 7a, 25d, 29.

IEF214I ddn - DSNAME FIELD SPECIFIES DATA SET PRIOR TO LOWEST LEVEL

Explanation: In a DD statement, the data set name in the DSNAME parameter contained the name of a cataloged data set in other than the lowest level of qualification. Either the data set name was incorrect or a level of the index had been destroyed.

In the message text, ddn is the data definition name in the name field of the DD statement.

System Action: The job was terminated.

Programmer Response: Probable user error. Correct the data set name or the indexes. Then submit the job again. If the problem

Problem Determination: Table I, items 1, 2, 4, 7a, 25d, 29.

IEF215I ddn - DSNAME FIELD CONTAINS SYNTAX ERROR

Explanation: In a DD statement, the data set name in the DSNAME parameter contained a syntax error, making it impossible to locate the cataloged data set. Examples of syntax errors are a data set name qualifier of 9 characters (8 characters is the maximum length permitted) or a double delimiter.

In the message text, ddn is the data definition name in the name field of the DD statement.

System Action: The job was terminated.

Programmer Response: Probable user error. Correct the data set name, and submit the job again.

Problem Determination: Table I, items 1, 4, 7a, 29.

IEF216I ddn - DATA SET MUST BE RECREATED IN THE CATALOG

Explanation: The control program could not retrieve a cataloged data set specified by the data set name in the DSNAME parameter of a DD statement. One of the following caused this failure:
• An index had been modified, so that it contained an incorrect pointer.
• An uncorrectable input/output error occurred in reading part of the index.
In the message text, ddn is the data definition name in the name field of the DD statement.

System Action: The job was terminated.

Programmer Response: Check the catalog.
If it is in error, use a utility program
to recatalog the data set or to recreate
the entire catalog or those parts that
were destroyed. If the catalog does not
contain errors, an uncorrectable
input/output error occurred. Rerun the
job.

Problem Determination: Table I, items 1,
4, 7a, 25d, 29.

IEF217I ddn - VOLUME CONTAINING PATTERN DSCB NOT
MOUNTED

Explanation: In a DD statement, the data
set name in the DCB parameter specified a
data set on a volume that was not mounted
when the job was to be executed.

In the message text, ddn is the data
definition name in the name field of the
DD statement.

System Action: The job was terminated.

Programmer Response: Probable user error.
Submit the job again, making sure that the
volume containing the data set is mounted
before the job step is to be executed.

Problem Determination: Table I, items 1,
4, 7a, 25b, 29.

IEF218I ddn - PATTERN DSCB RECORD NOT FOUND IN
VTOC

Explanation: In a DD statement, the data
set name in the DCB parameter specified a
data set that did not exist in the
volume(s) specified.

In the message text, ddn is the data
definition name in the name field of the
DD statement.

System Action: The job was terminated.

Programmer Response: Probable user error.
Check the data set name in the DCB
parameter for an error. On the volume
pointed to by the catalog, check the
volume table of contents (VTOC) for the
data set control block (DSCB) specified
in the DCB parameter. Correct the
error, and rerun the job.

Problem Determination: Table I, items 1,
4, 7a, 25b, 29.

IEF219I ddn - GDG GROUP NAME EXCEEDS 35 CHARACTERS

Explanation: In a DD statement, the data
set name in the DSNAME parameter was a
generation data group (GDG) name longer
than the maximum length of 35 characters.
The extra length made it impossible to
obtain the data set name's final
qualifications from the catalog.

In the message text, ddn is the data
definition name in the name field of the
DD statement.

System Action: The job was terminated.

Programmer Response: Probable user error.
Change the generation data group name so
that it does not exceed 35 characters, and
rerun the job.

Problem Determination: Table I, items 1,
4, 7a, 25b, 29.

IEF220I ddn - GDG ALL CAUSES TOTAL DD STATEMENTS
TO EXCEED 255

Explanation: In a DD statement, the data
set name in the DSNAME parameter was a
generation data group (GDG) name that
specified all of the data sets in the
group. All the data sets in the
generation data group plus all the other
data sets specified in other DD statements
for the job step totaled more than 254,
which is the maximum number of data sets
allowed per job step, including the DD
statements for the job library.

In the message text, ddn is the data
definition name in the name field of the
DD statement that specified the generation
data group.

System Action: The job was terminated.

Programmer Response: Probable user error.
Reduce the total number of data sets
specified for the job step, so as not to
exceed the limit, and rerun the job.

Problem Determination: Table I, items 1,
4, 7a, 29.

IEF221I PGM=*.DD - JOB CANCELLED - BACKWARD
REFERENCED STEP WAS NOT EXECUTED OR
REFERENCED DD WAS INVALID

Explanation: In an EXEC statement, the
name of the program to be executed was
specified by a reference to the data
definition name of a DD statement in a
previous step of the job. However, the
previous step, which contained the DD
statement, was not executed because a
condition test specified in the COND
parameter of the step's EXEC statement was
satisfied.

If the referenced DD has UNIT equal to a
non-direct access device, the job will
terminate due to JCL error.

System Action: The job was terminated.

Programmer Response: Probable user error.
In the EXEC statement that refers to the
DD statement in the previous step, include
the condition tests specified in the
previous step's EXEC statement. Then
rerun the job.

If the unit parameter is used on the
referenced DD it must be a direct access
device.

Problem Determination: Table I, items 1,
4, 7a, 29.

IEF222I COMD REJECTED FOR INITIATOR 'ident' -
UNIQUE IDENT REQUIRED

Explanation: A START command was entered;
however, 'ident', the identifier assigned
to the task when it was started, has
already been used with another procedure
name.

Operator Response: Probable user error.
Enter the command again correctly,
specifying another identifier.

Problem Determination: Table I, items 1,
2, 4, 7a, 29.

IEF225D SHOULD jjj.sss.ppp [checkid] RESTART

Explanation: Automatic restart was
requested by procedure step ppp of step
sss of job jjj and one of the following
occurred:
• The step was abnormally terminated with
  a completion code that makes the step
  eligible to be restarted.
• The system failed.

If the checkpoint identification, checkid,
is omitted in the message text, step
restart was requested; if the checkpoint
identification is present, checkpoint
restart was requested.

Operator Response: If the checkpoint
identification is the same as in a
previous request for a restart by the same
job, and if the job was previously
terminated with the same completion code,
it may be desirable to prevent another
restart at the same checkpoint. Enter one
of the following replies:
• REPLY xx,'YES' if automatic restart is
  to be authorized.
• REPLY xx,'NO' if automatic restart is to
  be denied, thus causing the system to
  dispose of data sets as if restart had
  not been requested.
• REPLY xx,'HOLD' if the job is to be held
  until the operator issues a RELEASE
  command, at which time automatic restart
  will be performed. (If it is desired to
  terminate the job, the CANCEL command
  should not be issued until after the
  RELEASE command has been issued.)
  This reply can only be entered in
  systems with MFT or MVT.

IEF228I jjj RESTART CANCELLED - I/O ERROR
SCHEDULER WORK AREA

Explanation: An uncorrectable
input/output error occurred while the
queue manager was reading the
SYS1.SYSJOBQE data set for processing of
an automatic step restart for job jjj.

System Action: Restart for job jjj was
terminated.

Operator Response: Either reenter job jjj
through the input stream or perform a
deferred restart.

Problem Determination: Table I, items 1,
2, 4, 7a, 8a, 29.

IEF229I LRECL EXCEEDS 32K

Explanation: The variable record
extension (VRE) input or output logical
record length exceeds 32,760 bytes. The
output data set records were defined as
variable spanned with machine code control

characters, but the input records did not
contain machine code control characters.

System Action: The SYSOUT writer closes
its SYSOUT data set and ceases processing.

Programmer Response:: If it is necessary
to process records with a length of
greater than 32K bytes, do not request
control characters for the SYSOUT writer's
output data set unless control characters
have been included in the input records.

Problem Determination: Table I, items 1,
2, 3, 13, 15, 29.

IEF230I TCC MANY SEPARATIONS AGAINST ddn

Explanation: A data set was specified in
the SEP subparameter of the UNIT parameter
and/or in the SEP parameter of more than 8
DD statements.
In the message text, ddn is the data
definition name in the name field of the
DD statement that contained the ninth
separation specification for the data set.

System Action: The control program
attempted to assign the data set so that
the first 8 separation specifications were
met. The other separation specifications
were not necessarily honored.

Programmer Response: Probable user error.
If the job step is to be executed again,
correct the DD statements so that only 8
separations are specified.

Problem Determination: Table I, items 1,
4, 7a, 29.

IEF231I jjj - QUEUE MGR I/O DEVICE ERROR DURING
ALLOCATION

Explanation: An uncorrectable
input/output error occurred while reading
or writing in the SYS1.SYSJOBQE data set;
the error occurred during allocation for
job jjj.

System Action: Job jjj was removed from
the input work queue and was terminated.

Programmer Response: Submit the job
again.

Problem Determination: Table I, items 1,
4, 7a, 8a, 29.

IEF232I jjj - NO SPACE ON JOB QUEUE FOR ALLOCATION

Explanation: No space remained in the
SYS1.SYSJOBQE data set for allocation for
job jjj.

System Action: Job jjj was removed from
the input work queue and was terminated.

Programmer Response: Submit the job
again.

IEF233A M ddd,ser,[labtyp], $\left\{\begin{array}{l} jjj \\ jjj,sss \\ jjj,sss,dsn \\ jjj,,dsn \end{array}\right\}$

IEF233A ddd,dsn

Explanation: M indicates that a volume is
to be mounted on device ddd. The volume
was required by job jjj or, if applicable,
step sss of job jjj. (If this message is
issued for a system task, sss will appear
as a system task identifier.)

If a DISPLAY DSNAME command is active, the
first nontemporary data set name, dsn, is
also specified in the message text. The
data set name will not be specified for
data sets being deleted. If the data set
name causes the message to exceed 72
characters, the data set name will appear
as specified on the second line of the
message text.
• If ser is a 6-digit serial number, the
  volume with that serial number is to be
  mounted on the device.
• If ser is SCRTCH, a scratch volume is to
  be mounted. The scratch tape volume
  must have the type of label specified by
  labtyp: SL for standard label or
  standard user label, NSL for
  non-standard label, or NL for no label
  or by-pass label.
• If ser is PRIVAT, a scratch volume is to
  be mounted. It will be marked PRIVATE
  and demounted at the end of job jjj.
• If ser begins with a L, the volume to be
  mounted is unlabeled; the number after
  the L is an internal serial number
  assigned by the system to an unlabeled
  volume and is of the form xxxyy, where
  xxx is the data set number and yy is the
  volume sequence number for the data set.

System Action: The task waits for the
volume to be mounted. No jobs may be
allocated or terminated until the operator
responds to this message.

Operator Response: For tape, if ser is
SCRTCH, make sure that the file protect
ring has been inserted in the volume. If
device ddd is direct access, this mount
request should be honored first if it
appears in conjunction with an IEF533A
mount message.

Mount volume ser on the device; then ready
device ddd. If a mount is requested for a
device with non-removable volumes, ready
the device in order to indicate that the
volume is mounted. If the volume cannot
be mounted, enter a CANCEL command to
terminate job jjj. Separate commands are
necessary to cancel all jobs requiring
volume ser.

IEF234A $\left.\begin{array}{l} \text{D ddd,ser,labtyp} \\ \end{array}\right\}$
IEF234E $\left\{\begin{array}{l} R \\ D \end{array}\right\}$ ddd,ser [,SPACE=prm][,jjj] $\left.\right\}$

Explanation: R indicates that the volume
on device ddd is to be demounted and
retained near the computer for use in the
near future; D indicates that the volume
is to be demounted and used subsequently
as a scratch volume; D in conjunction with
device address, volume serial and label
type indicates that the volume was mounted
in response to a MOUNT command and was not

the volume specified in the command.
• If ser is a 6-digit number, it is the
  serial number of the volume, which
  contains labels.
• If ser begins with a L, the volume to be
  demounted is unlabeled; the number after
  the L is an internal serial number
  assigned by the system to an unlabeled
  volume and is of the form xxxyy, where
  xxx is the data set number and yy is the
  volume sequence number for the data set.
• If ser is absent from the message text,
  the volume is unlabeled and is not being
  passed between job steps.
• If ser appears in conjunction with label
  type, the label type is that of the
  volume actually mounted by the operator
  in response to a MOUNT command to device
  ddd.

If a DISPLAY SPACE command is active, the
field SPACE=cccc,tttt,aaaa/yyyy,zzzz is
specified:

cccc
    Total number of free cylinders on
    the volume.
tttt
    Total number of tracks in addition
    to the free cylinders.
aaaa
    Areas or extents dividing the
    cylinders and tracks.
yyyy
    Maximum number of contiguous free
    cylinders of the largest extent
    within the total remaining space.
zzzz
    Number of tracks in addition to the
    free cylinders of the largest extent
    within the total remaining space.

If an error occurred during the listing of
the parameters in the SPACE field, one of
the following messages is specified:
• LSPACE-PERMANENT I/O ERROR
• LSPACE-NON-STANDARD OS VOLUME
• LSPACE-NOT A DIRECT ACCESS VOL
• LSPACE-INVALID PARAMETER
• LSPACE-UCB NOT READY

In the message text, jobname jjj appears
only if R appears; jjj is the job for
which the volume is to be retained. If
the system cannot determine the jobname
for which the volume is to be retained,
it will use the jobname of the job
currently allocating to the device.

The demount message can occur if the
volume does not have enough available
space to meet an allocation request or if
a data set already on the volume has the
same name as the data set for which space
is to be allocated.

Operator Response: Demount the volume.
If D appeared in the message text, use
the volume later when a scratch volume
is requested.

If labtyp appears in the message text,
the volume to be demounted was mounted
in error and may not necessarily be a
scratch volume.

If R appeared, retain the volume near the computer. If it is not externally marked with its serial number, mark the 6-digit or internally assigned serial number on it. (The internally assigned number should appear externally on the volume in case a subsequent step needs the volume; for the subsequent mounting, the system will specify the volume by the internally assigned number.) Also, mark the jobname on the volume. If the job ends without requesting a remount of the volume, the volume need no longer be retained.

Problem Determination:

If an error occurs again during the listing of the parameters in the SPACE field see Table I, items 2, 7a, 29.

IEF235I jjj.sss.ddn WAITING FOR VOLUMES

Explanation: The system was unable to satisfy the volume requests for a data set in step sss of job jjj.

In the message text, ddn is the data definition name in the name field of the DD statement that specified the data set.

System Action: The initiator for step sss will enter a wait state until the requested volumes have been unallocated by terminating tasks and are available for use. Other jobs cannot go through allocation until this wait has terminated and current allocation processing has completed.

Operator Response: If desired, enter a CANCEL command to terminate job jjj.

In systems with MFT, a reply of CANCEL must be entered if no other scheduler size partition is available for termination services.

IEF236I ALLOC. FOR jjj sss [ppp]

Explanation: This message identifies the job step and, if applicable, the cataloged procedure for which devices were being allocated. The IEF237I messages, which follow this message, describe the device allocations.

The devices were allocated for step sss of job jjj or for cataloged procedure ppp, which was executed by step sss of job jjj.

In response to a MONITOR JOBNAMES command, this message will appear on the console only for the unit record devices being allocated.

In systems with MFT or MVT, this message appears twice for a step or procedure if the step or procedure was being executed or terminated when system restart was required. The second IEF236I message is followed by duplicate allocation messages (IEF237I) for the SYSIN and SYSOUT data sets specified by the step or procedure. The first series of allocation messages reflect the actual device assignments.

The second series should be ignored; they are produced when the system is completing the output queue entries for step sss.

Programmer Response: None.

Operator Response: None.

IEF237I ddd ALLOCATED TO ddn

Explanation: Device ddd is allocated to the data set defined in the DD statement whose name field contains ddn.

This message is written for each device allocated to a data set, except for data sets defined in DD statements containing the SYSOUT parameter. However, if message IEF242I precedes this message, all data sets will be listed for the step which caused message IEF242I to be issued.

In response to a MONITOR JOBNAMES command, this message will appear on the console only for the unit record devices allocated to data sets, except for data sets defined in DD * or DD DATA statements or in DD statements containing the SYSOUT parameter.

Programmer Response: None.

Operator Response: Check the unit record device to make sure it is ready and has the proper input decks, cards, or forms.

IEF238A REPLY [DEVICE NAME] [,'WAIT'] [,'NOSEP']
OR 'CANCEL'

Explanation: The system cannot allocate either a device or space requested by a DD statement for one of the following reasons:
• The DD statement requested more devices than were currently available.
• The DD statement specified channel or unit separation.
• The DD statement was named in another DD statement's separation request.

This message permits the operator to respond to preceding message IEF239I, IEF247I, or IEF248I.

Operator Response: If message IEF239I precedes this message, refer to the installation procedures and enter one of the following:
• REPLY xx,'NOSEP'. The job step needing the space must be executed immediately and the separation requests can be ignored. The system will ignore the step's separation requests and will attempt allocation again.
• REPLY xx,'WAIT'. The job step needing the space should be executed with its separation request, if possible. The job will wait. When direct access space is freed on appropriate devices, the system will attempt allocation again. Other jobs cannot go through allocation until this wait has terminated and current allocation processing has completed.

- REPLY xx,'CANCEL'. The jcb will be terminated.
- REPLY xx,'ddd'. If device ddd fulfills the requirements of the DD statement, allocation will be attempted again; however, device ddd may be allocated to a different DD statement than the one specified in message IEF239I.
- In systems with MFT, a reply of CANCEL or NOSEP must be entered if there is no scheduler size partition available for termination services.

If message IEF247I precedes this message, enter one of the following after checking with installation procedures:
- REPLY xx,'ddd' where ddd appeared in an OFFLINE line of the message. The system places the device online and attempts allocation again; however, device ddd may be allocated to a different DD statement than the one specified in message IEF247I.
- REPLY xx,'WAIT' if the OFFLINE devices in the message cannot be changed for allocation recovery, and either the job step did not request channel or unit separation or the step's separation requests cannot be ignored. The job waits until enough devices are released to satisfy its device requirements and separation requests, if any. Other jobs and system tasks can neither start or go through allocation until this wait has terminated and current allocation processing is complete.
- REPLY xx,'NOSEP' if the OFFLINE devices in the message cannot be changed for allocation recovery, the jcb step requested channel and/or unit separation, and the separation requests can be ignored. The system ignores the step's separation requests and attempts allocation again.
- REPLY xx,'CANCEL' if the needed devices are always used, perhaps for a background job step. The system terminates the job.

Note: One of the replies to message IEF238A must be entered before the initiator will process the jcb. Although a CANCEL command may be entered, the command will not take effect until a valid reply has been entered to this message. (All replies must be specified in upper-case letters.)

If message IEF248I precedes this message:

If one of the reserved volumes can be demounted, enter REPLY xx,'ddd'. The system will issue message IEF234A to demount the volume and then message IEF233A to request mounting cf a scratch volume to be allocated to the data set named on DD statement ddn.

If none of the reserved volumes can be demounted, enter REPLY xx,'CANCEL'. The system will terminate the jcb.

IEF239I jjj sss ddn WAITING FOR ALLOCATION

Explanation: The DD statement whose name field is ddn has requested direct access space that cannot be allocated.

System Action: The system placed step sss of jcb jjj in a wait state. No other job steps or system tasks will be allowed to allocate or start until space becomes available. When direct access space is freed on the appropriate devices, the system will attempt allocation again. However, if message IEF238A immediately follows on the console, the operator can take the jcb out of wait state. Other jcbs cannot go through allocation until this wait has terminated and current allocation processing has completed.

Operator Response: If desired, enter a CANCEL command to terminate the job named jjj.

In systems with MFT, a reply of CANCEL or NOSEP must be entered if there is no scheduler size partition available for termination services.

IEF240I TOO MANY DD CARDS

Explanation: The jcb step contained too many DD statements for the main storage available for internal tables in the system being used.

System Action: The jcb was terminated.

Programmer Response: Probable user error. Reduce the number of data sets, and thus the number of DD statements, for the job step, and submit the jcb again.

In systems with MFT, submit the jcb again, instructing the operator to increase the size cf the partition by a specified amount.

In systems with MVT, submit the jcb again, instructing the operator to start the system again and, during nucleus initialization, to increase the size of the MIN parameter by a specified amount, if this option was chosen at system generation.

Problem Determination: Table I, items 1, 2, 3, 4, 7a, 29.

IEF241I REQUEST FOR PENDING OFFLINE RESERVED DEVICE

Explanation: In a DD statement, the UNIT parameter specifies a device which is reserved and pending cffline. The device was reserved by PRESRES or by a MOUNT command.

System Action: If the volume on the device contains SYSIN data sets, recovery is attempted by issuing message IEF238I, allowing the operator to bring the device back online. If the volume does not contain SYSIN, the jcb is terminated.

Programmer Response: If possible, request another device and rerun the job. Otherwise, rerun the job when the required device is back online.

IEF242I ALLOC. FOR jjj sss [ppp] AT ABEND

Explanation: In the JOB statement, the allocation MSGLEVEL=0 was specified. Since the problem program failed during execution, the system has overriden the previous specification and has assumed MSGLEVEL=1. Unit allocation messages IEF237I will follow this message.

Programmer Response: None.

IEF243E UNIT xxx UNLOADED. VOLUME HAS ANS LABEL.

Explanation: A tape volume which has an American National Standard (ANS) label was either requested or mounted (in response to a MOUNT command) on a device in a system which does not support ASCII tape processing. The xxx field contains the unit address.

System Action: The tape volume is unloaded.

Operator Response: Set aside jobs which need this tape until a system which supports ASCII processing is available. If no jobs need this specific tape, issue a MOUNT command for a tape of a different label type.

IEF244I jjj sss ddn UNABLE TO ALLOCATE

Explanation: The system was unable to allocate a device to the data set named on DD statement ddn for step sss of job jjj:
- The UNIT parameter on the DD statement specified a device collection. The number specified was greater than the available devices in the collection. Either the collection did not contain the requested number of devices, too many devices in the collection were already assigned or offline, or the attributes of the volumes mounted on the specified devices could not satisfy the request.
- The DD statement requested allocation of device(s) currently allocated to another task, and the device(s) could not be shared.

System Action: The system might have terminated the job; in this case, no further termination message is issued for the job. If the job was not terminated, the system issues message IEF247I to attempt allocation recovery.

Operator Response: None.

Programmer Response: Probable user error. If the job was terminated, check the UNIT parameter to ensure that the device collection can supply the number of devices needed. If allocating SYSOUT, report the problem to the system programmer. If necessary, change the UNIT parameter and run the job again.

Problem Determination: Table I, items 1, 3, 4, 7a, 29.

IEF245I INCONSISTENT UNIT NAME AND VOLUME SERIAL

Explanation: The VOLUME serial specified is not compatible with the device collection specified in the UNIT parameter.
- In a DD statement, the UNIT parameter specified a device collection; the SER subparameter of the VOLUME parameter specified the volume serial number of a volume which is not removable and is not compatible with the device collection.
- In the UNIT parameter of the DD statements with the same volume serial number specified, there is not, at least one common unit. The DD statement indicated may not be the statement which is incorrect, but it is the statement being processed at the time the error is detected.

System Action: The job was terminated.

Programmer Response: Probable user error. Correct the erroneous parameter, and submit the job again.

Problem Determination: Table I, items 1, 3, 4, 7a, 29.

IEF246I INSUFFICIENT SPACE ON STORAGE VOLUMES

Explanation: In a DD statement that requested a storage volume the SPACE parameter requested a greater quantity of tracks than was available on the direct access device.

System Action: The job was terminated.

Programmer Response: Probable user error. Check the track quantity of the SPACE parameter for validity. If it was incorrect, change it. If it was correct, change the request to a different volume. Then submit the job again.

Problem Determination: Table I, items 1, 3, 4, 7a, 25b, 29.

IEF247I {jjj ALLOCATION RECOVERY}
{jjj ddd-list OFFLINE, }

Explanation: The system was unable to allocate a device to a data set, as required for job jjj, and is attempting allocation recovery. In the message text, ddd-list is a listing of the devices.

In any system, device ddd is pending offline but currently online and possibly allocated to another job. If the operator replies to message IEF238A with this device address, the device will be allocated to job jjj only if it is eligible. If the device is not eligible the message sequence IEF247I and IEF238A will be repeated if there is another device offline or pending offline. Note: If the operator replies a device address which is pending offline to message IEF238A, the reply counteracts the previously issued VARY OFFLINE command.

In any system, device ddd could be allocated if the operator could vary its status from offline to online.

In the message text, the first line always appears. The second line appears for eligible devices that are currently offline or that are pending offline (that is, devices which a VARY offline command has recognized but has not completely processed, in which case ddd is preceeded by an asterisk (*); this line may appear more than once.

System Action: The system action depends on the operator response to message IEF238A, which follows this message.

Programmer Response: If the job was terminated, make any changes indicated by other messages, and submit the job again.

Operator Response: Respond as indicated for message IEF238A, which follows this message.

IEF248I jjj sss ddn ERROR ALLOCATING RESERVED VOLUME
IEF248I ddd HAS RESERVED VOLUME ser

Explanation: The system was unable to allocate space on a device to the data set named on DD statement ddn for step sss of job jjj. Device ddd is eligible for allocation, but the reserved volume with serial number ser is mounted on the device.

The second line in the message text may be written once or several times, depending on the number of eligible reserved volumes available.

Operator Response: Respond as indicated for message IEF238A, which follows this message.

IEF249I FOLLOWING P/R & RSV VOLUMES ARE MOUNTED
ser ON ddd ccc-ccc

Explanation: During system start, this message describes the volumes mounted for PRESRES (permanently resident and reserved), which is a member of the SYS1.PARMLIB data set.

ser ON ddd ccc-ccc is written once for each mounted volume. ser is the serial number of a mounted volume, ddd is the device address, and ccc-ccc specifies the characteristics of the volume:

P/R-PUB   Permanently resident, public
P/R-PRV   Permanently resident, private
P/R-STR   Permanently resident, storage
RSV-PUB   Reserved, public
RSV-PRV   Reserved, private
RSV-STR   Reserved, storage

Operator Response: None.

IEF250I FOLLOWING MAY BE MOUNTED
ser ON dddtyp
IEF250D REPLY DEVICE ADDRESSES OR GO

Explanation: If PRESRES (permanently resident and reserved), a member of the SYS1.PARMLIB data set, exists in the system and if all volumes described in entries in the PRESRES data set are not mounted during system start, this message is produced to request mounting of the unmounted PRESRES volumes.

ser ON dddtyp is written once for each unmounted volume. ser is the serial number of a volume to be mounted and dddtyp is the type of device, such as 2311, 2314, 2319, or 2321, that the volume is to be mounted on. dddtyp does not specify any special features, such as track overflow, that may be required; it is the user's responsibility to select the device that has any required special features.

Operator Response: If any of the listed volumes is to be mounted, enter REPLY xx,'ddd,ddd,ddd,...' where each ddd is a device address. Any valid direct access devices can be used, including those that already have volumes mounted on them. After replying, mount the required volumes on the devices replied.

If no volumes are to be mounted, enter REPLY xx,'GO'.

IEF251I JOB CANCELED (in SYSOUT)
IEF251I jjj JOB CANCELED (on console)

Explanation: In response to a CANCEL command or a CANCEL response to message IEF238A, the system terminated job jjj.

Programmer Response: Correct any errors indicated by any other messages, and submit the job again.

Operator Response: None.

IEF252I DIRECT ACCESS - SPACE UNAVAILABLE FOR ASSIGN

Explanation: On the direct access device used to hold the SYS1.SYSJOBQE data set, the space for processing a job was exceeded.

System Action: The job was terminated.

Programmer Response: Probable user error. Create a larger SYS1.SYSJOBQE data set so that it can hold larger jobs. Then submit the job again.

Problem Determination: Table I, items 1, 2, 3, 4, 7a, 29.

IEF253I DIRECT ACCESS - DUPLICATE NAME ON VOLUME

Explanation: In a DD statement that requested space on a direct access device, the data set name in the DSNAME parameter was the same as a data set name already in

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the volume table of contents (VTOC) for the requested volume.

System Action: The job was terminated.

Programmer Response: Probable user error. If the data set being specified is a new data set, select a unique name for it. If the DD statement intended to specify the data set that is already on the direct access device, specify the OLD subparameter in the DISP parameter. Then submit the job again.

Problem Determination: Table I, items 1, 3, 4, 7a, 25b, 29.

IEF254I DIRECT ACCESS - NO SPACE IN VTOC

Explanation: A DD statement requested space on a direct access volume for a new data set. The volume table of contents (VTOC) for the requested volume did not have the minimum number of format 0 data set control blocks (DSCB) required to allocate the data set.

System Action: The job was terminated.

Programmer Response: Probable user error. Submit the job again, requesting space on a different volume.

Problem Determination: Table I, items 1, 3, 4, 7a, 25b, 29.

IEF255I DIRECT ACCESS - PERMANENT I/O ERROR

Explanation: An uncorrectable input/output error occurred in using a direct access device during program initiation.

System Action: The job was terminated.

Programmer Response: Rerun the job.

Operator Response: None.

Problem Determination: Table I, items 1, 2, 3, 4, 7a, 29.

IEF256I DIRECT ACCESS - ABSOLUTE TRACK NOT AVAILABLE

Explanation: In a DD statement defining a data set on a direct access device, the ABSTR subparameter of the SPACE request is asking that the data set be allocated in absolute tracks. The requested tracks are not available.

System Action: The job is terminated.

Programmer Response: Probable user error. Check the beginning track address and quantity subparameters for validity. If they are correct, request different tracks or a different volume. Then resubmit the job.

Problem Determination: Table I, items 2, 7a, 25a, 29.

IEF257I DIRECT ACCESS - SPACE REQUESTED NOT AVAILABLE

Explanation: In a DD statement, the SPACE parameter requested a greater quantity of tracks than was available on the direct access device. Either the system terminated the job because space would not become available or the operator cancelled the job while it was waiting for space to become available.

System Action: The job was terminated.

Programmer Response: Probable user error. Check the track quantity of the SPACE parameter for validity. If it was incorrect, change it. If it was correct, change the request to a different volume. Then submit the job again.

Problem Determination: Table I, items 1, 3, 4, 7a, 25b, 29.

IEF258I DIRECT ACCESS - INVALID REC LENGTH

Explanation: In a DD statement, the average record length subparameter in the SPACE parameter specified a length greater than the capacity of a track on the requested direct access device.

System Action: The job was terminated.

Programmer Response: Probable user error. Reduce the lengths of the records to make the average length no greater than the track capacity of the device or specify a device with a greater track capacity. Then submit the job again.

Problem Determination: Table I, items 1, 3, 4, 7a, 29.

IEF260I WRONG DSORG OR DISP FOR ISAM

Explanation: During allocation of an indexed sequential data set, one of the following error conditions was detected:
• A DD statement requiring that direct access space be obtained was found concatenated to a DD statement (for the same ISAM data set) that indicated that the data set already existed. Example: A concatenated DD statement specified DISP=(NEW,KEEP), and a preceding DD statement for an ISAM data set specified DISP=(OLD,KEEP). Note that secondary dispositions are not checked for consistency.
• A DD statement specifying DSORG=IS or ISU was found concatenated to a DD statement (for the same data set) that specified a DSORG other than IS or ISU. This message will not appear if a DD statement specifies DSORG=IS or ISU and a succeeding concatenated DD statement specifies a DSORG other than IS or ISU.

System Action: The job is terminated.

Programmer Response: Correct the DISP or DSORG parameters in error and run the job again.

Problem Determination: Table I, items 2, 7a, 29.

IEF261I NO PRIME AREA REQUEST FOR ISAM DATA SET

Explanation: None of the DD statements defining an indexed sequential data set specify DSNAME=name(PRIME).

System Action: The job is terminated.

Programmer Response: Supply a DD statement that specifies DSNAME=name(PRIME). List the volume table of contents (VTOC) of each volume involved using the IEHLIST utility program. If the name of the data set appears in any VTOC, remove it using the IEHPROGM utility. Then rerun the job.

Problem Determination: Table I, items 1, 4, 7a, 14, 29.

IEF262I PRIME AREA MUST BE REQUESTED BEFORE OVFLOW

Explanation: The control program is unable to allocate the overflow area of a new indexed sequential data set because the overflow area request appears before the prime area request. That is, the control program read the DD statement specifying DSNAME=name(OVFLOW) before the DD statement specifying DSNAME=name(PRIME).

System Action: The job is terminated.

Programmer Response: Probable user error. Insert the DD statement specifying DSNAME=name(PRIME) before the DD statement specifying DSNAME=name(OVFLOW). List the volume table of contents (VTOC) of each volume that will contain the data set using the IEHLIST utility program. If the name of this data set appears in any VTOC, remove it using the IEHPROGM utility. Then rerun the job.

Problem Determination: Table I, items 1, 2, 4, 7a, 14, 29.

IEF263I SPACE REQUEST WRONG - MUST BE ON CYLINDER BOUNDRY

Explanation: The SPACE parameter of a DD statement defining an indexed sequential data set is incorrect. In the absolute track request (ABSTR), the beginning address subparameter does not specify a cylinder boundary, or it does not specify, in tracks, an integral number of cylinders.

System Action: The job is terminated.

Programmer Response: Probable user error. Correct the absolute track subparameter. List the volume table of contents (VTOC) of each volume that will contain the data set, using the IEHLIST utility program. If the name of this data set appears in any VTOC, remove it using the IEHPROGM utility. Then rerun the job.
Problem Determination: Table I, items 2, 7a, 14, 29.

IEF264I DUPLICATION OF THE DSNAME ELEMENT NOT ALLOWED - SAME AREA REQUESTED TWICE

Explanation: Two DD statements defining the same indexed sequential data set are requesting space for the same area. Both DD statements specify the same element in the DSNAME parameter.

System Action: The job is terminated.

Programmer Response: Probable user error. Eliminate one of the duplicating DD statements. List the volume table of contents (VTOC) of eachvolume that will contain the data set using the IEHLIST utility program. If the name of the data set appears in any VTOC, remove it using the IEHPROGM utility. Then rerun the job.

Problem Determination: Table I, items 2, 7a, 14, 29.

IEF265I INVALID TRACK QUANTITY FOR SPLIT REQUEST

Explanation: In a DD statement, space allocation was requested by a SPLIT parameter. The total number of tracks specified in the first subparameter of the DD statement was greater than the number of tracks per cylinder on the device being used. If a percentage of space was specified, the percentage was too small to allow a full track.

System Action: The job is terminated.

Programmer Response: Probable user error. Reduce the number of tracks specified in the first subparameter of the SPLIT request. If you are using a 2314 or 2319 disk, the maximum number of tracks is 20, and for a 2311, the maximum is 10. Rerun the job.

Problem Determination: Table I, items 2, 7a, 29.

IEF266I INVALID JFCB OR PARTIAL DSCB POINTER

Explanation: During allocation, a JFCB or partial DSCB pointer was found to have been zeroed.

System Action: The job is terminated.

Programmer Response: Probable system error. Rerun the job.
Problem Determination: Table I, items 1, 4, 7a, 29.

IEF267I INVALID DIRECTORY REQUEST

Explanation: In a DD statement that defined a new partitioned data set, the space requested for the directory was not allocated by the control program for one of the following reasons:
• The directory quantity subparameter of the SPACE or SUBALLOC parameter requested more space than the primary quantity subparameter.
• The space requested by the directory quantity subparameter exceeded the largest space available on the volume.

System Action: The job was terminated.

Programmer Response: Probable user error. Reduce the directory quantity subparameter or increase the primary quantity subparameter. Then submit the job again.

Problem Determination: Table I, items 1, 3, 4, 7a, 25b, 29.

IEF268I ddd FOR ser ccc-ccc

Explanation: This message verifies that volumes have been mounted on the devices named in the reply to message IEF250I and that the devices are ready. ser is the serial number of the volume mounted on device ddd. ccc-ccc are the characteristics of the volume:

P/R-PUB Permanently resident, public
P/R-PRV Permanently resident, private
P/R-STR Permanently resident, storage
RSV-PUB Reserved, public
RSV-PRV Reserved, private
RSV-STR Reserved, storage
NO ATRB No attribute, meaning that an unrequested volume was mounted on a device specified in response to message IEF250I

Operator Response: None.

IEF269A ddd ADDRESS INVALID OR OFFLINE. REPEAT REPLY

Explanation: The reply to message IEF250I is invalid. Possible errors are:
• Device address unknown to system.
• Device unable to satisfy required mounts.
• Device offline.
• Device other than 2311, 2314, 2319, or 2321.
• Device holds system residence data set.
• Duplicate device addresses.
• Comma missing between device addresses.
• Comma present at end of reply.
• 2321 cell number non-numeric or greater than 9.
• Too few volumes needed by PRESRES for type of device specified.

Operator Response: Probable user error. Enter the reply again correctly or enter REPLY xx, 'GO'.

Problem Determination: Table I, items 2, 7a, 29. Make sure that the device is defined to the system correctly.

IEF270D I/O ERROR IN PRESRES READ. REPLY GO OR RE-IPL

Explanation: While reading to determine if PRESRES (permanently resident and reserved), a member of the SYS1.PARMLIB data set, is present, the system detected an uncorrectable input/output error.

Operator Response: If the system can continue without PRESRES, enter REPLY xx,'GO'. Otherwise, start the system again.

Problem Determination: Table I, items 2, 7a, 11, 29.

IEF271I VOLUME NOT CONSIDERED IN SYSTEM

Explanation: Because an uncorrectable input/output error occurred in using the device identified in the preceding IEA000I message, the job scheduler was unable to read the volume label on the device.

System Action: The job scheduler ignores the volume and continues processing without it.

Operator Response: None.

Problem Determination: Table I, items 2, 7a, 29.

IEF272I - STEP WAS NOT EXECUTED

Explanation: The control program did not execute a job step for one of the following reasons:
• An error appeared in a job control statement.
• A previous step abnormally terminated, but the current step did not specify EVEN or ONLY in the COND parameter of the EXEC statement.
• In systems with MFT OR MVT a job control statement for a preceding or succeeding step contained an error. An error in a job control statement stops execution of (1) the step containing the error; (2) all preceding steps beginning with the last JOB statement or the step following the last DD * or DD DATA statement; and (3) all succeeding steps until the next JOB statement.
• In systems with MVT or MFT, the step was being executed or terminated when system restart was required. To confirm this reason, look for message IEF236I (ALLOCATION FOR jjj sss [ppp]) in the system output listing following SYSOUT data set information or following duplicate allocation messages for the step. (See message IEF421I for more details.)
• In systems with MFT or MVT, the job step required input/output devices, volumes, or space that could not be allocated.
• In systems with MVT or MFT, the job containing the job step was cancelled by the operator before the job step was initiated. To confirm this, look for message IEF450I on the console listing with a 222 ABEND.
• The job required too much queue space in the SYS1.SYSJOBQE data set for initiation. To confirm this, look for messages IEF301I, IEF425I, and IEF450I (with ABEND S422) on the console listing.

System Action: When a job control statement contained an error or where allocation could not be made, the job was terminated.

Where system restart was required, the remainder of the steps in the job were not executed.

Programmer Response: Probable user error. Correct any errors, and submit the job or job step again.

Problem Determination: Table I, items 1, 3, 4, 7a, 29.

IEF273I INVALID USER LABEL REQUEST

Explanation: In a DD statement, a user label track was requested for a data set. However, the control program was unable to allocate space for the data set for one of the following reasons:
• The DSORG subparameter of the DCB parameter specified PO or IS.
• The SPACE parameter included a directory quantity subparameter.

System Action: The job was terminated.

Programmer Response: Probable user error. In the first case, specify PS or DA in the DSORG subparameter of the DCB parameter. In the second case, delete the directory quantity subparameter of the SPACE parameter. Then resubmit the job.

Problem Determination: Table I, items 1, 3, 4, 7a, 29.

IEF277I jjj.{sss}{ppp}.ddn ALLOC. FOR CONTROL VOLUME

Explanation: A control volume for a cataloged data set was not mounted, making it impossible to locate the data set.

The control volume was required for job jjj and, if applicable, step sss of job jjj or step ppp, which is part of a cataloged procedure called by job jjj. In the message text, ddn is the data definition name in the name field of the DD statement.

Note that any allocation messages following this message but preceding the next mount request will apply only to allocation for this control volume.

Programmer Response: None.

Operator Response: None.

IEF278I ddd NOT MOUNTED, I/O ERROR

Explanation: In response to a MOUNT command the system attempted to verify the label of the volume on device ddd. During verification, an uncorrectable input/output error occurred when the system attempted to read the label on the volume. One of the following occurred:
• The device specified in the MOUNT command was not physically on the system.
• The operator mounted a NL tape without specifying VOL=(NL,xxxxxx).

System Action: The system did not execute the command and the volume was unloaded.

Operator Response: Check that the correct volume was mounted on device ddd and that the label on the volume is a standard label. Correct any errors found in this check. Then enter the MOUNT command again.

Problem Determination: Table I, items 2, 7a, 29.

IEF279I ddd NOW MOUNTED{[,SL]}{[,AL]}

Explanation: In response to a MOUNT command the system allocated device ddd and has finished mount processing.

For tape devices, SL (standard label) or AL (American National standard label) appears in the message text.

Operator Response: None.

IEF280E K ddd,ser,jjj[,sss][,SPACE=prm][,dsn]
IEF280I ddd,dsn

Explanation: K indicates that the volume on device ddd is to be demounted and returned to the library:
• If ser is a 6-digit number, it is the serial number of the volume, which contains labels.
• If ser begins with a slash or L, the volume to be demounted is unlabeled; the number after the slash or L is an internal serial number assigned by the system to an unlabeled volume. If ser begins with L, the number after the L is of the form xxxyy, where xxx is the data set number and yy is the volume sequence number for the data set.

Job jjj (or step sss of job jjj) has finished using the volume. (In the message text, omission of the step field -- that is, two consecutive commas -- indicates that no stepname was specified on the EXEC statement.)

If a DISPLAY SPACE command is active, the field SPACE=cccc,tttt,aaaa/yyyy,zzzz is specified:

cccc
    Total number of free cylinders on the volume.
tttt
    Total number of tracks in addition to the free cylinders.
aaaa
    Areas or extents dividing the cylinders and tracks.
yyyy
    Maximum number of contiguous free cylinders of the largest extent within the total remaining space.
zzzz
    Number of tracks in addition to the free cylinders of the largest extent within the total remaining space.

If an error occurred during the listing of the parameters in the SPACE field, one of the following messages is specified:
• LSPACE-PERMANENT I/O ERROR
• LSPACE-NON-STANDARD OS VOLUME
• LSPACE-NOT A DIRECT ACCESS VOL

- LSPACE-INVALID PARAMETER
- LSPACE-UCB NOT READY

If a MONITOR DSNAME command is active, the first nontemporary data set, dsn, is also specified in the message text. If the data set name causes the message to exceed 72 characters, the data set name will appear as specified on the second line of the message text. Job termination will include the data set name only for non-temporary, tape data sets which are passed but not received.

System Action: The volume is unloaded.

Operator Response: Demount the volume. If it is not externally marked with its serial number, mark the serial number on it. Then return it to the library. If an error message is specified, make sure that the volume is a standard OS direct access volume.

Problem Determination: If an error occurs again during the listing of the parameters in the SPACE field, see Table I, items 2, 7a, 29.

IEF281I ddd NOW OFF-LINE

Explanation: In response to a VARY command, device ddd has been placed offline.

Operator Response: None.

IEF282I ddd NOW UNLOADED [sss,space=prm]

Explanation: In response to an UNLOAD command, the system has unloaded a volume from device ddd.

If a MONITOR SPACE command is active, the field space=cccc,tttt,aaaa/yyy,zzzz is specified for direct access devices:

cccc
      Total number of free cylinders on the volume.
tttt
      Total number of tracks in addition to the free cylinders.
aaaa
      Areas or extents dividing the cylinders and tracks.
yyyy
      Maximum number of contiguous free cylinders of the largest extent within the total remaining space.
zzzz
      Number of tracks in addition to the free cylinders of the largest extent within the total remaining space.

If an error occurred during the listing of parameters in the SPACE field, one of the following messages is specified:
- LSPACE-PERMANENT I/O ERROR
- LSPACE-NON-STANDARD OS VOLUME
- LSPACE-INVALID PARAMETER

In addition, if the volume label has not been verified or the VTOC is on cylinder zero, track zero, the following message is specified:
      sss,NON-OS OR NO VTOC ADDR IN UCB
Where sss is the volume serial number or blanks.

Operator Response: None.

Problem Determination: Table I, items 2, 7a, 29.

IEF283I dsn NOT DELETED x
VOL SER NOS= ser [z],ser [z],ser [z],ser [z],ser [z]
VOL SER NOS= ser [z],ser [z],ser [z].

Explanation: A DD statement specified DELETE as the disposition of data set dsn, but the data set was not deleted from the volumes whose serial numbers, ser, are listed in the message text.

If the data set was not deleted from any of its volumes, the volumes listed are all of the volumes on which the data set resides. If the data set was partially deleted, message IEF285I precedes this message in the SYSOUT data set and lists the volumes from which the data set was deleted.
- If ser is a 6-digit number, it is the serial number of the volume, which contains labels.
- If ser begins with a slash or L, the volume is unlabeled; the number after the slash or L is an internal serial number assigned by the system to an unlabeled volume. If ser begins with L, the number after the L is of the form xxxyy, where xxx is the data set number and yy is the volume sequence number for the data set.

Five volume serial numbers are listed per line until all the volumes involved are listed. The last volume serial number is followed by a period.

The 1-digit code, x, explains why the data set was not deleted.

x   Explanation
1   The expiration date had not occurred. When the data set was created, the expiration date was specified by the EXPDT or RETPD subparameter in the LABEL parameter of the DD statement.
4   No device was available for mounting during deletion.
5   Too many volumes were specified for deletion. Deletion can be accomplished in several job steps by specifying some of the volume serial numbers in each step.
6   Either no volumes were mounted or the mounted volumes could not be demounted to permit the remaining volumes to be mounted.
8   The SCRATCH routine returned a code, z, following each volume serial number explaining why the data set was not deleted from that volume. The values of z and their meanings are as follows:
     1   - The data set was not found on the volume.

2 - The data set is security protected
and the correct password was not
given.
3 - The expiration date had not
occurred. When the data set was
created, the expiration date was
specified by the EXPDT or RETPD
subparameter in the LABEL
parameter of the DD statement.
4 - An uncorrectable input/output
error occurred in deleting the
data set from the volume.
5 - The system was unable to have the
volume mounted for deletion.
6 - The system requested that the
operator mount the volume, but the
operator did not mount it.
9 A job was cancelled and was deleted
from any of the following queues:
Input queues
Background Reader Queue
Hold Queue
Automatic SYSIN Batching (ASB) Queue
Output Queues
The data set named dsn was deleted from
the volumes whose serial number(s), ser,
are listed in the message text.

Programmer Response: Corrective action
depends on the value of x and z.
If x is 1, do not attempt to delete the
data set.
If x is 4, ensure that the correct volumes
can be mounted.
If x is 5, delete the data set in several
job steps.
If x is 6, ensure that the correct volumes
can be mounted.
If x is 8, and
z is 1, ensure that the correct
volumes can be mounted.
z is 2, supply the correct password.
z is 3, do not attempt to delete the
data set.
z is 4, resubmit the job.
z is 5, ensure that the correct
volumes can be mounted.
z is 6, ensure that the correct
volumes can be mounted.

If x is 9, execute the IEHPROGM utility to
delete the data set.

Operator Response: If x was 9, report
this message to the programmer whose job
was cancelled. If x was other than 9, no
action is necessary.

Problem Determination: Table I, items 1,
3, 4, 7a, 29.

IEF284I NO TIOT ENTRY FOUND FOR ddname

Explanation: The system cannot process
the disposition for the data set described
by ddname because it could find no entry
for ddname in the task input/output table
(TIOT). Possible the user-specified
ddname has lost its identity during
processing.

System Action: The data set described by
ddname is bypassed and disposition
processing continues with the next data
set, if one exists. This message is

issued in place of the normal disposition
messages for the data set in the SYSOUT
listing.

Programmer Response: If the user
specified a disposition of KEEP, PASS, or
RETAIN, no action is necessary. If the
specified disposition was DELETE, CATLG,
or UNCATLG, do the following:

If the ddname that appears in the message
text is not meaningful, you can determine
which DD statement describes the data set
that has received incomplete disposition
processing by comparing the disposition
message with the allocation messages and
the job control statements; the position
of this message (IEF284I) within the set
of disposition messages corresponds to the
position of the ddname in the allocation
messages and the job control statements.
By examining the relationships of these
statements you can determine the data set
name, the unit type, and the serial number
of the volume on which the data set
exists. If the data set has a temporary
data set name and you know the volume
serial number, execute the IEHLIST utility
to list the contents of the volume; from
that you can determine the data set name.
If you cannot determine the volume serial
number, call IBM for programming support.

To give the data set the disposition of
DELETE, CATLG, or UNCATLG, execute the
IEHPROGM utility to perform these
functions.

Problem Determination: If you cannot
determine enough information about the
data set to permit execution of IEHPROGM,
see Table I, items 3, 4, 29.

IEF285I dsn dsp
VOL SER NOS= ser,ser,ser,ser,ser
VOL SER NOS= ser,ser,ser.

Explanation: The disposition, dsp,
specified for the data set named dsn was
accomplished for the volumes whose serial
numbers, ser, are listed in the message
text.

• If ser is blank, the volume is an
unlabeled magnetic tape whose
disposition is PASSED. The dsp is one
of the following:
PASSED
KEPT
DELETED
CATALOGED
UNCATALOGED
RECATALOGED
SYSOUT
SYSIN
• If ser is a 6-digit number, it is the
serial number of the volume, which
contains labels.
• If ser begins with a L, the volume is
unlabeled; the number after the L is an
internal serial number assigned by the
system to an unlabeled volume and is of
the form xxxyy, where xxx is the data
set number and yy is the volume sequence
number for the data set.

IEF

Five volume serial numbers are listed per
line until all the volumes are listed.
The last volume serial number is followed
by a period.

Programmer Response: None.

IEF286I ddn - DISP FIELD INCOMPATIBLE WITH DSNAME

Explanation: The disposition specified in
the DD statement does not agree with the
status of the data set.
In the message text, ddn is the data
definition name in the name field of the
DD statement.

System Action: The job was terminated.

Programmer Response: Probable user error.
Correct the disposition parameter on the
DD statement. Rerun the job.

Problem Determination: Table I, items 1,
3, 4, 7a, 29.

IEF287I dsn dsp w
        VOL SER NOS= ser,ser,ser,ser,ser
        VOL SER NOS= ser,ser,ser.

Explanation: The DISP parameter of a DD
statement was CATLG or UNCATLG, but the
system could not catalog or uncatalog the
data set.

In the message text, dsn is the data set
name and dsp is the disposition of the data
set. If CATLG was specified in the DD
statement, then dsp appears in the message
text as NOT CATLGD (not cataloged) or NOT
RECTLGD (not recataloged). If UNCATLG was
specified in the DD statement, dsp appears
in the message text as NOT UNCTLGD (not
uncataloged).
• If ser is a 6-digit number, it is the
  serial number of the volume, which
  contains labels.
• If ser begins with a L, the volume is
  unlabeled; the number after the L is an
  internal serial number assigned by the
  system to an unlabeled volume and is of
  the form xxxyy, where xxx is the data
  set number and yy is the volume sequence
  number for the data set.

Five volume serial numbers are listed per
line until all volumes are listed. The
last volume serial number is followed by a
period.

The w explains why the data set was not
cataloged or uncataloged:

w   Explanation
1   A control volume was required and a
    utility program must be used to catalog
    the data set.
2   The data set to be cataloged had
    previously been cataloged or the data
    set to be uncataloged could not be
    located, or no change was made to the
    volume serial list of a data set with a
    disposition of CATLG.

3   A specified index did not exist.
4   The data set could not be cataloged
    because space was not available in the
    catalog data set.
5   Too many volumes were specified for the
    data set; because of this, not enough
    main storage was available to perform
    the specified cataloging.
6   The data set to be cataloged in a
    generation index is improperly named.
7   The data set to be cataloged was not
    opened and no density information was
    provided on the DD statement (for dual
    density tape requests only).
9   An uncorrectable input/output error
    occurred in reading or writing the
    catalog.
A   The VTOC could not be converted from
    DOS to OS format, therefore, the
    SYSCATLG data set could not be extended
    to perform the specified cataloging.

Programmer Response: If w is 9, resubmit
the job.
If w is not 9, probable user error.

If w is 1, execute the required utility
program, making sure the required control
volume is mounted.

If w is 2, 3, or 6, correct the DSNAME
parameter of the DD statement, and submit
the job step again.

If w is 4, increase the size of the
catalog data set or delete unused catalog
entries, and use a utility program to
catalog the data set.

If w is 5, reorganize the data set into
several smaller data sets and catalog each
one. When using these smaller data sets,
concatenate them into one large data set.
If this procedure is not practical, try to
change the format of the data set so that
it occupies fewer volumes and then catalog
it.

If w is 7, correct any program errors and
submit the job step again. If the data
set is to be cataloged, make sure the
density information is provided in the DCB
subparameter of the DD statement.

If w is A, scratch the data set causing
the problem or rearrange the pack using
DOS.

Problem Determination: Table I, items 1,
3, 4, 7a, 29.

IEF288I UNABLE TO OPEN TAPE UNIT

Explanation: The IEFPRT (SPRINTER)
program was unable to open the input tape
data set. This was probably due to an
improper or missing data definition name
in the name field of the DD statement
describing the tape. The data definition
name should be PRINTAP.

System Action: The program was
terminated. (The return code is 8.)

Programmer Response: Probable user error.
Correct the data definition name, and
execute the job step again.

Problem Determination: Table I, items 1,
3, 4, 7a, 29.

IEF289I jjj ACCT/SYSTEM ERROR

Explanation: An invalid parameter was
detected while building a system message
block for job jjj. For example, the
address of the system message block was
zero, the message length was zero, or the
address of the message exceeded the
maximum main storage address.

System Action: No message is placed into
a system message block. Processing
continues.

Operator Response: Report this message to
the programmer. If an accounting routine
exists in the system, he should check it
for errors. Otherwise, he should resubmit
the job.

Problem Determination: Table I, items 1,
3, 4, 7a, 29.

IEF292I RETAINED VOLUMES RELEASED FOR JOB jjj

Explanation: Job jjj has ended, but one
or more volumes retained (via message
IEF234E) for that job were not reused and
need no longer be retained near the
computer.

Operator Response: Return to the
appropriate library or pool any volumes
being retained for job jjj.

IEF294I OUTPUT CLASSES REQ EXCEEDS EIGHT. JCB
CANCELED

Explanation: More than eight system
output classes were specified in the
SYSOUT parameters of the DD statements.
However, only eight system output classes
can be active in a system at any one time.

System Action: The job was terminated.

Programmer Response: Probable user error.
Correct the DD statements so that no more
than eight system output classes are
specified. Then submit the job again.

Problem Determination: Table I, items 1,
2, 3, 4, 7a, 29.

IEF296I MAXIMUM NUMBER OF DEVICES FOR DD EXCEEDED

Explanation: The number of units
requested for the job step was
insufficient to permit all the required
volumes to be mounted. The scheduler
attempted to increase the unit count but
exceeded the maximum of 59 units per DD
statement.

System Action: The job was terminated.

Programmer Response: Probable user error.
If possible, change the program so that
fewer volumes are required to be mounted
at the same time.

Problem Determination: Table I, items 1,
3, 4, 7a, 29.

IEF297I LRECL EXCEEDS 32K

Explanation: The IEFPRT (SPRINTER)
program determined that the DCB parameter
of the input data set specified a logical
record length (LRECL) of more than 32,756
bytes. The DCB parameter of the data set
also specified a record format (RECFM) of
VS or VBS.

System Action: The job was terminated.

Programmer Response: Probable user error.
Change the LRECL subparameter to specify
less than 32,756 bytes. Then execute the
job step again.

Problem Determination: Table I, items 1,
3, 4, 7a, 29.

IEF298I jjj SYSOUT=sclass

Explanation: The system is displaying the
classnames of the system output classes,
other than the message class, which
contain data for job jjj. In the message
text, sclass is the listing of the
classnames.

Note, however, that if the system restart
occurs and the job is not scheduled for
step restart or checkpoint restart, then
the system output classes indicated in the
message text may not be relied on to
contain data.

Operator Response: Follow installation
procedures in obtaining data from the
system output classes indicated in the
message text.

Note: This message appears as the first
line of the system output for the message
class of job jjj unless the message class
is being written directly to the output
device; in that case, this message may
appear as the last line of the system
output.

IEF300I ddd WTR CLOSED -- QMGR I/O ERROR

Explanation: An uncorrectable
input/output error occurred while the
queue manager was using the SYS1.SYSJOBQE
data set, either to update an output queue
or to read records for a SYSOUT writer.
The error makes the contents of the output
queue unpredictable. Because the SYSOUT
writer receives its data from the output
queue, the writer closed its output data
set on device ddd and stopped itself.

Operator Response: Enter another START
WTR command.

Problem Determination: Table I, items 1,
3, 4, 7a, 8c, 29.

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IEF301I ddd WTR CLOSED

    Explanation: In response to a STOP
command, the SYSOUT writer closed its
output data set on device ddd and stopped
itself.

    Operator Response: None.

**IEF302I SYSOUT WRITER ddd, FAILED ON JOB jjj CLASS
x CONTINUATION FOLLOWS.**

    Explanation: In response to a START WTR
command, the system started the SYSOUT
writer for class name x. The writer
opened the SYSOUT data set in which this
message appears.

    The data written in this data set was
being written in a SYSOUT data set that
was closed because of an uncorrectable
input/output error associated with its
device, ddd. When the former data set was
closed, message IEF303I was written on the
console. Some of the data written before
the error may be duplicated in this new
data set.
In the message text, jjj is the name of
the job that produced the SYSOUT data set.

    Programmer Response: None.

IEF303I ddd WTR CLOSED -- OUTPUT ERROR

    Explanation: The SYSOUT writer closed its
SYSOUT data set on device ddd and stopped
itself, because of an uncorrectable
input/output error while writing the data
set. The data that was being written will
be written on the device specified in the
next START WTR command that also specifies
the data's class name.

    Operator Response: Enter another START
WTR command, specifying the class name of
the data that was being written.

    Problem Determination: Table I, items 2,
13, 29.

IEF304I jjj, DSNAME=dsn,
IEF304I DDNAME=ddn, VOLUME=SER=ser

    Explanation: One or more of the specified
volumes on which the data set named dsn
resides was not available when an attempt
was made to write the data set.
In the message text, jjj is the name of
the job being executed, ddn is the name of
the DD statement specifying the data set,
and ser is the serial number(s) of the
volume(s) on which the data set resides.

    Programmer Response: None

    Problem Determination: Table I, items
25b, 29.

IEF307I ddd WTR CLOSED-OUTPUT DCB FAILED TO OPEN

    Explanation: While processing a START WTR
command, the system was unsuccessful in
opening the system output data set. In
the message text, ddd is the unit address
of the device assigned to the writer.

    System Action: The SYSOUT Writer will
terminate itself.

    Operator Response: Restart the writer.

    Problem Determination: Table I, items 2,
7a, 29.

IEF308I jjj - NOT ENOUGH CORE FOR PROCESSING

    Explanation: When trying to initiate job
jjj, the scheduler could not obtain enough
main storage for its work area.

    System Action: The job was terminated.

    Operator Response: Redefine the partition
or region size to increase the amount of
main storage available to the scheduler.

IEF309I jjj - QUEUE MGR. READ ERROR ON SIOT

    Explanation: An error was detected by the
queue manager while reading a step
input/output table (SIOT) from the
SYS1.SYSJOBQE data set for job jjj.

    System Action: The job was terminated.

    Problem Determination: Table I, items 1,
3, 4, 7a, 8c, 29.

IEF310I jjj - QUEUE MGR. READ ERROR ON VOLT

    Explanation: An error was detected by the
queue manager while reading a volume table
(VCLT) from the SYS1.SYSJOBQE data set for
job jjj.

    System Action: The job was terminated.

    Problem Determination: Table I, items 1,
3, 4, 7a, 8c, 29.

IEF311I NCP - SETPRT PARAMETER LIST INVALID

    Explanation: When the SYSOUT writer
issued the SETPRT macro to load the
UCS/FCB buffer(s) on a 3211 printer for
the input data set, no operation was
performed because the SETPRT parameter
list was not valid.

    System Action: The SYSOUT Writer stopped
processing the input data set and will go
to process other input data sets.

    Programmer Response: Make sure that the
UCS/FCB parameters are correctly specified
on the DD statement.

    Problem Determination: Table I, items 1,
2, 3, 15, 29.

**IEF312I INVALID BLKSIZE SPECIFIED FOR PROCEDURE
LIBRARY**

    Explanation: The blocksize specified for
the procedure library was not a multiple
of 80.

    System Action: The SYSIN reader was
unable to read the procedure library and
terminated the job.

In systems with MFT and MVT, since the job scheduler is invoked by means of procedures existing in the procedure library, the systems are rendered unusable.

Operator Response: Report this message to the system programmer. He should change the blocksize of the procedure library to a multiple of 80.

IEF314I SYSIO

Explanation: While a SYSOUT writer was printing or punching a SYSOUT data set, one of the following was detected:
• An uncorrectable input/output error in reading the input data set.
• For an input data set containing blocked variable format records, a logical record that was too short; that is, less than 5 characters for blocked variable format with control characters or less than 4 characters for blocked variable format with no control characters.
• For an input data set containing fixed or fixed blocked records, the BLKSIZE or LRECL of the data is not the same as the BLKSIZE or LRECL which describe the attributes of the data set.

System Action: The SYSOUT writer stopped processing the input data set and will go on to process other input data sets.

Programmer Response: Probable user error. Make sure that the input data set does not have a blocked variable format record that is too short. Then recreate the data set by again executing the job step that produced it.

Problem Determination: Table I, items 1, 3, 4, 25b, of the volume containing the SYSOUT data set, 29.

IEF315I VOLUME COUNT INCONSISTENT WITH UNIT COUNT

Explanation: One of the following conditions has occurred:
• The number of devices specified in the UNIT= parameter of the DD statement is greater than the number of volumes available to be mounted, or is greater than the number of volume serial numbers specified in the VOL= parameter.
• The starting volume specified in the volume sequence number subparameter of the VOL= parameter of the DD statement is not the first volume in the series of volumes; therefore the number of volumes to be mounted is less than the number of devices specified in the UNIT= parameter.

System Action: The job is terminated.

Programmer Response: Probable user error. Correct the erroneous UNIT= or VOL= parameter and rerun the job.
Problem Determination: Table I, items 1, 2, 3, 4, 7a, 29.

IEF316I CCBAD

Explanation: While a SYSOUT writer was printing or punching a SYSOUT data set, an invalid machine control character was detected in the input data set. The SYSOUT writer could not translate the character into an ASA character.

System Action: The SYSOUT writer stopped processing the input data set and will go on to process other input data sets.

Programmer Response: Probable user error. Make sure that the input data set contains valid control characters.

Problem Determination: Table I, items 1, 3, 4, 15, 29.

IEF317I TEMPORARY FAILURE CF OPEN FCR JCB jjj sss

Explanation: An error occurred during execution of an OPEN macro instruction for the JOBLIB, FETCHLIB, or STEPLIB data set for the step named sss of the job named jjj.

System Action: The job is terminated.

Operator Response: Rerun the job.
Problem Determination: Table I, items 1, 2, 3, 4, 7a, 29.

IEF318I ddn INVALID UNIT AFFINITY REQUEST FOR DIRECT ACCESS

Explanation: The AFF subparameter of the UNIT parameter was specified for a new direct access data set. In the message text ddn is the data definition name of the DD statement defining the data set.

System Action: The job is terminated.

Programmer Response: Probable user error. If the data set is new, remove the AFF subparameter and make sure that the UNIT parameter specifies a unit address or unit type. Run the job again.

Problem Determination: Table I, items 1, 4, 7a, 29.

IEF320I STORAGE NOT AVAILABLE

Explanation: The IEFPRT (SPRINTER) program determined that not enough main storage space was available for the logical record of the data set.

System Action: The data set is skipped. Processing continues.

Programmer Response: Make sure the space allocation described in the IEFPRT program is sufficient. Then execute the job step again.

IEF321I INVALID SEGMENT

Explanation: In an input data set, a variable record extension (VRE) segment descriptor word is incorrect. For example, a beginning segment occurred

before the end segment of the last logical record.

System Action: The writer closed its output data set and stopped itself.

Programmer Response: Probable user error. Make sure the segment descriptor words in the input data set are being created correctly. Then execute the job step again.

Problem Determination: Table I, items 1, 3, 15, 29.

IEF322I NO FCB IMAGE-ID SPECIFIED FOR VERIFICATICN

Explanation: In response tc a user request for verification of the FCB image on a 3211 printer, no image-id had been specified with the verificaticn request.
System Action: The SYSOUT Writer ignores the request for verificaticn and continues with remaining requests.

Programmer Response: VERIFY should only be specified with the FCB image-ID to be verified. Make sure the FCB image-ID is correctly included follcwing the FCB=keywords parameter cn the DD statement.

Problem Determinaticn: Table I, items 1, 2, 3, 15, 29.

IEF323I NO FCB IMAGE-ID SPECIFIED FOR ALIGNMENT

Explanation: In response tc a user request for alignment cf the FCB forms on a 3211 Printer, no image-ID had been specified with the alignment request.

System Action: The SYSOUT Writer ignores the request for alignment and continues with remaining requests.

Programmer Response: Align should only be specified with the FCB image-ID to be aligned. Make sure the FCB image-ID is correctly included follcwing the FCB=keyword parameter cn the DD statement. If the problem recurs dc the following

Problem Determinaticn: Table I, items 1, 2, 3, 15, 29.

IEF324I NO IMAGE-ID SPECIFIED FOR VERIFICATICN

Explanation: In response tc a user request for verificaticn of the UCS image on a 3211 Printer, no image-ID had been specified with the verification request.

System Action: The SYSOUT Writer ignore the request for verificaticn and continues with remaining requests.

Programmer Response: VERIFY should only be specified with the UCS-ID to be verified. Make sure the UCS image-ID is correctly included follcwing the UCS=keyword parameter cn the DD statement.

Problem Determinaticn: Table I, items 1, 2, 3, 15, 29.

IEF325I CPERATOR CANCELLED LOAC. UCS/FCB IMAGE-IL/TRAIN NOT AVAILABLE.

Explanation: When the SYSOUT Writer issued the SETPRT macrc to load the UCS/FCB buffer(s) cn a 3211 printer for the input data set, either the image could nct be found in the image library (SVCLIB) cr the requested train was not available. Therefore, the cperatcr cancelled the lcad.

System Action: The SYSOUT Writer stcpped prccessing the input data set and will go cn tc process cther input data sets.

Prcgrammer Respcnse: Load the required image into the system library cr respecify the image-ID cn the DD card tc use an image and train available at the installaticn.

Prcblem Determinaticn: Table I, items 1, 2, 3, 15, 29. Execute System Utility IEHLIST, LISTPDS DSNAME=image library on vclume which ccntains the image library; save cutput.

IEF326I PERMANENT I/O ERROR ON BLDL LOCATE ON UCS/FCB IMAGE IN IMAGE LIERARY

Explanaticn: When the SYSOUT Writer issues the SETPRT macrc tc load the UCS/FCB buffer(s) cn a 3211 printer for the input data set, a permanent I/O error was detected when the BLDL macrc instruction was issued by data management to lccate the character set image in the image library.

System Action: The SYSOUT Writer stopped prccessing the input data set and will go cn tc process cther input data sets.

Cperator Respcnse: Enter another START WTR command specifying the class name of the data that was being written.

Prcblem Determinaticn: Table I, items 2, 29. Save asscciated cutput frcm WTR. Execute system utility IEHLIST, LISTPDS, DSNAMF=image library cn volume which ccntains the image library; save output.

IEF327I WTR ddd CLOSED. PERMANENT I/C ERRCR WHILE LCADING UCS/FCB EUFFER

Explanation: When the SYSOUT Writer issued the SETPRT macrc to load the UCS/fcb buffer(s) cn a 3211 printer for the input data set, a permanent I/O error persisted after twc attempts were made to lcad the associated buffer.

System Action: The SYSOUT Writer closed its SYSOUT data set cn device ddd and stcpped itself.

Cperatcr Respcnse: Enter ancther START WTR command, specifying the class name of the data that was being written.

Prcblem Determinaticn: Table I, items 2, 29. Save asscciated cutput from WTR.

IEF328I WTR ddd CLOSED. PERMANENT I/O ERROR CN UCS/FCB IMAGE VERIFICATION.

Explanation: When the SYSOUT Writer issued the SETPRT macro to load the UCS/FCB buffer(s) on a 3211 printer for the input data set, a permanent I/O error was detected when an attempt was made to display the character set image on the printer for visual verification.

System Action: The SYSOUT Writer closed its SYSOUT data set on device ddd and stopped itself.

Operator Response: Enter another START WTR command, specifying thecclass name of the data that was being written.

Problem Determination: Table I, items 2, 29.

IEF329I WTR ddd CLOSED. OPERATOR CANCELLED LOAD. INCORRECT UCS/FCB IMAGE DISPLAYED FCR VERIFICATION

Explanation: When the SYSOUT Writer issued the SETPRT macro i tc load the input data set, the operator cancelled the load because an incorrect image was displayed on the printer for visual verification.

System Action: The SYSOUT Writer closed its SYSOUT data set cn device ddd and stopped itself.

Programmer Response: Insure that the requested train contains the graphics necessary to print the image-ID specified and that the image-ID and desired verification image are correctly defined.

Problem Determination: Table I, items 1, 2, 3, 15, 29.

IEF330I INTERPRETER ABENDED DURING JOB jjj COMPLETION CODE hhh

Explanation: The interpreter invoked by the automatic SYSIN batching reader abnormally terminated with a completion code of hhh, in hexadecimal. The termination occurred during interpretation of the job control language fcr job jjj.

System Action: Job jjj and cther remaining jobs in its batch were purged and the automatic SYSIN batching reader was terminated.

Operator Response: Enter a START command to begin processing at job jjj.

Problem Determination: Table I, items 1, 2, 3, 15, 7a, 29.

IEF331I WTR ddd CLOSED. SETPRT NOP-UNCORRECTABLE OUTPUT ERROR ON PREVIOUS OPERATION

Explanation: When the SYSOUT Writer issued the SETPRT macro to load the UCS/FCB buffer(s) on a 3211 printer for the input data set, no operation was performed due tc an uncorrectable error in a previously initiated output operation.

System Action: The SYSOUT Writer closes its SYSOUT data set cn device ddd because of the uncorrectable output error, and stops itself.

Operator Response: Follow action specified for those companion messages which describe the nature cf the uncorrectable error. Enter another START WTR command, specifying the class name of the data that was being written.

Problem Determination: Table I, items 2, 29. Save associated output from WTR.

IEF334I QUEUE DEVICE I/O ERROR PROCESSING FOR JOB jjj

Explanation: An uncorrectable input/output error cccurred while the automatic SYSIN batching reader was entering the jcb control language for job jjj intc the SYS1.SYSJOBQE data set.

System Action: Job jjj was nct placed in the input work queue, all preceding jobs were interpreted and the input stream was stopped at this point.

Operator Response: Enter a START command to begin processing at job jjj.

Problem Determination: Table I, items 1, 2, 4, 7a, 8b, 29.

IEF335I INSUFFICIENT QUEUE SPACE FOR JOB jjj

Explanation: Insufficient space was allocated to the automatic SYSIN batching reader for entering the job control language for jcb jjj into the SYS1.SYSJOBQE data set.

System Action: Job jjj was purged from the SYS1.SYSJOBQE data set, all preceding jobs were interpreted, and the input stream was stopped at this point.

Operator Response: Probable user error. Inform the programmer responsible for the system either tc break up the job into smaller jobs cr tc increase the space allocation in the automatic SYSIN batching reader procedure.

Problem Determination: Table I, items 1, 2, 3, 7a, 29.

IEF336I QUEUE FULL AND WAITING

Explanation: During interpretation of job control language, the interpreter invoked by the automatic SYSIN batching reader found that no more space was available on the job queue.

System Action: The job being interpreted was saved and the interpreter region was freed. As soon as space becomes available

on the job queue, the interpreter will be automatically restarted.

Operator Response: None.

IEF370I INSUFFICIENT MAIN STORAGE FOR MOUNT PROCESSING

Explanation: There is not enough main storage available to allocate volumes to a job step whose DD statements specify old data sets that reside on unmounted volumes.

System Action: The job step is terminated.

Programmer Response: Increase the value specified in the REGION parameter of the JOB statement, or reduce the number of DD statements that specify old data sets residing on unmounted direct access volumes.

Problem Determination: Table I, items 1, 2, 4, 7a, 29.

IEF372I ddn VOLUME FIELD CONTAINS REFERENCE TO A DD NOT PREVIOUSLY RESOLVED

Explanation: In a DD statement (ddn in the message text), the VOLUME parameter contains a reference to a DD statement in a previous step. However, the previous step, which contains the referenced DD statement, was not executed because the condition test specified by the COND parameter of that step was satisfied.

System Action: The job was terminated.

Programmer Response: Probable user error. In the EXEC statement of the step containing DD statement ddn, include the same condition test specified in the EXEC statement of the step being referenced by

Problem Determination: Table I, items 2, 4, 7a, 29.

IEF373I STEP/sss START/yyddd.hhmm

Explanation: At step termination for SMF, this message indicates the time and date that step sss was started.
In the message text, yy specifies the year, ddd specifies the day of the year (001-366), hh specifies the hour (00-23), and mm specifies the minute (00-59).

Programmer Response: None.

IEF374I STEP/sss STOP/yyddd.hhmm CPU xxxxMIN xx.xxSEC MAIN xxxxK LCS xxxxK

Explanation: At step termination for SMF, this message indicates the time and date that step sss was terminated, the step problem program CPU time, and the maximum storage in use at any time during execution of the step.

In the message text, yy specifies the year, ddd specifies the day of the year (001-366), hh specifies the hour (00-23), and mm specifies the minute (00-59). For the CPU time, xxxxMIN specifies the minute and xx.xxSEC specifies the second (in seconds and hundredths of a second). Also, the MAIN xxxxK specifies the processor storage (hierarchy 0) and the LCS xxxxK specifies the IBM 2361 core storage (hierarchy 1).

Programmer Response: None.

IEF375I JOB/jjj START/yyddd.hhmm

Explanation: At job termination for SMF, this message indicates the time and date that job jjj was started.

In the message text, yy specifies the year, ddd specifies the day of the year (001-366), hh specifies the hour (00-23), and mm specifies the minute (00-59).

Programmer Response: None.

IEF376I JOB/jjj STOP/yyddd.hhmm CPU xxxxMIN xx.xxSEC

Explanation: At job termination for SMF, this message indicates the time and date that job jjj was terminated and the job problem program CPU time.

In the message text, yy specifies the year, ddd specifies the day of the year (001-366), hh specifies the hour (00-23), and mm specifies the minute (00-59). For the CPU time, xxxxMIN specifies the minute and xx.xxSEC specifies the second (in seconds and hundredths of a second).

Programmer Response: None.

IEF382A ddd WTR WAIT DUE TO PAUSE.

Explanation: In response to a MODIFY command with a PAUSE=DATASET parameter, the SYSOUT writer is waiting before starting to write a SYSOUT data set on device ddd.

The previous data set or messages are completed; that is, all lines or cards have been printed or punched and completely checked.

Operator Response: Perform any desired actions on device ddd; then enter REPLY xx,'y' where y is any single character. This reply causes the writer to begin processing the data set.

IEF383A ddd WTR, CHANGE FORM TO nnn

Explanation: The SYSOUT writer is waiting for the operator to change the forms on device ddd to form number nnn. This message appears only when a data set to be printed or punched needs forms different from the forms used for the data set just printed by the SYSOUT writer.

The previous data set or messages are completed; that is, all lines have been printed or punched and completely checked.

Operator Response: Change the forms to form number nnn; then enter REPLY xx,'y' where y is any single character. This reply causes the writer to begin processing the data set.

IEF384I dsn NOT DELETED w
VOL SER NOS= ser x,ser x,ser x,ser x,ser x.

Explanation: A DD statement specified that a data set should be written directly in intermediate direct access storage and printed or punched later by a SYSOUT writer. After the data set is printed or punched, it is supposed to be deleted from intermediate storage. This message indicates that the data set, which is named dsn, was not deleted from the intermediate storage volumes whose serial numbers, ser, are listed in the message text.

Up to five volume serial numbers are listed. The last serial number is followed by a period.

The w in the message text indicates why the data set could not be deleted from all the volumes listed.

w	Explanation
4	No device was available for mounting the volumes for deletion.
8	An unusual condition was detected for one or more of the listed volumes. This condition is identified in the codes, x, following each volume serial number.

x	Explanation
0	Deletion was not attempted.
1	The data set was not found on the volume.
2	The data set is security protected and the correct password was not given.
3	The expiration date had not occurred. When the data set was created, the expiration date was specified by the EXPDT or RETPD subparameter in the LABEL parameter of the DD statement.
4	An uncorrectable input/output error occurred in deleting the data set from the volume.
5	The system was unable to have the volume mounted for deletion.
6	The system requested that the operator mount the volume, but the operator did not mount it.

Operator Response: If w = 4 or is w = 8 and x = 0-3 or 5-6, no action is necessary.

Problem Determination: If w = 8 and x = 4, see Table I, items 25a, 29.

IEF385I ddd DSO OPEN FAILURE OUTCLASS=s jjj

Explanation: While writing output separators and/or system messages directly to device ddd for job jjj, the system was unsuccessful in opening the direct system output (DSO) data set.

In the message text, ddd is the unit address of the device assigned to the writer, and s is the system output class being processed.

System Action: If a job step was being initiated when the error occurred, then the job will be terminated. If the system output class is the same as the message class for the job, then the system messages are enqueued to be written by a system output writer.

The DSO writer associated with device ddd is stopped.

Operator Response: If any output was enqueued, start a system output writer for the job, if one is not already started.

Problem Determination: Table I, items 1, 2, 3, 4, 7a, 29.

IEF386I ddd DSO OUTPUT I/O ERROR OUTCLASS=s jjj

Explanation: While writing output separators and/or system messages directly to device ddd for job jjj, a permanent input/output error was encountered.

In the message text, ddd is the unit address of the device assigned to the direct system output (DSO) writer, and s is the system output class being processed.

System Action: If a job step was being initiated when the error occurred, then the job will be terminated. If the system output class is the same as the message class for the job, then the system messages are enqueued to be written by a system output writer.

The DSO writer associated with device ddd is stopped.

Operator Response: If any output was enqueued, start a system output writer for the job, if one is not already started.

Problem Determination: Table I, items 1, 2, 3, 4, 7a, 29.

IEF387I DIRECT SYSOUT=sclass

Explanation: The system is displaying the classnames of the system output classes, including the message class, that are qualified to use the facilities of the direct system output (DSO) writer currently available.

In the message text, sclass is a listing of the classnames.

System Action: The data is written
directly to the device assigned to the DSO
writer instead of being spooled on disk
and later written by the system output
writer.

Programmer Response: None.

IEF388I jjj.sss.ddn WAITING FOR DEVICES

Explanation: The system was unable to
satisfy the device request(s) by the data
set named ddn for the step named sss of
the job named jjj.

System Action: The initiator for step sss
of job jjj will enter a wait state until
the requested devices have been
unallocated by terminating tasks and are
available for use. Other jobs cannot go
through allocation until this wait has
terminated and current allocation
processing has completed.

Operator Response: If desired, enter a
CANCEL command to terminate the job named
jjj.

In systems with MFT, a reply of CANCEL
must be entered if no other scheduler size
partition is available for termination
services.

IEF389I jjj.sss.ddn SEP REQUEST IGNORED

Explanation: In a DD statement, channel
or unit separation was requested by the
SEP parameter or the SEP subparameter of
the UNIT parameter. However, the system
was unable to satisfy the request.

Separation was requested in the DD
statement whose name field contains ddn
for the step named sss of the job named
jjj.

System Action: The system will ignore the
separation request and attempt
reallocation.

Operator Response: None.

IEF390I DSO (s,j,devtyp) NEEDED TO RESTART jjj[Pn]

Explanation: During execution of a
checkpoint restart for job jjj, the system
found that a direct system output (DSO)
writer was required to restart the job.

The message text, s is the system output
class, j is the job class, and devtyp is
the device type associated with the DSO
writer. In systems with MFT, Pn is the
partition in which the DSO writer should
be started.

System Action: The system will place the
job on the hold queue.

Operator Response: Start the DSO writer
required. In systems with MFT, the writer
should be started in the indicated
partition. Then, release the job from the
hold queue.

IEF391I ddd DSO CLOSED

Explanation: In response to a STOP
command or an input/output failure, the
direct system output (DSO) writer closed
its output data set and stopped itself.
In the message text, ddd is the unit
address of the device assigned to the
writer.

Operator Response: None.

IEF392I ddd DSO JOBCLASS=jclass,OUTCLASS=s

Explanation: In response to a MODIFY
command, the system output class and job
classes associated with the direct system
output (DSO) writer were changed.

In the message text, ddd is the unit
address of the device assigned to the
writer, jclass is a listing of the new job
classes, and s is the new system output
class.

Operator Response: None.

IEF393I ddd DSO COMMAND OR PROCEDURE ERROR

Explanation: While processing a START or
MODIFY command, the direct system output
(DSO) writer detected an error in the
parameter field of the command. For a
START command, the error may have been a
faulty parameter field in the procedure or
a missing IEFRDER DD statement.

In the message text, ddd is the unit
address of the device assigned to the
writer.

System Action: If a START command was
being processed, the DSO writer will
terminate itself. If a MODIFY command was
being processed, the command will not be
executed.

Operator Response: Probable user error.
Enter the command again correctly.

Problem Determination: Table I, items 1,
2, 3, 4, 7a, 26d, 29.

IEF394I ddd DSO PARTITION ERROR

Explanation: In systems with MFT, a START
DSO command was issued for a partition
that was not a problem program partition.
In the message text, ddd is the unit
address of the device assigned to the
direct system output (DSO) writer.

System Action: The DSO writer will
terminate itself.

Operator Response: Probable user error.
Reissue the START DSO command for a
problem program partition.

Problem Determination: Table I, items 2,
7a, 29.

IEF395I ddd DSO JOBQ I/O ERROR MSGCLASS=s jjj

    Explanation: While writing the system
    messages directly to device ddd for job
    jjj, a read error on the SYS1.SYSJOBQE
    data set was encountered.

    In the message text, ddd is the unit
    address of the device assigned to the
    direct system output (DSO) writer, and s
    is the message class being processed.

    System Action: If a job step was being
    initiated when the error occurred, then
    the initiator is abnormally terminated
    with a system completion code of 0B0. In
    systems with MFT, all DSO writers in the
    partition are stopped.

    Operator Response: None.
    Problem Determination: Table I, items 1,
    2, 4, 7a, 8b, 29.

IEF396I READER PARTITION ERROR

    Explanation: In systems with MFT, two
    readers were started in the same
    partition.

    System Action: The second reader will
    terminate itself.

    Operator Response: None.

IEF397I ddd DSO END OF OUTPUT RECORD NOT WRITTEN

    Explanation: While processing a STOP
    command, the direct system output (DSO)
    writer was unable to write the final
    record indicating end of output. In the
    message text, ddd is the unit address of
    the tape device assigned to the writer.

    System Action: The DSO writer will
    terminate itself without writing the end
    of output record.

    Operator Response: Label the tape
    externally to indicate that the end of
    output record is missing. (Although the
    IEFPRT (SPRINTER) program may be used to
    print the system output from this tape,
    the program's action upon reaching the end
    of the valid output is unpredictable.)

    Problem Determination: Table I, items 1,
    2, 3, 4, 7a, 29.

IEF398I ddd DSO OPEN UNSUCCESSFUL

    Explanation: While processing a START DSO
    command, the system was unsuccessful in
    opening the direct system output (DSO)
    data set.

    In the message text, ddd is the unit
    address of the device assigned to the
    writer.

    System Action: The DSO writer will
    terminate itself.

    Operator Response: Enter the command
    again. There may be a problem with the
    particular reel of tape.

    Problem Determination: Table I, items 2,
    7a, 29.

IEF399I DSO APPEND EXIT PROCEDURES COMPLETED

    Explanation: While processing a STOP or
    MODIFY command, the direct system output
    (DSO) writer encountered an abnormal
    condition.

    System Action: The DSO writer will
    terminate itself, and the device assigned
    to the writer will be de-allocated. If
    the device was a tape device, the final
    record indicating end of output may not
    have been written.

    Operator Response: If the device was a
    tape device, label the tape externally to
    indicate that the end of output record may
    be missing. (Although the IEFPRT
    (SPRINTER) program may be used to print
    the system output from this tape, if the
    end of output record is missing, the
    program's action upon reaching the end of
    the valid output may be unpredictable.)

    Problem Determination: Table I, items 1,
    2, 3, 4, 7a, 11, 29.

IEF401W I/O ERROR SCHEDULER WORK AREA

    Explanation: While starting the system,
    an uncorrectable input/output error
    occurred when the system was writing in
    the SYS1.SYSJOBQE data set.

    System Action: System processing was
    stopped.

    Operator Response: Re-IPL the system and
    format the job queue.

    Problem Determination: Table I, items 2,
    7a, 8a, 29.

IEF403I jjj STARTED [TIME=hh.mm.ss]

    Explanation: In response to a DISPLAY
    command with JOBNAMES in its operand, this
    message indicates that the system has
    begun processing the job named jjj. This
    message is also issued if job jjj has
    restarted in systems with MVT.
    If T is also specified in the operand of
    the DISPLAY command, then the time of day
    appears, where hh specifies the hour
    (00-23), mm specifies the minute (00-59),
    and ss specifies the second (00-59). The
    time, if specified, does not necessarily
    correspond to any time-accounting time
    stamp.

    Operator Response: None. However, if the
    job should not be executed at this time,
    issue a CANCEL command and the job will be
    bypassed.

IEF404I jjj ENDED [TIME=hh.mm.ss]

    Explanation: In response to a DISPLAY
    command with JOBNAMES in its operand, this
    message indicates that job jjj has
    terminated.

Note: If job jjj has been cancelled by the operator and not by the system, this message will not be issued.

If T is also specified in the operand of the DISPLAY command, then the time of day appears, where hh specifies the hour (00-23), mm specifies the minute (00-59), and ss specifies the second (00-59).

Operator Response: None.

IEF406I ddd - READER CANNOT BE OPENED

Explanation: The data control block for the SYSIN data set on device ddd could not be opened. Probably, the IEFRDER DD statement in the reader procedure was specified incorrectly.

Operator Response: Probable user error. Report this message to the programmer responsible for the system. He should correct any errors on the IEFRDER DD statement in the reader procedure, and then restart the reader procedure.

Problem Determination: Table I, items 1, 2, 3, 4, 7a, 29.

IEF407I ddd - PROCLIB CANNOT BE OPENED FOR READER

Explanation: The data control block for the SYS1.PROCLIB data set on device ddd could not be opened. Probably, the IEFPDSI DD statement in the reader procedure was specified incorrectly.

Operator Response: Report this message to the programmer responsible for the system. He should correct any errors on the IEFPDSI DD statement in the reader procedure, and then restart the reader procedure.

Problem Determination: Table I, items 1, 2, 3, 4, 7a, 29.

IEF408I ddd - jjj JOB NOT FOUND FOR READER

Explanation: In a START command for reader ddd, job jjj was specified as a jobname parameter value. However, job jjj was not found in the input stream.

Operator Response: Probable user error. Make sure the jobname is spelled correctly in the START command, and make sure the job has been placed in the input stream. Then reenter the command.

Problem Determination: Table I, items 1, 2, 3, 4, 7a, 29.

IEF409I jjj,CLASS=cc,PRTY=pp,POS=nn,qqqq

Explanation: In response to a DISPLAY command with the job name jjj in its operand, the system is displaying the following information about the job:
cc
    The job class assigned to the job if it is on an input queue or the output class assigned to the job if it is on a SYSOUT queue.

pp
    The priority of the job queue entry.
nn
    The position of the job on its queue.
qqqq
    The name of the queue. This can be either JOBQ x (where x is the class identifier of an input queue), BRDRQ, HOLDQ, ASBQ, or SOUTQ x (where x is the output class identifier of an output queue).

System Action: None.

Operator Response: None.

IEF410I INCORRECT PARTITION FOR START COMMAND

Explanation: A START command was entered for a procedure in a partition that was defined as a Reader or Writer partition, but the procedure was not a Reader or Writer.

System Action: The job is terminated.

Operator Response: Probable user error. Enter the command again, specifying a problem program partition.

Problem Determination: Table I, items 2, 26d, 29. Enter DEFINE LIST to obtain a listing of partitions that are currently active.

IEF412I SPOOL DEVICE I/O ERROR WRITING FOR JOB jjj

Explanation: While a SYSIN reader was writing a data set from the input stream on a direct access device an uncorrectable input/output error was encountered. The data set being moved was specified by a DD * or DD DATA statement.

System Action: Job jjj, which contains the input stream data set, was terminated. The job scheduler also wrote message IEF608I in the SYSOUT data set to inform the programmer.

Operator Response: Reenter job jjj through the input stream.

Problem Determination: Table I, items 1, 2, 4, 7a, 29.

IEF413I QUEUE DEVICE I/O ERROR INTERPRETING JOB jjj

Explanation: An uncorrectable input/output error occurred while a SYSIN reader was writing in the SYS1.SYSJOBQE data set; the reader was queuing job jjj in the input work queue.

System Action: Job jjj was removed from the input work queue and was terminated.

Operator Response: Reenter job jjj through the input stream.

Problem Determination: Table I, items 1, 2, 4, 7a, 8b, 29.

IEF414I QUEUE DEVICE I/O ERROR ENQUEUEING JCB jjj

> Explanation: An uncorrectable input/output error occurred while a SYSIN reader was writing in the SYS1.SYSJOBQE data set; the reader was queuing job jjj in the input work queue.
>
> System Action: Job jjj was removed from the input work queue and was terminated.
>
> Operator Response: Reenter job jjj through the input stream.
>
> Problem Determination: Table I, items 1, 2, 4, 7a, 8b, 29.

IEF415I I/O ERROR CN ddd PURGING JOB jjj

> Explanation: An uncorrectable input/output error occurred while the job scheduler was purging job jjj from the SYS1.SYSJOBQE data set, which is on device ddd.
>
> This message can occur cnly during the job removal after message IEF413I or IEF414I.
>
> System Action: Job removal on device ddd was stopped; however, removal continued on other devices.
>
> Operator Response: Respond as indicated for message IEF413I or IEF414I. Notify the system programmer at the installation of this message.
>
> Problem Determination: Table I, items 1, 2, 4, 7a, 8b, 29.

IEF416I SPOOL FULL AND WAITING jjj

> Explanation: A SYSIN reader placing an input stream data set fcr jcb jjj on a direct access device found that no more space was available on the device. The data set was defined by a DD * or DD DATA statement.
>
> System Action: The timer was set for 1 minute; at the end of the minute, the reader will determine if space had in the meantime become available cn the direct access device. If space had become available, the reader will resume placing the data set on the direct access device. If space had not become available, the timer will again be set for 1 minute. Thus, this message will be issued once a minute until space becomes available.
>
> Operator Response: If this message is repeated fcr too long a time, enter a STCP RDR command.
>
> If space has become available, the system will continue processing and close the reader after job jjj has been read. In this case, reenter the JOB card for the job following jjj befcre the reader is started again, or the jcb fcllowing jjj will be flushed.

If space has nct beccme available, the system will flush the input data for job jjj and stop the reader. In this case, reenter job jjj and the JOB card for the job fcllowing jjj.

IEF417I PROCLIB DEVICE I/O ERRCR READING FOR JCB jjj

> Explanation: During the processing of a request for a catalcged procedure, an input/cutput errcr cccurred in reading or searching the SYS1.PROCLIB data set.
>
> System Action: Jcb jjj, which was being processed, was terminated. If the error occurred in reading the procedure library, the jcb scheduler also wrote message IEF603I in the SYSCUT data set; if the error occurred in searching the prccedure library, the jcb scheduler also wrote message IEF614I in the SYSCUT data set.
>
> Operator Respcnse: Reenter jcb jjj through the input stream.
>
> Prcblem Determinaticn: Table I, items 1, 2, 4, 7a, 29.

IEF418I SPCOL DEVICE I/C ERRCR OPENING FOR JCB jjj

> Explanation: An unccrrectable input/output errcr cccurred while the system was opening the data ccntrol block (DCB) that the jcb scheduler had created for a data set in the input stream. (The data set was defined by a DD * cr CD DATA statement.)
>
> System Acticn: Jcb jjj, which contained the input stream data set, was terminated.
>
> Operator Respcnse: Reenter jcb jjj through the input stream. If this message appears a seccnd time for the same job nctify the prcgrammer that job jjj could nct be executed.
>
> Prcblem Determinaticn: Table I, items 1, 2, 4, 7a, 29.

IEF419I INPUT DEVICE I/C ERROR READING JOB jjj

> Explanation: An unccrrectable input/output errcr cccurred while a SYSIN reader was reading the input stream.
>
> System Action: The SYSIN reader closed the input stream and stopped itself. The interpreter terminated the jcb named jjj, which was being read when the error cccurred. The jcb scheduler also wrote message IEF602I in the SYSOUT data set to inform the prcgrammer.
>
> Cperator Respcrse: Enter a START RDR ccmmand and reenter jcb jjj through the input stream. If this message appears a seccnd time fcr the same job, tell the prcgrammer the rame cf the jcb; his action is needed to ccrrect the card image being read when the errcr cccurred. If the
>
> Prcblem Determiraticn: Table I, items 1, 2, 4, 7a, 29.

IEF420I RDR=jjj

> Explanation: The job named jjj was being processed by the reader/interpreter when a system failure occurred or the power was turned off. (This message is issued during the subsequent system restart.)
>
> Operator Response: Enter the job named jjj through the input stream.

IEF421I INIT=jjj.sss.ppp (x) cond

> Explanation: When a system failure occurred or the power was turned off, procedure step ppp of step sss of job jjj was being initiated (x=1), was being executed (x=2), or was being terminated (x=3). (This message is issued during the subsequent system restart.)
>
> If x=1 and cond=CANCELLED, initiation could not be resumed and the job was canceled.
>
> If x=2 and cond=NO RESTART, either the step requested restart and the operator denied the request or the step did not request restart. Restart will not be performed.
>
> If x=2 and cond=RESTART, the step requested restart. The operator authorized the restart and the restart will be performed.
> If x=3 and cond=CANCELLED, the job failed before system failure occurred.
>
> If x=3 and cond=CONTINUING, the step was not the last step. Termination was completed normally and the next step will be initiated normally.
> If x=3 and cond=ENDED, the step was the last step. Step termination and job termination have completed normally.
>
> Operator Response: Enter START WTR commands for the installation-defined classes. If cond=RESTART or CONTINUING, start an initiator for the job's input class.
>
> If x=1, the following will be written:
> • SYSOUT data sets for all steps preceding sss (or ppp).
> • Job control statements and system messages for steps preceding sss (or ppp).
> • Job control statements, but not messages, for step sss (or ppp) and all subsequent steps.
>
> If x=2 and cond=NO RESTART or x=3 and cond=CANCELLED, the following will be written:
> • SYSOUT data sets for steps preceding sss (or ppp) and, if they contain data, for step sss (or ppp).
> • Job control statements and system messages for steps preceding sss (or ppp).
> • Job scheduler messages (message code IEF), including device allocation messages, for step sss (or ppp).

> • Job control statements, but not messages, for steps following sss (or ppp).
>
> If x=2 and cond=RESTART or x=3 and cond=CONTINUING, all SYSOUT data sets, job control statements, and system messages for the job will be written after the initiator has finished processing the job.
>
> If x=3 and cond=ENDED, all output for the job will be written.
>
> Report the message to the programmer:
> • If x=1, non-temporary data sets for step sss (or ppp) may have been created before the failure. Temporary sysout data sets for tasks started from the console may not be scratched by the writer, and may have to be scratched by the installation programmer.
> • If x=2 or 3, termination for step sss (or ppp) has completed normally.

IEF422I ddd I/O ERROR DURING SYSTEM RESTART (c)

> Explanation: During system restart, an uncorrectable input/output error or unusual condition occurred while the system was reading or writing a data set control block (DSCB) for SYSIN data set on device ddd. The SYSIN data set was for a job that was abnormally terminated before the system was stopped. The (c) indicates that either (1) not all SYSIN data sets for abnormally terminated jobs were scratched from ddd or (2) the volume table of contents (VTOC) on ddd is unusable.
>
> System Action: System restart continues.
>
> Operator Response: None. However, the message indicates a potential problem on device ddd. If later messages indicate problems on ddd, then enter a VARY command to vary device ddd offline.
>
> Problem Determination: Table I, items 1, 2, 3, 4, 7a, 29.

IEF423A SPECIFY JOB QUEUE PARAMETERS

> Explanation: During system start, in response to a SET command with an F in its Q parameter, this message requests parameters describing the format for the SYS1.SYSJOBQE data set.
>
> Operator Response: Enter one of the following, as specified by the system programmer at the installation:
>
> • REPLY xx, 'U' to indicate that the values specified during system generation are to be used.
> • REPLY xx,'n,t,k,p' where n, t, k, and p are positional parameters that are either replaced by the desired values or omitted to indicate that the value specified during system generation is to be used. The parameters are:
>
>   n   Number of queue records per logical track. (Decimal number from 10 through 255.)
>   t   Number of queue records to be reserved for each initiator. (Up to 4 decimal digits.)

k Number of queue records to be
reserved for termination of jobs that
require more than t records to
initiate. (Up to 4 decimal digits.)
p Number of queue records to be
reserved for the write-to-programmer
routine. (Decimal number from 0
through 20.)

Examples are:

- REPLY xx,'12' indicates that n is the
only parameter to be different from the
system generation values.
- REPLY xx,',,5' indicates that k is the
only parameter to be different from the
system generation values. Notice the
commas that represent the two omitted
positional parameters.

IEF424A INVALID PARAMETER/FORMAT

Explanation: The reply to message IEF423A
was invalid. One or more parameters in
the reply either contained characters
other than numbers or were not within the
allowable range (n: 10 through 255, t: 4
decimal digits, k: 4 decimal digits).

System Action: The system ignored the
reply.

Operator Response: Probable user error.
Enter the reply again correctly.

Problem Determination: Table I, items 2,
7a, 11, 29.

IEF425I jjj EXCEEDED SPECIFIED QUEUE SPACE

Explanation: The job named jjj requires
too much queue space in the SYS1.SYSJCBCE
data set for initiation.

The space reserved for each initiator was
specified either during system generation
or in the t parameter of the reply to
message IEF423A.

Message IEF450I will normally follow this
message. However, if the job exceeded the
specified queue space during job
termination, message IEF404I will follow.

System Action: The job was terminated.

Operator Response: Probable user error.
Report this message to the programmer
responsible for the system. He should
either have the programmer divide the
steps of the terminated job into two or
more jobs or, the next time the system is
started, specify that (1) the format of
the SYS1.SYSJOBQE data set be changed (F
in the Q parameter of the SET command) and
(2) a larger t parameter be used in the
reply to message IEF423A.

Problem Determination: Table I, items 1,
2, 3, 4, 7a, 29.

IEF426I QUEUE CRITICAL

Explanation: When the system attempted to
terminate one cr more jobs that required
too much queue space in the SYS1.SYSJOBQE
data set for initiation, the termination
required too much queue space.

The space reserved for termination for
jobs that require too much space for
initiation was specified either during
system generation or in the k parameter of
the reply to message IEF423A.

System Action: No more queue space can be
assigned. Therefore, the
reader/interpreters, initiators, and
SYSOUT writers can do no more work.
Currently executing job steps will
continue.

Operator Response: Probable user error.
Report this message to the programmer
responsible for the system. Then start
the system, specifying that the format of
the SYS1.SYSJOBQE data set be changed (F
in the Q parameter cf the SET command)
and, in the reply to message IEF423A,
using the larger t and/or k parameters
specified by the programmer responsible
for the system.

**IEF427I CCMD REJECTED FOR INITIATOR 'ident' -
INSUFFICIENT QUEUE SPACE**

Explanation: A START command was entered;
however, not enough space is available in
the SYS1.SYSJOBQE data set for another
initiator.

The space to be reserved for each
initiator was specified either during
system generation cr in the t parameter of
the reply to message IEF423A.

In the message text, 'ident' specifies the
identifier assigned to the task when it
was started.

Operator Response: Enter a START command
later when the queue has more free space.
Free space is produced when a SYSOUT
writer or the current initiator(s) finish
processing a job.

IEF428I [jjj] TERMINATED DUE TO I/O ERROR

Explanation: An I/O error occurred while
reading or writing to the job queue during
the interpretation cf START command JCL.
In the message text, jjj is the name of
the job being read cr written.

System Action: Job jjj is terminated by
flushing it from the system. No JOB jjj
ENDED message will appear.

Operator Response: Re-issue the START
command that caused the error.

Problem Determination: Table I, items 2,
7a, 29.

IEF429I INITIATOR 'ident' WAITING FOR WORK

    Explanation: Each input queue for the
    initiator either contains no jobs or is in
    a held status. Input queues are held with
    the HOLD Q command.

    In the message text, 'ident' specifies the
    identifier assigned to the task when it
    was started.

    System Action: While waiting for a job to
    initiate, the initiator's region is free
    and its storage is made available to other
    tasks.

    Operator Response: More jobs may be read
    into the system or the RELEASE Q command
    may be entered, as desired.

IEF430I RESTART STEP NOT FOUND jjj

    Explanation: During execution of a
    deferred restart for job jjj, it was found
    that the RESTART parameter of the JOB
    statement specified a step name that could
    not be found either in the resubmitted
    deck or in the specified cataloged
    procedure.

    System Action: Restart for job jjj is
    terminated.

    Operator Response: None.

IEF431W SYSTEM RESTART I/O ERROR ON JOB QUEUE

    Explanation: The system restart function
    has encountered an uncorrectable
    input/output error on the SYS1.SYSJOBQE
    data set.

    System Action: The system entered into a
    one-instruction loop.

    Operator Response: Restart the system and
    reformat the SYS1.SYSJOBQE data set.

    Problem Determination: Table I, items 2,
    7a, 8a, 11, 29.

IEF432I START INIT REJECTED

    Explanation: A START command was entered;
    however, not enough space is available in
    the SYS1.SYSJOBQE data set for another
    initiator. The space to be reserved for
    each initiator was specified either during
    system generation or in the t parameter of
    the reply to message IEF423A.

    Operator Response: Enter a START command
    later when the queue has more free space.
    Free space is produced when a SYSOUT
    writer or the current initiator(s) finish
    processing a job.

IEF438I SUBTASK OF utn TERMINATED. SYSTEM
COMPLETION CODE hhh

    Explanation: A subtask abnormally
    terminated; therefore, the system output
    (SYSOUT) writer was unable to print or
    punch the SYSOUT data set. In the message
    text, utn is the applicable unit name and

hhh is the completion code, in
hexadecimal.

    Operator Response: None.

IEF439I DATASET WRITER xxx FOR DDN ddn COMPLETION
CODE hhh

    Explanation: The data set writer whose
    module name is xxx abnormally terminated
    while attempting to write the data set
    described by DD statement ddn; hhh, the
    completion code, is in hexadecimal.

    System Action: The system output (SYSOUT)
    writer stopped processing the input data
    set, but will continue to process other
    input data sets.

    Programmer Response: Use the system
    completion code specified in the message
    text to determine the cause of the
    failure. After correcting the error,
    resubmit the job step which created the
    data set.

IEF440I I/O ERROR IN THE SYS1.SYSJOBQE DATA SET
FOR jjj sss nnn

    Explanation: An uncorrectable
    input/output error occurred while the
    system was trying to read or write in the
    SYS1.SYSJOBQE data set.

    In systems with MVT, jjj sss is the
    jobname and stepname or task name
    identifier for which information was being
    written at the time of the error.

    In systems with MFT, jjj sss is the task
    name identifier of the applicable system
    task, or the partition number of the
    applicable partition.

    in either case, nnn is the IOS return code
    from the read/write operation in question.
    It will be one of the following:

        X'41' The I/O activity was not
                completed because an
                uncorrectable error occurred.
                Probable hardware error.

        X'42' The activity was not started
                because a pointer referenced an
                area out of the SYS1.SYSJOBQE
                direct access extent. Probable
                software error.

        X'44' The request was intercepted
                because a permanent error
                occurred the last time the
                device was used.

        X'48' The request element has been
                freed because the data set is
                permanently in error.

        X'4F' A direct access error recovery
                routine was unable to read the
                home address or record 0.

<u>System Action</u>: The read or write
operaticn was not performed.

<u>Operatcr Response</u>: Report this message to
system prcgrammer or installation manager.
The message indicates a potential problem
with the SYS1.SYSJOBQE data set. If the
message is repeated, restart the system
and refcrmat the queue at the earliest
convenient opportunity.

<u>Problem Determination</u>: Table I, items 1,
2, 4, 7b, 8b, 29.

IEF441I SYSTEM RESTART ERROR ON $\begin{Bmatrix} jjj \\ FREELIST \\ QUEUE \end{Bmatrix}$, qqqq,

$\begin{Bmatrix} TTR=nnn \\ NN=nn \end{Bmatrix}$, $\begin{Bmatrix} status \\ C \\ E \\ D \end{Bmatrix}$, [sense], mod

<u>Explanation</u>: An uncorrectable error
occurred during system restart processing
for job jjj. In the message text, the
first variable field contains one of the
following:
  • Name of the job being prccessed (jjj).
  • FREELIST, which indicates that an
    error occurred while tracks were being
    returned to the free track queue on
    the SYS1.SYSJOBQE data set.
  • QUEUE, which indicates that the error
    occurred during processing of a queue
    control record. The TTR=nnn or NN=nn
    field will contain blanks if QUEUE
    appears in this field, and messages
    IFD442I and IEF443I will follow this
    message.
  • bbbbbbbb (blanks), which indicates
    that the error cccurred while the
    system was attenpting tc read the
    logical track header fcr a job.

The qqqq field identifies the queue type
that was being processed at the time of
the error.

  • HOLD
  • ASB
  • OUTPUT=x
  • RJE
  • INPUT=x
  • BRDRQ

where x is the input cr output class
identifier.

In the next field, TTR=nnn cr NN=nn
represents the address cf the logical
track header assigned tc the jcb on the
queue.

The status field contains either the
two-byte portion of the channel status
word (CSW) followed by the first two sense
bytes for the error conditicn, or one of
the following error codes.
  • C - The error occurred during the
    conversion of the TTR.
  • E - The error occurred while the job
    was being enqueued.

  • D - The errcr cccurred while a jcb was
    being deleted frcm a queue.

The mod field ccntains the three-byte
identifier of the mcdule that detected the
error ccnditicn. The assembly mcdule name
can be determined by adding the prefix
IFFSD tc this identifier.

<u>System Acticn</u>: System restart prccessing
fcr jcb jjj is terminated; hcwever,
prccessing will continue with the next job
cn the SYS1.SYSJCBQE data set. The tracks
assigned to jcb jjj are nct released.

<u>Operator Respcnse</u>: Prccess current work
cn the queues. Refcrmat the SYS1.SYSJOBQE
data set at the earliest ccnvenient time
be entering SET Q=([unitname],F). Jcbname
jjj must be reentered into the system
after the queue has been refcrmatted.

<u>Prcblem Determinaticn</u>: Table I, items 2,
3, 8a, 29.

IEF442I AUTO COMMANDS SUPPRESSED ON RESTART ERROR

<u>Explanaticn</u>: An unccrrectable errcr
cccurred during prccessing cf a queue
ccntrcl record (QCR). Any autcmatic start
ccmmands that were authorized fcr
initiation have been suppressed. Message
IEF443I fcllcws this message tc indicate
the queues that have wcrk cn them.

<u>System Action</u>: The system issues message
IEF443I and then enters a wait state until
the cperatcr enters a start ccmmand.

<u>Cperator Respcrse</u>: Respond as indicated
tc message IEF443I.

IEF443I WCRK CN QUEUES: [HOLD], [ASE],
        [CUTPUT=list], [RJE], [INPUT=list], [BRDRQ]

<u>Explanaticn</u>: This message follcws message
IEF442A; it indicates the queues that have
data cn them ard can have writers or
initiatcrs started fcr them.

<u>System Acticn</u>: The system enters a wait
state until the cperatcr enters a START
ccmmand.

<u>Cperatcr Respcrse</u>: Start writers and/or
initiatcrs for the indicated classes as
required.

Cnce the cperating system has quiesced,
execute the stardalcne prcgram IMCJQDMP to
dump the SYS1.SYSJOBQE data set. Then
refcrmat the SYS1.SYSJOBQE data set using
the Q= parameter cf the SET ccmmand.

IEF444I SYSTEM RESTART ERRCR TERMINATING JOB jjj

<u>Explanaticn</u>: The system restart function
enccuntered an unccrrectable input/output
errcr cn the SYS1.SYSJOBQE data set. In
the message text, jjj is the jcbname.

<u>System Acticn</u>: The read cr write
cperaticn was nct perfcrmed. Prccessing
ccntinues.

Operator Response: Probable hardware error. Report this message to the system programmer.

Problem Determination: Table I, items 1, 2, 3, 4, 7a, 8a, 29.

IEF450I jjj.sss.[ppp]ABEND {Shhh / Udddd / Shhh Udddd}
TIME=hh.mm.ss

Explanation: A job step was abnormally terminated during (1) step sss of job jjj, or (2) step ppp, which is part of a cataloged procedure called by step sss of job jjj.

The first format of the message indicates that the job step was abnormally terminated by the control program; hhh, the completion code, is in hexadecimal. The second format of the message indicates that the job step was terminated by the problem program; dddd, the completion code, consists of 4 decimal digits.

This message also indicates the time of day, where hh specifies the hour (00-23), mm specifies the minutes (00-59), and ss specifies the second (00-59).

Operator Response: None.

IEF451I jjj.sss.[ppp] ENDED BY CC dddd
TIME=hh.mm.ss

Explanation: A condition test specified in the COND parameter of a JOB statement was satisfied by the completion code dddd for (1) step sss of job jjj, or (2) step ppp, which is part of a cataloged procedure called by step sss of job jjj. Completion code dddd consists of 4 decimal digits.

This message also indicates the time of day, where hh specifies the hour (00-23), mm specifies the minute (00-59), and ss specifies the second (00-59).

System Action: The job named jjj was terminated.

Operator Response: None.

IEF452I xxx JOB NOT RUN - JCL ERROR
[TIME=hh.mm.ss]

Explanation: If xxx is a job name, the reader/interpreter detected an error in a job control statement or the job was canceled while on the input queue. If the error was detected on a JOB statement, the xxx appears as JOBFAIL.

If xxx is a cataloged procedure name, the procedure was specified in the first operand of a START command. In this case, either the procedure was not found in the system procedure library (SYS1.PROCLIB) or, if found, the procedure had an error in a job control statement. Message IEE132I will always follow this message on the console listing.

The actual error message appears in the system output (SYSOUT) data set.

In response to a DISPLAY command with JOBNAMES,T in its operand, this message also indicates the time of day, where hh specifies the hour (00-23), mm specifies the minute (00-59), and ss specifies the second (00-59).

System Action: If xxx is a job name, the job was not initiated and no steps were executed. If xxx is a procedure name, the START command was not executed.

Operator Response: If xxx is a job name, none. If xxx is a procedure name, either reenter the START command with the correct procedure name, or, if the procedure name is correct, have the programmer responsible for the system check the procedure for errors.

Problem Determination: Table I, items 1, 2, 3, 4, 7a, 29.

IEF453I jjj JOB FAILED - JCL ERROR

Explanation: In a job control statement, an error was detected by the initiator, or an error was detected in a subsequent job step by the reader/interpreter. The actual error message appears in the system output (SYSOUT) data set.

System Action: The job named jjj was terminated. If the error was detected by the initiator, the job was terminated either before or after any steps were executed; if the error was detected by the reader/interpreter, the job was terminated after one or more steps were executed.

Operator Response: None.

IEF454I DOS VTOC CANNOT BE CONVERTED TO OS VTOC

Explanation: A DD statement requested space on a direct access volume on which the DOS contamination bit was set. In attempting to convert the DOS VTOC to OS VTOC format, one of the following data set allocation was found:
• A split cylinder data set was located on cylinder zero.
• A split cylinder data set was located on the same cylinder as the VTOC.
• A split cylinder data set was located on the same cylinder as a non-split cylinder data set.
• Two data sets have overlapping extents.

System Action: If the DD statement specifically requested this volume then the job will be terminated. The system will issue a mount message.

Programmer Response: Either scratch or move the data set that is creating the error, and execute the job again.

Operator Response: Demount the volume on which the data set resides. (Note that it may be used only in a DOS environment until the offending split cylinder data set has been moved or scratched.) Respond to the mount messages issued following this message.

Problem Determination: Table I, items 1, 2, 4, 7b, 29.

IEF457I SMB loop for jjj. OUTPUT Deleted.

Explanation: A loop in the SMB chain for Job jjj was found by warmstart.

System Action: The output was deleted.

Operator Action: Rerun Job jjj.

Problem Determination: Table I, items 2, 3, 8a, 29.

IEF459I WTP SYSTEM MESSAGE LIMIT EXCEEDED

Explanation: The write-to-programmer routine was attempting to process a system message but all available SYS1.SYSJOBQUE records for WTP had been used. (The maximum number of records allowed for WTP messages is specified at system generation in the JOBQWTP parameter of the SCHEDULR macro instruction.)

System Action: The message that write-to-programmer was attempting to process and all subsequent messages to be processed by write-to-programmer for this step are suppressed. In subsequent steps, one SYS1.SYSJOBQE record will be allocated for use by system tasks for WTP messages.

Programmer Response: Probable user error. Increase the value of the system generation JOBQWTP parameter. In systems with MFT or MVT, change the value of the parameter in response to message IEF423A.

IEF460I WTP MESSAGE LIMIT EXCEEDED

Explanation: A WTOR or WTO message with a ROUTCDE=11 parameter was issued for a task that used the maximum number of SYS1.SYSJOBQE records available; the limit was specified at system generation in the JOBQWTP parameter of the SCHEDULR macro instruction.

System Action: Problem program messages to be processed by the write-to-programmer routine for the current job are suppressed.

If the write-to-programmer routine was attempting to process a system message, the message will be processed (and will follow this message). In this step, one additional system message will also be processed. Further system messages will be suppressed and message IEF459I will be issued.

Operator Response: Probable user error. Increase the value of the system generation JOBQWTP parameter or change the value of the parameter in response to message IEF423A.

Problem Determination: Table I, items 1, 2, 3, 4, 7a, 29.

IEF461I I/O ERROR SYS1.SYSJOBQE, WTP PROCESSING FOR jjj

Explanation: One of the following occurred:
• An uncorrectable input/output error occurred on the SYS1.SYSJOBQE data set while the write-to-programmer routine was processing a message for job jjj. The message the routine was attempting to process follows this message.
• Error recovery routines were in control of the SYS1.SUSJOBQE device when the write-to-programmer routine was processing a message. To prevent a possible interlock condition (if the message being processed was issued by the error routine) the write-to-programmer is bypassed.

System Action: In both cases, further messages to be processed by the write-to-programmer routine for this job are suppressed.

Operator Response: Probable hardware error. Report this message to the programmer responsible for the system.

Problem Determination: Table I, items 1, 2, 3, 4, 7a, 8b, 29.

IEF462I NO RECORDS AVAILABLE SYS1.SYSJOBQE, WTP PROCESSING jjj

Explanation: The write-to-programmer routine attempted to process a message for job jjj, but was unable to get a record in the SYS1.SYSJOBQE data set.

System Action: If the write-to-programmer routine was attempting to process a problem program message, the message is not processed; if the routine was attempting to process a system message, the message will be processed. (One, two, or three system messages may follow this message.)

Operator Response: Report this message to the programmer responsible for the system. The problem was caused by the initiator using records belonging to the write-to-programmer routine.

Problem Determination: Table I, items 1, 2, 3, 4, 7a, 29.

IEF500I VOLUME NEEDED ON DIFFERENT UNIT

Explanation: One of the following occurred:
• A DD statement requested that this volume be mounted on a particular unit but the volume is presently mounted on another unit.
• A DD statement requested this specific volume, but the unit on which it is presently mounted is ineligible for this request.

System Action: Message IEF234E follows indicating the volume to be demounted.

Operator Response: After the volume is demounted in response to message IEF234A, wait for a mount message to be issued.

IEF501I UNIT NEEDS DIFFERENT VOLUME

> Explanation: A DD statement requested
> that a specific volume be mounted on a
> particular unit. However, a different
> volume is presently mounted on that unit.
> Message IEF234E follows, indicating the
> volume to be demounted.
>
> Operator Response: After the volume is
> demounted in response to message IEF234E,
> wait for a mount message to be issued.
> During this job step, if the demounted
> volume is later requested by the
> non-specific mount message IEF504A, do not
> mount the volume on the unit from which it
> has just been removed; mount the volume on
> another unit.

IEF502I DUPLICATE SERIAL

> Explanation: Two volumes with the same
> volume serial number are mounted. Each
> message IEF234E which follows indicates a
> volume to be demounted.
>
> System Action: If both volumes are
> permanently resident or reserved, the job
> is canceled. If only one volume is
> permanently resident or reserved, the
> other volume is unloaded. If neither
> volume is permanently resident nor
> reserved, both volumes are unloaded.
>
> Operator Response: Probable user error.
> After a volume is demounted in response to
> each message IEF234E, determine which of
> the volumes should be used. When
> requested by the system, mount the correct
> volume, making sure that the volume label
> is correct.
>
> Problem Determination: Table I, items 2,
> 7a, 29.

IEF503I WRONG DENSITY OR INCORRECT LABEL

> Explanation: An error occurred while the
> job scheduler was reading the label on a
> volume. This error can be one of the
> following:
> • An uncorrectable input/output error.
> • An unlabeled tape.
> • A nonstandard label for which a user's
>   nonstandard label handling routine has
>   not been provided.
> • For 7-track tape, a density different
>   than the density specified during system
>   generation.
>
> Message IEF234E follows, indicating the
> unit and the volume serial number.
>
> System Action: The volume is unloaded.
>
> Operator Response: Probable user error.
> No action necessary. However, if the
> volume is subsequently requested by mount
> message IEF504A and if, after the volume
> is mounted, this message appears again,
> cancel the job, making sure that the
> volume label is correct.
>
> Problem Determination: Table I, items 2,
> 7a, 29.

IEF504A M dvtyp,ser,, (jjj
                          jjj,sss
                          jjj,sss,dsn
                          jjj,,dsn)

> Explanation: M indicates that the volume
> whose serial number is ser should be
> mounted on any available unit of the
> indicated device type, dvtyp.
>
> The volume was required by job jjj or, if
> applicable, step sss of job jjj. (If this
> message is issued for a system task, sss
> will appear as a system task identifier.)
> If a DISPLAY DSNAME command is active, the
> first nontemporary data set name, dsn, is
> also specified in the message text.
>
> System Action: The system waits until the
> operator mounts the volume or cancels the
> job.
>
> Operator Response: Mount the volume on
> any available device of the proper type.
> If the volume cannot be mounted, cancel
> the job.

DVTYP	CLASS OF UNITS REQUESTED
2400	2400 Series Drive 800 BPI Only
2400-3	2400 Series Drive 1600 BPI Only
2400-4	2400 Series Drive 800/1600 BPI Dual Den
3400-3	3400 Series Drive 1600 BPI Only
3400-4	3400 Series Drive 800/1600 BPI Dual Den
3400-5	3400 Series Drive 6250 BPI Only
3400-6	3400 Series Drive 1600/6250 BPI Dual Den

IEF505I UNIT REQUIRED

> Explanation: A volume has to be unloaded
> to provide a free device to hold the
> volume which has been, or will be,
> requested by message IEF504A. Message
> IEF234E follows, indicating the volume to
> be demounted.
>
> Operator Response: None. However,
> perform the actions indicated in
> accompanying messages.

IEF506I ddn NO STORAGE VOLUMES. 'VOLUME=PRIVATE' ASSUMED.

> Explanation: The DD statement named ddn
> requested allocation of space for a new
> data set on a non-private volume; the
> statement did not specify a volume serial
> number.
>
> The only way to satisfy such a request is
> allocation on a storage volume; however,
> the system contains no storage volumes.
>
> System Action: The system assumed
> VOLUME=PRIVATE and allocated space to the
> data set on that basis.

IEF507I utn[,N] - SYS1.ACCT - text
IEF507D REPLY XXX OR XXX,N OR SKIP

> Explanation: An error occurred during
> execution of the accounting routine. The
> first line of the message text identifies
> the specific error. The second line of
> the message text describes the three basic
> replies demanded of the operator. (The
> three basic replies are described more
> fully under the description of each text.)
>
> In the message text, the fields are:
>
> utn
>   The unit name of the device.

N

If N is specified in the first line of the message text, the error occurred during an attempt to write the account data from the beginning cf the SYS1.ACCT extent. If N is specified in a reply, the account data will be written from the beginning of the SYS1.ACCT extent; if N is not specified in a reply, the account data will be written from the last record written.

SKIP

SKIP results in the date, time of day, and reason code being written on the console. Control is then returned to the accounting routine. If the parameter SKIP is used, the same message will be repeated on the console at the next entrance to the accounting routine whenever the factors which caused the original message still prevail.

text

ERROR IN UNIT NAME

Explanation: An invalid unit name was specified in a reply to message IEF507D or in a SET command.

Operator Response: Probable user error. Enter the reply again correctly.

Problem Determination: Table I, items 1, 2, 3, 4, 7a, 29.

NO END CF FILE

Explanation: The end of file terminating the SYS1.ACCT data set was lost. Therefore, the program is unable to position to the end of the data set to write the next record.

Operator Response: If the SYS1.ACCT data set was allocated to two resident devices, enter REPLY xx,'XXX' or REPLY xx,'XXX,N' where XXX is the unit name of the second device.

If the SYS1.ACCT data set was not allocated to two resident devices, enter REPLY xx,'SKIP'. Then, if possible, submit a job to allocate the data set to another device; otherwise, submit a job to retrieve the data set. When this job is completed, respond to the next occurrence of this message with REPLY xx,'XXX,N'. If the problem

Problem Determination: Table I, items 2, 7a, 29.

NOT PREALLOCATED

Explanation: The SYS1.ACCT data set was not found on the device specified or, if no device was specified, on the system residence device.

Operator Response: Probable user error. If the SYS1.ACCT data set

resides on a device other than that specified, enter REPLY xx,'XXX' or REPLY xx,'XXX,N' where XXX is the unit name of the device on which the data set resides.

If the SYS1.ACCT data set does not reside on any device, enter REPLY xx,'SKIP'. Then submit a job to allocate the data set to a device.

Problem Determination: Table I, items 2, 7a, 25b, 29.

PERMANENT I/O ERROR

Explanation: A permanent input/output error occurred while processing the SYS1.ACCT data set.

Operator Response: If the SYS1.ACCT data set was allocated to two resident devices, enter REPLY xx,'XXX' or REPLY xx,'XXX,N' where XXX is the unit name of the second device.

If the SYS1.ACCT data set was not allocated to two resident devices, enter REPLY xx,'SKIP'. Then, if possible, submit a job to allocate the data set to another device; otherwise, submit a job to retrieve the data set. When this job is completed, respond to the next occurrence of this message with REPLY xx,'XXX,N'.

Problem Determination: Table I, items 2, 7a, 29.

SPACE NOT AVAILABLE

Explanation: The extent of the SYS1.ACCT data set is full.

Operator Response: Probable user error. If the SYS1.ACCT data set was allocated to two resident devices, enter REPLY xx,'XXX' or REPLY xx,'XXX,N' where XXX is the unit name of the second device. Then submit a job to retrieve the SYS1.ACCT data set which is full so that it, in turn, may be used when the second data set is full.

If the SYS1.ACCT data set was not allocated to two resident devices, enter REPLY xx,'SKIP'. Then submit a job to retrieve the data set. When this job is completed, respond to the next occurrence of this message with REPLY xx,'XXX,N'.

Problem Determination: Table I, items 2, 7a, 29.

SYNTAX ERROR

Explanation: A syntax error was detected in a reply to message IEF507D.

Operator Response: Probable user error. Enter the reply again correctly.

Problem Determination: Table I, items
2, 7a, 29.

DEVICE NOT RESIDENT

Explanation: The unit name specified
in reply to message IEF507D was not a
resident device.

Operator Response: If the SYS1.ACCT
data set resides on a permanently
resident device, reply correct unit
name; if not, submit a job to allocate
the data set to a permanently resident
device.

Display the unit specified in reply to
message IEF507D, using the DISPLAY UNIT
command.

Problem Determination: Table I, items
2, 7a, 29.

IEF508I VOLUME MOUNTED ON INELIGIBLE DEVICE

Explanation: A DD statement requested
that a tape volume be mounted on a 3400
series tape drive, and the tape volume was
found mounted on a 2400 series drive. A
2400 series tape drive cannot satisfy a
request for a 3400 series drive because
the 2400 drives do not have the unload
security feature.

System Action: Message IEF234E follows,
indicating that the volume is to be
demounted.

Operator Response: After the volume is
demounted, in response to message IEF233A,
mount the volume on the appropriate 3400
series tape drive.

IEF510E VOLUME HAS ANS LABEL.

Explanation: A tape volume that has an
American National Standard label was
mounted in a system which does not support
ASCII tape processing.

System Action: The tape volume is
unloaded. A demount message, IEF234E, is
issued to point out the device on which
the wrong volume was mounted.

Operator Response: Set aside jobs that
require ASCII tapes until a system that
supports ASCII is available.

IEF533A M ddd,ser,, ⎧ jjj ⎫
                    ⎪ jjj,sss ⎪
                    ⎨ jjj,sss,dsn ⎬
                    ⎩ jjj,,dsn ⎭

Explanation: Job jjj requires that volume
ser be mounted on device ddd. If a
DISPLAY DSNAME command is active in the
system, the first nontemporary data set
name appears in the message text as dsn.
(This field will not appear if a DISPLAY
DSNAME command is not active or if this
message follows message IEF534E.) In the
message text, sss is the name of the step
that requires the volume; if no step name

was specified in the EXEC statement, the
sss field is left blank.

This message may be issued for more than
one job at a time.

System Action: The task waits for the
volume to be mounted. Other jobs may be
allocated or terminated.

Operator Response: If device ddd is
direct access, and if this message appears
in conjunction with message IEF233A, honor
the IEF233A mount message first.
Otherwise, mount volume ser on device ddd
as indicated in the message text, and
ready the device. If the volume cannot be
mounted, enter a CANCEL command for job
jjj and for all other jobs that require
the volume and call IBM for hardware
support.

IEF594I jjj.sss.ddn INVALID SPLIT REQUEST

Explanation: The specified DD statement
made invalid use of the SPLIT parameter
for one of the following reasons:
• More than one unit was requested. Split
  cylinder allocation is limited to one
  volume on one unit.
• DD statements using the SPLIT parameter
  are not in correct sequence. Every DD
  statement using the SPLIT parameter must
  be preceded by another SPLIT request or
  it must be the DD statement which
  requests the amount of space to be
  allocated to the split cylinder data
  sets.

System Action: The job is terminated.

Programmer Response: Probable user error.
Make sure that only one device was
requested for each allocation and that the
DD statements are in the proper sequence.
Run the job again.

Problem Determination: Table I, items 1,
4, 7a, 29.

IEF601I INVALID STATEMENT IN PROCEDURE

Explanation: One of the following invalid
statements was found in a procedure:
• JOB statement.
• A statement other than a job control
  statement; that is, a statement that
  does not begin with //.
• A DD * or a DD DATA statement in an
  instream procedure.
• A null statement or a delimiter.

System Action: The job is terminated.
The remaining job control statements for
the job were scanned for syntax errors.

Programmer Response: Probable user error.
Correct the procedure by removing the
invalid card. The invalid card will
appear in the SYSOUT listing immediately
before the error message if MSGLEVEL=1 is
coded on the job statement. Rerun the
job.

Problem Determination: Table I, items 1, 3, 4, 7a, 29.

IEF602I INPUT DEVICE I/O ERROR READING JOB

 Explanation: An uncorrectable input/output error occurred while a SYSIN reader was reading the input stream.

 System Action: The SYSIN reader closed the input stream and stopped itself. The job scheduler interpreter terminated the job being read when the error occurred. The job scheduler also wrote message IEF419I on the console; in response, the operator started a SYSIN reader and reentered the job through the input stream.

 Programmer Response: If this message is repeated for the same job, as indicated by IEF419I, check the format of the card image being read when the error occurred. Make any corrections needed, and submit the job again.

 Problem Determination: Table I, items 1, 4, 7a, 29.

IEF603I PROCLIB DEVICE I/O ERROR READING FOR JOB

 Explanation: An uncorrectable input/output error occurred in reading the procedure library (SYS1.PROCLIB) during processing of a job that requested a cataloged procedure.

 System Action: The job being processed was terminated. The job scheduler also wrote message IEF417I on the console; in response, the operator reentered the job through the input stream.

 Programmer Response: None.

IEF604I INPUT STREAM DATA FLUSHED

 Explanation: In a system with MVT, the job was terminated for the reasons indicated in previous messages. While scanning the remaining job control statements for the job for syntax errors, the scheduler found a data set in the input stream; the data set was specified by a DD * or DD DATA statement. The data in this data set was ignored. Scanning for errors was resumed with the first statement following the data set.

 No previous message will have been issued if the input stream contained data that was not preceded by a valid EXEC statement.

 Programmer Response: In systems with MFT or MVT, insure that a valid EXEC statement precedes any data in the input stream.

 Problem Determination: Table I, items 1, 4, 7a, 29.

IEF605I UNIDENTIFIED OPERATION FIELD

 Explanation: In a job control statement, either an operation field could not be found or the operation field could not be identified as JOB, EXEC, DD, or any valid operator command.

 System Action: The job was terminated. The remaining job control statements for the job were scanned for syntax errors.

 Programmer Response: Probable user error. Check that the operation field is spelled correctly and that it is preceded and followed by at least one blank. After correcting the error, submit the job again.

 Problem Determination: Table I, items 1, 4, 7a, 29.

IEF606I MISPLACED DD STATEMENT

 Explanation: A DD statement between the JOB statement and first EXEC statement did not contain JOBLIB in its name field. Possibly, JOBLIB was misspelled or mispunched. Possibly, the operation field of the first EXEC statement was not correctly specified.

 System Action: The job was terminated. The remaining job control statements for the job were scanned for syntax errors.

 Programmer Response: Probable user error. Correct the DD or EXEC statement, or place the DD statement in the job step in which it belongs. Then submit the job again.

Problem Determination: Table I, items 1, 4, 7a, 29.

IEF607I JOB HAS NO STEPS

 Explanation: The job control statements following a JOB statement did not include an EXEC statement.

 This message is also issued if the job contains a PROC statement prior to any EXEC or SYSCHK DD statement but contains no PEND statement.

 System Action: The job was terminated. The remaining job control statements for the job were scanned for syntax errors. A dummy EXEC statement with EXECFAIL in its name field was inserted.

 If a PEND statement was omitted, the remainder of the job was considered part of the in-stream procedure.

 Programmer Response: Probable user error. Insert an EXEC or PEND statement or correct an EXEC or PEND statement containing errors that made it unrecognizable as applicable. Submit the job again.

 Problem Determination: Table I, items 1, 4, 7a, 29.

IEF608I SPOOL DEVICE I/O ERROR WRITING FOR JCB

    Explanation: While a SYSIN reader was
    writing a data set from the input stream
    on a direct access device, an
    uncorrectable input/output error was
    encountered.

    System Action: The job containing the
    input stream data set was terminated. The
    job scheduler also wrote message IEF412I
    on the console; in response, the operator
    reentered the job through the input
    stream.

    Programmer Response: None.

IEF609I INVALID OVERRIDE KEYWORD xxxx

    Explanation: An EXEC statement containing
    a PROC parameter specified two identical
    override keywords that both refer to the
    same step in a cataloged or in-stream
    procedure.

    In the message text, xxxx is one of the
    following phrases:
    • IN THE prm FIELD, where prm is the most
      recently encountered keyword parameter
      preceding the error.
    • ON THE cntr STATEMENT, where cntr
      indicates the job control statement on
      which the error occurred. This phrase
      usually occurs if the error was detected
      before any keyword parameters were
      processed. (For example, an error was
      detected in the name field of a
      statement.)
    • IN THE prm1 SUBPARAMETER OF THE prm2
      FIELD, where prm1 is a minor keyword
      parameter associated with major keyword
      parameter prm2. (For example, SER is a
      minor keyword parameter that appears
      only when associated with major keyword
      parameter VOLUME.)
    • IN THE SYMBOLIC PARAMETER, if the error
      was detected in the symbolic parameter.
    • IN THE VALUE FIELD OF THE SYMBOLIC
      PARAMETER, if the error was detected in
      the field which assigns a value to a
      symbolic parameter.
    • IN THE prm OVERRIDE FIELD, where prm is
      an override keyword parameter on an EXEC
      statement.

    System Action: The job was terminated.
    The remaining job control statements for
    the job were scanned for syntax errors.

    Programmer Response: Probable user error.
    Change the override parameters. Then
    submit the job again.

    Problem Determination: Table I, items 1,
    4, 7a, 29.

IEF610I PROCEDURE HAS NO STEP

    Explanation: The job control statements
    in a procedure did not include an EXEC
    statement.

    System Action: The job was terminated.
    The remaining job control statements for
    the job were scanned for syntax errors.

    Programmer Response: Probable user error.
    Correct the procedure by inserting an EXEC
    statement or correcting an EXEC statement
    that contained errors that made it
    unrecognizable. Submit the job again. iF

    Problem Determination: Table I, items 1,
    4, 7a, 29.

IEF611I OVERRIDDEN STEP NOT FOUND IN PROCEDURE

    Explanation: An EXEC or DD statement,
    which was to override a corresponding EXEC
    or DD statement in a cataloged or
    in-stream procedure, specified a step name
    that could not be found in the procedure.
    Probably, the step name was misspelled or
    the DD override statements did not appear
    in the same order as the corresponding
    statements in the procedure.

    System Action: The job was terminated.
    The remaining job control statements for
    the job were scanned for syntax errors.

    Programmer Response: Probable user error.
    Correct the step name in the EXEC or DD
    statement in the input stream, correct the
    order of the DD override statements in the
    input stream, or correct the procedure.
    Then submit the job again.

    Problem Determination: Table I, items 1,
    4, 7a, 29.

IEF612I PROCEDURE NOT FOUND

    Explanation: The procedure specified in
    the first parameter of an EXEC statement
    could not be found in the procedure
    library (SYS1.PROCLIB) or in the in-stream
    procedure directory. Possibly, the
    procedure name was misspelled or the PEND
    statement ending the previous in-stream
    procedure was omitted.

    System Action: The job was terminated.
    The remaining job control statements for
    the job were scanned for syntax errors.

    Programmer Response: Probable user error.
    Correct the procedure name in the EXEC
    statement in the input stream, in the PROC
    statement in the input stream, or in the
    procedure library. If the procedure name
    is correct, insert the missing PEND
    statement. Then submit the job again.

    Problem Determination: Table I, items 1,
    4, 7a, 29.

IEF613I PROCEDURE WITHIN A PROCEDURE

    Explanation: In a procedure, an EXEC
    statement contained a PROC parameter or a
    procedure name, implying a procedure
    within a procedure. A procedure cannot be
    specified within a procedure.

    System Action: The job containing the
    EXEC statement that invoked the procedure
    was terminated. The remaining job control
    statements for the job were scanned for
    syntax errors.

Programmer Response: Probable user error. Replace the invalid EXEC statement with either (1) the procedure that it called or (2) a valid EXEC statement containing a PGM parameter. Then submit the job again.

Problem Determination: Table I, items 1, 4, 7a, 29.

IEF614I PROCLIB DEVICE I/O ERROR SEARCHING FOR PROCEDURE

Explanation: An uncorrectable input/output error occurred in searching the procedure library (SYS1.PROCLIB) during processing of a job that requested a cataloged procedure.

System Action: The job being processed was terminated. The job scheduler also wrote message IEF417I on the console; in response, the operator reentered the job through the input stream.

Programmer Response: None.

IEF615I EXCESSIVE PROCSTEP NAME xxxx

Explanation: In an EXEC statement that specified a procedure, the name of a step to be overridden was longer than 8 characters.

In the message text, xxxx is one of the following phrases:
- IN THE prm FIELD, where prm is the most recently encountered keyword parameter preceding the error.
- ON THE cntr STATEMENT, where cntr indicates the job control statement on which the error occurred. This phrase usually occurs if the error was detected before any keyword parameters were processed. (For example, an error was detected in the name field of a statement.)
- IN THE prm1 SUBPARAMETER OF THE prm2 FIELD, where prm1 is a minor keyword parameter associated with major keyword parameter prm2. (For example, SER is a minor keyword parameter that appears only when associated with major keyword parameter VOLUME.)
- IN THE SYMBOLIC PARAMETER, if the error was detected in the symbolic parameter.
- IN THE VALUE FIELD OF THE SYMBOLIC PARAMETER, if the error was detected in the field which assigns a value to a symbolic parameter.
- IN THE prm OVERRIDE FIELD, where prm is an override keyword parameter on an EXEC statement.

System Action: The job was terminated. The remaining job control statements for the job were scanned for syntax errors.

Programmer Response: Probable user error. Correct the step name so that it consists of not more than 8 alphameric characters, with the first character alphabetic. Then submit the job again.

Problem Determination: Table I, items 1, 4, 7a, 29.

IEF616I SUBLIST WITHIN SUBLIST INCORRECT xxxx

Explanation: In a job control statement, a subparameter list was specified within a subparameter list. This arrangement is invalid. Possibly, too many parentheses were used, so that a list appeared to be within a list.

In the message text, xxxx is one of the following phrases:
- IN THE prm FIELD, where prm is the most recently encountered keyword parameter preceding the error.
- ON THE cntr STATEMENT, where cntr indicates the job control statement on which the error occurred. This phrase usually occurs if the error was detected before any keyword parameters were processed. (For example, an error was detected in the name field of a statement.)
- IN THE prm1 SUBPARAMETER OF THE prm2 FIELD, where prm1 is a minor keyword parameter associated with major keyword parameter prm2. (For example, SER is a minor keyword parameter that appears only when associated with major keyword parameter VOLUME.)
- IN THE SYMBOLIC PARAMETER, if the error was detected in the symbolic parameter.
- IN THE VALUE FIELD OF THE SYMBOLIC PARAMETER, if the error was detected in the field which assigns a value to a symbolic parameter.
- IN THE prm OVERRIDE FIELD, where prm is an override keyword parameter on an EXEC statement.

System Action: The job was terminated. The remaining job control statements for the job were scanned for syntax errors.

Programmer Response: Probable user error. Correct the subparameter. Then submit the job again.

Problem Determination: Table I, items 1, 4, 7a, 29.

IEF617I NO NAME ON FIRST DD STATEMENT AFTER EXEC STATEMENT

Explanation: The first DD statement following an EXEC statement did not contain a data definition name in its name field; that is, column 3 of the DD statement was blank. Possibly, the first statement for a concatenation of data sets was omitted.

System Action: The job was terminated. The remaining job control statements for the job were scanned for syntax errors.

Programmer Response: Probable user error. Either put a data definition name in the name field of the DD statement or place it among other DD statements so that a proper concatenation is defined. Then submit the job again.

Problem Determination: Table I, items 1, 4, 7a, 29.

IEF618I OPERAND FIELD DOES NOT TERMINATE IN COMMA OR BLANK

Explanation: In a job control statement, the operand field does not terminate with one of the following:
- A comma after the last parameter in the card image, if the statement is to be continued in the next card image. The comma must be before column 72.
- A blank after the last parameter, if the statement is not to be continued. The blank may be in column 72 or any previous column.

System Action: The job was terminated. The remaining job control statements for the job were scanned for syntax errors.

Programmer Response: Probable user error. Correct the operand field. Then submit the job again.

Problem Determination: Table I, items 1, 4, 7a, 29.

IEF619I DATA IN THE INPUT STREAM CANNOT BE PROCESSED, NO IEFDATA CARD IN THE READER PROCEDURE

Explanation: The reader procedure used to start the reader interpreter did not contain an IEFDATA statement. Therefore, no attempt was made to allocate a spooling device or create a spool data set and the data in the input stream cannot be processed.

System Action: The job was terminated and the data in the input stream was flushed.

Programmer Response: Probable user error. Insert an IEFDATA statement in the reader procedure.

Problem Determination: Table I, items 26d, 29.

IEF620I CPP PARAMETERS NOT COMPATIBLE WITH SYSTEM READER - DEFAULT VALUES USED xxxx

Explanation: A keyword parameter was syntactically incorrect or specified a value too large for the system reader reading the input stream. The parameter appeared on one of the following:
- The preceding DD * or DD DATA statement.
- A previous DD statement that contained a DDNAME parameter specifying the name of the DD * or DD DATA statement.

In the message text, xxxx is one of the following phrases:
- IN THE prm FIELD, where prm is the most recently encountered keyword parameter preceding the error.
- ON THE cntr STATEMENT, where cntr indicates the job control statement on which the error occurred. This phrase

usually occurs if the error was detected before any keyword parameters were processed. (For example, an error was detected in the name field of a statement.)
- IN THE prm1 SUBPARAMETER OF THE prm2 FIELD, where prm1 is a minor keyword parameter associated with major keyword parameter prm2. (For example, SER is a minor keyword parameter that appears only when associated with major keyword parameter VOLUME.)
- IN THE SYMBOLIC PARAMETER, if the error was detected in the symbolic parameter.
- IN THE VALUE FIELD OF THE SYMBOLIC PARAMETER, if the error was detected in the field which assigns a value to a symbolic parameter.
- IN THE prm OVERRIDE FIELD, where prm is an override keyword parameter on an EXEC statement.

System Action: The parameter was ignored and the concurrent peripheral processing (CPP) data set was created on a direct access device using the system reader default values (as specified on the IEFDATA DD statement of the reader cataloged procedure). Processing continues.

Programmer Response: Probable user error. Correct any syntax errors. If the parameter specified too large a value for the system reader, either specify a smaller value or request the operator to start a system reader that can handle the larger value. Then resubmit the job.

Problem Determination: Table I, items 3, 4, 7a, 29.

IEF621I EXPECTED CONTINUATION NOT RECEIVED

Explanation: In a job control statement, continuation was indicated by a comma at the end of the operand or by a nonblank character in column 72, or both. However, the following card image was not a continuation.

System Action: The job was terminated. The remaining job control statements for the job were scanned for syntax errors.

Programmer Response: Probable user error. Provide the missing continuation card, if it was lost. If no continuation was intended, correct the card so that column 72 is blank and the operand ends with a blank.

If the continuation card was present, correct it so that slashes (//) appear in columns 1 and 2, a blank appears in column 3, and the continuation of a comment begins anywhere after column 3 or the continuation of the operand begins in columns 4 through 16.

Problem Determination: Table I, items 1, 4, 7a, 29.

IEF622I UNBALANCED PARENTHESIS xxxx

    Explanation: In a job control statement,
one of the following appeared:
- A valid left parenthesis nct followed by
  a right parenthesis.
- A valid right parenthesis not preceded
  by a left parenthesis.
- A right parenthesis where it is not
  permitted.

In the message text, xxxx is cne of the
following phrases:
- IN THE prm FIELD, where prm is the most
  recently encountered keywcrd parameter
  preceding the error.
- ON THE cntr STATEMENT, where cntr
  indicates the job control statement on
  which the error occurred. This phrase
  usually cccurs if the errcr was detected
  before any keyword parameters were
  processed. (For example, an error was
  detected in the name field of a
  statement.)
- IN THE prm1 SUBPARAMETER OF THE prm2
  FIELD, where prm1 is a mincr keyword
  parameter associated with major keyword
  parameter prm2. (For example, SER is a
  minor keyword parameter that appears
  only when associated with major keyword
  parameter VOLUME.)
- IN THE SYMBOLIC PARAMETER, if the error
  was detected in the symbolic parameter.
- IN THE VALUE FIELD OF THE SYMBOLIC
  PARAMETER, if the errcr was detected in
  the field which assigns a value to a
  symbolic parameter.
- IN THE prm OVERRIDE FIELD, where prm is
  an override keyword parameter on an EXEC
  statement.

System Action: The job was terminated.
The remaining job control statements for
the job were scanned for syntax errors.

Programmer Response: Probable user error.
Correct the error. Then submit the job
again.

Problem Determination: Table I, items 1,
4, 7a, 29.

**IEF623I SOURCE TEXT CONTAINS UNDEFINED OR ILLEGAL
CHARACTERS xxxx**

    Explanation: A job control statement
contained cne or more invalid characters.
All characters in a job control statement
must belong to the character sets defined
in the publication IBM System/360
Operating System: Job Control Language,
GC28-6539.

In the message text, xxxx is one' of the
following phrases:
- IN THE prm FIELD, where prm is the most
  recently encountered keywcrd parameter
  preceding the error.
- ON THE cntr STATEMENT, where cntr
  indicateŝ the job control statement cn
  which the error occurred. This phrase
  usually cccurs if the error was detected

befcre any keywcrd parameters were
prccessed. (Fcr example, an error was
detected in the name field cf a
statement.)
- IN THE prm1 SUBPARAMETER OF THE prm2
  FIELD, where prm1 is a mincr keyword
  parameter asscciated with major keyword
  parameter prm2. (Fcr example, SER is a
  mincr keywcrd parameter that appears
  cnly when asscciated with majcr keyword
  parameter VOLUME.)
- IN THE SYMBOLIC PARAMETER, if the error
  was detected in the symbclic parameter.
- IN THE VALUE FIELD OF THE SYMBOLIC
  PARAMETER, if the error was detected in
  the field which assigns a value to a
  symbclic parameter.
- IN THE prm OVERRICE FIELD, where prm is
  an cverride keywcrd parameter on an EXEC
  statement.

System Action: The jcb was terminated.
The remaining jcb ccntrol statements for
the jcb were scanned for syntax errors.

Programmer Response: If the statement
contains any invalid characters, correct
it. Then submit the jcb again.

Prcblem Determinaticn: Table I, items 1,
4, 7a, 29.

IEF624I INCORRECT USE OF PERIOD xxxx

    Explanaticn: In a jcb control statement,
a pericd appeared in a parameter or field
in which a pericd is nct permitted.

In the message text, xxxx is cne of the
fcllowing phrases:
- IN THE prm FIELD, where prm is the most
  recently enccuntered keywcrd parameter
  preceding the error.
- ON THE cntr STATEMENT, where cntr
  indicates the jcb control statement on
  which the errcr occurred. This phrase
  usually occurs if the error was detected
  befcre any keywcrd parameters were
  prccessed. (Fcr example, an error was
  detected in the name field cf a
  statement.)
- IN THE prm1 SUBPARAMETER OF THE prm2
  FIELD, where prm1 is a minor keyword
  parameter asscciated with majcr keyword
  parameter prm2. (For example, SER is a
  mincr keyword parameter that appears
  only when associated with major keyword
  parameter VOLUME.)
- IN THE SYMBOLIC PARAMETER, if the error
  was detected in the symbolic parameter.
- IN THE VALUE FIELD OF THE SYMBCLIC
  PARAMETER, if the error was detected in
  the field which assigns a value to a
  symbolic parameter.
- IN THE prm OVERRIDE FIELD, where prm is
  an override keyword parameter on an EXEC
  statement.

System Action: The job was terminated.
The remaining jcb control statements for
the job were scanned for syntax errors.

Programmer Response: Probable user error.
Correct the parameter or field. Then
submit the job again.

Problem Determination: Table I, items 1, 4, 7a, 29.

IEF625I INCORRECT USE OF LEFT PARENTHESIS xxxx

Explanation: In a job control statement, a left parenthesis appeared in a parameter or field in which a left parenthesis is not permitted.

In the message text, xxxx is one of the following phrases:
- IN THE prm FIELD, where prm is the most recently encountered keyword parameter preceding the error.
- ON THE cntr STATEMENT, where cntr indicates the job control statement on which the error occurred. This phrase usually occurs if the error was detected before any keyword parameters were processed. (For example, an error was detected in the name field of a statement.)
- IN THE prm1 SUBPARAMETER OF THE prm2 FIELD, where prm1 is a minor keyword parameter associated with major keyword parameter prm2. (For example, SER is a minor keyword parameter that appears only when associated with major keyword parameter VOLUME.)
- IN THE SYMBOLIC PARAMETER, if the error was detected in the symbolic parameter.
- IN THE VALUE FIELD OF THE SYMBOLIC PARAMETER, if the error was detected in the field which assigns a value to a symbolic parameter.
- IN THE prm OVERRIDE FIELD, where prm is an override keyword parameter on an EXEC statement.

System Action: The job was terminated. The remaining job control statements for the job were scanned for syntax errors.

Programmer Response: Probable user error. Correct the parameter or field. Then submit the job again.

Problem Determination: Table I, items 1, 4, 7a, 29.

IEF626I INCORRECT USE OF PLUS xxxx

Explanation: In a job control statement, a plus sign appeared in a parameter or field in which a plus sign is not permitted.

In the message text, xxxx is one of the following phrases:
- IN THE prm FIELD, where prm is the most recently encountered keyword parameter preceding the error.
- ON THE cntr STATEMENT, where cntr indicates the job control statement on which the error occurred. This phrase usually occurs if the error was detected before any keyword parameters were processed. (For example, an error was detected in the name field of a statement.)
- IN THE prm1 SUBPARAMETER OF THE prm2 FIELD, where prm1 is a minor keyword parameter associated with major keyword

parameter prm2. (For example, SER is a minor keyword parameter that appears only when associated with major keyword parameter VOLUME.)
- IN THE SYMBOLIC PARAMETER, if the error was detected in the symbolic parameter.
- IN THE VALUE FIELD OF THE SYMBOLIC PARAMETER, if the error was detected in the field which assigns a value to a symbolic parameter.
- IN THE prm OVERRIDE FIELD, where prm is an override keyword parameter on an EXEC statement.

System Action: The job was terminated. The remaining job control statements for the job were scanned for syntax errors.

Programmer Response: Probable user error. Correct the parameter or field. Then submit the job again.

Problem Determination: Table I, items 1, 4, 7a, 29.

IEF627I INCORRECT USE OF AMPERSAND xxxx

Explanation: In a job control statement, an ampersand appeared in a parameter or field in which an ampersand is not permitted.

In the message text, xxxx is one of the following phrases:
- IN THE prm FIELD, where prm is the most recently encountered keyword parameter preceding the error.
- ON THE cntr STATEMENT, where cntr indicates the job control statement on which the error occurred. This phrase usually occurs if the error was detected before any keyword parameters were processed. (For example, an error was detected in the name field of a statement.)
- IN THE prm1 SUBPARAMETER OF THE prm2 FIELD, where prm1 is a minor keyword parameter associated with major keyword parameter prm2. (For example, SER is a minor keyword parameter that appears only when associated with major keyword parameter VOLUME.)
- IN THE SYMBOLIC PARAMETER, if the error was detected in the symbolic parameter.
- IN THE VALUE FIELD OF THE SYMBOLIC PARAMETER, if the error was detected in the field which assigns a value to a symbolic parameter.
- IN THE prm OVERRIDE FIELD, where prm is an override keyword parameter on an EXEC statement.

System Action: The job was terminated. The remaining job control statements for the job were scanned for syntax errors.

Programmer Response: Probable user error. Correct the parameter or field. Then submit the job again.

Problem Determination: Table I, items 1, 4, 7a, 29.

IEF628I INCORRECT USE OF ASTERISK xxxx

> Explanation: In a job control statement,
> an asterisk appeared in a parameter or
> field in which an asterisk is not
> permitted.
>
> In the message text, xxxx is one of the
> following phrases:
> • IN THE prm FIELD, where prm is the most
>   recently encountered keyword parameter
>   preceding the error.
> • ON THE cntr STATEMENT, where cntr
>   indicates the job control statement on
>   which the error occurred. This phrase
>   usually occurs if the error was detected
>   before any keyword parameters were
>   processed. (For example, an error was
>   detected in the name field of a
>   statement.)
> • IN THE prm1 SUBPARAMETER OF THE prm2
>   FIELD, where prm1 is a minor keyword
>   parameter associated with major keyword
>   parameter prm2. (For example, SER is a
>   minor keyword parameter that appears
>   only when associated with major keyword
>   parameter VOLUME.)
> • IN THE SYMBOLIC PARAMETER, if the error
>   was detected in the symbolic parameter.
> • IN THE VALUE FIELD OF THE SYMBOLIC
>   PARAMETER, if the error was detected in
>   the field which assigns a value to a
>   symbolic parameter.
> • IN THE prm OVERRIDE FIELD, where prm is
>   an override keyword parameter on an EXEC
>   statement.
>
> System Action: The job was terminated.
> The remaining job control statements for
> the job were scanned for syntax errors.
>
> Programmer Response: Probable user error.
> Correct the parameter or field. Then
> submit the job again.
>
> Problem Determination: Table I, items 1,
> 4, 7a, 29.

IEF629I INCORRECT USE OF APOSTROPHE xxxx

> Explanation: In a job control statement,
> an apostrophe was used incorrectly.
>
> Single apostrophes are used to enclose
> certain parameters containing special
> characters or blanks. Two apostrophes
> within a parameter enclosed in apostrophes
> are used to represent an apostrophe.
>
> In the message text, xxxx is one of the
> following phrases:
> • IN THE prm FIELD, where prm is the most
>   recently encountered keyword parameter
>   preceding the error.
> • ON THE cntr STATEMENT, where cntr
>   indicates the job control statement on
>   which the error occurred. This phrase
>   usually occurs if the error was detected
>   before any keyword parameters were
>   processed. (For example, an error was
>   detected in the name field of a
>   statement.)
> • IN THE prm1 SUBPARAMETER OF THE prm2
>   FIELD, where prm1 is a minor keyword
>   parameter associated with major keyword

parameter prm2. (For example, SER is a
minor keyword parameter that appears
only when associated with major keyword
parameter VOLUME.)
> • IN THE SYMBOLIC PARAMETER, if the error
>   was detected in the symbolic parameter.
> • IN THE VALUE FIELD OF THE SYMBOLIC
>   PARAMETER, if the error was detected in
>   the field which assigns a value to a
>   symbolic parameter.
> • IN THE prm OVERRIDE FIELD, where prm is
>   an override keyword parameter on an EXEC
>   statement.
>
> System Action: The job was terminated.
> The remaining job control statements for
> the job were scanned for syntax errors.
>
> Programmer Response: Probable user error.
> Correct the invalid use of the apostrophe.
> Then submit the job again.
>
> Problem Determination: Table I, items 1,
> 4, 7a, 29.

IEF630I UNIDENTIFIED KEYWORD xxxx

> Explanation: In a job control statement,
> the scheduler found that:
> • A character string followed a blank or
>   comma and preceded an equal sign, but
>   could not be recognized as a valid
>   keyword. Either the keyword was
>   misspelled, the equal sign was misplaced
>   or, because of the absence of a right
>   parenthesis after the previous major
>   keyword, a valid major keyword was
>   considered a minor keyword.
> • A valid subparameter keyword appeared
>   without the corresponding parameter
>   keyword; for example, SER without
>   VOLUME.
> • A valid keyword was not consistent with
>   the statement operation code; for
>   example, DSNAME in an EXEC statement.
>
> In the message text, xxxx is one of the
> following phrases:
> • IN THE prm FIELD, where prm is the most
>   recently encountered keyword parameter
>   preceding the error.
> • ON THE cntr STATEMENT, where cntr
>   indicates the job control statement on
>   which the error occurred. This phrase
>   usually occurs if the error was detected
>   before any keyword parameters were
>   processed. (For example, an error was
>   detected in the name field of a
>   statement.)
> • IN THE prm1 SUBPARAMETER OF THE prm2
>   FIELD, where prm1 is the most recently
>   encountered minor keyword parameter
>   associated with the major keyword
>   parameter prm2, which precedes the
>   error.
> • IN THE SYMBOLIC PARAMETER, if the error
>   was detected in the symbolic parameter.
> • IN THE VALUE FIELD OF THE SYMBOLIC
>   PARAMETER, if the error was detected in
>   the field which assigns a value to a
>   symbolic parameter.
> • IN THE prm OVERRIDE FIELD, where prm is
>   an override keyword parameter on an EXEC
>   statement.

System Action: The job was terminated.
The remaining job control statements for
the job were scanned for syntax errors.

Programmer Response: Probable user error.
Correct the statement. Then submit the
job again.

Problem Determination: Table I, items 1,
4, 7a, 29.

IEF631I NUMBER OF DDNAMES EXCEEDS MAXIMUM

Explanation: In the DD statements for a
step, the DDNAME parameter appeared in 6
or more DD statements. This parameter can
appear in no more than 5 DD statements in
a step.

System Action: The job was terminated.
The remaining job control statements for
the job were scanned for syntax errors.

Programmer Response: Probable user error.
Change the DD statements for the step so
that 5 or fewer use the DDNAME parameter.
Then submit the job again.

Problem Determination: Table I, items 1,
4, 7a, 29.

IEF632I FORMAT ERROR xxxx

Explanation: In a job control statement,
the format of a parameter was incorrect.
For example:
• Too many or too few levels of
  qualification were specified.
• No enclosing parentheses appeared.
• An operator was missing in a COND
  parameter.
• The EVEN and ONLY subparameters were
  both specified in the COND parameter of
  the EXEC statement.
• A comma, right parenthesis, ampersand,
  or blank did not follow a right
  parenthesis in a SPACE parameter.
• The keyword specified is shorter than
  the required length.

In the message text, xxxx is one of the
following phrases:
• IN THE prm FIELD, where prm is the most
  recently encountered keyword parameter
  preceding the error.
• ON THE cntr STATEMENT, where cntr
  indicates the job control statement on
  which the error occurred. This phrase
  usually occurs if the error was detected
  before any keyword parameters were
  processed. (For example, an error was
  detected in the name field of a
  statement.)
• IN THE prm1 SUBPARAMETER OF THE prm2
  FIELD, where prm1 is a minor keyword
  parameter associated with major keyword
  parameter prm2. (For example, SER is a
  minor keyword parameter that appears
  only when associated with major keyword
  parameter VOLUME.)
• IN THE SYMBOLIC PARAMETER, if the error
  was detected in the symbolic parameter.

• IN THE VALUE FIELD OF THE SYMBOLIC
  PARAMETER, if the error was detected in
  the field which assigns a value to a
  symbolic parameter.
• IN THE prm OVERRIDE FIELD, where prm is
  an override keyword parameter on an EXEC
  statement.
• IN THE prm FIELD, where the value
  specified for the particular prm was
  less than the acceptable length.

System Action: The job was terminated.
The remaining job control statements for
the job were scanned for syntax errors.

Programmer Response: Probable user error.
Correct the parameter. Then submit the
job again.

Problem Determination: Table I, items 1,
4, 7a, 29.

IEF633I PROGRAMMER NAME MISSING xxxx

Explanation: The programmer's name,
established as an installation requirement
in the PARM parameter of the reader
procedure, was omitted from the JOB
statement.

In the message text, xxxx is one of the
following phrases:
• IN THE prm FIELD, where prm is the most
  recently encountered keyword parameter
  preceding the error.
• ON THE cntr STATEMENT, where cntr
  indicates the job control statement on
  which the error occurred. This phrase
  usually occurs if the error was detected
  before any keyword parameters were
  processed. (For example, an error was
  detected in the name field of a
  statement.)
• IN THE prm1 SUBPARAMETER OF THE prm2
  FIELD, where prm1 is a minor keyword
  parameter associated with major keyword
  parameter prm2. (For example, SER is a
  minor keyword parameter that appears
  only when associated with major keyword
  parameter VOLUME.)
• IN THE SYMBOLIC PARAMETER, if the error
  was detected in the symbolic parameter.
• IN THE VALUE FIELD OF THE SYMBOLIC
  PARAMETER, if the error was detected in
  the field which assigns a value to a
  symbolic parameter.
• IN THE prm OVERRIDE FIELD, where prm is
  an override keyword parameter on an EXEC
  statement.

System Action: The job was terminated.
The remaining job control statements for
the job were scanned for syntax errors.

Programmer Response: Probable user error.
Specify a programmer's name. If a
programmer's name had been specified,
correct the order of the positional
parameters. Then submit the job again.

Problem Determination: Table I, items 1,
4, 7a, 29.

IEF634I ACCOUNT NUMBER MISSING xxxx

Explanation: The account number, established as an installation requirement in the PARM parameter of the reader procedure, was omitted from the JOB statement.

In the message text, xxxx is one of the following phrases:

- IN THE prm FIELD, where prm is the most recently encountered keyword parameter preceding the error.
- ON THE cntr STATEMENT, where cntr indicates the job control statement on which the error occurred. This phrase usually occurs if the error was detected before any keyword parameters were processed. (For example, an error was detected in the name field of a statement.)
- IN THE prm1 SUBPARAMETER OF THE prm2 FIELD, where prm1 is a minor keyword parameter associated with major keyword parameter prm2. (For example, SER is a minor keyword parameter that appears only when associated with major keyword parameter VOLUME.)
- IN THE SYMBOLIC PARAMETER, if the error was detected in the symbolic parameter.
- IN THE VALUE FIELD OF THE SYMBOLIC PARAMETER, if the error was detected in the field which assigns a value to a symbolic parameter.
- IN THE prm OVERRIDE FIELD, where prm is an override keyword parameter on an EXEC statement.

System Action: The job was terminated. The remaining job control statements for the job were scanned for syntax errors.

Programmer Response: Probable user error. Specify an account number. If an account number had been specified, check for a comma or a parameter before the account number; if one appears, remove it. Then submit the job again.

Problem Determination: Table I, items 1, 4, 7a, 29.

IEF635I JOBNAME MISSING xxxx

Explanation: The job name, which must appear in the name field of a JOB statement, was missing.

In the message text, xxxx is one of the following phrases:
- IN THE prm FIELD, where prm is the most recently encountered keyword parameter preceding the error.
- ON THE cntr STATEMENT, where cntr indicates the job control statement on which the error occurred. This phrase usually occurs if the error was detected before any keyword parameters were processed. (For example, an error was detected in the name field of a statement.)
- IN THE prm1 SUBPARAMETER OF THE prm2 FIELD, where prm1 is a minor keyword parameter associated with major keyword

parameter prm2. (For example, SER is a minor keyword parameter that appears only when associated with major keyword parameter VOLUME.)
- IN THE SYMBOLIC PARAMETER, if the error was detected in the symbolic parameter.
- IN THE VALUE FIELD OF THE SYMBOLIC PARAMETER, if the error was detected in the field which assigns a value to a symbolic parameter.
- IN THE prm OVERRIDE FIELD, where prm is an override keyword parameter on an EXEC statement.

System Action: The job was terminated. The remaining job control statements for the job were scanned for syntax errors.

Programmer Response: Probable user error. Specify a job name. Then submit the job again.

Problem Determination: Table I, items 1, 4, 7a, 29.

IEF636I MISPLACED JOBLIB STATEMENT

Explanation: A DD statement containing JOBLIB in its name field appeared after an EXEC statement. Or a second JOBLIB DD statement appeared in the control statements for a job. A JOBLIB DD statement, which defines a job library, can appear only immediately after a JOB statement and before the first EXEC statement in a job. Only one statement containing JOBLIB in its name field can appear in the statements for a job.

System Action: The job was terminated. The remaining job control statements for the job were scanned for syntax errors.

Programmer Response: Probable user error. Place the JOBLIB DD statement immediately after the JOB statement. If two or more job libraries are to be used as one library, put blanks in the name fields of the concatenated DD statements. Place the concatenated DD statements immediately after the JOBLIB DD statement. Then submit the job again.

Problem Determination: Table I, items 1, 4, 7a, 29.

IEF637I EXCESSIVE ACCOUNT FIELD LENGTH xxxx

Explanation: In a JOB or EXEC statement, the accounting information was longer than the 142 characters permitted.

In the message text, xxxx is one of the following phrases:
- IN THE prm FIELD, where prm is the most recently encountered keyword parameter preceding the error.
- ON THE cntr STATEMENT, where cntr indicates the job control statement on which the error occurred. This phrase usually occurs if the error was detected before any keyword parameters were processed. (For example, an error was detected in the name field of a statement.)

- IN THE prm1 SUBPARAMETER OF THE prm2
  FIELD, where prm1 is a minor keyword
  parameter associated with major keyword
  parameter prm2. (For example, SER is a
  minor keyword parameter that appears
  only when associated with major keyword
  parameter VOLUME.)
- IN THE SYMBOLIC PARAMETER, if the error
  was detected in the symbolic parameter.
- IN THE VALUE FIELD OF THE SYMBOLIC
  PARAMETER, if the error was detected in
  the field which assigns a value to a
  symbolic parameter.
- IN THE prm OVERRIDE FIELD, where prm is
  an override keyword parameter on an EXEC
  statement.

System Action: The job was terminated.
The remaining job control statements for
the job were scanned for syntax errors.

Programmer Response: Probable user error.
Shorten the accounting information. Then
submit the job again.

Problem Determination: Table I, items 1,
4, 7a, 29.

IEF638I SPECIFIED NUMERIC EXCEEDS MAXIMUM ALLOWED
xxxx

Explanation: In a job control statement,
a parameter or subparameter value contains
a valid number of digits, but exceeds the
maximum numeric limit.

In the message text, xxxx is one of the
following phrases:
- IN THE prm FIELD, where prm is the most
  recently encountered keyword parameter
  preceding the error.
- ON THE cntr STATEMENT, where cntr
  indicates the job control statement on
  which the error occurred. This phrase
  usually occurs if the error was detected
  before any keyword parameters were
  processed. (For example, an error was
  detected in the name field of a
  statement.)
- IN THE prm1 SUBPARAMETER OF THE prm2
  FIELD, where prm1 is a minor keyword
  parameter associated with major keyword
  parameter prm2. (For example, SER is a
  minor keyword parameter that appears
  only when associated with major keyword
  parameter VOLUME.)
- IN THE SYMBOLIC PARAMETER, if the error
  was detected in the symbolic parameter.
- IN THE VALUE FIELD OF THE SYMBOLIC
  PARAMETER, if the error was detected in
  the field which assigns a value to a
  symbolic parameter.
- IN THE prm OVERRIDE FIELD, where prm is
  an override keyword parameter on an EXEC
  statement.

System Action: The job was terminated.
The remaining job control statements for
the job were scanned for syntax errors.

Programmer Response: Probable user error.
Correct the parameter or subparameter
value. Then submit the job again.

Problem Determination: Table I, items 1,
4, 7a, 29.

IEF639I INVALID CLASS DESIGNATION xxxx

Explanation: In a job control statement,
the class name specified as the operand of
a parameter or subparameter was not one of
a set of names or values acceptable for
that parameter or subparameter.

In the message text, xxxx is one of the
following phrases:
- IN THE prm FIELD, where prm is the most
  recently encountered keyword parameter
  preceding the error. (For example,
  CLASS=U is invalid since the acceptable
  class names for the CLASS parameter are
  A through O.)
- ON THE cntr STATEMENT, where cntr
  indicates the job control statement on
  which the error occurred. This phrase
  usually occurs if the error was detected
  before any keyword parameters were
  processed. (For example, an error was
  detected in the name field of a
  statement.)
- IN THE prm1 SUBPARAMETER OF THE prm2
  FIELD, where prm1 is a minor keyword
  parameter associated with major keyword
  parameter prm2. (For example, SER is a
  minor keyword parameter that appears
  only when associated with major keyword
  parameter VOLUME.)
- IN THE SYMBOLIC PARAMETER, if the error
  was detected in the symbolic parameter.
- IN THE VALUE FIELD OF THE SYMBOLIC
  PARAMETER, if the error was detected in
  the field which assigns a value to a
  symbolic parameter.
- IN THE prm OVERRIDE FIELD, where prm is
  an override keyword parameter on an EXEC
  statement.

System Action: The job was terminated.
The remaining job control statements for
the job were scanned for syntax errors.

Programmer Response: Probable user error.
Correct the class name. Then submit the
job again.

Problem Determination: Table I, items 1,
4, 7a, 29.

IEF640I EXCESSIVE NUMBER OF POSITIONAL PARAMETERS
xxxx

Explanation: A job control statement
contained too many positional parameters.
A misplaced comma, a duplication, or a
null operand field could cause such an
error.

In the message text, xxxx is one of the
following phrases:
- IN THE prm FIELD, where prm is the most
  recently encountered keyword parameter
  preceding the error.
- ON THE cntr STATEMENT, where cntr
  indicates the job control statement on
  which the error occurred. This phrase
  usually occurs if the error was detected
  before any keyword parameters were
  processed. (For example, an error was
  detected in the name field of a
  statement.)

- IN THE prm1 SUBPARAMETER OF THE prm2
  FIELD, where prm1 is a minor keyword
  parameter associated with major keyword
  parameter prm2. (For example, SER is a
  minor keyword parameter that appears
  only when associated with major keyword
  parameter VOLUME.)
- IN THE SYMBOLIC PARAMETER, if the error
  was detected in the symbolic parameter.
- IN THE VALUE FIELD OF THE SYMBOLIC
  PARAMETER, if the error was detected in
  the field which assigns a value to a
  symbolic parameter.
- IN THE prm OVERRIDE FIELD, where prm is
  an override keyword parameter on an EXEC
  statement.

System Action: The job was terminated.
The remaining job control statements for
the job were scanned for syntax errors.

Programmer Response: Probable user error.
Correct the statement, and submit the job
again.

Problem Determination: Table I, items 1,
4, 7a, 29.

IEF641I IMPROPER SUBPARAMETER LIST xxxx

Explanation: A job control statement
contains an incorrect subparameter list
for a positional parameter. Either such a
list is required and is missing, or is not
permitted but is present.

In the message text, xxxx is one of the
following phrases:
- IN THE prm FIELD, where prm is the most
  recently encountered keyword parameter
  preceding the error.
- ON THE cntr STATEMENT, where cntr
  indicates the job control statement on
  which the error occurred. This phrase
  usually occurs if the error was detected
  before any keyword parameters were
  processed. (For example, an error was
  detected in the name field of a
  statement.)
- IN THE prm1 SUBPARAMETER OF THE prm2
  FIELD, where prm1 is a minor keyword
  parameter associated with major keyword
  parameter prm2. (For example, SER is a
  minor keyword parameter that appears
  only when associated with major keyword
  parameter VOLUME.)
- IN THE SYMBOLIC PARAMETER, if the error
  was detected in the symbolic parameter.
- IN THE VALUE FIELD OF THE SYMBOLIC
  PARAMETER, if the error was detected in
  the field which assigns a value to a
  symbolic parameter.
- IN THE prm OVERRIDE FIELD, where prm is
  an override keyword parameter on an EXEC
  statement.

System Action: The job was terminated.
The remaining job control statements for
the job were scanned for syntax errors.

Programmer Response: Probable user error.
Correct the parameter. Then submit the
job again.

Problem Determination: Table I, items 1,
4, 7a, 29.

IEF642I EXCESSIVE PARAMETER LENGTH xxxx

Explanation: In a job control statement,
a positional parameter was longer than
permitted.

In the message text, xxxx is one of the
following phrases:
- IN THE prm FIELD, where prm is the most
  recently encountered keyword parameter
  preceding the error.
- ON THE cntr STATEMENT, where cntr
  indicates the job control statement on
  which the error occurred. This phrase
  usually occurs if the error was detected
  before any keyword parameters were
  processed. (For example, an error was
  detected in the name field of a
  statement.)
- IN THE prm1 SUBPARAMETER OF THE prm2
  FIELD, where prm1 is a minor keyword
  parameter associated with major keyword
  parameter prm2. (For example, SER is a
  minor keyword parameter that appears
  only when associated with major keyword
  parameter VOLUME.)
- IN THE SYMBOLIC PARAMETER, if the error
  was detected in the symbolic parameter.
- IN THE VALUE FIELD OF THE SYMBOLIC
  PARAMETER, if the error was detected in
  the field which assigns a value to a
  symbolic parameter.
- IN THE prm OVERRIDE FIELD, where prm is
  an override keyword parameter on an EXEC
  statement.

System Action: The job was terminated.
The remaining job control statements for
the job were scanned for syntax errors.

Programmer Response: Probable user error.
Shorten the parameter to the maximum
permitted length or less. Then submit the
job again.

Problem Determination: Table I, items 1,
4, 7a, 29.

IEF643I UNIDENTIFIED POSITIONAL PARAMETER xxxx

Explanation: In a job control statement,
a positional parameter that has certain
permitted values was not recognized. It
may be invalid, misspelled, or mispunched.

In the message text, xxxx is one of the
following phrases:
- IN THE prm FIELD, where prm is the most
  recently encountered keyword parameter
  preceding the error.
- ON THE cntr STATEMENT, where cntr
  indicates the job control statement on
  which the error occurred. This phrase
  usually occurs if the error was detected
  before any keyword parameters were
  processed. (For example, an error was
  detected in the name field of a
  statement.)
- IN THE prm1 SUBPARAMETER OF THE prm2
  FIELD, where prm1 is a minor keyword
  parameter associated with major keyword
  parameter prm2. (For example, SER is a
  minor keyword parameter that appears
  only when associated with major keyword
  parameter VOLUME.)

- IN THE SYMBOLIC PARAMETER, if the error was detected in the symbolic parameter.
- IN THE VALUE FIELD OF THE SYMBOLIC PARAMETER, if the error was detected in the field which assigns a value to a symbolic parameter.
- IN THE prm OVERRIDE FIELD, where prm is an override keyword parameter on an EXEC statement.

System Action: The job was terminated. The remaining job control statements for the job were scanned for syntax errors.

Programmer Response: Probable user error. Correct the erroneous positional parameter. Then submit the job again.

Problem Determination: Table I, items 1, 4, 7a, 29.

IEF644I INVALID NUMERIC xxxx

Explanation: In a job control statement, an alphabetic or special character appeared in a parameter that can contain only numeric characters.

In the message text, xxxx is one of the following phrases:
- IN THE prm FIELD, where prm is the most recently encountered keyword parameter preceding the error.
- ON THE cntr STATEMENT, where cntr indicates the job control statement on which the error occurred. This phrase usually occurs if the error was detected before any keyword parameters were processed. (For example, an error was detected in the name field of a statement.)
- IN THE prm1 SUBPARAMETER OF THE prm2 FIELD, where prm1 is a minor keyword parameter associated with major keyword parameter prm2. (For example, SER is a minor keyword parameter that appears only when associated with major keyword parameter VOLUME.)
- IN THE SYMBOLIC PARAMETER, if the error was detected in the symbolic parameter.
- IN THE VALUE FIELD OF THE SYMBOLIC PARAMETER, if the error was detected in the field which assigns a value to a symbolic parameter.
- IN THE prm OVERRIDE FIELD, where prm is an override keyword parameter on an EXEC statement.

System Action: The job was terminated. The remaining job control statements for the job were scanned for syntax errors.

Programmer Response: Probable user error. Correct the erroneous parameter. Then submit the job again.

Problem Determination: Table I, items 1, 4, 7a, 29.

IEF645I INVALID REFER BACK xxxx

Explanation: In a job control statement, a parameter specified the name of a previous statement. However, a statement with that name was not found.

In the message text, xxxx is one of the following phrases:
- IN THE prm FIELD, where prm is the most recently encountered keyword parameter preceding the error.
- ON THE cntr STATEMENT, where cntr indicates the job control statement on which the error occurred. This phrase usually occurs if the error was detected before any keyword parameters were processed. (For example, an error was detected in the name field of a statement.)
- IN THE prm1 SUBPARAMETER OF THE prm2 FIELD, where prm1 is a minor keyword parameter associated with major keyword parameter prm2. (For example, SER is a minor keyword parameter that appears only when associated with major keyword parameter VOLUME.)
- IN THE SYMBOLIC PARAMETER, if the error was detected in the symbolic parameter.
- IN THE VALUE FIELD OF THE SYMBOLIC PARAMETER, if the error was detected in the field which assigns a value to a symbolic parameter.
- IN THE prm OVERRIDE FIELD, where prm is an override keyword parameter on an EXEC statement.

System Action: The job was terminated. The remaining job control statements for the job were scanned for syntax errors.

Programmer Response: Probable user error. Check the spelling and punching of the parameter containing the reference and of the name in the statement to which it refers. Determine if the parameter containing the reference can validly contain a reference. After correcting the error, submit the job again.

Problem Determination: Table I, items 1, 4, 7a, 29.

IEF646I REQUIRED POSITIONAL PARAMETER MISSING xxxx

Explanation: In a job control statement, a required positional parameter or subparameter was not specified.
In the message text, xxxx is one of the following phrases:
- IN THE prm FIELD, where prm is the most recently encountered keyword parameter preceding the error.
- ON THE cntr STATEMENT, where cntr indicates the job control statement on which the error occurred. This phrase usually occurs if the error was detected before any keyword parameters were processed. (For example, an error was detected in the name field of a statement.)
- IN THE prm1 SUBPARAMETER OF THE prm2 FIELD, where prm1 is a minor keyword parameter associated with major keyword parameter prm2. (For example, SER is a minor keyword parameter that appears only when associated with major keyword parameter VOLUME.)
- IN THE SYMBOLIC PARAMETER, if the error was detected in the symbolic parameter.

- IN THE VALUE FIELD OF THE SYMBOLIC
  PARAMETER, if the error was detected in
  the field which assigns a value to a
  symbolic parameter.
- IN THE prm OVERRIDE FIELD, where prm is
  an override keyword parameter on an EXEC
  statement.

System Action: The job was terminated.
The remaining job control statements for
the job were scanned for syntax errors.

Programmer Response: Probable user error.
Insert the missing parameter or
subparameter. Then submit the job again.

Problem Determination: Table I, items 1,
4, 7a, 29.

IEF647I NON-ALPHABETIC FIRST CHARACTER OF NAME
       xxxx

Explanation: In a job control statement,
the first character in a name is not
alphabetic. The name can be the name
field, a procedure name in a parameter, or
a program name in a parameter.

This message will also appear when a
relative generation number of a generation
data group is used without a plus or minus
sign. For example, DSNAME=dsname(+1) is
correct, whereas DSNAME=dsname(1) is
incorrect.
In the message text, xxxx is one of the
following phrases:
- IN THE prm FIELD, where prm is the most
  recently encountered keyword parameter
  preceding the error.
- ON THE cntr STATEMENT, where cntr
  indicates the job control statement on
  which the error occurred. This phrase
  usually occurs if the error was detected
  before any keyword parameters were
  processed. (For example, an error was
  detected in the name field of a
  statement.)
- IN THE prm1 SUBPARAMETER OF THE prm2
  FIELD, where prm1 is a minor keyword
  parameter associated with major keyword
  parameter prm2. (For example, SER is a
  minor keyword parameter that appears
  only when associated with major keyword
  parameter VOLUME.)
- IN THE SYMBOLIC PARAMETER, if the error
  was detected in the symbolic parameter.
- IN THE VALUE FIELD OF THE SYMBOLIC
  PARAMETER, if the error was detected in
  the field which assigns a value to a
  symbolic parameter.
- IN THE prm OVERRIDE FIELD, where prm is
  an override keyword parameter on an EXEC
  statement.

System Action: The job was terminated.
The remaining job control statements for
the job were scanned for syntax errors.

Programmer Response: Probable user error.
Correct the name field. Then submit the
job again.

Problem Determination: Table I, items 1,
4, 7a, 29.

IEF648I INVALID DISP FIELD - xxxx SUBSTITUTED
Explanation: In a DD statement, a
subparameter specified in the DISP
parameter is invalid:
- A disposition of KEEP is invalid for a
  temporary data set. In this case, xxxx
  will appear as PASS. If a DSNAME
  parameter references a data set which
  has a disposition of DELETE, xxxx will
  also appear as PASS.
- A disposition of CATLG is invalid for a
  data set whose data set name is enclosed
  in apostrophes. (In this case, xxxx
  will appear as KEEP.)

System Action: The system changed the
disposition of the data set to xxxx.
Processing continued.

Programmer Response: Probable user error.
If the job is to be executed again,
correct the invalid disposition.

Problem Determination: Table I, items 1,
4, 7a, 29.

IEF649I EXCESSIVE NUMBER OF DD STATEMENTS

Explanation: More than 255 DD statements
appeared in one job step. Possibly, an
EXEC statement is missing.

System Action: The job was terminated.
The remaining job control statements for
the job were scanned for syntax errors.
The system printed the message with each
DD statement after the 255th.

Programmer Response: Probable user error.
Either remove the excess DD statement(s)
or add a missing EXEC statement. Then
submit the job again.

Problem Determination: Table I, items 1,
7a, 29.

IEF650I INCORRECT USE OF SLASH xxxx

Explanation: In a job control statement,
a slash appeared in a parameter or field
in which a slash is not permitted.

In the message text, xxxx is one of the
following phrases:
- IN THE prm FIELD, where prm is the most
  recently encountered keyword parameter
  preceding the error.
- ON THE cntr STATEMENT, where cntr
  indicates the job control statement on
  which the error occurred. This phrase
  usually occurs if the error was detected
  before any keyword parameters were
  processed. (For example, an error was
  detected in the name field of a
  statement.)
- IN THE prm1 SUBPARAMETER OF THE prm2
  FIELD, where prm1 is a minor keyword
  parameter associated with major keyword
  parameter prm2. (For example, SER is a
  minor keyword parameter that appears
  only when associated with major keyword
  parameter VOLUME.)
- IN THE SYMBOLIC PARAMETER, if the error
  was detected in the symbolic parameter.

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- IN THE VALUE FIELD OF THE SYMBOLIC
  PARAMETER, if the error was detected in
  the field which assigns a value to a
  symbolic parameter.
- IN THE prm OVERRIDE FIELD, where prm is
  an override keyword parameter on an EXEC
  statement.

System Action: The job was terminated.
The remaining job control statements for
the job were scanned for syntax errors.

Programmer Response: Probable user error.
Correct the parameter or field. Then
submit the job again.

Problem Determination: Table I, items 1,
4, 7a, 29.

IEF651I INCORRECT USE OF MINUS xxxx

Explanation: In a job control statement,
a hyphen (or minus sign) appeared in a
parameter or field in which a hyphen is
not permitted.
In the message text, xxxx is one of the
following phrases:
- IN THE prm FIELD, where prm is the most
  recently encountered keyword parameter
  preceding the error.
- ON THE cntr STATEMENT, where cntr
  indicates the job control statement on
  which the error occurred. This phrase
  usually occurs if the error was detected
  before any keyword parameters were
  processed. (For example, an error was
  detected in the name field of a
  statement.)
- IN THE prm1 SUBPARAMETER OF THE prm2
  FIELD, where prm1 is a minor keyword
  parameter associated with major keyword
  parameter prm2. (For example, SER is a
  minor keyword parameter that appears
  only when associated with major keyword
  parameter VOLUME.)
- IN THE SYMBOLIC PARAMETER, if the error
  was detected in the symbolic parameter.
- IN THE VALUE FIELD OF THE SYMBOLIC
  PARAMETER, if the error was detected in
  the field which assigns a value to a
  symbolic parameter.
- IN THE prm OVERRIDE FIELD, where prm is
  an override keyword parameter on an EXEC
  statement.

System Action: The job was terminated.
The remaining job control statements for
the job were scanned for syntax errors.

Programmer Response: Probable user error.
Correct the parameter or field. Then
submit the job again.

Problem Determination: Table I, items 1,
4, 7a, 29.

IEF652I MUTUALLY EXCLUSIVE KEYWORDS - KEYWORD IN
THE prm FIELD IS MUTUALLY EXCLUSIVE WITH
KEYWORD ON THE cntr STATEMENT

Explanation: The job control statement
indicated by cntr in the message text was
flagged for one of the following reasons:

- The keyword indicated by prm in the
  message text and another keyword or
  positional parameter on the same
  statement are either mutually exclusive
  or identical.
- A DLM keyword was detected on the
  statement before the required
  asterisk(*) or DATA. Therefore, any
  other major keywords that might appear
  on the statement, except DCB, will be
  mutually exclusive with DLM.

System Action: The job was terminated.
The remaining job control statements for
the job were scanned for syntax errors.

Programmer Response: Probable user error.
Correct the statement in error and run the
job again.

Problem Determination: Table I, items 1,
4, 7a, 29.

IEF653I SUBSTITUTION JCL - xxxx

Explanation: In a cataloged procedure
statement, one or more symbolic parameters
were used. In the message text, xxxx
represents the text that results from the
symbolic parameter substitution.
If DD DUMMY or DD DYNAM were used in the
original procedure statement, they will
appear as DUMM= or DYNA= in the message
text.

Programmer Response: None.

IEF654I MULTIPLE DDNAMES REFER TO ONE DD STATEMENT

Explanation: In the job control
statements for a job step, two DD
statements contain DDNAME parameters that
specify the same name.

System Action: The job is terminated.
The remaining job control statements for
the job are scanned for syntax errors.

Programmer Response: Probable user error.
Either delete one of the DD statements or
change the name in one of the duplicate
DDNAME parameters. Then submit the job
again.

Problem Determination: Table I, items 1,
4, 7a, 29.

IEF655I DSNAME INVALID WHEN SYSOUT SPECIFIED

Explanation: A DD statement contained a
SYSOUT parameter and a DSNAME parameter.

System Action: The DSNAME parameter was
ignored. Processing continued.

Programmer Response: Probable user error.
If the job is to be executed again,
correct the statement by removing the
DSNAME or SYSOUT parameter.

Problem Determination: Table I, items 1,
4, 7a, 29.

IEF656I 16 EXTENTS EXCEEDED SPOOLING JOB [-jjj]

Explanation: A SYSIN reader was writing
an input stream data set, defined by a DD
* or DD DATA statement, on a direct access
device. Because the data set was large,
the reader had to repeatedly ask for more
storage. This message was issued when so
much storage was required that a 17th
extent would have been needed.
In the message text, jjj is the job name.

System Action: The SYSIN reader stopped
writing the data set. If the message
appears on the console, the reader stopped
itself; if the message appears on the
SYSOUT job listing, only job jjj was
terminated.

Programmer Response: Probable user error.
Remove the data set from the input stream,
change its DD statement so that * or DATA
is not specified, and place the data set
on magnetic tape, direct access storage,
or another card reader; then submit the
job again.

If the data set must remain in the input
stream, change the IEFDATA DD statement in
the cataloged reader procedure to specify
a larger incremental quantity in the SPACE
parameter; then submit the job again.

Operator Response: Report the message to
the programmer, and restart the SYSIN
reader.

Problem Determination: Table I, items 1,
4, 7a, 29.

IEF657I SYMBOL IC NOT REFERENCED IN PROCEDURE

Explanation: On an EXEC statement calling
a cataloged or in-stream procedure or on a
PROC statement contained in the procedure,
a value was assigned to a symbolic
parameter. The symbolic in question was
not referenced in the procedure
expansion.

System Action: The job is terminated.

Programmer Response: Probable user error.
Include a reference to the symbolic in
the procedure, or remove the symbolic
assignment from the EXEC or PROC
statement.

Problem Determination: Table I, items 1,
3, 4, 7a, 29.

IEF658I PROC VERB STATEMENT OUT OF SEQUENCE

Explanation: A statement which specified
PROC in its operation field was not the
first statement in a procedure. The PROC
statement is valid only as the first
statement in a procedure.

System Action: The job was terminated.

Programmer Response: Probable user error.
If a PROC statement is to be used, make
sure that it appears only as the first
statement in the procedure.

Problem Determination: Table I, items 1,
4, 7a, 29.

IEF659I MISPLACED SYSCHK DD STATEMENT

Explanation: During execution of a
deferred restart, it was found that a
SYSCHK DD statement preceded the first
EXEC statement in the resubmitted deck.
However, the RESTART parameter of the JOB
statement did not specify a checkpoint
identification.

System Action: Restart was terminated.

Programmer Response: Probable user error.
If checkpoint restart is desired, specify
a checkpoint identification in the RESTART
parameter of the JOB statement. If step
restart is desired, remove the SYSCHK DD
statement.

Problem Determination: Table I, items 1,
4, 7a, 29.

IEF660I MISSING SYSCHK DD STATEMENT

Explanation: During execution of a
deferred checkpoint restart, it was found
that the RESTART parameter of the JOB
statement specified a checkpoint
identification. However, a SYSCHK DD
statement did not precede the first EXEC
statement in the resubmitted deck.

System Action: Restart was terminated.

Programmer Response: Probable user error.
Place a SYSCHK DD statement before the
first EXEC statement. Then resubmit the
job.

Problem Determination: Table I, items 1,
4, 7a, 29.

IEF661I RESTART STEP NOT FOUND

Explanation: During execution of a
deferred restart, it was found that the
RESTART parameter of the JOB statement
specified a step name that could not be
found either in the resubmitted deck or in
the specified cataloged procedure.

System Action: Restart was terminated.

Programmer Response: Probable user error.
Correct the RESTART parameter and resubmit
the job.

Problem Determination: Table I, items 1,
4, 7a, 29.

IEF662I INVALID LABEL ON THE ⎰PROC⎱ STATEMENT
                            ⎱PEND⎰

Explanation: The name in the name field
of the PROC or PEND statement, as
indicated in the message text, either is
too long or contains an invalid character.

System Action: The job is terminated.
The remaining job control statements for
the job are scanned for syntax errors.

Programmer Response: Probable user error.
Correct the name field cf the statement.
Then submit the job again.

Problem Determination: Table I, items 1,
4, 7a, 29.

IEF663I NO LABEL ON THE PROC STATEMENT

Explanation: No name was specified in the
name field of the PROC statement for an
in-stream procedure.

System Action: The job is terminated.
The remaining job control statements for
the job are scanned for syntax errors.

Programmer Response: Probable user error.
Specify a name in the name field of the
PROC statement. Then submit the job
again.

Problem Determination: Table I, items 1,
4, 7a, 29.

IEF665I EXCESSIVE NUMBER OF IN-STREAM PROCEDURES

Explanation: The job contains more than
15 in-stream procedures.

System Action: The job was terminated.
The remaining job contcl statements for
the job were scanned for syntax errors.

Programmer Response: Probable user error.
Make sure that no more than 15 in-stream
procedures are specified in the job. Then
submit the job again. If the problem
recurs, do the following before calling

IEF666I SPOOL FULL - OPERATOR STOPPED RDR

Explanation: In response tc message
IEF416I, the operator issued a STOP RDR
command.

System Action: If message IEF604I does
not follow this message, then space became
available before the STOP RDR command was
executed, and the job was read.

Programmer Response: Ncne.

**IEF667I Sccc ABEND IN OPEN DURING INTERPRETER
INITIALIZATION**

Explanation: The reader/interpreter
failed during OPEN processing with a
completion code of ccc. If messages
IEF406I and IEF407I follow, the
termination occurred during opening of the
SYSIN data set. If the message IEF407I
follows, the terminaticn occurred during
opening of the SYS1.PROCLIB data set.

System Action: The reader closes and
processing continues.

Operator Response: Probable user error.
Report this message to the system
programmer or installation manager.

Programmer Response: Check the IEFRDER
and IEFPDSI DD statements in the reader

procedure. Ccrrect any errors and restart
the reader.

Problem Determinaticn: Table I, items 2,
7ab, 29.

IEF668I PEND VERB STATEMENT OUT OF SEQUENCE

Explanaticn: A PEND statement has been
encountered which dces not terminate an
in-stream prccedure; that is, either it is
nct preceded by a valid PROC statement, or
the prccedure ccntains data, a DD *
statement, or a DD DATA statement. The
PEND verb is valid cnly as the last
statement in the in-stream prccedure.

System Action: The jcb was terminated.
The remaining jcb ccntrol statements for
the jcb are scanned for syntax errors.

Programmer Response: If the PEND
statement is unnecessary, remcve it.
Ctherwise, either supply a correct PROC
statement or remcve frcm the in-stream
prccedure the data, DD * statement or DD
DATA statement. Resubmit the jcb.

IEF669I INVALID REFER FORWARD TO DYNAM DATA SET

Explanaticn: The system has encountered a
DD statement in which the DDNAME parameter
specifies the name cf a DD statement that
ccntains a DYNAM parameter.

System Action: The jcb is terminated.
The remaining jcb ccntrol statements are
scanned for syntax errors.

Programmer Response: Prcbable user error.
Either change the reference in the DDNAME
parameter or delete the DYNAM parameter in
the referenced DD statement. Submit the
jcb again.

Problem Determinaticn: Table I, items 1,
4, 5a, 29.

**IEF670I NC VALUE ASSIGNED TO SYMBOLIC PARAMETER ON
PRCC STMT VIA THE EXEC STMT**

Explanation: A jcbstep calling a
cataloged procedure has nct provided a
value in its EXEC statement fcr a symbolic
parameter contained in the PROC statement
cf the procedure. The symbol has no
default value, and is therefore undefined.

Ncte: The symbclic parameter in question
may have the same spelling as scme valid
EXEC statement keywcrd, such as REGION.

System Action: The jcb is terminated.

Programmer Respcnse: Correct the error by
giving the symbclic parameter a default
value on the PRCC statement, by making a
value assignment fcr it on the EXEC
statement, or by changing the name of the
symbclic parameter.

Problem Determinaticn: Table I, items 1,
3, 4, 7a, 29.

IEF861I FOLLOWING RESERVED DATA SET NAMES
UNAVAILABLE TO jjj

Explanation: The job named jjj has
requested use of one or more data set
names that are reserved for other jobs
currently executing in the system.
Message IEF863I and IEF864D follow,
listing the data set name(s) and
requesting operator action.

System Action: Processing of the job
named jjj is suspended.

Operator Response: Respond as indicated
for message IEF864D.

IEF862I FOLLOWING RESERVED DATA SET NAMES
UNAVAILABLE TO jjj, IN Pnn.

Explanation: While scheduling is being
performed in a large partition for the
small partition nn, the job named jjj has
requested use of one or more data set
names that are reserved for other jobs
currently executing in the system.
Messages IEF863I and IEF864D follow,
listing the data set name(s) and
requesting operator action.

System Action: Processing of the job
named jjj is suspended.

Operator Response: Respond as indicated
for message IEF864D.

IEF863I DSNAME=dsn

Explanation: Data set name dsn is not
available to the job named in preceding
messages IEF861I or IEF862I. This message
will appear for each data set name that
is not available.

System Action: None.

Operator Response: None.

IEF864D REPLY 'RETRY' OR 'CANCEL' [OR 'WAIT']

Explanation: This message follows message
IEF863I and permits the operator to
respond to preceding messages IEF861I or
IEF862I.

System Action: The system action depends
on the operator's response.

Operator Response: If the job named in
preceding message IEF861I or IEF862I is
requesting data set names which another
job or series will release upon
termination, enter REPLY xx,'RETRY'.
However, the reply need not be entered
until another job in the system has
terminated and the data set names are
available. The scheduler will then repeat
its attempt to reserve the data set
name(s) for the job. If data set names
are still not available, the message
sequence is repeated.

In MFT, if the partition in which
scheduling is being performed is the only
large partition which does not contain an
unending job, a system interlock can occur
unless REPLY xx,'CANCEL' is entered.
Knowledge of the system and of the status
of all data set names requested will
normally determine the reply. However, if
at least one other large partition is

available for scheduling and the data set
name(s) can become available, REPLY
xx,'RETRY' should be entered.

In MVT, enter REPLY xx,'CANCEL' to
terminate the job. The system will
terminate processing of the job named in
message IEF861I or IEF862I, and message
IEF452I will be issued.

In MVT only, enter REPLY xx,'WAIT' to
suspend processing of the job named in
message IEF861I or IEF862I until the data
set name(s) become available. When the
data set names are free, the system will
reserve them for the job and processing
will continue.

IEF865A Q FULL - REPLY 'WAIT' OR 'CANCEL' - jjj.

Explanation: A transient input reader has
run out of available direct access space
in the SYS1.SYSJOBQE data set on which to
place input data. Therefore, the reader
cannot continue interpreting job jjj, the
job currently being read.

This message may also occur if an
initiator runs out of space on
SYS1.SYSJOBQE. If so, jobname jjj may
not be present in the message.

System Action: The system issues a
DISPLAY A command to display the active
jobs and job steps. Further system action
depends on the operator's response.

Operator Response: If termination of
another job currently executing in the
system will free space for the reader or
initiator, enter - REPLY XX, 'WAIT'. The
affected task will wait until space is
made available on SYS1.SYSJOBQE, and then
will continue.

If the reader or initiator is to be
terminated, enter - REPLY XX, 'CANCEL'.
The task will abend with a system
completion code of 222. If the initiator
is cancelled, a core image dump may result,
and it may have to be restarted if not
reinstated by the system. The jobname
indicated by a previous IEF403I message
should be resubmitted. If the reader is
cancelled, and is to be restarted,
reposition the input stream to begin with
job jjj.

The 'CANCEL' reply must be used if the
reader initiator is operating in the only
scheduler-size partition which does not
contain an unending job such as graphics
or telecommunications.

IEF866E SCHEDULER ABEND COMPLETION CODE hhh

Explanation: During execution of a
scheduler routine, the ABEND routine was
entered and abnormal termination occurred.
Completion code hhh is in hexadecimal.

System Action: The system has recovered
in the affected partition, and the
scheduler has been restarted. However,
there may be extraneous information left
on the SYS1.SYSJOBQE data set as a result
of the abnormal termination.

Operator Response: To remove the
extraneous information left on the
SYS1.SYSJOBQE data set, restart the system
at the earliest convenient time.

Problem Determination: Table I, items 1, 2, 3, 4, 7a, 29.

IEF867D CPO FULL -- REPLY 'WAIT' OR 'CANCEL' jjj

Explanation: Direct access space for input stream data could not be allocated by a reader for the job named jjj.

System Action: The system issues a DISPLAY ACTIVE command to display the active jobs and job steps. Further system action depends on the operator's response. (Jobs in other partitions continue execution.)

Operator Response: If the system contains at least one other scheduler-size partition which does not contain an unending job, enter REPLY xx,'WAIT'. This reply causes the reader to wait on an event control block (ECB) which will be posted by a writer or terminator when space used for concurrent peripheral operations online (CPO) is freed. The reader will then repeat its attempt to allocate space. If sufficient space is still not available, the message is repeated.

If the reader occupies the only large partition available for scheduling enter REPLY xx,'CANCEL'. This reply will cause the reader to be closed and make the partition available for use by other jobs. When sufficient CPO space has been subsequently freed, the reader may be restarted. However, reposition the input stream to begin with the job named jjj.

Note: Inform the system programmer that you have received this message.

Programmer Response: If this message occurs frequently, list the VTOC of the volume(s) in question to determine whether more space is needed for input stream data, or whether a larger VTOC is needed.

Note: Check the space requirement specified in the IEFDATA DD statement of the reader procedure. The amount of space specified there is allocated for each job with input stream data, regardless of the amount of spaces actually used. If space requests are unusually high, it may be advisable to force CPO data to be written on a unique direct access device by specifying the volume serial number in the IEFDATA DD statement.

IEF868I ddd WTR WAITING FOR WORK

Explanation: The writer associated with device ddd is waiting for work. That is, there are no output data sets on the queue of the output class(es) that this writer was established to service.

System Action: None.

Operator Response: If jobs currently executing in the system will establish output queue entries of the class(es) assigned this writer, none. Otherwise,

the partition may be redefined as a problem program partition or the MODIFY command can be used to assign new output classes to the writer.

IEF869I hh.mm.ss QUEUE DISPLAY [id]
```
 QUEUE JOBS STAT    QUEUE JOBS STAT
XXXX X XXXX XXXX   XXXX X XXXX XXXX
 QUEUE JOBS STAT    QUEUE JOBS STAT
XXXX X XXXX XXXX   XXXX X XXXX XXXX
```

Explanation: This is the control line of the Status Display initiated by the DISPLAY Q or DISPLAY Q, (list) command. The label line describes the fields of data.

[id]
    A three-digit decimal identification number. It is used in conjunction with the CONTROL C,D command for canceling status displays being written on typewriter or printer consoles or being displayed in-line (not in a display areas on a display (CRT) console. This identification number does not appear when the display is presented in a display area on a display console.

QUEUE
    This field is one of the following:
    • JOB X, where X is the class identifier of an input queue.
    • HOLD, which contains all jobs assigned to the HOLD queue by the HOLD command, or by the TYPRUN=HOLD parameter of the JOB statement.
    • SOUT X, where X is the class identifier of an output queue.

JOBS
    The number, in decimal, of the jobs contained in the queue of the QUEUE field.

STAT
    HELD if queue has been held.

Operator Response: None.

IEF871I SYSTEM ISSUED DISPLAY A

Explanation: This message accompanies message IEF865A or IEF867D, and indicates that the system has entered a DISPLAY ACTIVE command to display the active jobs and job steps.

System Action: The system entered a DISPLAY ACTIVE command. Further system action depends on the operator's response to message IEF865A or IEF867D.

Operator Response: None.

IEF874I ddd DSO INVALID DCB SUBPARAMETER

Explanation: While processing a start command, the direct system output (DSO) writer detected an error in one of the DCB subparameters. If a 3525 punch is on the system, check the DSO procedure; the FUNC parameter values are probably invalid for

the IEFRDER DD statement. (Valid parameters are I and P.)

System Action: The DSO writer will terminate.

Operator Response: Probable user error. Notify the system programmer or installation manager.

Problem Determination: Table I, items 2, 7a, 26a, 29.

IEF875I proc FAILED, JCL ERROR

Explanation: A START command was entered for procedure proc in the SYS1.PROCLIB data set but the system encountered an error in the job control statements in the procedure.

System Action: The job is terminated.

Operator Response: Inform the programmer that you have received this message.

Programmer Response: Probable user error. Correct any errors in the job control statements in the procedure, and execute the job step again.

Problem Determination: Table I, items 2, 26d, 29.

IEF876I proc FAILED, I/O ERROR

Explanation: A START command was entered for procedure proc in the SYS1.PROCLIB

data set but the system encountered an input/output error while attempting to read the job control statements in the procedure.

System Action: The job is terminated.

Operator Response: Inform the programmer that you have received this message.

Programmer Response: Probable user error. Make sure that the SYS1.PROCLIB data set has not been modified incorrectly.

Problem Determination: Table I, items 2, 7a, 26d, 29.

IEF877I proc FAILED, INSUFFICIENT Q-SPACE

Explanation: A START command was entered for procedure proc in the SYS1.PROCLIB data set; the procedure could not be started because not enough logical tracks were available in the SYS1.SYSJOBQ data set.

System Action: The job is terminated.

Operator Response: Probable user error. Stop some of the readers that are operating and allow the jobs that are in the system to finish processing. Then try the job again.

Problem Determination: Table I, items 2, 8a, 29.

Component Name	IEH
Program Producing Message	System utility programs: IEHATLAS, IEHDASDR, IEHINITT, IEHIOSUP, IEHLIST, IEHMCVE, IEHPROGM.
Audience and Where Produced	For programmer: SYSPRINT data set. For operator: console.

Message Format	IEHnnnI text (in SYSPRINT)
	xx IEHnnns text (on console)
	
	nnn
	    Message serial number, which is coded to indicate the utility
	    program:
	
	    1nn IEHLIST 6nn IEHINITT
	    2nn IEHPROGM 7nn IEHIOSUP
	    3nn and 4nn IEHMOVE 8nn IEHDASDR
	                                9nn IEHATLAS
	text
	    Message text.
	xx
	    Message reply identification (absent, if operator reply not
	    required).
	s
	    Type code:
	
	    A Action; operator must perform a specific action.
	    D Decision; operator must choose an alternative.
	    I Information; no operator action is required.

Comments	None.
Associated Publications	IBM System/360 Operating System: Utilities, GC28-6586
Problem Determination	Refer to the fold-out in part VI of this publication for problem determination instructions.

IEHLIST Program Messages

IEH101I NO CATALOG ON SPECIFIED VOLUME

> Explanation: No catalog exists on the volume identified in the LISTCTLG statement.

> System Action: The request is ignored. (The return code is 8.)

> Programmer Response: Probable user error. Ensure that the correct volume is specified. (If a volume was not specified, then the system residence volume is assumed.) If the volume was correct, insert a LISTVTOC statement for the other system volumes to determine where the SYSCTLG data set resides.

> Problem Determination: Table I, items 1, 2, 3, 7a, 13, 29.

IEH102I THIS VOLUME DOES NOT CONTAIN DATA SET dsn

> Explanation: Data set dsn specified in the LISTVTOC or LISTPDS statement is not contained in the specified volume's table of contents.

> System Action: The request is ignored. (The return code is 8.)

> Programmer Response: Probable user error. Ensure that the data set name and volume are specified correctly. (If a volume was not specified, the system residence volume is assumed.) If the volume and data set name are correct, insert a LISTVTOC statement for the system volumes to determine where the data set resides.

> Problem Determination: Table I, items 1, 2, 3, 7a, 13, 29.

IEH103I INVALID CONTROL STATEMENT -- xxx

> Explanation: A utility control statement
> is invalid. In the message text, xxx is
> the entire invalid statement.
>
> System Action: The request is ignored.
> (The return code is 8.)
>
> Programmer Response: Probable user error.
> Correct any improper specifications and/or
> misspelled keywords on the preceding
> statement.
>
> Problem Determination: Table I, items 1,
> 2, 3, 7a, 13, 29.

IEH104I THE PDS ORGANIZATION DOES NOT APPLY FCR
DATA SET dsn

> Explanation: Data set dsn specified in
> the LISTPDS statement is not partitioned.
>
> System Action: The request is ignored.
> (The return code is 8.)
>
> Programmer Response: Probable user error.
> Ensure that the data set name specified is
> correct. If the name is correct, insert a
> LISTVTOC FORMAT statement specifying the
> data set name and volume; the true data
> set information will then be listed.
>
> Problem Determination: Table I, items 1,
> 2, 3, 7a, 13, 29.

IEH105I ILLEGAL NODE POINT SPECIFIED, OR
INCONSISTENT CATALOG STRUCTURE FOUND --
REQUEST TERMINATED

> Explanation: Either the node point
> identified in the LISTCTLG statement is
> invalid, or an incorrect catalog structure
> exists.
>
> System Action: The request is ignored.
> (The return code is 8.)
>
> Programmer Response: Ensure that the node
> point specified in the LISTCTLG statement
> is correct or that no inconsistencies
> occur in the catalog structure.
>
> Problem Determination: Table I, items 1,
> 2, 3, 7a, 15, 29. Execute the IEHDASDR
> utility program (dump to printer) for the
> catalog data set, and save the output.

IEH106I UNAVAILABLE DEVICE TYPE OR VOLUME I.D
SPECIFIED

> Explanation: Either the VOL parameter of
> the control statement is invalid or the
> volume specified cannot be mounted.
>
> System Action: The request is ignored.
> (The return code is 8.)
>
> Programmer Response: Probable user error.
> Ensure that a CD statement is included for
> the volume, the VOL parameter of the
> control statement is specified correctly,
> and the volume is mounted.

> Problem Determination: Table I, items 1,
> 2, 3, 7a, 13, 29.

IEH107I JCB TERMINATED -- I/O ERROR ON SYSIN

> Explanation: An input/output error
> occurred while reading the SYSIN data set;
> additional input statements cannot be
> read.
>
> System Action: The program is terminated.
> (The return code is 16.)
>
> Programmer Response: Resubmit the job
> with all the control statements that were
> not processed on the initial pass.
>
> Problem Determination: Table I, items 1,
> 2, 3, 7a, 13, 29.

IEH108I REQUEST TERMINATED -- PERMANENT I/O ERROR
WHILE READING DATA SET

> Explanation: A permanent input/output
> error occurred while reading a volume
> table of contents, a catalog, or a
> partitioned data set.
>
> System Action: The program is terminated.
> (The return code is 12.)
>
> Programmer Response: Rerun the job.
>
> Problem Determination: Table I, items 1,
> 2, 3, 13, 29.
>
> Execute the same IEHLIST operation for
> some option other than the failing one
> (i.e., if using LISTVTOC FORMAT, attempt
> LISTVTOC DUMP; if using LISTPDS FORMAT,
> attempt LISTPDS DUMP; if using LISTCTLG,
> attempt LISTCTLG NODE=, for the failing
> node) and save the output.
>
> Execute the IMAPTFLS service aid program
> (dump to printer) for the failing data set
> (VTOC, SYSCTLG, or PDS), and save the
> output.
>
> Execute the IEHDASDR utility program (dump
> to printer) for the failing data set
> (VTOC, SYSCTLG, or PDS), and save the
> output.

IEH109I SYSIN CANNOT BE OPENED -- CHECK SYSIN DD
CARD

> Explanation: Either the SYSIN DD
> statement was omitted from the job step or
> the SYSIN ddname is incorrect.
>
> System Action: The program is terminated.
> (Return code is 16.)
>
> Programmer Response: Probable user error.
> Insert the missing SYSIN DD statement or
> correct the ddname.
>
> Problem Determination: Table I, items 1,
> 2, 3, 7a, 13, 29.

IEH110I JOB TERMINATED -- INVALID DCB PARAMETER

    Explanation: The SYSIN DD statement
    specified a block size that was not a
    multiple of the specified lcgical record
    length.

    System Action: The program is terminated.
    (Return code is 16.)

    Programmer Response: Probable user error.
    Correct the BLKSIZE parameter cn the SYSIN
    DD statement.

    Problem Determination: Table I, items 1,
    2, 3, 7a, 13, 29.

IEH112I MEMBERS OF SPECIFIED PDS NOT CREATED BY
    LINKAGE EDITOR - DUMP OPTION OUTPUT
    GENERATED

    Explanation: The directory entry is less
    than 34 bytes, indicating that this member
    was not created by the Linkage Editor.

    System Action: Processing ccntinues as if
    the DUMP option were specified for this
    member. The program will attempt to
    format subsequent member(s) if they exist.

    Programmer Response: Ncne.

    Problem Determination: Table I, items 1,
    2, 3, 7a, 13, 29.

IEHPROGM Program Messages

IEH201I INVALID REQUEST. STATEMENT IGNORED

    Explanation: In the utility statement
    preceding this message, the operation is
    invalid.

    System Action: The request is ignored.
    (Return code is 8.)

    Programmer Response: Probable user error.
    Correct the invalid operaticn on the
    preceding statement. Rerun the job.

    Problem Determinaticn: Table I, items 1,
    3, 13, 29.

IEH202I INVALID KEYWORD OR CONTROL STATEMENT
    SYNTAX

    Explanation: In the utility statement
    preceding this message, a required keyword
    is incorrect.

    System Action: The request·is ignored.
    (Return code is 8.)

    Programmer Response: Probable user error.
    Correct the required keyword on the
    preceding statement. Rerun the job.

    Problem Determination: Table I, items 1,
    3, 15, 29.

IEH203I THE SYSCTLG DATA SET IS NOT AVAILABLE OR
    FCRMS A LOOP

    Explanaticn: Either nc catalog exists on
    the vclume specified by the CVOL parameter
    cf the control statement or the volumes
    are incorrectly ccnnected to each other.

    System Action: The request is ignored.
    (Return code is 8.)

    Programmer Respcnse: Probable user error.
    Either allccate space for the catalog on
    the specified vclume or make sure the
    volumes are ccrrectly connected to each
    other.

    Prcblem Determinaticn: Table I, items 1,
    3, 15, 25ad, 29.

IEH204I STATUS OF THE REQUESTED TASK CANNOT BE
    DETERMINED. AN UNDEFINED ERROR CODE HAS
    BEEN ENCOUNTERED

    Explanaticn: The return code returned by
    a system macrc instruction is invalid.

    System Action: The request is ignored.
    (Return code is 8.)

    Programmer Respcnse: None.

    Prcblem Determinaticn: Table I, items 1,
    3, 15, 29.

IEH205I INFORMATION IN CONTROL STATEMENT IS
    {REDUNDANT   }
    {NCT SUFFICIENT}

    Explanaticn: In the utility statement
    preceding this message, either an invalid
    parameter was specified or all the
    required parameters were nct specified for
    the operation requested.

    System Action: The request is ignored.
    (Return code is 8.)

    Programmer Respcnse: Probable user error.
    Ccrrect the parameters on the preceding
    statement.

    Prcblem Determinaticn: Table I, items 1,
    3, 15, 29.

IEH206I CVCL IS NOT DIRECT-ACCESS

    Explanation: In the utility statement
    preceding this message, the vclume
    specified in the CVOL parameter is not on
    a direct access device.

    System Action: The request is ignored.
    (Return code is 8.)

    Programmer Respcnse: Probable user error.
    Ccrrect the device type specification in
    the CVOL parameter cf the preceding
    statement.

    Prcblem Determinaticn: Table I, items 1,
    3, 15, 29.

IEH207I STATUS OF USERS REQUEST TO
        {SCRATCH} DATA SET dsn
        {RENAME }

         VOLUME ID   ACTION TAKEN   REASON
           ser   xxxx   yyyy

         END OF LISTING OF DATA SETS TO BE
         SCRATCHED OR RENAMED

         Explanation: An unusual condition
         occurred during a SCRATCH or RENAME
         operation. In the message text, the third
         line appears for each volume on which the
         data set resides; dsn is the data set
         name, ser is the serial number of the
         volume, xxxx is the action taken on the
         volume, and yyyy is the condition.

         System Action: The request is ignored.
         (Return code is 8.)

         Programmer Response: Probable user error.
         Ensure that the data set name is specified
         correctly on the control statement.

         Problem Determination: Table I, items 1,
         3, 15, 25a, 29.

IEH208I LIST TRUNCATED TO 1 VOLUME FOR SCRATCH
        VTOC

         Explanation: In the SCRATCH VTOC
         statement preceding this message, more
         than one volume was specified.

         System Action: Only the data sets on the
         first volume specified are scratched; the
         remaining volumes are ignored. (Return
         code is 8.)

         Programmer Response: Probable user error.
         Insert a SCRATCH VTOC statement for each
         volume that was not processed and rerun
         the job.

         Problem Determination: Table I, items 1,
         3, 15, 29.

IEH209I STATUS OF USERS REQUEST TO SCRATCH THE
        VOLUME TABLE OF CONTENTS

         DATA SET NAME   ACTION TAKEN   REASON
           dsn   xxxx   yyyy
         END OF SCRATCH VTOC

         Explanation: Either an unusual condition
         occurred during a SCRATCH VTOC operation
         or a data set was successfully scratched.
         In the message text, the third line
         appears for each data set; dsn is the data
         set name, xxx is the action taken on the
         data set, and yyyy is the condition.

         System Action: Processing continues.

         Programmer Response: No programmer
         response is required.

         Problem Determination: Table I, items 1,
         3, 15, 25a, 29.

IEH210I REQUEST CANNOT BE SERVICED

         Explanation: An unusual condition
         occurred during a catalog or index
         operation. Following this message is a
         more specific message describing the error
         condition in detail.

         System Action: The request is ignored.
         (The return code is 0 when there is an
         attempt to uncatalog a data set that is
         not cataloged; in all other cases, the
         return code is 8.)

         Programmer Response: Probable user error.
         Respond as indicated to the message that
         follows this message.

         Problem Determination: Table I, items 1,
         3, 15, 29.

IEH211I REQUIRED VOLUME COULD NOT BE MOUNTED

         Explanation: One of the following
         occurred:
         1. No device was allocated for the
             required volume; that is, the serial
             number of the required volume was not
             found in the unit control block and no
             other volume allocated to the job
             could be unloaded to allow the
             mounting of the required volume.
         2. A device type was specified which does
             not exist or is not included for the
             system during system generation.

         System Action: The request is ignored.
         (Return code is 8.)

         Programmer Response: Probable user error.
         Ensure that the volume serial number
         specified on the DD statement is the same
         as the volume serial number specified on
         the control statement.

         Problem Determination: Table I, items 1,
         3, 15, 29.

IEH212I I/O ERROR ON SYSIN DATA SET -- JOB
        TERMINATED

         Explanation: An uncorrectable
         input/output error occurred while the
         SYSIN data set was being read.

         System Action: The program is terminated.
         (Return code is 8.)

         Programmer Response: Rerun the job.

         Problem Determination: Table I, items 1,
         3, 15, 29.

IEH213I JOB TERMINATED -- INVALID BLOCKSIZE
        SPECIFIED IN SYSIN DCB

         Explanation: In the SYSIN DD statement
         preceding this message, the block size
         specified is not a multiple of the logical
         record length (that is, is not a multiple
         of 80).

         System Action: The program is terminated.
         (Return code is 16.)

Programmer Response: Probable user error.
Correct the block size specified in the
preceding statement. Rerun the job.

Problem Determination: Table I, items 1,
3, 15, 29.

IEH214I CONTINUATION CARD EXPECTED -- REQUESTS
CANNOT BE SERVICED

Explanation: The statement preceding this
message is not a valid continuation
statement; that is, the previous statement
contains a nonblank character in column
72, indicating that a continuation
statement is to follow.

System Action: The request is ignored
(Return code is 8.)

Programmer Response: Probable user error.
Correct the preceding continuation
statement. Rerun the job.

Problem Determination: Table I, items 1,
3, 15, 29.

IEH215I SYNTAX ERROR ENCOUNTERED IN NAME FIELD OF
CONTROL STATEMENT -- PROCESSING IS
CONTINUED

Explanation: In the statement preceding
this message, the name field contains one
of the following errors:
• The first character is not alphabetic.
• A character was encountered that is not
  alphameric or national.
• The name field is longer than 8
  characters.

System Action: Processing continues.
(Return code is 4.)

Programmer Response: Probable user error.
Correct the name field on the preceding
statement. Rerun the job.

Problem Determination: Table I, items 1,
3, 15, 29.

IEH216I SYSIN CANNOT BE OPENED -- CHECK SYSIN DD
CARD

Explanation: Either the SYSIN DD
statement was inadvertantly omitted from
the job step or it was included but the
ddname was coded incorrectly.

System Action: The job is terminated.
(The return code is 16.)

Programmer Response: Probable user error.
Correct the SYSIN DD statement and
resubmit the job.

Problem Determination: Table I, items 1,
3, 15, 29.

IEH217I ERROR ENCOUNTERED IN A NAME, INDEX, ALIAS
OR MEMBER FIELD OF THE CONTROL
STATEMENT...REQUEST IGNORED

Explanation: Either a nonalphabetic
character was found as the first character
of a name, alias, or index level; an index
level or member name has a length greater

than eight characters; or a
nonalphabetic character was used in the
name, index, alias or member.

System Action: The request is ignored.
(Return code is 8.)

Programmer Response: Probable user error.
Correct the error and resubmit the job.

Problem Determination: Table I, items 3,
13, 29.

IEH218I JOB TERMINATED. SIX INVALID PASSWORDS
WERE SUPPLIED

Explanation: A maximum of five invalid
passwords are allowed per job step.

System Action: The program is terminated.
(Return code is 16.)

Programmer Response: Probable user error.
Resubmit the requests not satisfied and
supply valid passwords.

Problem Determination: Table I, items 1,
3, 15, 29. If attempting to add, replace,
or delete entries in the PASSWORD data
set, use the LIST utility statement to
list the entries associated with the
invalid passwords.

IEH219I I/O ERROR IN THE PASSWORD DATA SET

Explanation: An uncorrectable
input/output error occurred while reading
or writing the PASSWORD data set.

System Action: The program is terminated.
(Return code is 12.)

Programmer Response: None.

Problem Determination: Table I, items 1,
3, 15, 29. Execute the IEHLIST utility
program to list the VTOC of the system
residence volume. Use the DUMP mode and
set DSNAME=PASSWORD. Have the resulting
listing available.

IEH220A jobname, stepname, 'utility statement',
REPLY WITH

$$\left\{ \begin{array}{l} \text{'PASWORD1'} \\ \text{'PASWORD2'} \\ \text{'CPASWORD'} \end{array} \right\}$$

Explanation: The specified password on
the utility statement is invalid or
missing and must be supplied by the
operator.

System Action: The program enters the
wait state until the operator responds.

Operator Response: Entry REPLY
xx,'password,' where password is the
password supplied by the programmer for
the job, step, and utility statement named
in the message. The password can consist
of up to eight characters. If no password
was supplied, enter blanks for the
password or simply double quotes, as
follows: REPLY xx,''.

IEH221I THE PASSWORD DATA SET IS FULL

Explanation: Either the PASSWORD data set is too small to hold all necessary entries or it contains unused entries.

System Action: The request is ignored. (Return code is 8.)

Programmer Response: Probable user error. Either re-create the PASSWORD data set with a larger extent or delete unused entries.

Problem Determination: Table I, items 1, 3, 15, 29. Execute the IEHLIST utility program to list the VTOC of the system residence volume. Use the DUMP mode and set DSNAME=PASSWORD. Have the resulting listing available.

IEH222I DATA SET PROTECTION STATUS NOT ALTERED

Explanation: The volume on which the specified data set resides cannot be accessed. The volume is not online, the volume information on the utility control statement is invalid or missing, or the data set was allocated in this job.

System Action: The PASSWORD data set is updated but the protection status of the data set in the data set control block (DSCB) is not altered. (Return code is 8.)

Programmer Response: Probable user error. Action is required only if the protection status in the DSCB is incorrect.

If protection is being added and the protection status of the data set was not specified when the data set was created, or if the protection status of a data set is being changed between read/write protection and read-without-password protection:
1. Provide a data definition statement that defines the mountable volume on which the data set resides.
2. Change the protection status in the DSCB using a REPLACE utility statement for the entry just added or changed in the PASSWORD data set. Supply the new protection status and make sure the volume information is correct.

If protection is being deleted and the data set has not been scratched:
1. Provide a data definition statement that defines the mountable volume on which the data set resides.
2. Add the entry just deleted to the PASSWORD data set using an ADD utility statement.
3. Scratch the data set if desired.
4. Delete the entry again from the PASSWORD data set using a DELETEP utility statement.

Problem Determination: Table I, items 1, 3, 15, 29.

IEH223I THE PASSWORD DATA SET DOES NOT EXIST

Explanation: The PASSWORD data set must reside on the system residence volume before using IEHPROGM to add, delete, or replace entries.

System Action: The request is ignored. (Return code is 8.)

Programmer Response: Probable user error. Allocate a PASSWORD data set and resubmit the job.

Problem Determination: Table I, items 1, 3, 15, 29. Execute the IEHLIST utility program to list the VTOC (FORMAT mode) of the system residence volume. Have the resulting listing available.

IEH224I WARNING UNABLE TO ALTER PROTECTION STATUS OF TAPE DATA SETS

Explanation: IEHPROGM cannot modify the label of a tape data set.

System Action: The PASSWORD data set is updated but the protection status of the data set in the tape label is not altered. (Return code is 8.)

Programmer Response: Action is required only if the protection status in the tape label is incorrect. If protection is being added, use job control language (LABEL parameter) to set the desired protection status in the tape label. If protection is being deleted, use the IEHINITT utility program to relabel the tape and delete protection.

Problem Determination: Table I, items 1, 3, 29.

IEH225I DUPLICATE ENTRY EXISTS IN THE PASSWORD DATA SET

Explanation: The password to be assigned has already been assigned to this data set.

System Action: The request is ignored. (Return code is 8.)

Programmer Response: Probable user error. Either select a new password or delete the previously assigned password before attempting to assign the same password.

Problem Determination: Table I, items 1, 3, 15, 29. Use the LIST utility statement to list the entry in the PASSWORD data set associated with this password and data set name.

IEH226I LOCATE MACRO FAILED. LOCATE RETURN CODE=xx. INDEXES SEARCHED=yy

Explanation: An error occurred during execution of the LOCATE macro issued to search the catalog for a data set name. The return code from the LOCATE macro is xx, and the number of indexes searched is yy.

System Action: The request is ignored. (Return code is 8.)

Programmer Response: Probable user error. (To interpret the return code, refer to the publication IBM System/360 Operating System: Data Management for System Programmers, GC28-6650.) Correct any errors and resubmit the ignored request.

Problem Determination: Table I, items 1, 3, 15, 25d, 29.

IEH227I OBTAIN MACRO FAILED. OBTAIN RETURN CODE=xx

Explanation: An error occurred during execution of the OBTAIN macro issued to search the VTOC for a DSCB. The return code from the OBTAIN macro is xx.

System Action: The request is ignored. (Return code is 8.)

Programmer Response: Probable user error. (To interpret the return code, refer to the publication IBM System/360 Operating System: Data Management for System Programmers, GC28-6650.) Correct any errors and resubmit the ignored request.

Problem Determination: Table I, items 1, 3, 15, 25b, 29.

IEH228I INVALID $\begin{Bmatrix} \text{CPASWORD} \\ \text{PASWORD1} \\ \text{PASWORD2} \end{Bmatrix}$ SPECIFIED

Explanation: More than two invalid passwords have been supplied for the specified password in the utility statement preceding this message or PASWORD1 invalidly specified in the utility control statement.

System Action: The request is ignored. (Return code is 8.)

Programmer Response: Probable user error. Resubmit the ignored request and supply a valid password.

Problem Determination: Table I, items 1, 2, 3, 15, 29. If attempting to add, delete, or replace an entry in the PASSWORD data set, use the LIST utility statement to list and the entry in the PASSWORD data set.

IEH229I INVALID PARAMETER IN PARM FIELD OF EXEC CARD

Explanation: An invalid parameter was found either in the PARM field of the EXEC statement or in the PARAM field of the LINK or ATTACH macro.

System Action: Default values are assigned to the invalid parameters. Processing continues. (Return code is 4.)

Programmer Response: Probable user error. Correct any errors and rerun the job.

Problem Determination: 1, 3, 15, 29.

IEH230I VTOC NOT CONVERTED FROM DOS TO OS DATA SET NOT CATALOGED OR INDEX NOT BUILT ... UNUSUAL END

Explanation: The VTOC cannot be converted to OS format because one of the following conditions exists in the VTOC structure:
- A split cylinder extent resides on cylinder zero.
- A split cylinder extent resides on the same cylinder as the VTOC.
- A split cylinder extent resides on the same cylinder as a non-split cylinder extent.
- The VTOC begins on track zero of cylinder zero.

System Action: The request is ignored. (Return code is 8.)

Problem Response: Probable user error. Correct the VTOC structure and rerun the job.

Problem Determination: Table I, items 1, 3, 15, 25c, 29.

IEHMOVE Program Messages

IEH301I INCLUDE OP NOT VALID

Explanation: The INCLUDE statement preceding this message is not valid with the specified MOVE or COPY operation.

System Action: The MOVE/COPY request is ignored. (Return code is 8.)

Programmer Response: Probable user error. Correct the utility control statement.

Problem Determination: Table I, items 1, 13, 22, 25bc, 29.

IEH302I EXCLUDE OP NOT VALID

Explanation: The EXCLUDE statement preceding this message is not valid with the specified MOVE or COPY operation.

System Action: The request is ignored. (Return code is 8.)

Programmer Response: Probable user error. Correct the utility control statements.

Problem Determination: Table I, items 1, 13, 22, 25bc, 29.

IEH303I REPLACE OP NOT VALID

Explanation: The REPLACE statement preceding this message is not valid with the specified MOVE or COPY operation.

System Action: The MOVE/COPY request is ignored. (Return code is 8.)

Programmer Response: Probable user error. Correct the utility control statements.

Problem Determination: Table I, items 1, 13, 22, 25bc, 29.

IEH304I SUBORDINATE REQ-SKIPPED

Explanation: One of the following conditions occurred:
• The INCLUDE, EXCLUDE, REPLACE, or SELECT statement preceding this message is not preceded by a MOVE or COPY statement.
• The MOVE/COPY request is being ignored for the reason given in the preceding message.
• The data set is being loaded for the reason given in the preceding message.

System Action: The request is ignored. (Return code is 8.)

Programmer Response: Probable user error. Correct the error and resubmit the job.

Problem Determination: Table I, items 1, 13, 22, 29.

IEH305I MULTIPLE KEYWORD ERROR

Explanation: In the statement preceding this message, duplicate or conflicting keywords are specified.

System Action: The request is ignored. (Return code is 8.)

Programmer Response: Probable user error. Correct the keywords on the preceding statement.

Problem Determination: Table I, items 1, 13, 22, 29.

IEH306I MISPLACED KEYWORD ERROR

Explanation: A MOVE/COPY control statement contains a misplaced keyword.

System Action: The request is ignored. (The return code is 8.)

Programmer Response: Probable user error. Check the format of permissible keywords in the control statement.

Problem Determination: Table I, items 1, 13, 22, 29.

IEH307I KEYWORD NOT PERMITTED

Explanation: In the statement preceding this message, a keyword is invalid.

System Action: The request is ignored. (Return code is 8.)

Programmer Response: Probable user error. Correct the invalid keyword on the preceding statement.

Problem Determination: Table I, items 1, 13, 22, 29.

IEH308I INVALID PARAMETER ERROR

Explanation: In the statement preceding this message, a parameter is invalid.

System Action: The request is ignored. (Return code is 8.)

Programmer Response: Probable user error. Correct the invalid parameter on the preceding statement.

Problem Determination: Table I, items 1, 13, 22, 29.

IEH309I SYNTAX ERROR

Explanation: The syntax of the statement preceding this message is invalid.

System Action: The request is ignored. (Return code is 8.)

Programmer Response: Probable user error. Correct the syntax of the preceding statement.

Problem Determination: Table I, items 1, 13, 22, 29.

IEH310I LENGTH ERROR

Explanation: In the statement preceding this message, a keyword value contains too many characters (for example, DSNAME=NINECHARS contains more than eight characters), or the EXPAND keyword does not specify a number in the decimal range 1-99.

System Action: The request is ignored. (Return code is 8.)

Programmer Response: Probable user error. Correct the length error in the preceding statement.

Problem Determination: Table I, items 1, 13, 22, 29.

IEH311I INCOMPLETE REQUEST

Explanation: The statement preceding this message does not contain adequate information to perform the MOVE/COPY operation.

System Action: The request is ignored. (Return code is 8.)

Programmer Response: Probable user error. Include all required information on the preceding statement so that the MOVE/COPY operation can be performed.

Problem Determination: Table I, items 1, 13, 22, 29.

IEH313I DATA SET dsn HAS INCORRECT FORMAT FOR UNLOADED DATA SET

Explanation: The format of unloaded data set dsn is incorrect; therefore, the data set cannot be moved or copied. The records are apparently out of sequence.

System Action: The request is ignored. (Return code is 8.)

Programmer Response: Make sure that the correct tape or direct access device is mounted, and that the data has not been altered.

Problem Determination: Table I, items 1, 13, 22, 26b, 29. Have the unloaded data set available.

IEH315I UNABLE TO FIND FROM VOLUME

Explanation: The 'FROM' volume cannot be located. Possibly, the FROM keyword was missing from the MOVE or COPY statement, or the CVOL keyword was specified but the data set was not cataloged.

System Action: The request is ignored. (Return code is 8.)

Programmer Response: If the data set is not cataloged, ensure that the FROM keyword is included on the MOVE or COPY statement. Also, make sure that a DD statement for the 'FROM' device exists and is compatible with the utility control information.

Problem Determination: Table I, items 1, 13, 22, 25d, 29. Table II, Format 1: trace option - TRACE=SIO,IO.

IEH316I MODEL DSCB FOR GENERATION DATA GROUP CANNOT BE WRITTEN

Explanation: An error (possibly, a permanent input/output error) occurred during an attempt to create the model data set control block (DSCB) for a generation data group, or if there was no format 0 block available in the VTOC.

System Action: The request is ignored. (Return code is 8.)

Problem Determination: Table I, items 1, 13, 22, 25b, 29. Table II, Format 1: trace option - TRACE=SIO,IO.

IEH319I MEMBER mem NOT MOVED/COPIED. DUPLICATE NAME IN OUTPUT DATA SET

Explanation: A member with the same name as member mem is contained in the output partitioned data set; therefore, the member is not moved or copied.

System Action: The request is ignored. (Return code is 4.)

Programmer Response: None.

Problem Determination: Table I, items 1, 13, 22, 25c, 29.

IEH320I MEMBER mem NOT FOUND IN DATA SET dsn

Explanation: Member mem cannot be located in partitioned data set dsn. Perhaps the data set name or member was incorrectly specified.

System Action: The request is ignored. (Return code is 8.)

Programmer Response: Probable user error. Ensure that the data set name and member name are correct.

Problem Determination: Table I, items 1, 13, 22, 25c, 29.

IEH321I MEMBER mem NOT MOVED/COPIED. OUTPUT DIRECTORY IS FULL

Explanation: The directory of the output partitioned data set is full; therefore, member mem cannot be moved or copied.

System Action: The request is ignored. (Return code is 8.)

Programmer Response: Increase the size of the directory, and selectively MOVE or COPY the member.

Problem Determination: Table I, items 1, 13, 22, 25c, 29.

IEH322I I/O ERROR ENCOUNTERED IN MEMBER mem OF INPUT DATA SET dsn

Explanation: A permanent input/output error occurred while reading member mem of input data set dsn.

System Action: The request is ignored. (Return code is 8.)

Programmer Response: Ensure that the input data set is valid.

Problem Determination: Table I, items 1, 11, 22, 25ac, 29. Table II, Format 1: trace option - TRACE=SIO,IO. Have the failing data set available.

IEH323I I/O ERROR ENCOUNTERED IN MEMBER mem OF OUTPUT DATA SET dsn

Explanation: A permanent input/output error occurred while writing member mem of data set dsn.

System Action: The request is ignored. (Return code is 8.)

Programmer Response: None.

Problem Determination: Table I, items 1, 13, 22, 29. Table II, Format 1: trace option - TRACE=SIO,IO.

IEH325I INVALID CATLG REQUEST IGNORED

Explanation: In the statement preceding this message, the receiving volume specified is not a direct access device.

System Action: The moved or copied data set is not cataloged on the specified volume. (Return code is 8.)

Programmer Response: Probable user error. Correct the preceding statement so that the receiving volume is direct access or delete the CATLG keyword.

Problem Determination: Table I, items 1, 13, 22, 29.

IEH326I I/O ERROR ENCOUNTERED IN OUTPUT DATA SET
dsn

    Explanation: A permanent input/output
error occurred while writing data set dsn.

    System Action: The request is ignored.
(Return code is 8.)

    Programmer Response: None.

    Problem Determination: Table I, items 1,
13, 22, 29. Table II, Format 1: trace
option - TRACE=SIO,IO.

IEH327I A TTRN IN THE USER DATA FIELD OF THE
DIRECTORY HAS NOT BEEN UPDATED

    Explanation: A TTRN was not updated for
the member named in the following message.
A TTR in the source directory points to a
record that is not in the member being
being copied.

    System Action: The member is copied;
however:
1. If copying from direct access to
   direct access the invalid TTR will be
   the same in the receiving directory
   as it was in the source directory.
2. If loading, the invalid TTR is zero in
   the receiving directory.

The program then attempts to copy the next
member.

    Programmer Response: Correct the invalid
TTR. This may require that the proper TTR
be placed in both the source and receiving
directories or that the source member be
re-created and recopied. Check for an
end-of-file record embedded within the
source member.

    Problem Determination: Table I, items 1,
13, 22, 29.

Have an IEHLIST (LISTPDS) of both the
source and receiving data sets as well as
IEHLIST (LISTVTOC) in DUMP format of both
the source and receiving volumes. Have an
IEHDASDR dump to SYSPRINT of the source
data set. Have an IEHDASDR dump to tape
of the source data set.

IEH328I A TTR IN THE NOTELIST RECORD HAS NOT BEEN
UPDATED

    Explanation: A TTR in the notelist record
for the member named in the message
following this message was not updated.
The TTR is either pointing to a record
that is not within this member or to a
record within the member that is after the
notelist record.

    System Action: The member is copied.
However the invalid TTR will be the same
in the receiving notelist as it was in the
source notelist. The program then
attempts to copy the next member.

    Programmer Response: Correct the invalid
TTR. This may require that the correct
TTR be placed in both the source and

receiving notelists or that the source be
re-created and recopied.

    Problem Determination: Table I, items 1,
13, 15, 22, 23, 25b, 29.
Have an IEHLIST (LISTPDS) of both the
source and receiving data sets as well as
an IEHLIST (LISTVTOC) in DUMP format of
both the source and receiving volumes.
Have an IEHDASDR dump to SYSPRINT of the
source data set. Have an IEHDASDR dump to
tape of the source data set.

IEH329I A TTR IN A NOTE LIST CANNOT BE UPDATED

    Explanation: The TTR does not point to
any record contained in the copied member
that precedes the notelist or that follows
a previous notelist (if any).

    System Action: The member is unloaded but
the TTR will not be updated during a
reload. The program then attempts to
unload the next member.

    Programmer Response: Correct the invalid
TTR in the source notelist, and unload the
data set again.

    Problem Determination: Table I, items 1,
13, 22, 29. Use IEHDASDR to dump the
source data set to SYSPRINT.

IEH331I USER LABELS ARE NOT MOVED/COPIED. NO USER
LABEL TRACK ALLOCATED FOR INPUT

    Explanation: A previously allocated data
set did not provide a user label track.

    System Action: User labels are ignored.
Normal MOVE/COPY processing continues.

    Programmer Response: For the COPY
operation, if user label information is
desired, scratch the data set on the
receiving volume and preallocate the data
set correctly. For the MOVE operation, if
user label information is desired, rebuild
the user labels.

    Problem Determination: Table I, items 1,
3, 4, 22, 25b, 29.

IEH332I PERMANENT I/O ERROR WHILE READING USER
INPUT HEADER LABELS. NO MORE LABELS WILL
BE PROCESSED

    Explanation: The open routine encountered
a permanent input/output error while
attempting to read user input header
labels.

    System Action: IEHMOVE returns to the
user, points to the label in error,
ignores the return code, and terminates
the operation.

    Programmer Response: If user label
information is desired, rebuild the user
labels.

    Problem Determination: Table I, item 29.
Table II, Format 1: trace option -
TRACE=SIO,IO. Have the data set with the
failing labels available.

IEH333I PERMANENT I/O ERROR WHILE READING USER
INPUT TRAILER LABELS. NO MORE LABELS WILL
BE PROCESSED

    Explanation: The end-of-volume routine
encountered a permanent input/output error
while attempting to read user input
trailer labels.

    System Action: IEHMOVE returns to the
user, points to the label in error,
ignores the return code, and terminates
the operation.

    Programmer Response: If user label
information is desired, rebuild the user
labels.

    Problem Determination: Table I, item 29.
Table II, Format 1: trace option –
TRACE=SIO,IO. Have the data set with the
failing labels available.

IEH334I PERMANENT I/O ERROR WHILE WRITING USER
OUTPUT HEADER LABELS. NO MORE LABELS WILL
BE PROCESSED

    Explanation: The open routine encountered
a permanent input/output error while
attempting to write user output header
labels.

    System Action: IEHMOVE returns to the
user, points to the label in error,
ignores the return code, and terminates
the operation.

    Programmer Response: If user label
information is desired, rebuild the user
labels.

    Problem Determination: Table I, item 29.
Table II, Format 1: trace option –
TRACE=SIO,IO. Have the data set with the
failing user labels available.

IEH335I PERMANENT I/O ERROR WHILE WRITING USER
OUTPUT TRAILER LABELS. NO MORE LABELS
WILL BE PROCESSED

    Explanation: The close routine
encountered a permanent input/output error
while attempting to write user output
trailer labels.

    System Action: IEHMOVE returns to the
user, points to the label in error,
ignores the return code, and terminates
the operation.

    Programmer Response: If user label
information is desired, rebuild the user
labels.

    Problem Determination: Table I, item 29.
Table II, Format 1: trace option –
TRACE=SIO,IO. Have the data set with the
failing labels available.

IEH336I AN UNCORRECTABLE ERROR OCCURED WHILE
READING DATA SET dsn

    Explanation: The data event control block
(DECB) for input data set dsn indicated
that an error other than an input/output

error or record length check occurred for
the record just read.

    System Action: The function is
terminated. (Return code is 8.)

    Programmer Response: Ensure that the
input data set is specified correctly.

    Problem Determination: Table I, items 1,
22, 29. Table II, Format 1: trace option
– TRACE=SIO,IO. Have the failing data set
available.

IEH339I I/O ERROR ENCOUNTERED IN INPUT DATA SET

    Explanation: A permanent input/output
error occurred while reading the input
data set.

    System Action: The request is ignored.
(Return code is 8.)

    Programmer Response: Ensure that the
input data set is valid.

    Problem Determination: Table I, items 1,
22, 29. Have the failing data set
available.

IEH346I CATALOG CANNOT BE LOCATED, OR CONTROL
VOLUMES ARE CONNECTED TO EACH OTHER

    Explanation: In the statement preceding
this message, no catalog exists on the
specified control volume, or the control
volumes are connected incorrectly to each
other.

    System Action: The request is ignored.
(Return code is 8.)

    Programmer Response: Make sure that there
is a catalog on the specified volume, and
that the control volumes are correctly
connected to each other.

    Problem Determination: Table I, items 1,
13, 22, 25d, 29.

IEH348I I/O ERROR ENCOUNTERED IN CATALOG

    Explanation: A permanent input/output
error occurred while reading or writing
the catalog.

    System Action: The request is ignored.
(Return code is 8.)

    Programmer Response: None.

    Problem Determination: Table II, Format
1: trace option – TRACE=SIO,IO. Have the
failing catalog data set available.

IEH349I UNABLE TO MOUNT VOLUME ser xxxx

    Explanation: No device was allocated for
the volume whose serial number is ser. In
the message text, xxxx is the action
taken.

    System Action: The request is ignored.
(Return code is 8.)

Programmer Response: Ensure that a DD
statement for the device exists and is
consistent with the utility control
statements.

Problem Determination: Table I, items 1,
2, 13, 22, 29.

IEH351I DATA SET dsn NOT CATALOGED. SPACE NOT
AVAILABLE IN THE CATALOG

Explanation: The catalog is full;
therefore, data set dsn cannot be
cataloged.

System Action: The data set is not
cataloged. (Return code is 8.)

Programmer Response: Increase the size of
the catalog and catalog the data set.

Problem Determination: Table I, items 1,
13, 22, 29. Execute IEHDASDR to obtain a
printed copy of the catalog and save the
output.

IEH354I DATA SET dsn NOT CATALOGED. INDEX
STRUCTURE INCONSISTENT

Explanation: Either the index structure
is invalid or the catalog already has an
entry for data set dsn. Therefore, the
data set cannot be cataloged.

System Action: The data set is not
cataloged. (Return code is 4.)

Programmer Response: Catalog the data
set, if it is not already cataloged.

Problem Determination: Table I, items 1,
13, 22, 25d, 29.

IEH356I DATA SET dsn NOT CATALOGED. INVALID DATA
SET NAME

Explanation: The data set name, dsn, is
inappropriate for cataloging; therefore,
the data set cannot be cataloged.

System Action: The data set is not
cataloged. (Return code is 8.)

Programmer Response: Correct the data set
name and catalog the data set.

Problem Determination: Table I, items 1,
13, 22, 29.

IEH361I DATA SET dsn NOT MOVED/COPIED TO VOLUME(S)

Explanation: An abnormal condition (such
as an input/output error) occurred;
therefore, data set dsn could not be moved
or copied.

System Action: Processing continues with
the next function to be performed.
(Return code is 4.)

Programmer Response: Ensure that the
input data set is valid.

Problem Determination: Table I, items 1,
13, 22, 29. Table II, Format 1: trace
option - TRACE=SIO,IO.

IEH362I DATA SET dsn MAY NOT BE SCRATCHED ON
VOLUME(S)

Explanation: An abnormal condition (such
as an input/output error) occurred;
therefore, data set dsn could not be
scratched.

System Action: Processing continues with
the next function to be performed.
(Return code is 4.)

Programmer Response: Scratch the data
set.

Problem Determination: Table I, items 1,
13, 22, 25a, 29. Table II, Format 1:
trace option - TRACE=SIO,IO.

IEH363I DATA SET JUST COPIED WAS NOT SUCCESSFULLY
UNCATALOGED

Explanation: A permanent input/output
error occurred during the uncatalog
operation; therefore, the data set was
copied but not uncataloged.

System Action: Processing continues with
the next function to be performed.
(Return code is 4.)

Programmer Response: Uncatalog the data
set.

Problem Determination: Table I, items 1,
13, 22, 25b, 29. Table II, Format 1:
trace option - TRACE=SIO,IO.

IEH364I THE DATA SET JUST COPIED WAS NOT
SUCCESSFULLY CATALOGED

Explanation: The data set was copied but
not cataloged on the 'TO' volume for one
of the following reasons:
• The SYSCTLG data set does not exist on
  the specified volume.
• The existing index structure does not
  permit the cataloging of the data set.
• No space is available in the catalog.
• A permanent input/output error occurred
  during the catalog operation.
• The data set is already cataloged on the
  receiving volume.

System Action: Processing continues with
the next function to be performed.
(Return code is 4.)

Programmer Response: Correct the
application error.

Problem Determination: Table I, items 1,
13, 22, 25d, 29. Table II, Format 1:
trace option - TRACE=SIO,IO.

IEH365I DATA SET dsn MAY STILL EXIST ON VOLUME(S)

Explanation: An unusual condition (such
as a permanent input/output error)
occurred during the scratch operation;

therefore, data set dsn was moved but not scratched from the source volume(s).

System Action: Processing continues with the next function to be performed. (Return code is 4.)

Programmer Response: Scratch the data set, if required.

Problem Determination: Table I, items 1, 13, 22, 25a, 29. Table II, Format 1: trace option - TRACE=SIO,IO.

IEH366I THE DATA SET JUST MOVED MAY EXIST WITH AN INTERNALLY GENERATED NAME ON VOLUME(S)

Explanation: An unusual condition (such as a permanent input/output error) occurred; therefore, a specified rename operation was not successful. An internally generated name may have been assigned to the moved data set.

System Action: Processing continues with the next function to be performed. (Return code is 8.)

Programmer Response: Use IEHLIST to determine the temporary name (the name beginning with **TEMP). Then, use IEHPROGM to rename the data set from the temporary name to the required name.

Problem Determination: Table I, items 1, 13, 22, 25b, 29. Table II, Format 1: trace option - TRACE=SIO,IO.

IEH367I THE DATA SET JUST MOVED WAS NOT SUCCESSFULLY UNCATALOGED

Explanation: A permanent input/output error occurred during the uncatalog operation; therefore, the data set was moved but not uncataloged.

System Action: Processing continues with the next function to be performed. (Return code is 4.)

Programmer Response: Uncatalog the data set.

Problem Determination: Table I, items 1, 13, 22, 25d, 29. Table II, Format 1: trace option - TRACE=SIO,IO.

IEH368I THE DATA SET JUST MOVED WAS NOT SUCCESSFULLY RECATALOGED

Explanation: Either an input/output error occurred during the catalog operation, or the existing index structure in the catalog does not permit the cataloging of the data set. Therefore, the data set was moved but the catalog was not updated.

System Action: Processing continues with the next function to be performed. (Return code is 4.)

Programmer Response: Recatalog the data set.

Problem Determination: Table I, items 1, 13, 22, 25d, 29. Table II, Format 1: trace option - TRACE=SIO,IO.

IEH372I I/O ERROR ENCOUNTERED IN WORK DATA SET

Explanation: A permanent input/output error occurred while reading or writing the work data set. Possibly secondary space was specified in the SYSUT1 DD statement.

System Action: The MOVE/COPY request is ignored. (Return code is 12.)

Programmer Response: Check the SYSUT1 DD statement. Leave out any space specification. Use the POWER parameter if necessary.

Problem Determination: Table I, items 1, 13, 22, 29. Table II, Format 1: trace option - TRACE=SIO,IO.

IEH373I UNABLE TO MOUNT VOLUME ser. SOME INCLUDE OR REPLACE REQUESTS IGNORED

Explanation: The volume whose serial number is ser cannot be mounted.

System Action: The INCLUDE and REPLACE requests referring to the specified volume are ignored. (Return code is 8.)

Programmer Response: Ensure that a DD statement for the volume exists.

Problem Determination: Table I, items 1, 2, 13, 22, 29.

IEH374I DATA SET dsn NOT FOUND ON VOLUME ser. INCLUDE OR REPLACE REQUEST IGNORED

Explanation: Data set dsn does not reside on the volume whose serial number is ser.

System Action: The INCLUDE or REPLACE statements that refer to data set dsn are ignored. (Return code is 8.)

Programmer Response: Probable user error. Ensure that the DD statement for the indicated volume is correct.

Problem Determination: Table I, items 1, 13, 22, 25a, 29.

IEH375I DATA SET dsn IS NOT PARTITIONED. INCLUDE OR REPLACE REQUEST IGNORED

Explanation: Data set dsn is not partitioned.

System Action: The INCLUDE request or the 'including' part of the REPLACE request is ignored. (Return code is 8.)

Programmer Response: Ensure that the data set is valid.

Problem Determination: Table I, items 1, 13, 22, 25bc, 29.

IEH376I RECORD CHARACTERISTICS NOT COMPATIBLE
xxxx.   INCLUDE OR REPLACE REQUEST IGNORED

Explanation: Attribute xxxx of the output
data set is not compatible with that of
the input data set.

System Action: The INCLUDE request or the
'including' part of the REPLACE request is
ignored. (Return code is 8.)

Programmer Response: Ensure that the
record characteristics of the input and
output data sets are compatible.

Problem Determination: Table I, items
25bc, 29.

IEH377I DATA SET dsn REQUIRES TRACK OVERFLOW
FEATURE INCL/REPL REQUEST IGNORED

Explanation: The data set dsn was
originally written with track overflow,
but the source device does not support the
track overflow feature.

System Action: The include or replace
request for this data set is ignored.
(Return code is 8.)

Programmer Response: Change the job
control language to specify a device that
supports track overflow.

Problem Determination: Table I, items 1,
4, 25b, 29.

IEH380I MEMBER mem NOT FOUND IN DATA SET dsn.
INCLUDE OR REPLACE REQUESTS IGNORED

Explanation: Member mem is not contained
in partitioned data set dsn.

System Action: The INCLUDE request or the
'including' part of the REPLACE request is
ignored. (Return code is 8.)

Programmer Response: Ensure that the
control statements are correct.

Problem Determination: Table I, items 1,
13, 22, 25c, 29.

IEH381I ERROR ENCOUNTERED IN SCRATCHING WORK FILES

Explanation: Either a work file could not
be located, or an input/output error
occurred during the scratch operation.
Therefore, the work file(s) could not be
scratched.

System Action: The MOVE/COPY request is
ignored. (Return code is 12.)

Programmer Response: Ensure that a SYSUT1
DD statement exists and specifies a
sufficient amount of space. If the
POWER=n parameter is used, ensure that the
space is equivalent to 80xn tracks.

Problem Determination: Table I, items 1,
13, 22, 25ab, 29.   Table II, Format 1:
trace option - TRACE=SIO,IO.

IEH383I INVALID DEVICE NAME

Explanation: In the statement preceding
this message, a device name is invalid.

System Action: The request is ignored.
(Return code is 8.)

Programmer Response: Probable user error.
Correct the device name on the preceding
statement.

Problem Determination: Table I, items 1,
13, 22, 29.

IEH384I GENERIC DEVICE NAME ERR

Explanation: In the statement preceding
this message, a device name is invalid.

System Action: The request is ignored.
(Return code is 8.)

Programmer Response: Probable user error.
Correct the device name on the preceding
statement.

Problem Determination: Table I, items 1,
13, 22, 29.

IEH385I SELECT OP NOT VALID

Explanation: The SELECT statement
preceding this message is not valid with
the specified MOVE or COPY operation.

System Action: The request is ignored.
(Return code is 8.)

Programmer Response: Probable user error.
Correct the preceding control statement.

Problem Determination: Table I, items 1,
13, 22, 29.

IEH388I UNABLE TO ALLOCATE IEHMOVE WORK FILES

Explanation: IEHMOVE was unable to
allocate space for the work files. Either
no SYSUT1 DD statement was included with
the job step or there was insufficient
space on the direct access volume assigned
to the SYSUT1 DD statement.

System Action: The program is terminated.
(Return code is 12.)

Programmer Response: Ensure that a SYSUT1
DD statement exists and contains the
equivalent of 80 tracks on a 2311 device.
(If the POWER=n parameter is used, ensure
that the space is equivalent to 80xn
tracks.)

Problem Determination: Table I, items 1,
13, 22, 25a, 29.

IEH389I I/O ERROR ENCOUNTERED IN INPUT DATA SET

Explanation: A permanent input/output
error occurred while reading the input
data set.

System Action: The request is ignored.
(Return code is 8.)

Programmer Response: Ensure that the input data set is specified correctly.

Problem Determination: Table I, items 1, 13, 22, 25b, 29. Table II, Format 1: trace option - TRACE=SIO,IO. Have the input data set available.

IEH390I INVALID DATA SET NAME SPECIFIED IN RENAME-PARAMETER

Explanation: A dsname containing invalid characters, or a subname exceeding eight characters is specified in the RENAME parameter.

System Action: Processing continues with the next function to be performed. (Return code is 8.)

Programmer Response: Probable user error. Correct the error and resubmit the job.

Problem Determination: Table I, items 1, 3, 22, 29.

IEH401I DATA SET dsn {UNLOADED } --xxxx
through {NOT MOVED/COPIED}
IEH429I

Explanation: Data set dsn was unloaded or was not moved or copied for the reason indicated by xxxx.

System Action: The data set is unloaded or the MOVE/COPY request is ignored, as applicable. (Return code is 4.)

Programmer Response: Correct the error indicated in the message text.

Problem Determination: Table I, items 1, 13, 22, 29.

IEH433I DATA SET NOT MOVED/COPIED BECAUSE INCLUDE, EXCLUDE, SELECT, OR REPLACE REQUEST WHILE LOADING/UNLOADING

Explanation: INCLUDE, EXCLUDE, SELECT, or REPLACE requests cannot be processed while loading or unloading a data set.

System Action: The MOVE/COPY request is ignored. (Return code is 4.)

Programmer Response: Either correct the cause of the UNLOAD indicated by message IEH405I, or remove the INCLUDE, EXCLUDE, SELECT, or REPLACE requests following the IEHMOVE control statement.

Problem Determination: Table I, items 1, 13, 22, 29.

IEH435I ERROR ENCOUNTERED WHILE ANALYZING THE SYSCTLG DATA SET

Explanation: One of the following conditions has occurred:
• An input/output error occurred while the system was reading the SYSCTLG data set.
• An invalid name was specified either as the name of an INCLUDE or EXCLUDE statement or as a value in the DSGROUP=

or CATALOG= parameter. A name is invalid if it does not exist in the specified catalog, or if it contains syntax errors.
• An error occurred while the system was trying to obtain a model DSCB for a generation data group.
• A particular NODE (specified in CATALOG = NODE) was found via a CVOL pointer entry.

System Action: The request is ignored. (Return code is 8.)

Programmer Response: Make sure that the SYSCTLG data set is valid, and that the names specified in the CATALOG= and DSGROUP= parameters and the INCLUDE and EXCLUDE statements are correct.

Problem Determination: Table I, items 1, 13, 22, 25ad, 29. Table II, Format 1: trace option - TRACE=SIO,IO. Execute IEHDASDR to list the contents of the SYSCTLG data set.

IEH436I DATA SET dsn, VOLUME ser, NOT SCRATCHED DUE TO I/O ERROR

Explanation: An uncorrectable input/output error occurred in data set dsn on the volume whose serial number is ser.

System Action: The data set is moved, but not scratched. (Return code is 8.)

Programmer Response: Scratch the data set.

Problem Determination: Table I, items 1, 13, 22, 25a, 29. Table II, Format 1: trace option - TRACE=SIO,IO.

IEH440I RECFM AND BLKSIZE ARE INCONSISTENT.

Explanation: The record format (RECFM) and/or block size (BLKSIZE) specified for the unloaded data set are not the same as those specified for the receiving data set. IEHMOVE will not reblock or change record format while performing a load or unload operation.

System Action: The request is ignored. (The return code is 8.)

Programmer Response: Make sure that the BLKSIZE and RECFM specified for the receiving data set are the same as those specified for the unloaded data set before it was unloaded.

Problem Determination: Table I, items 1, 13, 22, 25a, 29. Execute IEBPTPCH to print the first block of the unloaded data set; save the output.

IEH450I REQUEST TERMINATED BECAUSE DATA SET SPANS MORE THAN 5 VOLUMES

Explanation: The data set extends over the maximum of 5 volumes; therefore, the data set is not moved or copied.

System Action: The request is ignored. (Return code is 8.)

Programmer Response: None.

Problem Determination: Table I, items 1, 13, 22, 25c, 29.

IEH451I TRACK OVERFLOW FEATURE REQUIRED ON DEVICE
THAT DOES NOT HAVE TRACK OVERFLOW FEATURE

Explanation: A data set to be moved or copied was originally written with track overflow, but the source device does not support the track overflow feature.

System Action: The request is ignored. (Return code is 8.)

Programmer Response: Change the job control language to specify a device that supports track overflow.

Problem Determination: Table I, items 1, 13, 22, 29.

IEH452I THE DATA SET BEING MOVED/COPIED IS MARKED UNMOVABLE. UNMOVABLE DATA MUST BE UPDATED BEFORE ITS NEXT USE

Explanation: A data set being moved or copied from one direct access device to another contains location dependent information; that is, the unmovable bit in the DSORG field of the data set control block (DSCB) is on.

System Action: The data set is moved, and processing continues normally.

Programmer Response: Update the location dependent information in the moved or copied version of the data set. (For example, use IEHIOSUP to update the TTR entries in the transfer control tables of the supervisor call library (SVC library) after the library has been moved.)

Problem Determination: Table I, items 1, 13, 25a, 29.

IEH460I INVALID DATA SET ORGANIZATION

Explanation: One of the following error conditions occurred:
• The source data set is not a partitioned, physical sequential, or direct access (BDAM) data set.
• While attempting to move or copy a catalog, the DSORG field indicates a partitioned, physical sequential, or direct access data set.

Therefore, the data set cannot be processed by IEHMOVE.

System Action: The MOVE/COPY request is ignored. (Return code is 12.)

Programmer Reponse: Correct the data set organization specified in the data set control block (DSCB).

Problem Determination: Table I, items 1, 13, 22, 25a, 29.

IEH461I UNABLE TO OPEN {INPUT} DATA SET
                        {SYSIN}

Explanation: Either no DD statement was provided to define the input or SYSIN data set, or the block size specified for the data set is not a multiple of the logical record length.

System Action: The MOVE/COPY request is ignored. (Return code is 12.)

Programmer Response: Ensure that a DD statement exists for the data set and that the specified block size is correct.

Problem Determination: Table I, items 1, 13, 22, 29.

IEH462I NO RECORD FOUND OCCURRED READING DATA SET
dsn

Explanation: One of the following conditions was encountered while reading a direct organization data set:
• The record format of the data set is fixed (F), and a track within the data set is not completely filled with records.
• The record format is variable (V) or undefined (U), and not all tracks were initialized when the data set was created.
• An uncorrectable error occurred.

System Action: Message IEH361I is also issued. (Return code is 8.)

Programmer Response: Ensure that the data set conforms to the standards of a direct organization data set.

Problem Determination: Table I, items 1, 13, 22, 29. Table II, Format 1: trace option - TRACE=SIO,IO. Have the data set available.

IEHINITT Program Messages

IEH601I INVALID CONTROL STATEMENT

Explanation: The construction of the control statement preceding this message is invalid.

System Action: Processing continues with the next INITT utility control statement. (Return code is 8.)

Programmer Response: Probable user error. Correct the construction of the preceding statement and rerun the job to label those tapes that were bypassed.

Problem Determination: Table I, items 1, 2, 3, 13, 29.

IEH602I INVALID KEYWORD

Explanation: In the control statement preceding this message, a keyword is incorrect.

System Action: Processing continues with the next INITT utility control statement. (Return code is 8.)

Programmer Response: Probable user error. Correct the keyword on the preceding statement and rerun the job to label those tapes that were bypassed.

Problem Determination: Table I, items 1, 2, 3, 13, 29.

IEH603I INVALID PARAMETER VALUE

Explanation: In the control statement preceding this message, a parameter is incorrect.

System Action: Processing continues with the next INITT utility control statement. (Return code is 8.)

Programmer Response: Probable user error. Correct the parameter on the preceding statement and rerun the job to label those tapes that were bypassed.

Problem Determination: Table I, items 1, 2, 3, 13, 29.

IEH604I OPERATOR SUPPRESSED VOLUME LABEL ser

Explanation: The tape that was to be labeled with serial number ser was not mounted by the operator.

System Action: The current serial number is reserved for the unmounted tape, and the next number is used for the next tape to be labeled.

Programmer Response: Probable user error. Find out why the tape was not mounted, and take any indicated action--checking the console log for additional background.

Problem Determination: Table I, items 1, 2, 3, 13, 29.

IEH605I INVALID DEVICE ALLOCATED ON ddd

Explanation: Device ddd was removed from operation -- that is, it is either unacceptable or not online.

System Action: The device is removed from the list of devices allocated to this job step by the associated DD statement. (Return code is 8.)

Programmer Response: Probable user error. Ensure that the parameters on the applicable DD statement are correct.

Problem Determination: Table I, items 1, 2, 3, 7c, 13, 29.

IEH606I PERMANENT I/O ERROR ON ddd

Explanation: A permanent input/output error was encountered on device ddd.

System Action: The device is removed from the list of devices allocated to this job

step by the associated DD statement. (Return code - 8.)

Programmer Response: None.

Problem Determination: Table I, items 1, 2, 3, 7c, 13, 29.

IEH607I ALLOCATED DEVICES EXHAUSTED

Explanation: All devices allocated to this job step (specified in DD statement associated with the control statement being processed) have been eliminated as mountable devices.

System Action: Processing continues with the next INITT utility control statement. (Return code is 8.)

Programmer Response: Probable user error. If message IEH606I precedes this message, ensure that the parameters on the applicable DD statement are correct.

Problem Determination: Table I, items 1, 2, 3, 7c, 13, 29.

IEH608I I/O ERROR ON SYSIN. JOB TERMINATED

Explanation: A permanent input/output error was encountered while the SYSIN data set was either being opened or being read.

System Action: The job is terminated. (Return code is 16.)

Programmer Response: Probable user error. Ensure that the DCB parameters on the SYSIN DD statement are correct, particularly the BLOCKSIZE specification. If the DD statement is correct, the error probably occurred when the data set was being read.

Problem Determination: Table I, items 1, 2, 3, 7c, 13, 29.

IEH609I INVALID DEVICE SPECIFIED FOR ASCII LABELING

Explanation: The tape to be initialized in ASCII code is not mounted on a 9-track unit.

System Action: Processing continues with the next INITT control statement. (The return code is 8.)

Programmer Response: Probable user error. Change the corresponding DD card to specify a 9-track unit.

Problem Determination: Table I, items 1, 2, 3, 13, 29.

IEH610I INVALID PARM OR PARM LIST PASSED TO IEHINITT

Explanation: An invalid parameter is coded in the EXEC statement or in the parameter list passed by a LINK or ATTACH macro.

System Action: The job is terminated.
(The return code is 16.)

Programmer Response: Probable user error.
Check the parameters passed to IEHINITT
for validity.

Problem Determination: Table I, items 1,
3, 13, 29.

IEH611I INVALID DENSITY SPECIFIED, DEFAULT VALUE
USED

Explanation: The density specified in the
DCB parameter of the DD statement is
invalid for the unit requested.

System Action: The default density value
for the unit requested is used.

Programmer Response: Probable user error.
If the labels are to be written at a
different density than the default value,
change the density value in the DCB
parameter and relabel the tape(s).

Probelm Determination: Table I, items 1,
3, 13, 29.

IEHIOSUP Program Messages

IEH700I THE LOAD MODULES OF mod[,mod] HAVE NCT
BEEN UPDATED

Explanation: Because of an unrecoverable
error condition, modules mod have not been
updated.

System Action: The program is terminated.
(Return code is 12.)

Programmer Response: Either use IBCRCVRP
or IEHATLAS to reconstruct the SYSUT1 data
set or, if possible, use a backup copy of
the data set.

Problem Determination: Table I, items 1,
3, 13, 14, 29.

IEH701I A PERMANENT I/O ERROR DETECTED ON A
COMMAND CHAIN OF SEARCH ID=,TIC,READ DATA.
MBBCCHHR=mbbcchhr

Explanation: A permanent input/output
error occurred while searching for the
member whose absolute address is mbbcchhr.

In the message, m is the extent number, bb
is the bin number, cc is the cylinder
number, hh is the head number, and r is
the record number.

System Action: The program is terminated.
(Return code is 12.)

Programmer Response: Either use IBCRCVRP
or IEHATLAS to reconstruct the SYSUT1 data
set or, if possible, use a backup copy of
the data set.

Problem Determination: Table I, items 1,
3, 13, 14, 29.

IEH702I NO FOUND CONDITION SEARCHING FOR mem

Explanation: Member mem could not be
found in the directory of the SYS1.SVCLIB
data set.

System Action: The program is terminated.
(Return code is 12.)

Programmer Response: Either use IBCRCVRP
or IEHATLAS to reconstruct the SYSUT1 data
set or, if possible, use a backup copy of
the data set.

Problem Determination: Table I, items 1,
3, 13, 14, 29.

IEH703I A PERMANENT I/O ERROR DETECTED ON A
COMMAND CHAIN OF SEARCH ID=,TIC,WRITE
DATA. MBBCCHHR=mbbcchhr

Explanation: A permanent input/output
error occurred while updating the member
whose absolute address is mbbcchhr.
In the message text, m is the extent
number, bb is the bin number, cc is the
cylinder number, hh is the head number,
and r is the record number.

System Action: The program is terminated.
(Return code is 12.)

Programmer Response: Either use IBCRCVRP
or IEHATLAS to reconstruct the SYSUT1 data
set or, if possible, use a backup copy of
the data set.

Problem Determination: Table I, items 1,
3, 13, 14, 29.

IEH704I BLDL HAS DETECTED A PERMANENT I/O ERROR

Explanation: A permanent input/output
error occurred during execution of a BLDL
macro instruction.

System Action: The program is terminated.
(Return code is 12.)

Programmer Response: Either use IBCRCVRP
or IEHATLAS to reconstruct the SYSUT1 data
set or, if possible, use a backup copy of
the data set.

Problem Determination: Table I, items 1,
3, 13, 14, 29.

IEH705I ZERO LENGTH RECORD READ AT ADDRESS
MBBCCHHR mbbcchhr

Explanation: An unexpected zero length
record was found while updating the member
whose absolute address is mbbcchhr.

In the message text, m is the extent
number, bb is the bin number, cc is the
cylinder number, hh is the head number,
and r is the record number.

System Action: The program is terminated.
(Return code is 12.)

Programmer Response: Either use IBCRCVRP
or IEHATLAS to reconstruct the SYSUT1 data

set or, if possible, use a backup copy of
the data set.

Problem Determination: Table I, items 1,
3, 13, 14, 29.

IEH707I SYSUT1 DATA SET NOT OPENED

Explanation: IEHIOSUP was unable to open
the data set specified in the SYSUT1 DD
statement.

System Action: The job step is
terminated. (The return code is 12.)

IEHDASDR Program Messages

IEH800I INVALID CONTROL STATEMENT. LAST COLUMN
SCANNED=(decimal number 1 to 71)

Explanation: An IEHDASDR utility control
statement is coded incorrectly (for
example, a syntax error was encountered).
The column number of the last column
scanned is included in the message.

System Action: Processing continues with
the next IEHDASDR control statement. (The
return code is 8.)

Programmer Response: Probable user error.
Check for keypunch or format errors in the
last column scanned as indicated above.
Correct and rerun the job.

Problem Determination: Table I, items 1,
3, 13, 29.

IEH801I INVALID COMMAND=(command)

Explanation: An IEHDASDR utility control
statement contains an operation that is
not valid; for example, RESTERE, rather
than RESTORE.

System Action: Processing continues with
the next IEHDASDR control statement. (The
return code is 8.)

Programmer Response: Probable user error.
Check for keypunch or format errors.
Check the IEHDASDR specifications for
acceptable control codes. Correct the
statement and rerun the job.

Problem Determination: Table I, items 1,
3, 13, 29.

IEH802I INVALID KEYWORD=(keyword)

Explanation: An IEHDASDR utility control
statement contains an invalid keyword in
the operand field; for example,
CPYVULID=YES, rather than CPYVOLID=YES.

System Action: Processing continues with
the next IEHDASDR control statement. (The
return code is 8.)

Programmer Response: Probable user error.
Check control statement for possible
keypunch or format error. Consult
IEHDASDR specifications for acceptable

keywords. Correct the statement and rerun
the job.

Problem Determination: Table I, items 1,
3, 13, 29.

IEH803I INVALID PARAMETER=(parameter)

Explanation: An IEHDASDR utility control
statement contains an invalid parameter
value in the operand field; for example,
CPYVOLID=YSE, rather than CPYVOLID=YES.

System Action: Processing continues with
the next IEHDASDR control statement. (The
return code is 8.)

Programmer Response: Probable user error.
Consult the IEHDASDR specifications for
required keywords and parameters. Correct
the control statement and rerun the job.

Problem Determination: Table I, items 1,
3, 13, 29.

IEH804I REQUIRED KEYWORD(S) MISSING

Explanation: A necessary keyword or
keywords are omitted from an IEHDASDR
utility control statement.

System Action: Processing continues with
the next IEHDASDR control statement. (The
return code is 8.)

Programmer Response: Probable user error.
Consult the IEHDASDR specifications for
required keywords and parameters. Correct
the control statement and rerun the job.

Problem Determination: Table I, items 1,
3, 13, 29.

IEH805I DDNAME=ddname CANNOT BE OPENED

Explanation: The named DD statement does
not exist or is coded incorrectly.

System Action: Processing continues with
the next IEHDASDR control statement. (The
return code is 8.)

Programmer Response: Probable user error.
Make sure that a DD statement is present
and contains the correct DDNAME as
specified in the related control
statement. Rerun the job.

Problem Determination: Table I, items 1,
3, 13, 29.

IEH806I ⎧RESTORE TO⎫ DDNAME=ddname IS COMPLETE.
⎪DUMP TO   ⎪
⎪LABEL OF ⎪
⎨GETALT FOR⎬
⎪FORMAT OF ⎪
⎩ANALYSIS OF⎭
        [VOLUME SERIAL NO.=xxxxxx]

Explanation: The indicated function has
completed successfully on the device
specified on the indicated DD statement.
If the "to" volume is a direct access
volume, the volume serial number is
indicated in the message by xxxxxx.

System Action: Processing ccntinues with the next IEHDASDR contrcl statement.

Programmer Response: Ncne.

IEH807D cuu (or cuu/b) HAS UNEXPIRED DATA SETS, serial, jobname, stepname.

Explanation: The user specified the PURGE keyword and IEHDASDR encountered one or more unexpired data sets on the indicated volume while attempting to perform an ANALYZE, FORMAT, DUMP, cr RESTORE operation.

System Action: Processing ccntinues according to the operator's response. If the operator responds with REPLY xx,'U' processing continues. If he replies with REPLY xx,'T' the operation is terminated and processing continues with the next function to be perfcrmed.

Operator Response: A response of REPLY xx,'U' will allow IEHDASDR tc overwrite all existing data sets cn the volume regardless of the expiration date specified in the VTOC. A response of REPLY xx,'T' will terminate the operation and continue processing with the next function.

IEH808I REPLY IN ERROR. REPLY WITH 'U' OR 'T', jobname, stepname.

Explanation: The operator issued an invalid reply to message IEH807D or IEH841D.

Operator Response: Enter the correct reply when message IEH807D cr IEH841D is again issued.

IEH809I $\begin{Bmatrix} R \\ N \end{Bmatrix}$ cuu (or cuu/b), serial, jobname, stepname [,NOW OFFLINE]

Explanation: R indicates that the specified volume, cuu (cr cuu/b for a 2321 volume), is to be demounted. The previous IEHDASDR operation resulted in identical serial numbers being placed cn two or more direct access volumes. If the duplicate serial number was placed on a 2321 or a non-demountable volume, that volume is also placed offline. N indicates that the specified volume, cuu (or cuu/b for a 2321 volume), was assigned the indicated serial number, and the volume is unavailable to the system.

System Action: Processing ccntinues when the message indicates R. Otherwise, no action is required or taken by the system.

Operator Response: R -- demcunt the specified volume. N -- no response necessary.

IEH810I TODD DDNAME=ddname IS NOT DIRECT ACCESS

Explanation: The device defined by the indicated DD statement is nct a direct access device.

System Action: Prccessing continues with the next IEHDASDR ccntrol statement. (The return code is 8.)

Programmer Response: Probable user error. Ccrrect the DD statement sc that it describes a direct access device.

Problem Determination: Table I, items 1, 3, 13, 17a, 29.

IEH811I FRCMDD DDNAME=ddname IS NOT A TAPE

Explanation: The device defined by the indicated DD statement is not a magnetic tape drive.

System Action: Prccessing continues with the next IEHDASDR ccntrol statement. (The return code is 8.)

Programmer Response: Probable user error. Ccrrect the DD statement sc that it describes a magnetic tape drive.

Problem Determination: Table I, items 1, 3, 13, 17a, 29.

IEH812I UNABLE TO MATCH DDNAME=ddname

Explanation: A ddname specified in an IEHDASDR contrcl statement has no ccrresponding ddname in a DD statement. Either a necessary DD statement is missing or a ddname is misspelled in an existing DD statement.

System Action: Prccessing continues with the next IEHDASDR utility contrcl statement. (The return code is 8.)

Programmer Response: Probable user error. Check the DD statement for correct DDNAME as specified in the related ccntrol statement. Ccrrect the statement and rerun the job.

Problem Determination: Table I, items 1, 3, 13, 17a, 29.

IEH813I SYSTEM ERROR ENCOUNTERED DURING SVC $\begin{Bmatrix} 82 \\ 29 \end{Bmatrix}$, ddn
            or
SYSTEM ERROR jcbname, stepname, unit address, device type, ddname, operation attempted, errcr description, last seek address or blcck ccunt, access method.

Explanation: Either a system error occurred during an SVC 29 or 82 (as indicated in the message) cr a system errcr occurred while processing other than the above SVCs cn the named device. If possible, errcr analysis information such as jcbname, stepname, unit address, device type, etc., is included in the message.

System Action: Prccessing continues with the next IEHDASDR ccntrol statement. (The return code is 8.)

Programmer Response: If the system error did nct occur during executicn of an SVC, check the "operatien attempted" field.

The following conditions indicate a
possible hardware failure and would
normally require the attention of a
hardware specialist:

EQP CHECK	SEEK CHECK
BUS OUT CK	DATA C. CHECK
DATA CHECK	MISSING A.M.
OVERRUN	CHAN CTL CK
POSITION CHECK	INTF CTL CK

Direct access volumes identified in the
TODD statement experiencing errors should
be varied offline and a full surface
analysis performed using the ANALYZE
function of IEHDASDR. (Do not use
PASSES=0.) If the direct access volumes
cannot be surface analyzed, a FORMAT
function should be performed using
IEHDASDR. Tape volumes identified in the
TODD statement having errors should be
moved to another drive, replaced by
another tape, or the read/write heads of
the indicated device should be cleaned.
Direct access volumes identified in the
FROMDD statement (except the 3330)
experiencing errors, should be moved to
another drive and the operation rerun.
Tapes identified in the FROMDD statement
and experiencing errors, should be moved
to another drive, or the read/write heads
of the indicated device should be cleaned.
If the error is due to a data check or
missing address marker, use IEHATLAS to
correct the error.
Caution: Do not move the volume to more
than one other drive. A bad volume may
cause damage to other devices.

Problem Determination: Table I, items 1,
3, 13, 14, 29.

IEH814I
GETALT FOR
RESTORE TO
DUMP TO
ANALYSIS OF
FORMAT OF
LABEL OF
  ALLOWED.   SYSTEM RESIDENCE IS NOT
  DDNAME= ddname

Explanation: One of the named functions
is specified for the system residence
volume. The ddname identifies the DD
statement defining the system residence
volume.

System Action: Processing continues with
the next IEHDASDR control statement. (The
return code is 8.)

Programmer Response: Probable user error.
Correct the error and rerun the job.

Problem Determination: Table I, items 1,
3, 13, 29.

IEH815I INCORRECT DEVICE TYPE ON RESTORE.
        DDNAME=ddname

Explanation: The device type of the
direct access device being restored
(ddname) does not match the device type
from which the restore tape was created.

System Action: Processing continues with
the next IEHDASDR control statement. (The
return code is 8.)

Programmer Response: Probable user error.
Mount the proper tape or direct access
volume. Data dumped onto tape can only be
restored to the device type from which it
was dumped. Correct the DD statement to
indicate the correct device type.

Problem Determination: Table I, items 1,
3, 13, 28, 29.

IEH816I NOT A RESTORE TAPE ON DDNAME=ddname

Explanation: The magnetic tape volume
mounted on the device defined by the
indicated DD statement is not a "restore"
tape volume; that is, it does not contain
dumped direct access data.

System Action: Processing continues with
the next IEHDASDR control statement. (The
return code is 8.)

Programmer Response: Probable user error.
Mount the proper restore tape.

Problem Determination: Table I, items 1,
3, 13, 28, 29.

IEH817I FORMAT 5 DSCB IN VTOC FOUND TO BE
        INCORRECT FOR FROMDD=ddname

Explanation: Prior to a DUMP operation,
the entries in the format5 DSCB were found
to be invalid on the source volume.

System Action: All tracks within the
specified range of tracks are dumped,
whether they are "owned" or not.
Processing continues. (Return code is 4.)

Programmer Response: Correct the format5
DSCB using IEHATLAS.

Problem Determination: Table I, items 1,
3, 13, 25b, 29.

IEH818I MAIN STORAGE REQUIREMENTS NOT AVAILABLE
        FOR THIS FUNCTION

Explanation: Insufficient main storage
space was available for this function.
The function was terminated.

System Action: Processing continues with
the next IEHDASDR control statement. (The
return code is 8.)

Programmer Response: Probable user error.
Increase the partition or region and rerun
the operation.

Operator Response: Issue a DISPLAY ACTIVE
command as soon as the job is started.

Problem Determination: Table I, items 1,
2, 3, 13, 29.

IEH819I FROMDD=ddname IS NOT DIRECT ACCESS

    Explanation: An attempt was made to dump
    a volume other than a direct access
    volume. The named DD statement defines
    the device containing the volume that was
    to be dumped.

    System Action: Processing continues with
    the next IEHDASDR control statement. (The
    return code is 8.)

    Programmer Response: Probable user error.
    Only direct access volumes may be dumped
    using IEHDASDR. Correct the DD statement
    and rerun the job.
    Problem Determination: Table I, items 1,
    3, 13, 17a, 29.

IEH820I INVALID DUMP DEVICE SPECIFIED.
    DDNAME=ddname

    Explanation: A device other than an
    identical type direct access device, a
    magnetic tape drive, or a system output
    device was defined as the receiving device
    for a DUMP operation. The named DD
    statement defines the device that was to
    be the receiving device.

    System Action: Processing continues with
    the next IEHDASDR control statement. (The
    return code is 8.)

    Programmer Response: Probable user error.
    Correct the FROMDD or the TODD statement
    and rerun the job. Only tapes, system
    output devices, or identical direct access
    devices may be dumped to.

    Problem Determination: Table I, items 1,
    3, 13, 17a, 29.

IEH821I INVALID COPY REQUEST. DDNAME=ddname

    Explanation: An ANALYZE, FORMAT, DUMP, or
    RESTORE control statement defines multiple
    devices types and multiple copies when
    they are not permitted. The named DD
    statement defines the invalid device.

    System Action: Processing continues.
    (The return code is 8.)

    Programmer Response: Probable user error.
    Correct the TODD statement and rerun the
    operation.

    Problem Determination: Table I, items 1,
    3, 13, 17a, 29.

IEH822I INVALID TRACK ADDRESS SPECIFIED.
    DDNAME=ddname

    Explanation: An invalid track address has
    been specified on either a DUMP statement
    (BEGIN or END address) or a GETALT
    statement (TRACK address). The named DD
    statement defines the device containing
    the volume to which the invalid track
    pertains.

    System Action: Processing continues with
    the next IEHDASDR control statement. (The
    return code is 8.)

    Programmer Response: Probable user error.
    Correct the track address on the control
    statement and rerun the operation.

    Problem Determination: Table I, items 1,
    3, 13, 29.

IEH823I THE DEVICE SPECIFIED BY TODD=ddname IS A
    DRUM DEVICE. AN ALTERNATE TRACK MUST BE
    ASSIGNED MANUALLY.

    Explanation: Either a defective track has
    been encountered on a drum device during
    processing of an ANALYZE statement, or the
    user has defined a drum device through the
    use of a GETALT statement. The ddname is
    that of the DD statement defining the drum
    device.

    System Action: Processing continues with
    the next IEHDASDR control statement unless
    the operation is an ANALYZE operation, in
    which case processing continues with the
    same statement. (The return code is 4.)

    Operator Response: Call IBM for hardware
    support to have a track manually assigned.

IEH824I ANALYZE TERMINATED. DEVICE NOT OFFLINE
    AND CONFIRMED. TODD=cuu (or cuu/b for a
    2321 volume).

    Explanation: The function is not
    performed because the specified device was
    not placed offline prior to the execution
    of the job step and confirmed by the
    operator during the job step. TODD
    specifies the channel and unit address of
    the device containing the volume to be
    analyzed. The referenced device address
    does not have an associated UCB in this
    system.

    System Action: Processing continues with
    the next IEHDASDR control statement. (The
    return code is 8.)

    Programmer Response: Probable user error.
    Vary the device offline and ensure that
    the system has completed the request.

    Operator Response: Enter the response
    REPLY xx,'U' to the message IEH841D
    confirming the request.

    Problem Determination: Table I, items 1,
    2, 3, 13, 29.

IEH825I INVALID VTOC LIMITS SPECIFIED FOR
    TODD=ddname

    Explanation: The VTOC=xxxxx keyword or
    EXTENT=xxxxx keyword in an ANALYZE or
    FORMAT control statement specifies an
    invalid starting address or extent. The
    VTOC cannot begin on track 0 (or on track
    1 for a 2302 or for a 2311 with IPL text.)
    The VTOC cannot extend into the alternate
    track area or onto a second volume. The
    indicated ddname is that of the DD
    statement defining the device containing
    the volume to be analyzed or formatted.

System Action: Processing ccntinues with the next IEHDASDR ccntrcl statement. (The return ccde is 8.)

Programmer Response: Probable user error. Correct the VTOC or EXTENT parameter.

Problem Determination: Table I, items 1, 3, 13, 29.

IEH826I IPL TEXT NOT FOUND OR APPLICABLE FCR
TOLD=ddname

Explanation: Either an attempt was made to supply IPL for a volume cther than a 2301, 2303, 2311, 2314, or 2319 volume, or IPL text is to be written cn a valid volume but IEHDASDR cannot lccate the source copy of the IPL text. Also, the END card for IPL text may be missing or incorrect (not in cclumns 2, 3, or 4).

System Action: Processing ccntinues with the next IEHDASDR ccntrcl statement. (The return code is 8.)

Programmer Response: Probable user error. Correct the direct access DD statement referenced in the IPLDD keywcrd to point to the data set that ccntains the IPI text. Change the IPLDD keywcrd to point to the SYSIN data set. Fcllcw the first control statement with the IPL TEXT control statement and the IPL text. Ensure that the IPL text has an END card punched in columns 2, 3, and 4. Remove all references to IPL text.

Problem Determination: Table I, items 1, 3, 13, 17a, 29. If IPL text is in card form, have the deck available.

IEH827I NO MORE ALTERNATE TRACKS AVAILABLE FCR
TOLD=ddname

Explanation: An attempt was made to assign an alternate track; hcwever, there are no unassigned alternates available. The named LL statement defines the device containing the volume cn which an alternate track was to be assigned.

System Action: Processing ccntinues with the next IEHDASDR ccntrcl statement. (The return code is 8.)

Programmer Response: ANALYZE the direct access device with FLAGTEST=NO. If this message was issued while running ANALYZE, the pack should be replaced.

Problem Determination: Table I, items 1, 3, 13, 29.

IEH828I TRACK ZERO IS DEFECTIVE ON TODD=ddname.
THIS VOLUME IS NON-IPLABLE.

Explanation: Track 0 cn a vclume that is to be analyzed, dumped to, cr restored to is defective. The volume cannot be "IPLed" The named DD statement defines the device containing the vclume that has the defective track.

System Action: Prccessing ccntinues with the next IEHDASDR ccntrcl statement. (The return code is 8.)

Programmer Response: This pack cannot be used as an IPL vclume. If IPL text is required, ncunt ancther pack and rerun the cperaticn.

Problem Determination: Table I, item 3C.

IEH829I HA-R0 AREA WAS DEFECTIVE. TODD=ddname

Explanation: During an ANALYZE or FORMAT cperaticn, the hcme address/reccrd zero area cf a track was fcund defective. The named LL statement defines the device ccntaining the vclume that has the defective HA-R0 area cn cne cf its tracks.

Message IEH813I is issued tc identify the defective track.

System Acticn: The action taken depends cn the device type cf the vclume having the defective HA-R0 area:

2311 cr 2302 -- The functicn is terminated. (The return ccde is 8.)

2314, 2319, cr 2321 -- An attempt is made tc mcve the HA-R0 area tc ancther spct on the track. If the attempt is unsuccessful, a return code cf 8 is issued.

Cperator Response: Fcr a mcuntable vclume, mcve it tc ancther drive. Defective vclumes may cause damage to devices. Dc nct mcve the volume mcre than cnce.

Problem Determinaticn: Table I, items 28,30.

IEH830I THE VCLUME SPECIFIED BY TODD=ddname HAS
BECCME UNUSABLE.

Explanation: GETALT has been specified fcr the VTOC area (all data cn the specified track is lcst), cr an ANALYZE, FCRMAT, RESTORE, cr DUMP cperation has not ccmpleted successfully, thus leaving the vclume in an urusable ccnditicn. For a direct access vclume, the named DD statement defines the device ccntaining the vclume that has beccme unusable. For a tape volume, the named DD statement defines the device ccntaining the volume that has beccme unusable as a restcre tape.

System Acticn: Prccessing ccntinues with the next IEHDASDR ccntrcl statement. (The return code is 8.)

Programmer Response: If the TODD volume is a direct access vclume, the volume shculd be analyzed cffline. If the TODD is a tape, mcunt ancther tape and rerun the jcb.

Problem Determinaticn: Table I, items 1, 2, 3, 13, 29.

IEH

IEH831I DEFECTIVE TRACK ON TODD=ddname WAS
cccchhhh

Explanation: This message lists the track
address (cccchhhh) of a track found
defective during an ANALYZE cr FORMAT
operation, or a track specified on a
GETALT statement. The named DD statement
defines the device containing the volume
that has the defective track.

System Action: Processing ccntinues.

Operator Response: None.

IEH832I ALTERNATE TRACK ASSIGNED ON TODD=ddname IS
{cccchhhh}
{N/A   }

Explanation: This message lists the
alternate track address of a track
assigned for a track fcund defective
during an ANALYZE or FORMAT cperation, or
for a track specified in a GETALT
statement. The named DD statement defines
the device containing the vclume on which
the alternate is assigned. If N/A appears
in the message, no alternate track was
assigned because the defective track is in
the alternate area.

System Action: Processing ccntinues.

IEH833I 3 BLANK TRACKS {ON HEAD CHECK.   }
                      {ON CYLINDER CHECK.}
                      {ON STRIP CHECK.   }
                      {ON SUBCELL CHECK. }
TRK=cccchhhh, ddname

Explanation: This message is issued
during an ANALYZE operation cn a 2321
volume for one of the fcllowing reasons:

1. 3 BLANK TRACKS ON HEAD CHECK -- Three
   blank tracks were encountered during
   an analysis or address ccmpare test on
   each track of a cylinder.
2. 3 BLANK TRACKS ON CYLINDER CHECK --
   Three blank tracks were encountered
   during an address ccmpare test of the
   first track of each cylinder on a
   strip.
3. 3 BLANK TRACKS ON STRIP CHECK -- Three
   blank tracks were encountered during
   an address compare test cf the first
   track on each strip of a subcell.
4. 3 BLANK TRACKS ON SUBCELL CHECK --
   Three blank tracks were encountered
   during an address ccmpare test of the
   first track of each subcell of a cell.

Note: This message usually indicates that
a 2321 has failed tc "pick" a strip.

System Action: Processing ccntinues with
the next IEHDASDR contrcl statement. (The
return code is 8.)

Programmer Response: Probable hardware
error. Rerun the program.

Problem Determinaticn: Table I, items 1,
2, 3, 13, 30.

IEH834I DIRECT ACCESS DEVICE NOT SUPPORTED.
DDNAME=ddname

Explanaticn: A direct access device type
cther than a suprcrted device type has
been specified. The named DD statement
defines the irvalid device.

System Action: Prccessing ccntinues with
the next IEHDASDR ccntrol statement. (The
return code is 8.)

Programmer Respcnse: Probable user error.
Ccrrect the DD statement referenced to
reflect a suprcrted device type and try
the jcb again.

Problem Determinaticn: Table I, items 1,
17a, 29.

IEH835I TAPE DD STATEMENT DOES NOT SPECIFY CORRECT
LABEL INFORMATICN FOR SECURITY PROTECTION

Explanaticn: A DUMP cperation from direct
access to tape invclved passwcrd protected
data sets; however, cne or more of the
fcllcwing errcr ccnditions exists in the
DD statement defining the magnetic tape
vclume:
• The LABEL parameter specifies a label
  cther than a standard label.
• The PASSWORD subparameter is cmitted
  from the LABEL parameter.
• The LABEL parameter specifies a file
  number other than 1.

System Action: The DUMP operaticn is
terminated. Prccessing ccntinues with the
next IEHDASDR ccntrcl statement. (The
return code is 8.)

Programmer Respcnse: Probable user error.
Ccrrect the DD statement, the LABEL
parameter, or the PASSWORD subparameter,
and rerun the cperaticn.

Problem Determinaticn: Table I, items 1,
3, 13, 29.

IEH836I INCORRECT PASSWORD WAS GIVEN FOR A DATA
SET ON DDNAME=ddname

Explanaticn: The cperator did not provide
the ccrrect passwcrd fcr a password
prctected data set cn the specified
vclume.

System Action: Prccessing continues with
the next IEHDASDR ccntrol statement. (The
return code is 8.)

Programmer Respcnse: Provide the cperator
with a list cf data set names and the
ccrrespcnding passwcrds. Rerun the
cperaticn.

Problem Determinaticn: Table I, items 1,
2, 3, 13, 29.

IEB837I UNEXPIRED DATA SET(S) NOT CONFIRMED CN
    TOLD LCNAME=ddname

    Explanation: IEHDASDR enccuntered one or
    more unexpired data sets on a direct
    access volume. Either the user did not
    code the PURGE keyword cr the operator did
    not respond with REPLY xx,'U' after
    message IEB807D was issued.

    System Action: The operaticn is
    terminated. Processing continues with the
    next IEBDASCR control statement. (The
    return code is 8.)

    Programmer Response: Probable user error.
    Mount the proper direct access volume.
    Code PURGE=YES on the ccntrcl statement
    and respond REPLY xx, 'U' after message
    IEB807D.
    Problem Determination: Table I, items 1,
    3, 13, 29.

IEB838I INVALID BLOCK SIZE SPECIFIED.
    CDNAME= ∫SYSIN   ∖
           (SYSPRINT)

    Explanation: The block size specified on
    the indicated DD statement is not a
    multiple of the logical reccrd length
    (LRECL). SYSIN block size must be a
    multiple cf 80; SYSPRINT blcck size should
    be a multiple of 121.

    System Action: If an invalid block size
    is specified for SYSIN data set, the
    IEHDASDR is terminated. (The return code
    is 16.)

        If an invalid blcck size is specified
    for the SYSPRINT data set, a default block
    size of 121 is assigned. (The return code
    is 4.)

    Programmer Response: Probable user error.
    Correct the blocksize cn the DD statement
    and rerun the operation.

    Problem Determination: Table I, items 1,
    3, 13, 29.

IEB839I HIGHEST RETURN CODE ENCOUNTERED WAS xx

    Explanation: IEHDASDR has ccmpleted
    operaticn. The highest return code
    encountered was xx.

    System Action: The job is terminated.

    Programmer Response: If the return code
    was other than 00, check the output
    listing for possible incomplete
    operaticns. Refer to actual error message
    for corrective acticn.

IEB840I NO DL CARD PROVIDED FOR SECURITY DATA SET
    ON FROMLD=ddname

    Explanation: The user has failed to
    provide a DL statement defining a security
    protected data set cn the named device.

    System Action: Processing ccntinues with
    the next IEHDASDR contrcl statement. (The
    return code is 8.)

Programmer Response: Probable user error.
Prcvide a LD statement for each security
prctected data set cn the volume, and
rerun the cperaticn.

Prcblem Determinaticn: Table I, items 1,
3, 13, 29.

IEB841D cuu (or cuu/b fcr a 2321 vclume) CONFIRM
    REQUEST TO INITIALIZE LABEL
    (or cuu/b for a 2321 vclume)

    Explanaticn: A vclume is tc be
    initialized cr labeled offline and the
    operatcr is requested tc verify that the
    desired volume is mcunted cn the specified
    cffline device (cuu cr cuu/b).

    System Acticn: Prccessing ccntinues
    acccrding to the cperator's response.

    Cperatcr Respcnse: Tc continue
    prccessing, respcnd REPLY xx,'U'. To
    terminate the cperaticn and ccntinue with
    the next functicn, respcnd REPLY xx,'T'.

IEB842I DATA CHECK IN KEY FIELC ON
    TRK=ccccchhhh,ddname (Fcllcwed by defective
    record.)

    Explanaticn: When dumping to SYSOUT, the
    DUMP functicn was unable tc read the
    specified field withcut a data check. If
    there is a data check in bcth the key and
    data fields, this message appears twice
    before it is fcllcwed by the defective
    reccrd.

    System Acticn: The system cutput device
    ccntains the reccrd as read. Processing
    ccntinues. If data check is in the count
    field cn a 2301, the cperation terminates.

    Prcgrammer Respcnse: Use IEHATLAS to
    assign an alternate to the defective
    track, copy and ccrrect the defective
    data.

    Prcblem Determiraticn: Table I, items 1,
    2, 3, 13, 29.

IEB843I DATA CHECK IN CCUNT FIELD AND POSSIBLY IN
    KEY ANC DATA FIELDS CN TRK=ccccchhhh,ddname
    (Fcllcwed by the defective reccrd and the
    remainder cf the track.)

    Explanaticn: When dumping tc SYSOUT, the
    DUMP functicn was unable tc read the count
    field withcut a data check. Using the key
    and data lengths frcm this count, DUMP was
    unable to read the key and/or data fields
    withcut a data check. The original data
    check may have been in the length fields
    of the count, cr there may actually be a
    data check in the key and/cr data fields.

    System Acticn: The system cutput device
    ccntains the reccrd as read and the
    remainder of the track (as if cne record).
    Prccessing ccntinues.

    Prcgrammer Respcnse: Use IEHATLAS to
    assign an alternate fcr the defective
    track, copy and ccrrect the defective
    data.

Problem Determination: Table I, items 1, 2, 3, 13, 29.

IEH844I MISSING ADDRESS MARKER
ONTRK=cccchhh,ddname (Followed, if possible, by the defective record and the remainder of the track.)

Explanation: When dumping to SYSOUT, the DUMP function was unable to read the specified track without encountering a missing address marker.

System Action: The system output device contains the last record as read and the remainder of the track (as if one record). Processing continues.

Programmer Response: Use IEHATLAS to assign an alternate for the defective track, and copy and correct the defective data.

Problem Determination: Table I, items 1, 2, 3, 13, 14, 29.

IEH845I DEVICE NOT SUPPORTED FOR OFFLINE QUICK DASDI FEATURE. TODD=cuu.

Explanation: The function is not performed because the specified offline device was other than a 2314 volume.

System Action: Processing continues with the next IEHDASDR control statement. (The return code is 8.)

Programmer Response: Probable user error. Vary the device online, changing the TODD keyword to indicate a DDNAME. Remove the PASSES=0 keyword from the control statement and request full surface analysis by the ANALYZE function.

Problem Determination: Table I, items 1, 2, 3, 13, 29.

IEH847I INVALID PARAMETER IN EXEC CARD

Explanation: The LINECNT= and/or N= subparameter in the PARM field of the EXEC statement has been incorrectly specified.

System Action: The job is terminated.

Programmer Response: Make sure that the value in the LINECNT= subparameter is a two-digit decimal number from 01 to 99, and that the value in the N= subparameter is a decimal number from 1 to 6. Check for keypunch or spelling errors. Correct any errors and resubmit the job.

Problem Determination: Table I, item 29.

IEH848D IS ANOTHER TAPE REQUIRED FOR THIS RESTORE JOB. REPLY Y OR N.

Explanation: During execution of a multivolume RESTORE job, the system requires that a continuation tape volume be mounted.

System Action: The task waits for the operator to reply.

Operator Response: Enter REPLY xx,'Y' if a continuation tape volume is available and has been mounted. Enter REPLY xx'N' if a continuation tape volume is not available or cannot be mounted.

Problem Determination: Table I, item 29.

IEH849I RESTORE TERMINATED. ADDITIONAL TAPE REQUIRED.

Explanation: The system requires a multivolume RESTORE tape, but an additional volume either is not available or cannot be mounted.

System Action: The job is terminated.

Programmer Response: Make sure that all tape volumes required by the job have been submitted with the job, and that their volume serial numbers have been specified in the DD statement.

Problem Determination: Table I, item 29.

IEH850I SUBSEQUENT RESTORE VOLUMES NOT SPECIFIED IN JCL FOR DDNAME = ddn

Explanation: The system requires a multivolume RESTORE, but the JCL defines fewer tapes than required.

System Action: The job is terminated.

Programmer Response: Make sure that the VOLUME parameter indicates the total number of restore tapes required and rerun the job.

IEH869I BAD COUNT FIELD ENCOUNTERED ON TRACK= DDNAME=

Explanation: IEHDASDR has detected a count field containing either:
• Non-matching CCHH for this track.
• Invalid record length causing track overrun.

System Action: Processing continues with the next IEHDASDR control card.

Programmer Response: Correct the bad count field on the track and rerun the job.

Problem Determination: Table I, items 1, 4, 7a, 29. List the contents of the failing track.

IEHATLAS Program Messages

IEH900I SUCCESSFUL COMPLETION. AN ALTERNATE TRACK HAS BEEN ASSIGNED. COMPLETION CODE=00

Explanation: An alternate track has been assigned and data has been transferred from the bad track to the alternate.

System Action: The job step is terminated.

Programmer Response: None.

IEH901I SUCCESSFUL COMPLETION. NO ALTERNATE TRACK
ASSIGNED. COMPLETION CODE=00

Explanation: The utility successfully
rewrote the record in error.

System Action: The job step is
terminated.

Programmer Response: None.

IEH902I I/O ERROR IN ALTERNATE TRACK ASSIGNMENT.
COMPLETION CODE=16

Explanation: Input/output errors occurred
while attempting to assign an alternate
track; therefore, no alternate track was
assigned. The number of attempts at
assigning the alternate track is equal to
the number of alternate tracks available
at the time the ATLAS SVC was called, or
10% of the number of assigned alternate
tracks, whichever is less.

System Action: The program is terminated.
(Return code = 16.)

Programmer Response: Use the IEHDASDR
utility program to analyze or format the
volume.

Problem Determination: Table I, item 30.

IEH903I REQUIRED DD CARD MISSING. COMPLETION
CODE=16

Explanation: Either the SYSUT1 or SYSIN
data set could not be opened. The DD
statement defining the data set was not
included in the input stream.

System Action: The job step is
terminated.

Programmer Response: Probable user error.
Insert the required DD statement and rerun
the job.

Problem Determination: Table I, items 1,
2, 3, 13, 29.

IEH904I INVALID DCB PARAMETERS FOR SYSIN.
COMPLETION CODE=16

Explanation: SYSIN DCB blocksize was not
a multiple of LRECL (80 bytes).

System Action: The job step is
terminated.

Programmer Response: Probable user error.
Correct the blocksize for the SYSIN DD
statement (must be a multiple of 80) and
rerun the job.

Problem Determination: Table I, items 1,
2, 3, 13, 29.

IEH905I INVALID OR MISSING CONTROL CARD KEYWORD.
COMPLETION CODE=16

Explanation: The control card keyword is
missing or is invalid as it appears. The

entire control card may be missing. Check
for a misspelled keyword or a character in
column 1.

System Action: The job step is
terminated.

Programmer Response: Probable user error.
Check for keypunch or format errors.
Column 1 must be blank on the control
statement. Correct and rerun the job.

Problem Determination: Table I, items 1,
3, 13, 29.

IEH906I INVALID CHARACTER IN USER-INPUT RECORD.
COMPLETION CODE=16

Explanation: A character in the user
input record cannot be translated into
valid internal code (that is, the
character is other than 0-9 or A-F).

System Action: The job step is
terminated.

Programmer Response: Probable user error.
Examine the TRACK or VTOC utility control
statement for 10 bytes of hexadecimal
information. Check the input record for
valid hexadecimal information. Correct
and rerun the job.

Problem Determination: Table I, items 1,
3, 13, 29.

IEH907I DEVICE DOES NOT HAVE SOFTWARE ASSIGNABLE
ALTERNATES. COMPLETION CODE=16.

Explanation: The unit type specified in
the UCB is other than a 2302, 2311, 2314,
2319, or 2321. It has no software
assignable alternates.

System Action: The job step is
terminated.

Programmer Response: If device is a 2301
or a 2303 the alternate must be assigned
manually.

Problem Determination: Table I, item 30.

IEH908I ALL ALTERNATE TRACKS FOR THIS DEVICE HAVE
BEEN ASSIGNED. COMPLETION CODE=16

Explanation: The format 4 DSCB shows that
this device has no alternate tracks
available for assignment.

System Action: The job step is
terminated.

Problem Determination: Table I, item 30.

IEH909I REQUESTED STORAGE IS NOT AVAILABLE.
COMPLETION CODE=16

Explanation: Necessary storage for a work
area was not available at the time the
GETMAIN was issued.

System Action: The job step is
terminated.

IEH

Programmer Response: Probable user error. Increase the partition or region size and rerun the job.

Problem Determination: Table I, items 1, 3, 13, 29.

IEH910I MESSAGE TEXT PROVIDED BY SYNADAF MACRO - I/O ERROR. COMPLETION CODE=16

Explanation: A permanent error was detected while reading the SYSIN data set.

System Action: The job step is terminated.

Programmer Response: Correct the error condition indicated in the message text. Ensure that the DCB parameters on the SYSIN DD statement are correct.

Problem Determination: Table I, items 1, 3, 13, 29.

IEH911I TRACK ADDRESS PROVIDED DOES NOT BELONG TO DATA SET. COMPLETION CODE=16

Explanation: The address of the record provided on the control card does not belong to the specified data set.

System Action: The job step is terminated.

Programmer Response: Probable user error. Examine the utility control statement to insure that the cylinder and track address is within the extents of the SYSUT1 data set. If in doubt, use IEHLIST to list the VTOC, which will give you the extents of the data set.

Problem Determination: Table I, items 1, 3, 13, 14, 29.

IEH912I INCORRECT NUMBER OF CHARACTERS IN USER-INPUT RECORD. COMPLETION CODE=16

Explanation: Too few or too many data statements are in the input stream. Check for incorrect record length.

System Action: The job step is terminated.

Programmer Response: Probable user error. Check the data statements for the accurate number of hexadecimal characters. The input record must be the same length as the record being replaced.

Problem Determination: Table I, items 1, 3, 15, 29.

Have documentation showing the original record before failure (back-up data) available.

IEH913I CONDITION OTHER THAN DATA CHECK OR MISSING ADDRESS MARKER. COMPLETION CODE=16

Explanation: An invalid sense byte indication has been detected for the user's channel program or for another channel program to process data on the bad

track. IEHATLAS cannot handle the error condition.

System Action: The job step is terminated.

Programmer Response: Reinitialize the volume using either IEHDASDR or IBCDASDI.

Problem Determination: Table I, items 30.

IEH914I FORMAT 4 DSCB CANNOT BE READ. COMPLETION CODE=16

Explanation: A permanent I/O error was detected when reading the format4 DSCB. Information concerning the number of alternates available, or the address of the next available alternate cannot be retrieved.

System Action: The job step is terminated.

Programmer Response: Reinitialize the volume using either IEHDASDR or IBCDASDI.

Problem Determination: Table I, items 1, 3, 13, 29.

IEH915I RECORD IN ERROR IS FORMAT 4 DSCB. COMPLETION CODE=16

Explanation: IEHATLAS could not successfully rewrite the format4 DSCB record. No alternate track information is available.

System Action: The job step is terminated.

Programmer Response: Reinitialize the volume using either IEHDASDR or IBCDASDI.

Problem Determination: Table I, items 1, 3, 13, 28, 29.

IEH916I ERROR FOUND IN COUNT FIELD OF LAST RECORD ON TRACK. COMPLETION CODE=16

Explanation: Count field information cannot be recovered for the last record on a track unless that record is the error record input to the utility or the CCHHRKDD has been passed to the ATLAS SVC (86). IEHATLAS also requires information regarding track overflow records.

System Action: The job step is terminated.

Programmer Response: Either IEHATLAS or the ATLAS SVC (86) should be given as input to the CCHHRKDD of the last record. Track overflow information is also required if the last record is part of a track overflow data set.

Problem Determination: Table I, items 1, 3, 13, 29.

IEH917I HA OR R0 ERRORS.   COMPLETION CODE=16

    Explanation: The ATLAS SVC (86) will not
    accept an R0 error record unless the SVC
    was entered via the utility. An I/O error
    in HA or R0 prevents further use of the
    track on which the error exists.

    System Action: The job step is
    terminated.

    Programmer Response: Reinitialize the
    volume using either IEHDASDR or IBCDASDI.

    Problem Determination: Reinitialize with
    IEHDASDR or IBCDASDI for devices which can
    be surface analyzed. Table I, items 1, 3,
    13, 29.

IEH918I ERROR/ERRORS ENCOUNTERED ALTERNATE
    ASSIGNED. COMPLETION CODE=16

    Explanation: One or more errors were
    encountered while transferring the data
    from the bad track to the alternate
    tracks. Such a condition does not prevent
    assignment of an alternate track.

    System Action: The job step is
    terminated.

    Programmer Response: Use IEHDASDR to dump
    the alternate track and check for data
    validity.

    Problem Determination: Table I, items 1,
    3, 14, 15, 29.

IEH919I ALTERNATE TRACK ASSIGNED. I/O ERROR IN
    RE-EXECUTING USER CHANNEL PROGRAM
    COMPLETION CODE=16

    Explanation: An alternate track has been
    assigned but because the user's channel
    program could not be re-executed, the
    error condition still exists for the
    original record in error.

    System Action: The job step is
    terminated.

    Programmer Response: Execute the IMASPZAP
    service aid program to dump the data set
    to check data validity on the alternate
    track. Execute IEHATLAS, if necessary, to
    update in place the defective record if
    the user's channel program cannot be
    successfully re-executed.

    Problem Determination: Table I, items 1,
    3, 13, 14, 29.

IEH920I THE SYSTEM DOES NOT SUPPORT TRACK
    OVERFLOW. COMPLETION CODE=16

    Explanation: Track overflow support was
    not included in the system at system
    generation time.

    System Action: The job step is
    terminated.

    Programmer Response: There is a track
    overflow indication in the DCB, but the
    UCB indicates that the device does not
    support track overflow.

    Problem Determination: Table I, items 1,
    13, 17a, 29.

IEH921I NO ERROR IN SPECIFIED VTOC RECORD.
    COMPLETION CODE=00

    Explanation: The user's VTOC record was
    read without error. No alternate track
    was assigned.

    System Action: The job step is
    terminated.

IEH922I ERROR/ERRORS ENCOUNTERED CANNOT BE
    HANDLED. NO ALTERNATE ASSIGNED.
    COMPLETION CODE=16

    Explanation: The conditions which produce
    this message are: (1) Count field errors
    on more than three records. (2) Error on
    an EOF record when it is not the record
    specified by the utility. (3) An error in
    the KDD of the count field of a record
    other than the specified error record.

    Do not move direct access volumes to more
    than one other device. Bad volumes may
    cause damage to devices.

    System Action: The job step is
    terminated.

    Programmer Response: Check the return
    parameter list to determine the record
    numbers of error records. The last record
    indicated in the list is the record which
    caused the unrecoverable condition. If
    three error records have been listed, then
    the possibility exists that a fourth read
    count error was also encountered. Move
    the volume to another drive and rerun the
    job. If the problem still exists, the
    data cannot be recovered and the volume
    should be restored.

    Problem Determination: Table I, items 1,
    3, 13, 29.

IEH923I NO ERRORS FOUND ON TRACK. NO ALTERNATE
    ASSIGNED. COMPLETION CODE=16

    Explanation: The ATLAS SVC successfully
    read the indicated error track and
    therefore did not assign an alternate
    track.

    System Action: The job step is
    terminated.

    Programmer Response: Probable user error.
    The cylinder and track address passed to
    the ATLAS SVC must specify a track
    containing an error record.

    Problem Determination: Table I, items 1,
    15, 29. Have the assembly listing of the
    program that calls SVC 86 available.

IEH

Component Name	IEI
Program Producing Message	Assembler program during expansion of system generation macro instructions.
Audience and Where Produced	For system programmer: assembler listing in SYSPRINT data set.

Message Format	s,* * * IEIaaannn text
	
	s
	    Severity code:
	
	    0 Warning message; the condition indicated may cause errors in new system.
	    5 Error message; error is in coding of a system generation macro instruction.
	    7 Error message; message is produced by GENERATE macro instruction.
	aaa
	    Indication of system generation macro instruction at which error was detected:
	
	AGL AIGLIB GJC GJOBCTL RPG RPG
	ALG AIGCL GPH GRAPHICS SCH SCHEDULR
	ASM ASSEMBLR IOC ICCONTRL SCN SECONSLE
	CEN CENPRCCS IOD IODEVICE SEC SECMODS
	CHA CHANNEL IDR LOADER SOL SORTLIB
	CKP CKPTREST LNK LINKLIB SOR SORTMERG
	CKR CHECKER
	COB COBCL MAL MACLIB SUP SUPRVSOR
	COL COBLIB PLL PL1LIB SVC SVCTABLE
	CTR CTRLPROG PL1 PL1 SVL SVCLIB
	DAT DATAMGT PCP PTCP SYS SYSUTILS
	EDT EDITCR PRL PROCLIB TEL TELCMLIB
	EMU EMULATCR
	FOL FORTLIB PRM PARMLIB
	FTC FORTRAN PTN PARTITNS UCS UCS
	GEN GENERATE RES RESMODS UNI UNITNAME
	nnn
	    Message serial number.
	text
	    Message text.

Comments	None.
Associated Publications	IBM System/360 Operating System: System Generation, GC28-6554
Problem Determination	Refer to the fold-out in part VI of this publication for problem determination instructions.

IEIaaannn text

Explanation: Error: The error indicated by the message text is a coding error in the system generation macro instruction, aaa. The message serial number, nnn, identifies the message.

For the CHANNEL, IOCONTRL, and IODEVICE macro instructions, the message text begins with either the name field of the macro instruction or, if the name field was omitted, the

sequential identification number provided by the system.

Examples of these messages are:

5,* * * IEICEN104 INSTSET VALUE NOT SPECIFIED

5,* * * IEICHA102 CHANNEL2-ADDRESS VALUE NOT SPECIFIED

5,* * * IEICHA102 CHAN#2-ADDRESS VALUE NOT SPECIFIED

The second example illustrates a
message for a CHANNEL macro
instruction. "CHANNEL2" is the name
field of the macro instruction. The
third example illustrates the same
message, but in this case the name
field of the macro instruction was
omitted and "CHAN#2" was supplied by
the system.

System Action: The assembler program
did not produce a job stream in the
SYSPUNCH data set. The program
analyzed all remaining system
generation macro instructions and
printed any other required messages.
Either message IEIGEN113 or IEIGEN116
was printed, followed by the message:
GENERATION TERMINATED. Then the
system generation process was
abnormally terminated.

Severity Code: 5

Programmer Response: Probable user
error. Correct the error or errors
indicated and begin the system
generation process from the start of
Stage I.

Problem Determination: Table I, items
17a, 29. Have the hardware
configuration available.

IEIaaannn text

Explanation: Warning: The message
text indicates a hardware condition
that may cause errors in the new
system. For example:

0,* * * IEIIOC114 PREVIOUS CONTROL
   UNIT HAS NO DEVICES

System Action: The job stream is
produced.

Severity Code: 0

Programmer Response: Determine if the
condition indicated is a problem. If
necessary, correct the condition
indicated and begin the system
generation process from the start of
Stage I.

Problem Determination: Table I, items
17a, 29.

IEIGEN113   QUIT SWITCH ON BEFORE GENERATE MACRO

Explanation: One or more errors,
indicated by severity code 5 messages,
were detected before the GENERATE
macro instruction was expanded.

Severity Code: 7

IEIGEN116   QUIT SWITCH SET IN GENERATE MACRO

Explanation: One or more errors were
detected during expansion of the
GENERATE macro instruction.

Severity Code: 7

Component Name	IEK
Program Producing Message	FORTRAN IV H compiler.
Audience and Where Produced	For programmer: SYSPRINT data set following the source module listing and the object module name table.
Message Format	ISN a IEKnnnI text LABEL b NAME c a Internal statement number of statement in error or statement following last previous executable statement. b Source label (statement number). c Variable name. nnn Message serial number. text Message text.
Comments	IEK messages are not included in this publication. They are documented in the publication IBM System/360 Operating System: FORTRAN IV (G and H) Programmer's Guide, GC28-6817. If your installation uses FORTRAN IV H frequently, you may prefer to have the IEK messages in this publication; the index tab on this page is provided so that you can remove the IEK messages from the Programmer's Guide and insert them here. For routing and descriptor codes of IEK messages, see Table 8 in Part V of this publication: "Routing and Descriptor Codes."
Associated Publications	IBM System/360 Operating System: FORTRAN IV (G and H) Programmer's Guide, GC28-6817 IBM System/360 FORTRAN IV Language, GC28-6515

IEK

Component Name	IEM
Program Producing Message	PL/I F compiler.
Audience and Where Produced	For programmer: SYSPRINT data set either directly or following PL/I source program listing and any other listings (specified in PARM of EXEC statement). For operator: console.

Message Format	IEMnnnnI text (in SYSPRINT)
	xx IEMnnnnI text (on console)
	
	nnnn
	    Message serial number.
	text
	    Message text.
	xx
	    Message reply identification (absent, if operator reply not required).

Comments	IEM messages are not included in this publication. They are documented in the publication IBM System/360 Operating System: PL/I (F) Programmer's Guide, GC28-6594. If your installation uses PL/I (F) frequently, you may prefer to have the IEM messages in this publication; the index tab on this page is provided so that you can remove the IEM messages from the Programmer's Guide and insert them here. For routing and descriptor codes of IEM messages, see Table 9 in Part V of this publication: "Routing and Descriptor Codes."
Associated Publications	IBM System/360 Operating System: PL/I (F) Programmer's Guide, GC28-6594

IEM

Component Name	IEP
Program Producing Message	COBOL E compiler and COBOL E debug packet.
Audience and Where Produced	For programmer: SYSPRINT data set and console. For operator: console.

Message Format	yyy-w IEPnnnIx clause text (in SYSPRINT)
	xx IEPnnns text (on console)
	IEPnnnI sentence1. sentence2.
	
	yyy-w
	    Line number and element position of verb where error was detected. If element cannot be located, only line number appears. If SEQUENCE NUMBER 0-0 is printed, message refers to an entire section.
	nnn
	    Message serial number.
	x
	    Severity code indicating effect of error on execution of program being compiled:
	
	    W Warning message; successful execution is probable.
	    C Conditional message; erroneous statement was not compiled or corrective action was taken; compilation was continued to permit debugging; execution may fail.
	    E Error message; successful execution is improbable; execution should not be attempted.
	clause
	    Clause being processed when message produced, or basic area involved, such as ALIGNMENT, I/O CONTROL.
	text
	    Message text.
	xx
	    Message reply identification (absent, if operator reply not required).
	s
	    Type code:
	
	    A Action; operator must perform a specific action.
	    D Decision; operator must choose an alternative.
	    I Information; no operator action is required.
	sentence1.
	    Message text describing the error.
	sentence2.
	    Message text describing action as a result of the error.

Comments	IEP messages are not included in this publication. They are documented in the publication IBM System/360 Operating System: COBOL E Programmer's Guide, GC24-5029. If your installation uses COBOL E frequently, you may prefer to have the IEP messages in this publication; the index tab on this page is provided so that you can remove the IEP messages from the Programmer's Guide and insert them here. For routing and descriptor codes of IEP messages, see Table 10 in Part V of this publication: "Routing and Descriptor Codes."

Associated Publications	IBM System/360 Operating System:
	    COBOL E Programmer's Guide, GC24-5029
	    COBOL Language, GC28-6516

IEP

Component Name	IER
Program Producing Message	Sort/merge program.
Audience and Where Produced	For programmer: SYSPRINT data set or console (system generation option).
Message Format	IERnnns - text nnn 　　Message serial number. s 　　Severity code: 　　A Error message; programmer action is required. 　　I Information message; no programmer action is required. text 　　Message text.
Comments	IER messages are not included in this publication. They are documented in the publication <u>IBM System/360 Operating System: Sort/Merge</u>, GC28-6543. If your installation uses Sort/Merge frequently, you may prefer to have the IER messages in this publication; the index tab on this page is provided so that you can remove the IER messages from the Sort/Merge publication and insert them here. For routing and descriptor codes of IER messages, see Table 11 in Part V of this publication: "Routing and Descriptor Codes."
Associated Publications	<u>IBM System/360 Operating System: Sort/Merge</u>, GC28-6543

Report Program Generator (RPG) Messages (IES)

Component Name	IES
Program Producing Message	Report program generator (RPG).
Audience and Where Produced	For programmer: SYSPRINT data set.

Message Format	IESnnnI text
	
	nnn
	    Message serial number.
	text
	    Message text.

Comments	IES messages are not included in this publication. They are documented in the publication IBM System/360 Operating System: RPG Language Specifications, GC24-3337. If your installation uses RPG frequently, you may prefer to have the IES messages in this publication; the index tab on this page is provided so that you can remove the IES messages from the RPG publication and insert them here.
Associated Publications	IBM System/360 Operating System: RPG Language Specifications, GC24-3337

Component Name	IEU
Program Producing Message	Assembler F program during assembly of assembler instructions.
Audience and Where Produced	For programmer: assembler listing in SYSPRINT data set. For operator: console.

Message Format	***IEUnnn text (in SYSPRINT)
	IEUnnnItext (on console)
	nnn
	    Message serial number.
	text
	    Message text.

Comments	IEU messages are not included in this publication. They are documented in the publication IBM System/360 Operating System: Assembler (F) Programmer's Guide, GC26-3756. If your installation uses Assembler (F) frequently, you may prefer to have the IEU messages in this publication; the index tab on this page is provided so that you can remove the IEU messages from the Programmer's Guide and insert them here. For routing and descriptor codes of IEU messages, see Table 12 in Part V of this publication: "Routing and Descriptor Codes."

Associated Publications	IBM System/360 Operating System:
	    Assembler (F) Programmer's Guide, GC26-3756
	    Assembler Language, GC28-6514

Component Name	IEW
Program Producing Message	Loader program and linkage editor F program.
Audience and Where Produced	For programmer: diagnostic output listing in SYSPRINT data set.

Message Format	IEWnnns xxx - text
	
	nnn
	    Message serial number, which is coded to indicate the program:
	
	    0nn Linkage editor program
	    1nn Loader program
	s
	    Severity code (linkage editor program):
	
	    0 Informational message; appears when control statement is printed as result of LIST option.
	    1 Warning message; condition may cause error during execution of output module; output module is marked executable.
	    2 Error message; condition may make execution of output module impossible; output module is marked not executable, unless LET option was specified; module processing is continued.
	    3 Error message; condition will make execution of output module impossible; output module is marked not executable; module processing is continued.
	    4 Error message; no recovery from error condition is possible; output module is not produced; module processing is terminated; only output is diagnostic messages.
	
	    Code (loader program severity code):
	
	    0 Condition that will not cause an error during execution of the loaded module.
	    1 Condition that may cause an error during execution of the loaded module.
	    2 Error that could make execution of the loaded module impossible. Processing continues.
	    3 Error that will make execution of the loaded module impossible. Processing continues.
	    4 Error condition from which no recovery is possible. Processing continues.
	    I Information: No operator is required.
	xxx
	    WARNING or ERROR to indicate nature of message.
	text
	    Message text.

Comments	None.
Associated Publications	IBM System/360 Operating System: Linkage Editor and Loader, GC28-6538
Problem Determination	Refer to the fold-out in part VI of this publication for problem determination instructions.

Linkage Editor Program Messages

IEW0000 (control statement)

    Explanation: The control statement is printed as a result of the LIST option.

IEW0012 ERROR - INPUT CONTAINS INVALID TWO-BYTE RELOCATABLE ADDRESS CONSTANT, CONSTANT HAS NOT BEEN RELOCATED.

Explanation: A relocatable A-type or V-type address constant of less than three bytes has been found in the input.

System Action: The constant is not relocated.

Programmer Response: Probable user error. Check assembler language input for Y-type address constants, which cannot be relocated. Delete or correct the invalid address constant.

Problem Determination: Table I, items 6bf, 9a, 13, 29. Save the object module input.

IEW0022 ERROR - INPUT CONTAINS INVALID V-TYPE ADDRESS CONSTANT, CONSTANT HAS NOT BEEN RELOCATED.

Explanation: A V-type address constant of less than four bytes has been found in the overlay structure.

System action: The constant is not relocated.

Programmer Response: Probable user error. Either (1) specify a length of four bytes for all V-type address constants; or (2) if a 3-byte V-type address constant refers to a symbol within its overlay segment, you can assemble it as an A-type address constant with an EXTRN statement. One method of isolating an invalid address constant is (1) linkage edit with OVLY and XREF options specified; (2) link edit again without the OVLY option; (3) compare the external reference lists. Any reference appearing in the second run and not the first is invalid in an overlay structure.

Problem Determination: Table I, items 6bf, 22, 23, 29. Have the output used to isolate the address constant available.

IEW0033 ERROR - INVALID ENTRY POINT FROM END CARD, NO ENTRY POINT ASSIGNED.

Explanation: The entry point for the program was specified as a relative address in an END card. The entry point that was specified appeared to be valid when the END card was processed, however, the entry point was found to be invalid when the entry point of the load module was being determined.

System Action: No entry point is assigned.

Programmer Response: Check object module input for completeness. Then either specify an entry point name on the ENTRY control statement, or, if entry points were specified at compilation or assembly, make sure the object module containing the desired entry point precedes all other object modules with assembled or compiled entry points.

Problem Determination: Table I, items 6bf, 9a, 13, 29. Save the object module input.

IEW0043 ERROR - INPUT CONTAINS INVALID EXTERNAL SYMBOL ID.

Explanation: An ESD card is probably mispunched.

System Action: The invalid item is ignored.

Programmer Response: Probable user error. Check the input object modules for

completeness and proper sequence. If necessary, either (1) recreate any module which has been in card form, or (2) isolate the incorrect module by executing the linkage editor with the NCAL option specified, using the NAME control statement for each input module. Diagnostic IEW0043 should recur and isolate the incorrect module. Recreate the module and rerun the step.

Problem Determination: Table I, items 6bf, 9ab, 29. Have available the output used to isolate the module as described above.

IEW0053 ERROR - ENTRY STATEMENT SYMBOL PRINTED IS INVALID (NOT AN EXTERNAL NAME), NO ENTRY POINT ASSIGNED.

Explanation: The symbolic entry point specified in an ENTRY statement is not a control section or entry name.

System Action: No entry point is assigned.

Programmer Response: Probable user error. Correct the ENTRY control statement, or make sure that the control section containing the entry point is included in the input and has not been accidentally deleted or redefined by a REPLACE or CHANGE control statement.

Problem Determination: Table I, items 6bf, 9a, 13, 29. Save the object module input.

IEW0063 ERROR - END CARD SYMBOL PRINTED IS INVALID (NOT AN EXTERNAL NAME), NO ENTRY POINT ASSIGNED.

Explanation: The symbolic entry point specified in an END statement is not a control section or entry name.

System Action: No entry point is assigned.

Programmer Response: Check that the entry point control section or entry name has not been accidentally deleted or redefined by a REPLACE or CHANGE control statement. Check the module containing the entry point for completeness.

Problem Determination: Table I, items 6bf, 9a, 13, 29. Save the object module input.

IEW0073 ERROR - ENTRY STATEMENT SYMBOL PRINTED IS NOT IN ROOT SEGMENT OF OVERLAY STRUCTURE, NO ENTRY POINT ASSIGNED.

Explanation: The entry point specified by the programmer is in a segment other than the root segment. Either, (1) the module containing the entry point was placed in a segment other than the root segment by means of the INSERT statement, or (2) the entry point was incorrectly specified on the ENTRY statement.

System Action: No entry point is
assigned.

Programmer Response: Probable user error.
Either correct the ENTRY control
statement, or move the module containing
the entry point to the root segment.

Problem Determination: Table I, items
6bf, 9a, 13, 29. Save the object module
input.

IEW0083 ERROR - END CARD SYMBOL PRINTED IS NOT IN
ROOT SEGMENT OF OVERLAY STRUCTURE, NO
ENTRY POINT ASSIGNED.

Explanation: The entry point is in a
segment other than the root segment.
Either, (1) the INSERT statement was used
to place the control section containing
the entry point in another segment, or (2)
the symbol specified on the END statement
was incorrect.

System Action: No entry point is
assigned.

Programmer Response: Probable user error.
Move the object module containing the
entry point to the root segment, or
specify an entry point in the root segment
using the ENTRY control statement.

Problem Determination: Table I, items
6bf, 9a, 13, 29. Save the object module
input.

IEW0093 ERROR - END CARD ENTRY POINT ADDRESS
PRINTED IS NOT IN ROOT SEGMENT OF OVERLAY
STRUCTURE, NO ENTRY POINT ASSIGNED.

Explanation: The entry point is in a
segment other than the root segment.
Either, (1) the INSERT statement was used
to place the control section containing
the entry point in another segment, or (2)
the address specified on the END statement
was incorrect.

System Action: No entry point is
assigned.

Programmer Response: Probable user error.
Move the object module containing the
entry point to the root segment, or
specify an entry point in the root segment
using the ENTRY control statement.

Problem Determination: Table I, items
6bf, 9a, 13, 29. Save the object module
input.

IEW0102 ERROR - INVALID ENTRY POINT ON END CARD,
ENTRY POINT IGNORED.

Explanation: A possible entry point for
the program was specified as a relative
address in an END card. When the END card
was processed, the control section
identification of the specified entry
point was found to be invalid.

System Action: The entry point is
ignored. The first valid entry point
encountered is used; if there is none, no
entry point is assigned.

Programmer Response: Probable user error.
Check the input object modules for
completeness and proper sequence. If
necessary, either (1) recreate any module
which has been in card form, or (2)
isolate the incorrect module by executing
the linkage editor with the NCAL option
specified, using the NAME control
statement for each input object module.
Diagnostic IEW0102 should recur and
isolate the incorrect module. Recreate
the module and rerun the step.

Problem Determination: Table I, items 3,
6bf, 9a, 13, 29. Have available the
output used to isolate the module.

IEW0113 ERROR - OUTPUT MODULE CONTAINS NO CONTROL
SECTIONS IN ROOT SEGMENT OF OVERLAY
STRUCTURE, NO ENTRY POINT ASSIGNED.

Explanation: There are no control
sections in the root segment. Either (1)
all control sections originally in the
root segment have been deleted, or (2)
there were no control sections originally
in the root segment, or (3) an OVERLAY
statement preceded the input.

System Action: No entry point is
assigned.

Programmer Response: Probable user error.
Place at least one control section in the
root segment.

Problem Determination: Table I, items
6bf, 9b, 29. Save a root segment module
and its associated listings.

IEW0123 ERROR - NO ESD ENTRIES, EXECUTION
IMPOSSIBLE.

Explanation: There are no external symbol
dictionary entries. There are no control
sections in the output.

System Action: Processing is terminated.

Programming Response: Probable user
error. Check other messages issued for
cause of error such as invalid input from
object module. Ensure that at least one
control section appears in the input and
is not deleted by the REPLACE control
statement.

Problem Determination: Table I, items 1,
3, 6bf, 9a, 13, 22, 23, 29.

IEW0132 ERROR - SYMBOL PRINTED IS AN UNRESOLVED
EXTERNAL REFERENCE.

Explanation: An external reference is
unresolved at the end of input processing.
None of the following is specified:
restricted no-call, never-call, or NCAL.

System Action: The module is marked not
executable unless LET is specified.

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Programmer Response: Probable user error. Check that the reference is valid and not the result of a keypunch or programming error. If the reference is valid, add the needed module or alias to one of the input data sets. Make sure the SYSLIB data set DD statement has been specified, if needed. If resolution is not desired, specify NCAL, never-call, or restricted no-call. If the reference was found in a control section replaced by a control section not containing the same reference, delete the reference, or specify NCAL, never-call, or restricted no-call.

Problem Determination: Table I, items 1, 6bf, 9b, 13, 22, 23, 25c, 29.

IEW0143 ERROR - NO TEXT.

Explanation: No text remains in the output module. Either, (1) all the control sections originally in the input are deleted, or (2) there are no control sections that originally contained text.

System Action: Processing is terminated.

Programmer Response: Probable user error. Check other messages issued for cause of error such as invalid input from object module. Ensure that at least one control section contains text and is not deleted by the REPLACE control statement or by automatic replacement.

Problem Determination: Table I, items 1, 6bf, 9ab, 13, 29. Save a module containing text.

IEW0152 ERROR - INVALID OVERLAY STRUCTURE, NO CALLS OR BRANCHES MADE FROM ROOT SEGMENT.

Explanation: There are no calls or branches from the root segment to a segment lower in the tree structure. Other segments cannot be loaded.

System Action: The module is marked not executable unless LET is specified.

Programmer Response: Probable user error. Make sure the root segment contains a control section that refers to at least one other segment in the overlay structure by means of a V-type address constant.

Problem Determination: Table I, items 1, 6bf, 9b, 13, 29. Have a root segment module which calls another segment available with its associated listing.

IEW0161 WARNING - EXCLUSIVE CALL FROM SEGMENT NUMBER PRINTED TO SYMBOL PRINTED -- XCAL WAS SPECIFIED.

Explanation: There is a valid exclusive branch-type reference; the XCAL option is specified for this job step.

System Action: Processing continues.

Programmer Response: No response is necessary normally. Ensure that the printed branch-type references between exclusive segments are correct according to the overlay structure.

Problem Determination: If you suspect that the message fails to appear when it should or appears incorrectly, see Table I, items 6bf, 9b, 29. Have modules that contain the calls and symbol available with associated source listings.

IEW0172 ERROR - EXCLUSIVE CALL FROM SEGMENT NUMBER PRINTED TO SYMBOL PRINTED.

Explanation: A valid branch-type reference is made from a segment to an exclusive segment; the XCAL option is not specified.

System Action: The module is marked not executable unless the LET option is specified.

Programmer Response: Probable user error. Either (1) rearrange the overlay structure to place both segments in the same path or (2) specify the XCAL option.

Problem Determination: Table I, items 6bf, 9b, 13, 29. Have the modules containing the symbol and the calls to it available with associated listings.

IEW0182 ERROR - INVALID EXCLUSIVE CALL FROM SEGMENT NUMBER PRINTED TO SYMBOL PRINTED.

Explanation: There is an invalid exclusive branch-type reference from a segment to a symbol in an exclusive segment.

System Action: The module is marked not executable unless the LET option is specified.

Programmer Response: Probable user error. Either, (1) place the segments in the same path, or (2) place a V-type address constant in a common segment.

Problem Determination: Table I, items 6bf, 9b, 13, 29. Have the modules containing the symbol and the calls to it available with associated listings.

IEW0191 WARNING - MAIN STORAGE REQUIREMENTS FOR OUTPUT LOAD MODULE HAVE EXCEEDED 512K BYTES.

Explanation: With MFT, a request block (RB) will not accommodate an address greater than 524,287.

System Action: Processing continues. The output load module will run only under MVT.

Programmer Response: Probable user error. If the program is to be run under MFT, divide the load module into several load modules that are dynamically loaded by assembler language macro instructions.

Problem Determination: Table I, items 6bf, 13, 29.

IEW0201 WARNING - OVERLAY STRUCTURE CONTAINS ONLY
ONE SEGMENT -- OVERLAY OPTION CANCELLED.

Explanation: There are no OVERLAY
statements in the input.

System Action: The overlay option is
canceled.

Programmer Response: Probable user error.
Either place OVERLAY statements in the
input, or remove the OVLY option from the
EXEC statement.

Problem Determination: Table I, items 1,
3, 6bf, 9b, 13, 29.

IEW0212 ERROR - EXPECTED CONTINUATION CARD NOT
FOUND.

Explanation: A linkage editor control
statement specifying a continuation
(nonblank in column 72) is not followed by
a continuation card.

System Action: The card is not processed
as a continuation, but as normal input.

Programmer Response: Probable user error.
Either remove the nonblank character in
column 72 or insert the necessary
continuation record.

Problem Determination: Table I, items
6bf, 13, 29.

IEW0222 ERROR - CARD PRINTED CONTAINS INVALID
INPUT FROM OBJECT MODULE.

Explanation: A control statement may have
been placed within an object module, a
record that is not an object module record
contains a non-blank character in column
1, or an invalid (probably mispunched) RLD
record was encountered in an object
module.

System Action: The questionable record is
ignored and processing continues.

Programmer Response: Probable user error.
Check object module input for invalid
records. Column 1 should contain a 12-2-9
punch. Columns 2-4 should contain a TXT,
RLD, ESD, END, or SYM identifier. Because
any record with a non-blank punch is taken
as an object module record, this error
message can also occur when a control
statement is erroneously begun in column
1. Remove incorrect records or recreate
the module, and rerun the job.

Problem Determination: Table I, items
6bf, 22, 29.

IEW0233 ERROR - INPUT FROM LOAD MODULE IS INVALID

Explanation: In order of probability, one
of the following has occurred:
1 A text record was encountered in an
   input load module that was larger than
   the load module buffer.
2 A CSECT identification record (IDR) was
   encountered in an input load module.
   (Applicable only if a version of the

linkage editor earlier than Release 21
of the operating system is being used.)
3 The member being read does not contain
   a valid load module.

System Action: The erroneous record is
ignored and processing continues. The
output load module is marked not
executable.

Programmer Response: In case 1, specify
value 2 of the SIZE parameter as a number
equal to or greater than the size of the
largest text record in any input load
module; value 2 must also be equal to or
greater than one-half the value 2
specified in the link editing of any input
load module. Rerun the job step.

In case 2, obtain a later version of the
linkage editor that supports IDRs and
rerun the job step.

In case 3, do the following:
• Check that all input data sets are
  specified correctly on the DD
  statements.
• If the load module input occurs in the
  primary input, rerun the job step with
  the NCAL option specified; if this
  message recurs, the incorrect load
  module is in primary input; otherwise,
  it is in SYSLIB input.
• Isolate the incorrect load module by
  executing the linkage editor with the
  INCLUDE and NAME statements for each
  suspect load module. When the incorrect
  load module is isolated, recreate it and
  rerun the job step.

Problem Determination: Table I, items
6bf, 13, 29. If an incorrect load module
was created, execute the IMBLIST service
aid program, using the OUTPUT=MODLIST
option of the LISTLOAD function, and save
the output.

IEW0241 WARNING - EXTERNAL SYMBOL PRINTED IS
DOUBLY DEFINED -- ESD TYPE DEFINITIONS
CONFLICT.

Explanation: Two identical external names
have been found in the input. (1) The
invalid match involves a label reference
(LR) or label definition (LD) matching an
existing section definition (SD), common
(CM), or label reference (LR). The
section definition for the input LR or LD
must be marked delete in order for this
not to be an error. (2) It is always
invalid for a CM to match an existing LR.

System Action: References to the name are
resolved with respect to the first
occurrence of the name.

Programmer Response: Probable user error.
Correct the existing symbol conflict. To
isolate the problem, load module symbols
can be printed using the LISTLOAD function
of the IMBLIST service aid program,
specifying the OUTPUT=XREF option. Object
module symbols can be printed using the
LISTOBJ function of the IMBLIST service
aid program.

Problem Determination: Table I, items 6bf, 14, 22, 29.

IEW0254 ERROR - TABLE OVERFLOW -- TOO MANY EXTERNAL SYMBOLS IN ESD.

Explanation: There are too many external symbols or control statement operands in the problem program.

System Action: Processing is terminated.

Programmer Response: Probable user error. Check that no unnecessary modules or control statements are included in the input. Then, either (1) increase the linkage editor's table space by increasing value$_1$ (or decreasing value$_2$) of the SIZE parameter, making sure the region or partition size is also increased, if necessary; or (2) reduce the number of external symbols in the input (control sections, entry points, and named common areas).

Problem Determination: Table I, items 6bf, 29.

IEW0264 ERROR - TABLE OVERFLOW -- INPUT MODULE CONTAINS TOO MANY EXTERNAL SYMBOLS IN ESD.

Explanation: Either, (1) an input module contains too many external symbols in the ESD, or (2) an ESD card is mispunched.

System Action: Processing is terminated.

Programmer Response: Probable user error. Check that input object modules are complete and not mispunched. Then either (1) break down any large input module into a number of smaller modules, or (2) increase the linkage editor's table space by increasing value$_1$ (or decreasing value$_2$) of the SIZE parameter making sure the region or partition size is also increased, if necessary.

Problem Determination: Table I, items 6bf, 9a, 29.

IEW0272 ERROR - LOAD MODULE FROM LIBRARY SPECIFIED UNACCEPTABLE TO LEVEL x.

Explanation: In the message text, x is either E for the level E linkage editor or F for the level F linkage editor.

When the load module was created, it was marked not editable, or, for the level E, the downward compatible attribute was not specified.

System Action: The load module was not accepted as input.

Programmer Response: Probable user error. If the module is unacceptable because it is marked not editable, it must be recreated before it can be input to either linkage editor. If the module is unacceptable because it has not been marked downward-compatible, either

recreate the module or rerun the step using the Level F linkage editor.

Problem Determination: Table I, items 6bf, 29. Execute the IEHLIST utility program, using the LISTPDS function with the FORMAT option, to print out the module's directory entry and show the not-editable and downward-compatible indicators.

IEW0284 ERROR - DDNAME PRINTED CANNOT BE OPENED.

Explanation: The specified data set cannot be opened. The DD statement defining the data set is missing.

System Action: Processing is terminated.

Programmer Response: Probable user error. Either (1) supply the missing DD statement, or (2) correct erroneous information on the DD statement. If the linkage editor was invoked by a macro instruction such as LINK rather than through the EXEC statement, make sure the ddname list, if passed, was correct.

Problem Determination: Table I, items 1, 3, 13, 25b, 29.

IEW0294 ERROR - DDNAME PRINTED HAD SYNCHRONOUS ERROR.

Explanation: Either (1) a physical uncorrectable I/O error occurred, or (2) an object module is missing an END card as the last card, or (3) if the data definition name that was printed is for a DD statement that defines a blocked input data set of fixed format, an input record larger than the specified block size or logical record length was found.

System Action: Processing is terminated. The data definition name in the name field of the DD statement for the input data set was printed after the message code. If an input/output error occurred, the information provided by the SYNADAF macro instruction was printed after the message code in the following format: SYNAD EXIT, jobname, stepname, unit address, device type, ddname, operation attempted, error description, block count or BBCCHHR, access method.

Programmer Response: For any fixed format, specify the correct block size. If the block size was correct and the data set was an input data set, recreate or restore the data set.

Problem Determination: Table I, items 1, 3, 13, 25b, 29.

IEW0302 ERROR - INVALID STATEMENT -- SCAN TERMINATED.

Explanation: Either (1) there was an error on a linkage editor control statement, or (2) an OVERLAY control

statement was encountered and the OVLY
attribute was not specified on the EXEC
statement, or (3) a HIARCHY control
statement was encountered and the HIAR
attribute was not specified on the EXEC
statement.

System Action: A statement in error is
accepted as input up to the point of the
error; the OVERLAY statements are ignored
and the module is not in overlay format.

Programmer Response: Probable user error.
Either (1) correct the error, if
necessary, or (2) specify OVLY on the EXEC
statement, or (3) specify HIAR on the EXEC
statement.

Problem Determination: Table I, items 1,
6bf, 3, 13, 29.

IEW0314 ERROR - MAXIMUM NUMBER OF REGIONS (four)
EXCEEDED.

Explanation: There are five or more
regions specified in this overlay
structure.

System Action: Processing is terminated.

Programmer Response: Probable user error.
Reduce the number of regions in the
overlay structure to four.

Problem Determination: Table I, items
6bf, 29.

IEW0324 ERROR - MAXIMUM NUMBER OF SEGMENTS
EXCEEDED.

Explanation: Either (1) the number of
segments exceeded 256; or (2) the number
of segments, although less than 256, could
not be handled in existing table and
buffer space.

System Action: Processing is terminated.

Programmer Response: Probable user error.
If the number of segments in the overlay
structure exceeded 256, reduce it to 256.
Otherwise, increase linkage editor table
and buffer space by increasing $value_1$ of
the SIZE parameter. Be sure to increase
region or partition size also, if
necessary.

Problem Determination: Table I, items 1,
3, 6bf, 13, 29.

IEW0332 ERROR - MAXIMUM NUMBER OF ALIASES
EXCEEDED, EXCESS IGNORED.

Explanation: More than sixteen aliases
were specified for the output load module.

System Action: The excess aliases are
ignored.

Programmer Response: Probable user error.
Either (1) reduce the number of aliases,
or (2) create a second copy of the module
under a different name with the additional
aliases specified.

Problem Determination: Table I, items 6b,
25b, 29.

IEW0342 ERROR - LIBRARY SPECIFIED DOES NOT CONTAIN
MODULE.

Explanation: The module or alias name
specified on an INCLUDE or LIBRARY control
statement was not found in the specified
library.

System Action: Any references to the
module are not resolved. The output load
module is marked not-executable unless the
LET option has been specified.

Programmer Response: Probable user error.
Correct the library or module name on the
DD, INCLUDE or LIBRARY control statement.

Problem Determination: Table I, items 1,
3, 6bf, 13, 25b, 29.

IEW0354 ERROR - TABLE OVERFLOW -- TOO MANY CALLS
BETWEEN CONTROL SECTIONS.

Explanation: There are too many V-type
address constants referring to external
symbols in a program that is being
structured in overlay. The table
recording these V-type address constants
has overflowed.

System Action: Processing is terminated.

Programmer Response: Probable user error.
Either (1) increase the linkage editor's
table space by increasing $value_1$ (or
decreasing $value_2$) of the SIZE parameter,
making sure the region or partition size
is also increased, if necessary; or, (2)
reduce the number of V-type address
constants by combining control sections;
or (3) change V-type address constants
that do not refer across segments to
A-type address constants with EXTRN
statements.

Problem Determination: Table I, items 1,
3, 6bf, 13, 29.

IEW0364 ERROR - TABLE OVERFLOW -- INPUT TEXT
EXCEEDED MAXIMUM OR TOO MANY CHANGES OF
ORIGIN IN INPUT.

Explanation: There are too many
discontinuities in the input addresses of
text or too much text for the linkage
editor to handle in existing table space.

System Action: Processing is terminated.

Programmer Response: Probable user error.
(1) Increase the linkage editor's table
space by increasing $value_1$ (or decreasing
$value_2$) of the SIZE parameter making sure
the region or partition size is also
increased if necessary. If this fails,
(2) increase the linkage editor's buffer
space by increasing both $value^1$ and $value^2$
of the SIZE parameter, making sure the
region or partition size is increased
proportionately; or (3) reduce the number
of ORG statements specified in assembler

language routines; or (4) break down the
step into a number of link edits,
performing only part of the necessary
linkage function in each successive step;
or (5) if the SYSLMOD data set is new
(DISP=NEW), make sure that the block size
is valid.

Problem Determination: Table I, items 1,
3, 6bf, 13, 29.

IEW0374 ERROR - TABLE OVERFLOW -- INPUT CONTAINS
TOO MANY RELOCATABLE ADDRESS CONSTANTS OR
TOO MANY CONTROL SECTIONS CONTAINING SUCH
CONSTANTS.

Explanation: Either (1) there are too
many control sections with relocation
dictionaries, or (2) there are too many
relocatable address constants.

System Action: Processing is terminated.

Programmer Response: Probable user error.
Either (1) increase the linkage editor's
table space by increasing value$_1$ (or
decreasing value$_2$) of the SIZE parameter
making sure the region or partition size
is also increased, if necessary; or (2)
reduce the number of relocatable address
constants in the input. (One method is to
assemble the coding of two or more control
sections into one control section.)

Problem Determination: Table I, items 1,
3, 6bf, 13, 29.

IEW0382 ERROR - TEXT RECORD ID IS INVALID, CARD
IGNORED.

Explanation: The ID of the text record
refers to an invalid external symbol
dictionary entry; i.e., it does not refer
to a section definition entry or a private
code entry. The input deck may be out of
sequence or incomplete.

System Action: The record is ignored.
Processing continues.

Programmer Response: Probable user error.
Check the input object modules for
completeness and proper sequence. If
necessary, either (1) recreate any module
which has been in card form, or (2)
isolate the incorrect module by executing
the linkage editor with the NCAL option
specified, using the NAME control
statement for each input module.
Diagnostic IEW0382 should recur and
isolate the incorrect module. Recreate
the module and rerun the step.

Problem Determination: Table I, items
6bf, 9ab, 13, 29. Have available the
output used to isolate the module as
indicated above.

IEW0394 ERROR - MEMBER NOT STORED IN LIBRARY --
PERMANENT DEVICE ERROR.

Explanation: This is either an
input/output error or no space was
allocated for the library directory.

System Action: Processing is terminated.

Programmer Response: Check the SYSLMOD
data set to make sure it is a partitioned
data set with space allocated for a
directory. If necessary, restore the
library to a different volume, and rerun
the job.

Problem Determination: Table I, items 1,
3, 13, 29. Execute the IEHLIST utility
program, using the LISTVTOC function to
print out the data set control block for
the SYSLMOD data set. Have the output
from a run with the library on a different
volume available.

IEW0404 ERROR - MEMBER NOT STORED IN LIBRARY -- NO
SPACE LEFT IN DIRECTORY.

Explanation: All the directory blocks
allocated when the output data set was
created have been used.

System Action: The member is not stored
in the specified library.

Programmer Response: Probable user error.
Either (1) reprocess, placing the output
module in a new library; when the original
library is used as input, concatenate the
new one with it; or (2) use a utility
program to copy the library, allowing for
more directory entries. Edit the member
into the new library.

Problem Determination: Table I, items 1,
3, 6b, 13, 29. Execute the IEHLIST
utility program, using the LISTVTOC and
LISTPDS statements to print out the Data
Set Control Block and directory entries
for the SYSLMOD data set.

IEW0412 ERROR - ALIAS NOT STORED IN LIBRARY -- NO
SPACE LEFT IN DIRECTORY.

Explanation: All directory blocks
allocated when the output data set was
created have been used.

System Action: The ALIAS is not stored in
the specified library; however, the member
can be referred to by the member name.

Programmer Response: Probable user error.
Either (1) reprocess, placing the output
module in a new library; when the original
library is used as input, concatenate the
new one with it, or (2) use a utility
program to copy the entire library (except
the member whose alias was not stored),
and allow for more directory entries.
Edit the member into the new library.

Problem Determination: Table I, items 1,
3, 6b, 13, 29. Execute the IEHLIST
utility program, using the LISTVTOC and
LISTPDS statements to print out the Data
Set Control Block and directory entries
for the SYSLMOD data set.

IEW0421 WARNING - IDENTICAL NAME IN DIRECTORY,
WILL TRY TO STORE UNDER 'TEMPNAME'.

Explanation: The output module name has
been used previously in the library. The
replace function is not specified.

System Action: An attempt is made to
store the output module into the library
under the name TEMPNAME.

Programmer Response: Probable user error.
Either, (1) reprocess, using a different
name in the SYSLMOD DD statement or NAME
statement, or (2) reprocess, and specify
the replacement function for the name
originally specified in the SYSLMOD DD
statement or the NAME statement.

Problem Determination: Table I, items 1,
3, 6b, 13, 29. Execute the IEHLIST
utility program, using the LISTPDS
statement to print out the directory
entries for the SYSLMOD data set.

IEW0432 ERROR - LIBRARY NAME PRINTED CANNOT BE
OPENED, DD CARD MAY BE MISSING.

Explanation: The DD statement that
defines the library is probably missing.
This message also results when a
sequential data set (encountered in the
processing of an INCLUDE statement) cannot
be opened.

System Action: Processing continues
without input from the specified library.

Programmer Response: Probable user error.
Either supply the missing DD statement, or
correct erroneous information on the DD
statement.

Problem Determination: Table I, items 1,
3, 6b, 13, 29. Execute the IEHLIST
utility program using the LISTVTOC
statement to print out the Data Set
Control Block for the data set that cannot
be opened.

IEW0444 ERROR - TABLE OVERFLOW -- TOO MANY
DOWNWARD CALLS.

Explanation: There are too many V-type
address constants that refer to segments
lower in the tree structure.

System Action: Processing is terminated.

Programmer Response: Probable user error.
Either (1) increase the linkage editor's
table space by increasing value₁ (or
decreasing value₂) of the SIZE parameter,
making sure the region or partition size
is also increased if necessary; or (2) use
an overlay structure with fewer segments.

Problem Determination: Table I, items 1,
3, 6bf, 13, 29.

IEW0454 ERROR - TABLE OVERFLOW -- SEGMENT CONTAINS
TOO MANY DOWNWARD CALLS.

Explanation: One segment in the overlay
structure contains too many V-type address
constants that refer to segments lower in
the tree structure. The maximum is

determined by the size of an output load
module record.

System Action: Processing is terminated.

Programmer Response: Probable user error.
Either (1) increase the size of an output
load module record by specifying SYSLMOD
as a library with a larger blocksize, (2)
incorporate some of the called control
sections in the requesting segment or (3)
divide the requesting segment into two or
more segments.

Problem Determination: Table I, items 1,
3, 6bf, 13, 29.

IEW0461 WARNING - SYMBOL PRINTED IS AN UNRESOLVED
EXTERNAL REFERENCE; NCAL WAS SPECIFIED,
OR THE REFERENCE WAS MARKED FOR
RESTRICTED NO-CALL OR NEVERCALL.

Explanation: The NCAL option, restricted
no-call, or never-call function was
specified for the external reference.

System Action: The automatic library call
mechanism does not attempt to resolve the
external reference.

Programmer Response: No response is
necessary normally. Check that the
reference is valid and not the result of
a keypunch or programming error. If the
reference should be resolved, either (1)
add the needed module to the primary or
included input data sets; (2) remove the
NCAL option, if specified; (3) remove the
LIBRARY statement specifying restricted
no-call or never-call; or (4) if an input
load module contained a never-call
reference, recreate the load module
without specifying never-call.

Problem Determination: Table I, items 1,
3, 6bf, 9, 13, 29. Have available each
object module that contains a call to the
reference, and the associated source
listing.

IEW0472 ERROR - INVALID ALIAS ENTRY POINT IN
OVERLAY STRUCTURE.

Explanation: The specified alias entry
point is not in the root segment.

System Action: The entry point for the
member name is used.

Programmer Response: Probable user error.
Respecify the alias, entry point, or
overlay structure.

Problem Determination: Table I, items
6bf, 9, 29. Have the module containing
the alias entry point and its associated
listing available.

IEW0484 ERROR - TABLE OVERFLOW -- TOO MANY
EXTERNAL SYMBOLS AFFECTED BY RELOCATION.

Explanation: There are too many symbols
being relocated.

System Action: Processing is terminated.

Programmer Response: Probable user error. Either (1) increase the linkage editor's table space by increasing value₁ (or decreasing value₂) of the SIZE parameter making sure the region or partition size is also increased if necessary; or (2) break down the step into a number of link edits, performing only part of the necessary editing function in each successive step.

Problem Determination: Table I, items 1, 3, 6bf, 13, 29.

IEW0492 ERROR - NAME CARD FOUND IN LIBRARY, CARD IGNORED.

Explanation: A NAME statement has been encountered in an included data set or an automatic call library. NAME statements may be placed only in the primary input.

System Action: The record is ignored. Processing continues.

Programmer Response: Remove the NAME statement from the library or sequential data set. Reprocess if the load module is incorrect.

Problem Determination: Table I, items 1, 3, 6bf, 13, 29. Execute the IEBPTPCH utility program to print out all included and automatic call library modules.

IEW0502 ERROR - ALIAS NOT STORED IN LIBRARY -- PERMANENT DEVICE ERROR.

Explanation: The alias could not be stored in the library directory because of an input/output error.

System Action: The load module has already been stored.

Programmer Response: Execution of the module is possible using the member name or aliases already stored. The module can be link edited again with the new alias specified. If message IEW0502 appears again, restore the library to a different volume and rerun.

Problem Determination: Table I, items 1, 3, 6b, 13, 29. Have the output from a run with the library on a different volume available. Execute the IEHLIST utility program, using the LISTVTOC and LISTPDS statements to print out the data set control block and directory entries for the SYSLMOD data set.

IEW0512 ERROR - INCLUDE STATEMENT SYNTAX CONFLICTS WITH RECORD FORMAT OF SPECIFIED DATA SET -- DDNAME PRINTED.

Explanation: The INCLUDE statement syntax conflicts with the characteristics of the data set specified on the DD statement.

System Action: The specified module is ignored.

Programmer Response: Probable user error. Either (1) specify a member name on the INCLUDE or DD statement if the data set is partitioned; or (2) remove all member names from the INCLUDE statement if the data set is not partitioned.

Problem Determination: Table I, items 1, 3, 6b, 13, 29. Execute the IEHLIST utility program using the LISTVTOC statement to print out the data set control block for the specified data set.

IEW0522 ERROR - SPECIFIED DATA SET HAS UNACCEPTABLE RECORD FORMAT --DDNAME PRINTED.

Explanation: The record format of the specified data set is not type U or F and cannot be processed by the linkage editor.

System Action: The data set is not processed.

Programmer Response: Probable user error. Correct the data set specification.

Problem Determination: Table I, items 1, 3, 13, 29. Execute the IEHLIST utility program, using the LISTVTOC statement to print out the data set control block for the rejected data set.

IEW0532 ERROR - BLOCKSIZE OF LIBRARY DATA SET EXCEEDED MAXIMUM -- DDNAME PRINTED.

Explanation: The blocksize of the specified library data set cannot be handled by the linkage editor.

System Action: The data set is not processed.

Programmer Response: Probable user error. Either (1) decrease the blocksize of the data set, or (2) increase value₂ of the SIZE parameter to allow for larger buffers, and increase value₁ accordingly, if necessary.

Problem Determination: Table I, items 1, 3, 13, 29. Execute the IEHLIST utility program, using the LISTVTOC statement to print out the data set control block for the specified data set.

IEW0543 ERROR - IDENTICAL NAME IN DIRECTORY

Explanation: The member name already exists in the directory. An attempt was made to store under TEMPNAME; however, TEMPNAME was also found in the directory.

System Action: The output module is not stored under this member name.

Programmer Response: Probable user error. Either (1) specify a unique member name for the module on the NAME control statement or the SYSLMOD DD statement, or (2) specify the replace function on the NAME statement.

Problem Determination: Table I, items 1, 3, 6b, 13, 29. Execute the IEHLIST utility program, using the LISTPDS statement to print out the directory entries for the SYSLMOD data set.

IEW0552 ERROR - COMMON PRINTED EXCEEDED SIZE OF CONTROL SECTION WITH IDENTICAL NAME

Explanation: A named common area has been encountered which is larger than a control section with the same name.

System Action: The linkage editor uses the length specified for the control section. Processing continues.

Programmer Response: Ensure that no named common area is larger than the control section initializing it. FORTRAN programmers should make sure that any named COMMON in a BLOCK DATA subprogram is at least as large as any named COMMON with the same name in any other FORTRAN program or subprogram with which the BLOCK DATA subprogram is to be link edited. To isolate the problem, run the step with the NCAL option specified. If the error recurs, the long common occurs in the primary data set or an included data set. Otherwise it occurs in a module from the automatic call library. In either case, execute the LISTOBJ function of the IMBLIST service aid program to list all object module symbols, and execute the LISTLOAD function of IMBLIST with the OUTPUT=XREF option to list all load module symbols in the appropriate input data sets. Check the listings for all modules which contain the named common in question and correct the lengths.

Problem Determination: Table I, items 6bf, 14, 29.

IEW0572 ERROR - COMMON PRINTED AND SUBROUTINE HAVE IDENTICAL NAME.

Explanation: This message appears only when the linkage editor is processing an object program originally written in FORTRAN. It is issued when a common defined in the program has the same name as a subprogram.

System Action: Processing continues. The output module is marked not executable unless the LET option is specified.

User Response: Change the name of either the common or the subprogram so that the names are no longer the same. Compile and link edit the program again.

Problem Determination: Table I, items 3, 6bf, 13, 29. Save the linkage editor output listing.

IEW0594 INPUT DATA SET BLKSIZE IS INVALID

Explanation: The blocksize for the primary input data set (SYSLIN) is not an even multiple of the logical record length, or exceeds the allowable maximum.

System Action: Linkage editor processing terminates.

Programmer Response: Probable user error. Determine whether the values specified in the SIZE parameter are sufficient to accomodate the blocking factor of the primary input data set (SYSLIN). Blocking factors are discussed in the "SIZE Option" section of Linkage Editor and Loader, GC28-6538. If the SIZE values are not large enough, increase them and execute the linkage editor step again. In an MVT system, the region for the job step must be large enough to allow the SIZE values specified, as described in "EXEC Statement -- REGION Parameter," in the linkage editor manual. If the region is not large enough, increase the REGION parameter before executing the linkage editor step again.

If the blocking factor is greater than 40 to 1 or is not a multiple of the logical record length, correct the BLKSIZE field, or re-create the data set, or both. Execute the linkage editor step again.

Problem Determination: Table I, items 1, 3, 13, 29. If possible, execute the IEHLIST utility program, using the LISTVTOC statement to print out the Data Set Control Block for the specified data set.

IEW0602 ERROR - INPUT FROM OBJECT MODULE IS INVALID, END CARD MISSING.

Explanation: The END card of an object module being processed by the linkage editor is missing.

System Action: Linkage editor processing continues. The load module produced is marked not executable unless the LET option has been specified.

Programmer Response: If input to the linkage editor was in the form of an object deck, verify that the last card is an END card (END in columns 2, 3, and 4). If the card is not an END card, recompile or reassemble the source program. If input to the linkage editor was not in the form of an object deck, recompile or reassemble the source program with the DECK option specified.

In either case, verify that the last card is an END card. Rerun the linkage editor step using the object deck.

Problem Determination: Table I, items 1, 3, 13, 22, 23, 29. Execute the IMBLIST service aid program, using the LISTOBJ function and save the resulting listing of the questionable object module.

IEW0614 LENGTH NOT SPECIFIED FOR EXTERNAL SYMBOL PRINTED.

Explanation: An object module contained a control section that had a length field containing zero in its external symbol dictionary (ESD) entry, and either (1) the

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control section was not last in the object module or (2) the length was not specified on the END card.

System Action: The module was not processed, and the linkage editor terminated processing.

Programmer Response: Probable user error. Check the input object modules for completeness and proper sequence. If necessary, either (1) recreate any module which has been in card form, or (2) isolate the incorrect module by executing the linkage editor with the NCAL option specified, using the NAME control statement for each input object module. Diagnostic IEW0614 should recur and isolate the incorrect module. Recreate the module and rerun the step.

Problem Determination: Table I, items 3, 6bf, 9, 13, 22, 23, 29.

IEW0630 DDNAME PRINTED HAD SYNCHRONOUS ERROR - XREF ABORTED.

Explanation: A permanent input/output error occurred while attempting to produce a cross-reference table. The output module was successfully edited.

System Action: The information provided by the SYNADAF macro instruction was printed after the message code in the following format: SYNAD EXIT ,jobname, stepname,unit address,device type, ddname,operation attempted,error description,block count or BBCCHHR, access method.

Programmer Response: Rerun the linkage editor step.

Problem Determination: Table I, items 1, 3, 13, 29. Save the output from the SYNADAF macro instruction. If possible, execute the IEHLIST utility program using the LISTVTOC function to print out the data set control block for the data set specified in the SYNAD output.

IEW0661 CONTROL STATEMENT IGNORED

Explanation: A control statement, used to specify functions not available under the IBM System/360 Operating System was found in the input to the linkage editor.

System Action: The statement is ignored. Linkage editor processing continues.

Programmer Response: If the output load module is to be run under an operating system with page alignment and/or control section sequencing, execute the linkage editor step again using the appropriate linkage editor, which includes support for the specified control statements. If the output load module is to be executed under the IBM System/360 Operating System, ignore the message.

Problem Determination: Table I, items 3, 6bf, 13, 29.

IEW0670 THE SPECIFIED IDENTIFY DATA HAS BEEN ADDED TO THE IDR FOR THE CONTROL SECTION NAME PRINTED

Explanation: The linkage editor has added the data specified on the IDENTIFY control statement to the IDR record for the control section indicated.

System Action: Processing continues.

Programmer Response: None. This message is for information only.

IEW0682 ERROR - CONTROL SECTION NAME ON AN IDENTIFY CONTROL STATEMENT IS INCORRECT OR THE STATEMENT IS MISPLACED -- IDENTIFY DATA IGNORED

Explanation: The control section on the IDENTIFY control statement either (1) does not exist in the load module or (2) had not been read in by the linkage editor by the time it encountered the IDENTIFY statement.

System Action: The data specified on the IDENTIFY statement is ignored. Linkage editor processing continues.

Programmer Response: Probable user error. Check the IDENTIFY statement to verify that the control section name has been specified correctly and that the IDENTIFY statement has been placed correctly in the input. Verify that the required control section has been included in the input to the linkage editor step. Correct the input and rerun the linkage editor step.

Problem Determination: Table I, items 1, 3, 6abf, 13, 29.

IEW0694 ERROR - TABLE OVERFLOW - SIZE VALUE SPECIFIED NOT LARGE ENOUGH FOR CSECT IDR INPUT -- LINKAGE EDITOR PROCESSING TERMINATED

Explanation: The space available for CSECT identification records was insufficient for the actual input.

System Action: Linkage editor processing terminates.

Programmer Response: Do the following:
• Rerun the link edit step, increasing the space allocated to the linkage editor by increasing $value_1$ (or decreasing $value_2$) or both, of the SIZE option, making sure that the region or partition size is also increased correspondingly.
• Divide the link edit into two or more smaller link edits.

Problem Determination: Table I, items 1, 6bf, 29.

IEW0704 UNRECOVERABLE ERROR DETECTED IN CSECT IDR
INPUT -- LINKAGE EDITOR PROCESSING
TERMINATED

Explanation: An unrecoverable error was
detected while processing an input module
containing CSECT Identification records
(IDR). The cause of the error was a load
module IDR record that contained an
invalid code in its subtype field (the
third byte of the record).

System Action: Linkage editor processing
terminates.

Programmer Response: Probable user error.
Examine all data sets containing input
load modules. Check all secondary input
sources (either defined by the SYSLIB DD
statement or specified on an INCLUDE
statement). If any user modifications
were made to any record other than text
in any of these modules, recreate any
affected modules from the source or object
level and execute the linkage editor step
again.

Problem Determination: Table I, items 1,
3, 6b, 13, 22, 29. Execute the LISTLOAD
function of the IMBLIST service aid
program specifying the OUTPUT=BOTH option
to list all load modules in the input to
the linkage editor. Execute the IMBLIST
service aid program with the LISTIDR
function to list CSECT IDR records for all
members of the SYS1.LINKLIB data set which
was cataloged on the system at the time of
the error.

IEW0714 ERROR -- MEMBER NOT STORED IN
LIBRARY -- STOW WORKSPACE UNAVAILABLE

Explanation: The conditional GETMAIN
macro instruction issued by the STOW
routine to obtain work space in main
storage was unsuccessful (that is, not
enough contiguous main storage was
available).

System Action: The member is not stored
in the specified library; linkage editor
processing is terminated.

Programmer Response: Rerun the linkage
editor job step. The error may be a
temporary one caused by fragmentation of
main storage. If the problem persists,
check for user-written programs or
user-written SVC (supervisor call)
routines that may be executing
concurrently with the linkage editor and
causing main storage fragmentation, as
would occur when a GETMAIN macro is issued
without a FREEMAIN in an uncontrolled
loop.

Problem Determination: Table I, items 1,
2, 3, 13, 29.

IEW0722 ERROR - INVALID ALIAS NAME

Explanation: An ALIAS name has been
specified that (1) does not begin with an
alphabetic character, $, #, ə, or 12-0
punch or (2) contains a character that is
not alphanumeric, $, #, ə, or 12-0 punch.

System Action: The ALIAS name is ignored.

Programmer Response: Correct the invalid
character(s) in the ALIAS name according
to the rules above and rerun the link
edit job step.

IEW0731 WARNING - ALIAS MATCHES MEMBER NAME -
ALIAS IGNORED

Explanation: An ALIAS name has been
specified that duplicates the member
name of the output load module.

System Action: The ALIAS name is ignored.

Programmer Response: Either (1) delete
the ALIAS name or (2) make the ALIAS
name unique.

IEW0984 ERROR-SPRINT BLOCKSIZE EXCEEDS
MAXIMUM -- LINKEDIT PROCESSING TERMINATED

Explanation: The block size specified for
the SYSPRINT data set cannot be handled by
the linkage editor.

System Action: The data set is not
opened. Linkage editor processing
terminates.

Programmer Response: Probable user error.
Either (1) decrease the block size of the
data set, or (2) increase value$_2$ of the
SIZE option to allow for larger buffers,
and increase value$_1$ accordingly, if
necessary. Increase the region or
partition size correspondingly, if
necessary. Rerun the linkage editor step.

Problem Determination: Table I, items 1,
3, 13, 29. Execute the IEHLIST utility
program, using the LISTVTOC statement to
print out the Data Set Control Block for
the SYSPRINT data set.

IEW0994 ERROR -- SYSPRINT DD CARD MISSING -
LINKAGE EDITOR PROCESSING TERMINATED

Explanation: The SYSPRINT data set cannot
be opened.

System Action: Linkage editor processing
terminates.

Programmer Response: Probable user error.
The SYSPRINT DD statement is probably
missing. Supply the missing SYSPRINT DD
statement, and execute the job step again.

Problem Determination: Table I, items 1,
3, 7a, 9b (SYS1.LINKLIB), 13, 29.

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IEW1001 WARNING-UNRESOLVED EXTERNAL REFERENCE
(NOCALL SPECIFIED)

Explanation: The NCAL, NOCALL, or NORES
option or never-call function was
specified for the external reference.

System Action: The SYSLIB data set is not
searched if the NCAL or NOCALL option has
been specified. The Link Pack Area queue
is not searched if the NORES option has
been specified. Neither the SYSLIB data
set nor the Link Pack Area queue are
searched if the ER is marked 'never-call'
from a previous Linkage Editor run.

Programmer Response: No response is
necessary normally. If the reference
should be resolved, either (1) add the
needed module to the SYSLIN input data
set; (2) remove the NOCALL, NCAL, or NORES
option, if specified; or (3) if an input
load module contained a never-call
reference, recreate the load module
without specifying never-call.

Problem Determination: Table I, items 6a,
9b, 13, 23, 29. Run the failing step
using the linkage editor instead of the
loader and save the resulting output.
Have available each object module that
contains a call to the reference.

IEW1012 ERROR - UNRESOLVED EXTERNAL REFERENCE

> Explanation: The external reference was not found on the SYSLIB defined data set or in the Link Pack Area.
>
> System Action: No attempt is made to execute the module unless the LET option is specified.
>
> Programmmer Response: Probable user error. Make sure that the reference is valid and not the result of a keypunch or programming error. If the reference is valid, add the needed module or alias to either (1) the SYSLIB data set, (2) the link pack area, or (3) the SYSLIN input data set. Make sure the SYSLIB DD statement has been specified if needed.
>
> Problem Determination: Table I, items 1, 3, 6a, 9b, 13, 22, 23, 29. If the needed module is in a SYSLIB or SYSLIN partitioned data set, execute the IEHLIST utility program using the LISTPDS statement to print out the data set directory. Execute the failing job step using the linkage editor instead of the loader and save the resulting output.

IEW1024 ERROR - DDNAME CANNOT BE OPENED.

> Explanation: The SYSLIN data set cannot be opened. The DD statement defining the data set is missing or incorrect.
>
> System Action: Processing terminates. The Loader returns to the caller with a condition code of 16.
>
> Programmer Response: Probable user error. Either (1) supply a missing SYSLIN DD statement, (2) correct erroneous information on the SYSLIN DD statement, or (3) make sure the correct DLNAME has been specified for the SYSLIN data set. If the loader was invoked by a macro instruction such as LINK rather than through the EXEC statement, make sure that the SYSLIN ddname, if passed, is correct.
>
> Problem Determination: Table I, items 1, 29. Either have the output of the SYSGEN of the loader available, or execute the IMASPZAP service aid program with the DUMPT IEWLOADR IEWLDDEF statement and save the resulting dump of the loader default ddnames.

IEW1034 ERROR - DDNAME HAD SYNCHRONOUS ERROR.

> Explanation: A physical uncorrectable input/output error occurred. If it occurred on a blocked data set, the block size may have been specified incorrectly.
>
> System Action: The message supplied by the SYNADAF macro was printed. Processing is terminated.
>
> Programmer Response: For any fixed format, specify the correct block size. If the block size was correct and the data set was an input data set, recreate or restore the data set.

> Problem Determination: Table I, items 1, 29. Execute the failing step using the linkage editor instead of the loader and save the resulting output.

IEW1044 ERROR - UNACCEPTABLE RECORD FORMAT (VARIABLE ON INPUT)

> Explanation: Only object module (FIXED record format) and load module (UNDEFINED record format) data sets are accepted by the loader.
>
> System Action: Processing is terminated. The loader returns to caller with a condition code of 16.
>
> Programmer Response: Probable user error. (1) Make sure that the record format specification is correct. The record format may have been mispunched. (2) Make sure that the correct data set has been specified.
>
> Problem Determination: Table I, items 1, 6a, 29. Execute the IEHLIST utility program using the LISTVTOC statement to print out the data set control blocks for the input data sets, and save the resulting output. Execute the failing step using the linkage editor instead of the loader and save the resulting output.

IEW1053 ERROR - I/O ERROR WHILE SEARCHING LIBRARY DIRECTORY.

> Explanation: A permanent I/O error occurred while attempting a BLDL.
>
> System Action: Automatic library call processing is terminated.
>
> Programmer Response: Ensure that the SYSLIB defined data set is partitioned. If it is, recreate or restore the data set and rerun the job step.
>
> Problem Determination: Table I, items 1, 6a, 25c, 29. Execute the failing step using the linkage editor instead of the loader and save the resulting output.

IEW1072 ERROR - BLKSIZE IS INVALID

> Explanation: In the specified data set, the BLKSIZE was not an integral multiple of LRECL.
>
> System Action: BLKSIZE is rounded up to the next higher multiple of LRECL and processing continues.
>
> Programmer Response: Probable user error. Change BLKSIZE to be an integral multiple of LRECL.
>
> Problem Determination: Table I, items 1, 29. If the data set was an input data set, execute the IEHLIST utility program using the LISTVTOC statement to print out the data set control block, and save the resulting output.

IEW1082 ERROR - INVALID LENGTH SPECIFIED

> Explanation: The length of a control
> section in an object module was not
> specified in either its ESD entry or on
> the END record, and text was received for
> the control section.
>
> System Action: The total length of the
> text received was used.
>
> Programmer Response: Check if an END
> record in any input object module is
> missing or has been replaced. If so,
> recreate the object module and rerun.
>
> Problem Determination: Table I, items 6a,
> 13, 22, 23, 29. Execute the failing step
> using the linkage editor instead of the
> loader and save the resulting output.

IEW1093 ERROR - NO TEXT RECEIVED.

> Explanation: No valid text has been
> received for the loaded module.
>
> System Action: The loader returns to the
> caller with a condition code of 12.
>
> Programmer Response: Probable user error.
> (1) Make sure that the SYSLIN data was
> specified correctly. (2) Check other
> error messages issued for cause of error
> (such as invalid record). Correct the
> error and rerun the job step.
>
> Problem Determination: Table I, items 1,
> 6a, 29. Execute the IMBLIST service aid
> program, using the LISTOBJ function and
> save the resulting listing of the
> questionable input module. Have all
> SYSLIN input available. Execute the
> failing step using the linkage editor
> instead of the loader and save the
> resulting output.

IEW1102 ERROR - DOUBLY DEFINED ESD

> Explanation: Two identical external names
> have been found in the input. (1) The
> invalid match involves a label reference
> (LR) or label defintion (LD) matching an
> existing section definition (SD), common
> (CM), or label reference (LR). The
> section definition for the input LR or LD
> must be marked delete in order for this
> not to be an error. (2) It is always
> invalid for a CM to match an existing LR.
>
> System Action: References to the name are
> resolved with respect to the first
> occurance of the name.
>
> Programmer Response: Probable user error.
> Correct the existing symbol conflict. To
> isolate the problem, execute the LISTOBJ
> function of the IMBLIST service aid
> program to list all object module symbols,
> and execute the LISTLOAD function of
> IMBLIST with the OUTPUT=XREF option to
> list all load module symbols. Object
> module symbols can be printed using the
> IEBPTPCH utility program with the PRINT
> statement.

> Problem Determination: Table I, items 6a,
> 29. Have all object and load module input
> available. Execute the failing step using
> the linkage editor instead of the loader
> and save the resulting output.

IEW1112 ERROR - INVALID 2-BYTE ADCON.

> Explanation: A relocatable A-type or
> V-type address constant of less than three
> bytes has been found in the input.
>
> System Action: The constant is not
> relocated.
>
> Programmer Response: Probable user error.
> Check assembler language input for Y-type
> address constants, which cannot be
> relocated. Delete or correct the invalid
> address constant.
>
> Problem Determination: Table I, items 6a,
> 9a, 29. Have object module input and
> associated listings available. Rerun the
> step using the linkage editor instead of
> the loader, and save the resulting output.

IEW1123 ERROR - INVALID RECORD FROM LOAD MODULE.

> Explanation: An unrecognizable record
> type was found while reading a load
> module.
>
> System Action: The record was ignored and
> processing continues.
>
> Programmer Response: (1) Check that all
> input data sets are specified correctly on
> DD statements. (2) If load module input
> occurs in the SYSLIN data set, rerun the
> step with the NOCALL option specified. If
> error message IEW1123 recurs, the
> incorrect load module is in SYSLIN input.
> Otherwise, it is in SYSLIB input. (3)
> Isolate the incorrect load module by
> executing the linkage editor with the NCAL
> option specified, using the INCLUDE and
> NAME statements for each suspect load
> module. When the incorrect load module is
> isolated, recreate it and rerun the job
> step.
>
> Problem Determination: Table I, items 9b,
> 29. Execute the failing step using the
> linkage editor instead of the loader and
> save the resulting output.

IEW1132 ERROR - INVALID ID RECEIVED.

> Explanation: Input contains an invalid
> external symbol ID.
>
> This error is the result of the following
> conditions:
>
> 1. The SD for an LD does not appear in
>   the input module.
> 2. Text is received before the ESD
>   defining it is received.
> 3. An RLD is received before the ESDs to
>   which it pertains.
> 4. The ID defining the entry point on
>   the END card is not a defined SD, PC,
>   or LR ESD type.

System Action: The invalid item is ignored.

Programmer Response: (1) Check that input object modules are complete and that assembly or compilation errors did not occur when object modules were generated. (2) Rerun the step with the NOCALL option specified. If error message IEW1132 recurs, the incorrect module is in SYSLIN input. Otherwise, it is in SYSLIB input. (3) Isolate the incorrect module by executing the linkage editor with the NCAL option specified, using the INCLUDE and NAME statements for each suspect module. When the incorrect module is isolated, recreate it and rerun the step.

Problem Determination: Table I, items 9b, 29. If an incorrect object module was created, have the module and its associated listing available. Run the failing step using the linkage editor instead of the loader, and save the resulting output.

IEW1141 WARNING - CARD RECEIVED NOT AN OBJECT RECORD.

Explanation: The card read has a blank in column one.

System Action: The card is ignored.

Programmer Response: Probable user error. Check input for a blank card or linkage editor control card. If other errors occur, recreate all object modules which have been in card form.

Problem Determination: Table I, items 1, 3, 6a, 13, 29. Rerun the step using the linkage editor instead of the loader, and save the resulting output.

IEW1152 ERROR - INVALID RECORD FROM OBJECT MODULE.

Explanation: An unrecognizable record type was received while reading an object module.

System Action: The card is ignored.

Programmer Response: Probable user error. Check object module input for invalid records. Column 1 should contain a 12-2-9 punch. Columns 2-4 should contain a TXT, RLD, ESD, END, or SYM identifier. Remove incorrect records or recreate the module, and rerun.

Problem Determination: Table I, items 9a, 29. Have object module input available. Rerun the step using the linkage editor instead of the loader, and save the resulting output.

IEW1161 WARNING - NO ENTRY POINT RECEIVED.

Explanation: No entry point was specified in the parameter field or END card. The END card entry point specification could be incorrect (contain an invalid ID, bad

column alignment, etc). The parameter field specification could also be incorrect.

System Action: The first assigned address is used as the entry point.

Programmer Response: Probable user error. (1) Specify the entry point name in the loader parameter list, EP=. If the entry point occurs in load module input, this parameter must be specified. (2) If the EP= parameter cannot be used, and the entry point occurs in an object module, make sure that the module is included in the SYSLIN or SYSLIB input and that an entry point was specified during compilation or assembly.

Problem Determination: Table I, items 6a, 29. Have the module containing the entry point and its associated listing available. Rerun the step using the linkage editor instead of the loader, and save the resulting output.

IEW1173 ERROR - ENTRY POINT RECEIVED BUT NOT MATCHED.

Explanation: The entry point name specified in the parameter field or on an END card was not matched to an incoming LR, SD, or PC.

System Action: The first assigned address is used as the entry point address.

Programmer Response: Probable user error. (1) Check to see if the EP= parameter was specified correctly. (2) Check to see if the module containing the entry point is included in either the SYSLIN or SYSLIB input. (3) Check other messages issued for the cause of error (such as invalid record).

Problem Determination: Table I, items 6a, 9ab, 29. Rerun the step using the linkage editor instead of the loader, and save the output.

IEW1182 WARNING - NO END CARD RECEIVED.

Explanation: An END card is missing for an input object module.

System Action: Processing continues.

Programmer Response: Probable user error. Check input object modules. The last record of each should have a 12-2-9 punch in column 1 and the END identifier in columns 2-4. If an END record is missing, recreate the module and rerun.

Problem Determination: Table I, items 6a, 9a, 29. Have object module input available. Rerun the step using the linkage editor instead of the loader, and save the resulting output.

IEW1194 ERROR - AVAILABLE STORAGE EXCEEDED

Explanation: The amount of core storage available to the loader is insufficient to allow construction of the required tables and loaded program.

System Action: The loader returns to caller with a completion code of 16.

Programmer Response: Probable user error. (1) Increase the SIZE parameter, or (2) make sure the REGION specification is sufficient, or (3) make sure that sufficient main storage is available to satisfy the SIZE specification.

Problem Determination: Table I, items 1, 6a, 13, 29. Either have the output of the SYSGEN of the loader available or execute the IMASPZAP service aid program with the DUMPT IEWLOADR IEWLDDEF statement, and save the resulting dump of the loader's default SIZE value.

IEW1204 ERROR - TOO MANY EXTERNAL NAMES IN INPUT MODULE.

Explanation: The external symbol ID is too large to fit in the translation table.

System Action: Processing is terminated. The loader returns to the caller with a completion code of 16.

Programmer Response: If the program is large and/or complex, either (1) run the step using the linkage editor, or (2) break down the large program module into a number of smaller routines. If the program is not particularly large or complex, check other messages issued for the cause of error. Object module input may be incomplete or mispunched. Recreate object modules and rerun.

Problem Determination: Table I, items 6a, 9ab, 13, 29.

IEW1214 ERROR - IDENTIFICATION FAILED - DUPLICATE PROGRAM NAME FOUND.

Explanation: When trying to identify the loaded program to the system, the IDENTIFY routine found a duplicate program name in the user's region or partition or in the link pack area.

System Action: Processing is terminated. The loader returns to the caller with a completion code of 16.

Programmer Response: Probable user error. Specify a unique program name using the NAME option or let the loader default the name to **GO. Rerun the job.

Problem Determination: Table I, items 3, 13, 29. Execute the IEBPTPCH utility program to obtain a listing of the SYS1.PARMLIB data set. Save the output.

IEW1224 ERROR - IDENTIFICATION FAILED.

Explanation: The IDENTIFY routine located an error in the parameter list passed to it by the loader. In a MFT environment, the name IEWLOAD may have been used to invoke the loader. In an MVT environment, the appropriate IDENTIFY macro instruction support may not be included in the operating system.

System Action: Processing is terminated. The loader returns to caller with a completion code of 16.

Programmer Response: If IEWLOAD was used to invoke the loader in a MFT environment, specify IEWLOADR instead. Rerun the job.

In an MVT environment, verify that the appropriate IDENTIFY macro instruction support is included in the system. The release level of the IDENTIFY macro instruction should be the same as the release level of the loader.

Problem Determination: Table I, items 3, 13, 29.

IEW1232 ERROR - COMMON EXCEEDS SIZE OF CSECT WITH SAME NAME.

Explanation: A named common area has been encountered which is larger than a control section with the same name.

System Action: The loader uses the length of the control section. Processing continues.

Programmer Response: Ensure that no named common area is larger than the control section initializing it. FORTRAN programmers should make sure that any named COMMON in a BLOCK DATA subprogram is at least as large as any named COMMON with the same name in any other FORTRAN program or subprogram with which the BLOCK DATA subprogram is to be link edited. To isolate the problem, you can run the step with the NCAL option specified. If the error occurs, the long common occurs in the primary data set. Otherwise it occurs in a module from the automatic call library. In either case, execute the LISTOBJ function of the IMBLIST service aid program to list all object and module symbols, and execute the LISTLOAD function of IMBLIST with the OUTPUT=XREF option to list all load module symbols in the appropriate input data sets. Check the listings for all modules which contain the named common in question and correct the lengths.

Problem Determination: Table I, item 9.

IEW1991 ERROR - USER PROGRAM HAS ABNORMALLY TERMINATED

Explanation: This message is issued by the loader when it determines that the loaded program has terminated abnormally. This message occurs only under MVT.

System Action: Loaded program execution is terminated abnormally, and control is returned to the loader. (Unless the user has included a SYSUDUMP DD statement for the loaded program, this message is the only indication that the program has terminated abnormally.)

Operator Response: None.

Programmer Response: To obtain a dump to aid in determining the cause of the abnormal termination, include a SYSUDUMP DD statement for the loaded program and rerun the job.

Problem Determination: Table I, items 3, 13, 29.

Component Name	IEX
Program Producing Message	ALGOL compiler.
Audience and Where Produced	For programmer: SYSPRINT data set. For operator: console.

Message Format	IEXnnnI s nnnnn text
	
	nnn
	    Message serial number.
	s
	    Severity code:
	
	    W Warning; the compiler internally modifies the program being compiled and continues processing; the modification may or may not correct the program, but it allows compilation to continue.
	    S Serious; the compiler attempts to modify the program internally, including skipping or changing parts of it; generation of the object module is stopped, but syntax checking continues.
	    T Compilation is terminated.
	nnnnn
	    Semicolon number, right-adjusted and in decimal; if the error cannot be related directly to a point in the program, nnnnn is blank.
	text
	    Message text.

Comments	IEX messages are not included in this publication. They are documented in the publication IBM System/360 Operating System: ALGOL Programmer's Guide, GC33-4000. If your installation uses ALGOL frequently, you may prefer to have the IEX messages in this publication; the index tab on this page is provided so that you can remove the IEX messages from the Programmer's Guide and insert them here. For routing and descriptor codes of IEX messages, see Table 13 in Part V of this publication: "Routing and Descriptor Codes."

Associated Publications	IBM System/360 Operating System:
	  ALGOL Language, GC28-6615
	  ALGOL Programmer's Guide, GC33-4000

Component Name	IEY
Program Producing Message	FORTRAN IV G compiler
Audience and Where Produced	For programmer: SYSPRINT data set.
Message Format	x) IEYnnnI text x Position of error on card in source program input. nnn Message serial number. text Message text.
Comments	IEY messages are not included in this publication. They are documented in the publication IBM System/360 Operating System: FORTRAN IV (G and H) Programmer's Guide, GC28-6817. If your installation uses FORTRAN IV G frequently, you may prefer to have the IEY messages in this publication: the index tab on this page is provided so that you can remove the IEY messages from the Programmer's Guide and insert them here. For routing and descriptor codes of IEY messages, see Table 14 in Part V of this publication: "Routine and Descriptor Codes."
Associated Publications	IBM System/360 Operating System: FORTRAN IV (G and H) Programmer's Guide, GC28-6817 IBM System/360 FORTRAN IV Language, GC28-6515

```
r--------------------------------T-----------------------------------------------------------------------¬
| Component Name                 | IFA                                                                    |
+--------------------------------+-----------------------------------------------------------------------+
| Program Producing Message      | SMF Dump Program IFASMFDP                                              |
+--------------------------------+-----------------------------------------------------------------------+
| Audience and Where Produced    | For Programmer:  SYSPRINT                                             |
+--------------------------------+-----------------------------------------------------------------------+
| Message Format                 | IFAnnnI text                                                          |
|                                |                                                                       |
|                                | nnn                                                                   |
|                                |      message serial number                                           |
|                                | I                                                                     |
|                                |      Information; no operator action is required.                    |
|                                | text                                                                  |
|                                |      message text                                                    |
+--------------------------------+-----------------------------------------------------------------------+
| Associated Publications        | IBM System/360 Operating System:  System Management Facilities,      |
|                                | GC28-6712                                                             |
+--------------------------------+-----------------------------------------------------------------------+
| Problem Determination          | Refer to the fold-out in part VI of this publication for problem     |
|                                | determination instructions.                                          |
L--------------------------------±-----------------------------------------------------------------------
```

IFA001I DD CARD REQUIRED FOR DUMPIN MISSING

Explanation: The user has failed to provide a DD statement for the data set containing records produced by System Management Facilities.

System Action: The operation is terminated. (Condition code -- 16.)

Programmer Response: Probable user error. Provide a DD statement for the input data set.

IFA003I NO RECORD LENGTH WAS GIVEN FOR DUMPIN

Explanation: Both the logical record length and blocksize for the input data set are zero.

System Action: The operation is terminated. (Condition code -- 16.)

Programmer Response: Probable user error. Make sure the input data set has a DCB parameter specifying blocked, variable length records.

IFA004I OUTPUT BLOCKSIZE IS SMALLER THAN INPUT

Explanation: The blocksize of the input data set is greater than the blocksize of the output data set.

System Action: The operation is terminated. (Condition code -- 16.)

Programmer Response: Make sure the output blocksize is not smaller than the input blocksize.

IFA005I PERMANENT I/O ERROR DIAGNOSIS error description

Explanation: A permanent I/O error has occurred on the dumpin or dumpout data set. The error descriptor portion is error diagnosis produced by the SYNADAF error analysis routine.

System Action: The operation is terminated. (Condition code -- 16.)

Programmer Response: Correct the error condition indicated in the message text.

Problem Determination: Table I, items 1, 13, 23, 29.

IFA006A REQUEST MADE TO DUMP ACTIVE SMF DATA SET - REPLY CANCEL

Explanation: The SMF Dump program is attempting to dump the active SMF data set. This request is invalid and must be cancelled or SMF records will be lost.

System Action: The SMF Dump program enters a wait pending the operator's reply. (Condition code -- 16.)

Operator Response: Enter REPLY xx,'CANCEL' to acknowledge the cancellation of the SMF Dump program. If the wrong SMF data set was specified in the dump program, enter the program to dump the correct data set. To dump the active data set, issue the HALT EOD or SWITCH SMF command from the console. Either command will activate the alternate SMF data set and free the current one for dumping. If the alternate SMF data set is full, it must be dumped prior to issuing the above commands.

Problem Determination: Table I, items 2, 29. Have copies of the SMF Dump procedures and a listing of the program IFASMFDP available.

IFA007I SMF DUMP CANCELLED

Explanation: This message is issued to notify the operator that a program attempting to dump the SMF data set has been cancelled.

System Action: The program IFASMFDP is cancelled.

Operator Response: Enter the SMF Dump program to dump the correct SMF data set.

If a dump of the active SMF data set is desired first issue a HALT EOD or SWITCH SMF command from the console. Either command will activate the alternate SMF data set and free the current one for Dumping via the SMF Dump program IFASMFDP. If the alternate SMF data set is full, it must be dumped prior to issuing the above commands.

Problem Determination: Table I, items 2, 29. Have copies of the SMF Dump procedures and a listing of program IFASMFDP available.

```
+-------------------------------+--------------------------------------------------------------+
| Component Name                | IFB                                                          |
+-------------------------------+--------------------------------------------------------------+
| Program Producing Message     | Input/output environment recording routines OBR and SDR, and system |
|                               | environment recording routines SER0 and SER1.                |
+-------------------------------+--------------------------------------------------------------+
| Audience and Where Produced   | For operator:  console.                                      |
+-------------------------------+--------------------------------------------------------------+
| Message Format                | xx IFBnnns text                                              |
|                               | xx IFBFnns text                                              |
|                               |                                                              |
|                               | xx                                                           |
|                               |     Message reply identification (absent, if operator reply not |
|                               |     required).                                               |
|                               | nnn or nn                                                    |
|                               |     Message serial number.                                   |
|                               | s                                                            |
|                               |     Type code:                                               |
|                               |                                                              |
|                               |     I  Information; no operator action is required.          |
|                               |     S  Stop; hardware error cannot be corrected by retry.    |
|                               |     W  Wait; processing stopped until action is determined and |
|                               |        performed.                                            |
|                               | text                                                         |
|                               |     Message text.                                            |
+-------------------------------+--------------------------------------------------------------+
| Comments                      | The first format of the message is used for I/O routines; the second |
|                               | format is used for the system routines.                      |
+-------------------------------+--------------------------------------------------------------+
| Problem Determination         | Refer to the fold-out in part VI of this publication for problem |
|                               | determination instructions.                                  |
+-------------------------------+--------------------------------------------------------------+
```

IFB

IFB002I CHANNEL DETECTED ERROR ON ddd
         RECORDED,xxxx,op,stat,hh.mm.ss

Explanation: A channel-detected error
occurred during the operation of device
ddd and has been recorded on the
SYS1.LOGREC data set by input/output
environment recording routine OBR. The
message applies to both recovered and
permanent channel-detected errors for
which error records have been created.

Note: The ddd field contains the device
address (CUA). If the device address is
indicated as invalid, it is overlayed with
'XX' and only the channel address is
displayed.

In the message text, the fields are:

xxxx
        error source:
        CU   control unit
        CHAN   channel
        PROC   processor (CPU)
        SCU   storage control unit
        STOR   storage
op
        failing command code
stat
        channel and unit status from command
        status word (CSW)

hh.mm.ss
        time in hours, minutes, and seconds

System Action: None.

Operator Response: Probable hardware
error. Log the error in the operator's
log. If this message is repeated
frequently, execute the IFCEREP0 service
aid to dump the SYS1.LOGREC data set. If
Alternate Path Retry (APR) is included in
the system, consider varying the path
offline. If the system is a Model 65
Multiprocessing system, consider varying
the channel offline.

Problem Determination: Table I, items 2,
14, 30.

IFB010D ENTER 'IPL REASON, SUBSYSTEM ID' OR 'U'

Explanation: This message requests the
operator to provide:
• The reason for the IPL.
• The device or program (subsystem)
  responsible for the IPL restart.
             or
• U - to continue operation with default
  values.

System Action: RDE waits pending the
operator's reply.

Operator Response: Enter a reply in the format REPLY xx,'rr,ss' where xx is the reply ID, rr is the RDE IPL reason code, and ss is the subsystem ID code.

IFB020I INVALID REPLY TO IFB010D

Explanation: The reply to message IFB010D is incorrect.

System Action: Message IFB010D is reissued to allow the operator to reenter his reply.

Operator Response: Either enter the IPL reason code and subsystem ID code in the proper format or reply 'U' to select default values, in response to message IFB010D.

IFB030I SYS1.LOGREC I/O ACCESS ERROR

Explanation: SYS1.LOGREC was accessed for either a read or write operation, and an incorrectable input/output error occurred. This may occur during the updating of SDR external counters.

System Action: For updating of SDR counters the routine will not attempt retry of the access that failed, but will attempt subsequent access requests.

Operator Response: Execute the IFCEREP0 service aid to dump SYS1.LOGREC data set; then execute the IFCDIP00 service aid program.

IFB040I SYS1.LOGREC AREA IS FULL

Explanation: The SYS1.LOGREC data set is full and cannot contain further environment records. At least one record has been lost.

System Action: Processing continues, but further environment records will be lost.

Operator Response: Execute the IFCEREP0 program to dump the SYS1.LOGREC data set.

IFB050I SYS1.LOGREC FORMAT ERROR

Explanation: A format error was detected on the SYS1.LOGREC data set during an attempt to write environment records.

System Action: The system cancels any attempt to write environment records to SYS1.LOGREC.

Operator Response: Run IFCDIP00 to reinitialize the data set.

IFB060E SYS1.LOGREC NEAR FULL

Explanation: The SYS1.LOGREC data set has reached 90% of its capacity for data.

System Action: Processing continues.

Operator Response: Execute the IFCEREP0 service aid to dump the SYS1.LOGREC data set; for continued processing, without the

data set being dumped, may cause the data set to become full. To compile a history of hardware failures, do the following:
• Save the IFCEREP0 output.
• Save the master console listing.

IFBF05W {CPU ERROR / CHAN x ERROR} RELOAD OS/360,hh.mm.ss

Explanation: The system environment recording routine SER0 or SER1 wrote an environment record about a machine malfunction that caused an unrecoverable error. In the first case of the message text, the detected error was localized in the CPU; in the second case, the error was localized in the channel indicated by x.

System Action: The routine attempted to ring the console alarm and then placed the system in wait state.

Operator Response: Probable hardware error. Restart the system.

Problem Determination: Table I, items 2, 18, 30.

IFBF06W {CPU ERROR / CHAN x ERROR} RELOAD OS/360,hh.mm.ss

Explanation: A second-check interruption occurred while the system environment recording routine SER0 or SER1 was writing an environment record about a prior machine malfunction. The record was written. In the first case of the message text, the error was localized in the CPU; in the second case, the error was localized in channel x.

System Action: The routine attempted to ring the console alarm and then placed the system in wait state.

Operator Response: Probable hardware error. Restart the system.

Problem Determination: Table I, items 2, 18, 30.

IFBF07S {CPU ERROR / CHAN x ERROR} EXECUTE SEREP,hh.mm.ss

Explanation: Machine-check interruptions are occurring so frequently that the system environment recording routine SER0 cannot write a meaningful environment record. In the first case of the message text, the error was localized in the CPU; in the second case, the error was localized in channel x.

System Action: The routine attempted to ring the console alarm and then placed the system in wait state.

Operator Response: Probable hardware error. Execute the System Environment Recording, Editing, and Printing (SEREP) program to record the machine environment and restart the system.

Problem Determination: Table I, items 2, 14, 30.

IFBF08S   {CPU ERROR   } EXECUTE SEREP,hh.mm.ss
               {CHAN x ERROR}

        Explanation: System environment recording
        routine SER0 could not write an
        environment record in the SYS1.LOGREC data
        set because of an uncorrectable
        input/output error.   In the first case of
        the message text, the source of the
        machine-check was the CPU; in the second
        case, the source of the machine-check was
        the channel indicated by x.

        System Action: The routine attempted to
        ring the console alarm and then placed the
        system in a wait state.

        Operator Response: Probable hardware
        error.   Execute the System Environment
        Recording, Editing, and Printing (SEREP)
        program to record the machine environment
        and restart the system.

        Problem Determination: Table I, items 2,
        14, 30.

IFBF09S   {CPU ERROR   } EXECUTE SEREP,hh.mm.ss
               {CHAN x ERROR}

        Explanation: System Environment recording
        routine SER0 or SER1 could not write an
        environment record in the SYS1.LOGREC data
        set for one of the following reasons:
        • The SYS1.LOGREC data set is full.
        • An error exists in the header record.

        In the first case of the message text, the
        machine-check occurred in the CPU; in the
        second case, the machine-check occurred in
        the channel indicated by x.

        System Action: The routine attempted to
        ring the console alarm and then placed the
        system in wait state.

        Operator Response: Probable hardware
        error.   Execute the system environment
        record edit and print (SEREP) program to
        record the machine environment and restart
        the system.

        Problem Determination: Table I, items 2,
        12, 14, 30.

IFBF0AS   {- CPU ERROR   } EXECUTE SEREP
               { CHAN x ERROR}

        Explanation: The resident module of
        system environment recording routine SER0
        could not load the nonresident module
        because an uncorrectable input/output
        error occurred in reading the linkage
        library (SYS1.LINKLIB) data set.   In the
        first case of the message text, the
        machine-check occurred in the CPU; in the
        second case, the machine-check occurred in
        channel x.

        System Action: The routine attempted to
        ring the console alarm and then placed the
        system in a wait state.

        Operator Response: Probable hardware
        error.   Execute the System Environment
        Recording, Editing, and Printing (SEREP)

        program to record the machine environment
        and restart the system.

        Problem Determination: Table I, items 2,
        14, 30.

IFBF0BI   CPU ERROR,hh.mm.ss

        Explanation: System environment recording
        routine SER1 wrote an environment record
        about a machine malfunction.

        System Action: The routine terminates the
        current job step in order to continue the
        operating system.

        Operator Response: Probable hardware
        error.   Reschedule terminated job.

        Problem Determination: Table I, items 2,
        18, 30.

IFBF0CI   {CPU ERROR   }   ,LOGREC FULL,hh.mm.ss
               {CHAN x ERROR}

        Explanation: System environment recording
        routine SER1 could not write an
        environment record in the SYS1.LOGREC data
        set because the data set is full.   The
        routine is terminating the current job
        step in order to continue the operating
        system.   In the first case of the message
        text, the detected machine-check occurred
        in the CPU; in the second case, the
        detected machine-check occurred in channel
        x.

        Operator Response: Probable hardware
        error.   Execute the (IFCEREP0) program
        to empty LOGREC and prevent the loss of
        data.

        Problem Determination: Table I, items 2,
        18, 30.

IFBF0DS   {CPU ERROR   } ,EXECUTE SEREP,hh.mm.ss
               {CHAN x ERROR}

        Explanation: System environment recording
        routine SER1 encountered an uncorrectable
        input/output error or a central processing
        unit (CPU) error or both while attempting
        to write an environment record in the
        SYS1.LOGREC data set.   The environment
        record was not written.   In the first case
        of the message text, the machine-check
        occurred in the CPU; in the second case,
        the machine-check occurred in the channel
        indicated by x.

        System Action: The routine attempted to
        ring the console alarm and then placed the
        system in wait state.

        Operator Response: Probable hardware
        error.   Execute the System Environment
        Recording, Editing, and Printing (SEREP)
        program to record the machine environment
        and restart the system.

Problem Determination: Table I, items 2, 14, 30.

IFBFOEI {CPU ERROR   } RECORD LOST,hh.mm.ss
        {CHAN x ERROR }

Explanation: One of the following conditions occurred:
• System environment recording routine SER1 encountered an uncorrectable output error while attempting to write in the SYS1.LOGREC data set.
• SER1 was entered when input/output environment recording routine OBR or SDR was in control.

In the first case of the message text, the machine-check occurred in the CPU; in the second case, the machine-check occurred in the channel indicated by x.

System Action: Processing continues. The environment record is not recorded.

Operator Response: Probable hardware error. Execute the system environment record edit and print (SEREP) program to record the machine environment and restart the system.

Problem Determination: Table I, items 2, 14, 30.

IFBFOFW CPU ERROR. RELOAD OS/360,hh.mm.ss

Explanation: The system environment recording program (MODEL 195 SER1) wrote

an environment record about a machine malfunction. All high speed buffer segments were disabled (see message IFBFOFI).

System Action: The routine attempted to ring the console alarm and place the system in a wait state.

Operator Response: Probable hardware error. Execute the System Environment Recording, Editing, and Printing (SEREP) program to record the machine environment, and restart the system.

Problem Determination: Table I, items 2, 14, 30.

IFBFOFI MACHINE ERROR. BFR SEG x DSBL

Explanation: The system environment recording program (Model 195 SER1) wrote an environment record about a machine malfunction. The program is terminating the current job step in order to continue with system operation. In the message text, x is the number of the high speed buffer segment that has been disabled due to a permanent buffer segment failure. The buffer segment will be enabled again when the system is restarted.

System Action: Processing continues. The current task is abnormally terminated and buffer segment x is disabled.

Operator Response: None.

Service Aids Messages (IFC)

Component Name	IFC
Program Producing Message	Service aids: IFCEREP0, IFCDIP00.
Audience and Where Produced	For programmer (IFCEREP0 program): SYSPRINT data set. For operator (IFCDIP00 program): console.
Message Format	IFCnnnI text (in SYSPRINT) xx IFCnnnI text (on console) nnn 　　Message serial number. text 　　Message text. xx 　　Message reply identification (absent, if operator reply not 　　required).
Comments	None.
Associated Publications	IBM System/360 Operating System: 　　Service Aids, GC28-6719
Problem Determination	Refer to the fold-out in part VI of this publication for problem determination instructions.

IFCDIP00 Program Messages

IFC001I D=ddd N=x F=trck* L=trck* S=recd** DIP
COMPLETE

Explanation: Produced by the IFCDIP00
program during the initialization of the
SYS1.LOGREC data set, this message
describes the limits of the data set.

In the message text, ddd is the device
type containing the SYS1.LOGREC data set;
x is the hexadecimal representation of the
device type code; in F=trck, trck is the
address of the first track of the extent;
in L=trck, trck is the address of the last
track of the extent; and recd is the
starting address of the record entry area
within the data set. One asterisk
indicates that hexadecimal representation
causes 8-character printout, and two
asterisks indicate that hexadecimal
representation causes 10-character
printout.

Operator Response: None.

IFC002I INVALID INPUT

Explanation: In the DD statement, the DD
name is misspelled.

Operator Response: Probable user error.
Correct the DD statement. Then execute
the IFCDIP00 program again.

Problem Determination: Table I, items 2,
29. Execute the IMASPZAP service aid
program to dump the SYS1.LOGREC data set.
Specify DSN=SYS1.LOGREC in the SYSLIB DD
statement, and include an ABSDUMP control
statement, specifying the extents of the
data set, after the SYSIN DD statement.

IFC003I I/O ERRORS IN FORMATTING DISK

Explanation: An uncorrectable
input/output error occurred while the
IFCDIP00 program was formatting the
SYS1.LOGREC data set.

System Action: IFCDIP00 program execution
is terminated.

Operator Response: Execute the IFCDIP00
program again.

Problem Determination: Table I, items 2,
29. Execute the IMASPZAP service aid
program to dump the SYS1.LOGREC data set.
Specify DSN=SYS1.LOGREC in the SYSLIB DD
statement and include an ABSDUMP control
statement, specifying the extents of the
data set, after the SYSIN DD statement.

IFC004I END OF DATA SET BEFORE PROGRAM COMPLETE

    Explanation: During formatting of the
    SYS1.LOGREC data set, the IFCDIP00 program
    found that the data set is not large
    enough for the parameters specified in the
    EXEC statement.

    Probably, the number of tracks previously
    allocated to the SYS1.LOGREC data set is
    too small for the number of uniquely
    addressable input/output devices specified
    in the EXEC statement.

    Operator Response: Probable user error.
    Correct the EXEC or DD statement. (See
    message IFC001I for correct values for the
    EXEC statement parameters.) Then execute
    the IFCDIP00 program again.

    Problem Determination: Table I, items 2,
    29. Execute the IMASPZAP service aid
    program to dump the SYS1.LOGREC data set.
    Specify DSN=SYS1.LOGREC in the SYSLIB DD
    statement, and include an ABSDUMP control
    statement, specifiying the extents of the
    data set, after the SYSIN DD statement.

IFCEREP0 Program Messages

IFC005I I/O ERROR ON OUTPUT DEVICE

    Explanation: A permanent error has
    occurred on the output device.

    System Action: The program is terminated.
    (No return code is provided.)

    Operator Response: Execute the job again.

    Problem Determination: Table I, items 2,
    29.

IFC006I HEADER RECORD INCORRECT

    Explanation: A validity check of the
    SYS1.LOGREC data set has uncovered an
    error in the header record.

    System Action: If possible, the IFCEREP0
    program resumes processing. The program
    does not clear selected records to zeros
    in the SYS1.LOGREC data set. If the
    program is unable to resume processing, it
    is terminated. (No return code is
    provided.)

    Operator Response: Execute the IFCDIP00
    program to initialize the SYS1.LOGREC data
    set. Execute the IFCEREP0 program again.

    Problem Determination: Table I, items 2,
    29. Execute the IMASPZAP service aid
    program to dump the SYS1.LOGREC data set.
    Specify DSN=SYS1.LOGREC on the SYSLIB DD
    statement after the SYSIN DD statement.

IFC007I END OF DATA SET BEFORE PROGRAM COMPLETE

    Explanation: The IFCEREP0 program
    referred to a disk address that was not
    within the SYS1.LOGREC data set.

System Action: The program is terminated.
(No return code is provided.)

    Programmer Response: Execute the IFCDIP00
    program to initialize the SYS1.LOGREC data
    set. Execute the IFCEREP0 program again.

    Problem Determination: Table I, items 2,
    29. Execute the IMASPZAP service aid
    program to dump the SYS1.LOGREC DATA SET.
    Specify DSN=SYS1.LOGREC on the SYSLIB DD
    statement and include an ABSDUMP control
    statement, specifying the extents of the
    data set, after the SYSIN DD statement.

IFC008I READ DISK FAILURE

    Explanation: An uncorrectable
    input/output failure has occurred while
    reading a record from the SYS1.LOGREC data
    set. If the record is the header record,
    message IFC006I is also printed.

    System Action: The record that was being
    read when the failure occurred is skipped.
    The program attempts to resume processing
    with the next record.

    Operator Response: Execute the IFCDIP00
    program. Execute the IFCEREP0 program
    again.

    Problem Determination: Table I, items 29.
    Execute the IMASPZAP service aid program
    to dump the SYS1.LOGREC data set. Specify
    DSN=SYS1.LOGREC in the SYSLIB DD statement
    and include an ABSDUMP control statement,
    specifying the extents of the data set,
    the after SYSIN DD statement.

IFC009I WRITE DISK FAILURE

    Explanation: An uncorrectable
    input/output failure has occurred while
    the program was attempting to clear a
    record to zeros.

    System Action: IFCEREP0 continues
    processing further records without
    clearing them to zero.

    Operator Response: Execute the IFCDIP00
    program. Execute the IFCEREP0 program
    again.

    Problem Determination: Execute the
    IMASPZAP service program to dump the
    SYS1.LOGREC data set. Specify
    DSN=SYS1.LOGREC on the SYSLIB DD statement
    and include an ABSDUMP control statement,
    specifying the extents of the data set,
    after the SYSIN DD statement.

IFC00AI PARAMETER FIELD ERROR

    Explanation: The PARM parameter in the
    EXEC statement was specified incorrectly.

    System Action: The program is terminated.
    (No return code is provided.)

    Operator Response: Probable user error.
    Correct the PARM parameter and execute the
    job again.

Problem Determination: Table I, items 2, 4, 29.

IFC00BI STAT RECORD KEY DIFFERS FROM THE EXPECTED -- EXPCD xxx REC xxx

Explanation: A statistical count record is out of sequence. The message identifies the expected record (EXPCD xxx) and the received record (REC xxx).

System Action: Processing continues.

Operator Response: None.

Problem Determination: Table I, items 2, 29. Execute the IMASPZAP service aid program to dump the SYS1.LOGREC data set. Specify DSN=SYS1.LOGREC in the SYSLIB DD statement and include an ABSDUMP control statement, specifying the extents of the data set, after the SYSIN DD statement.

IFC00CI INPUT NOT ACCUMULATIVE DATA SET

Explanation: The input data set is specified as being a history data set; however, it is not a history data set.

System Action: The job step is terminated.

Operator Response: Mount the correct volume and rerun the job step.

IFC00DI ACCUMULATION OUTPUT TERMINATED - ERROR

Explanation: An unrecoverable write error occurred while writing into an accumulated data set.

System Action: No additional accumulation is performed. The job step is terminated unless an additional function or functions (such as, summarization or full record printing) are specified.

Operator Response: None.

Problem Determination: Table I, items 2, 4, 29.

IFC00EI JOB TERMINATED DUE TO INPUT ERRORS

Explanation: Unrecoverable I/O errors occurred while reading an input history data set. This message is generated when at least 40 records have been read and the number of input errors exceeds 12.5% of the total number of records read.

System Action: The job step is terminated.

Operator Response: None.

Problem Determination: Table I, items 2, 4, 29.

IFC00FI ddname DD STATEMENT INCORRECT STEP TERM

Explanation: The named DD statement is coded incorrectly or is missing from the input stream.

System Action: The job step is terminated.

Operator Response: Probable user error. Correct the invalid DD statement or insert the missing statement. Execute the job step again.

Problem Determination: Table I, items 2, 4, 29.

IFC010I ddname FAILED TO OPEN

Explanation: The DD statement whose ddname is specified in the message text is coded incorrectly or is missing. The input data set could not be opened.

System Action: The job step is terminated with a return code of 4.

Programmer Response: Probable user error. Correct or include the named DD statement and execute the job step again.

Problem Determination: Table I, items 2, 4, 29.

IFC011I HEADER RECORD READ ERROR

Explanation: The header record on the SYS1.LOGREC data set could not be read.

System Action: The job step is terminated with a return code of 4.

Programmer Response: Execute the IMASPZAP service aid program to obtain a dump of the SYS1.LOGREC data set. Then execute the IFCDIP00 program to reinitialize the SYS1.LOGREC data set.

Problem Determination: Table I, items 2, 4, 14, 29.

IFC012I HEADER RECORD INVALID

Explanation: A validity check of the header record on the SYS1.LOGREC data set has uncovered an error.

System Action: The IFCEREP0 program will attempt to continue processing the data set.

Programmer Response: Execute the IMASPZAP service aid program to obtain a dump of the SYS1.LOGREC data set to verify the output of the IFCEREP0 program. Then execute the IFCDIP00 program to reinitialize the SYS1.LOGREC data set.

Problem Determination: Table I, items 2, 4, 14, 29.

IFC013I ddname INPUT ERROR

Explanation: An uncorrectable input error has occurred on the data set whose ddname is specified in the message text.

System Action: The program will continue processing. The record which caused the input error is ignored. No more records will be zeroed.

Programmer Response: Execute the IMASPZAP
service aid program to obtain a dump of
the data set on which the input error
occurred. Move or copy the data set to a
like device to determine if the problem
was caused by a hardware malfunction. If
the message does not recur there is a
probable hardware error on the device
originally used. Otherwise, a probable
programming error exists. If the error
occurred on the SYS1.LOGREC data set,
execute the IFCDIP00 program to
reinitialize the data set.

Problem Determination: Table I, items 2,
4, 14, 29.

IFC014I HEADER RECORD WRITE ERROR

Explanation: The header record of the
SYS1.LOGREC data set cannot be updated
because of an uncorrectable output error.

System Action: The program will terminate
normally.

Programmer Response: Execute the IFCDIP00
program to reinitialize the SYS1.LOGREC
data set.

Problem Determination: Table I, items 2,
4, 29.

IFC015I ddname OUTPUT ERROR

Explanation: An uncorrectable output
error has occurred on the data set whose
ddname is specified in the message text.

System Action: The system action depends
on the data set on which the error
occurred:
• If ddname is EREPPT, the job step is
  terminated.
• If ddname is MEASURE, records are not
  zeroed but processing continues without
  further measurement.
• If ddname is ACCDEV, records are not
  zeroed but processing continues without
  further accumulation.

Programmer Response: Probable hardware
error. Execute the job again after
changing the device or the recording
medium which caused the error.

Problem Determination: Table I, items 2,
4, 30.

IFC016I I/O ERROR WHILE ZEROING RECORD

Explanation: An output error on the
SYS1.LOGREC data set was encountered when
a zeroed record was being written.

System Action: The program will continue
processing the selected records but no
more records will be zeroed.

Programmer Response: Execute the IFCDIP00
program to reinitialize the SYS1.LOGREC
data set.

Problem Determination: Table I, items 2,
4, 29.

IFC017I INPUT ERRORS HAVE EXCEEDED MAX

Explanation: More than 16 input errors
have occurred during this execution of the
IFCEREP0 program.

System Action: The job step is terminated
with a return code of 4.

Programmer Response: Execute the IMASPZAP
service aid program to obtain a dump of
the SYS1.LOGREC data set. Then execute
the IFCDIP00 program to reinitialize the
SYS1.LOGREC data set.

Problem Determination: Table I, items 2,
4, 14, 29.

IFC018I ddname END OF DATA BEFORE PROGRAM END

Explanation: The IFCEREP0 program found
the end of data on the data set associated
with ddname before the program was
complete. The problem probably resulted
from an input/output error.

System Action: The job step is terminated
with a return code of 4.

Programmer Response: Execute the IMASPZAP
service aid program to obtain a dump of
the SYS1.LOGREC data set. Then execute
the IFCDIP00 program to reinitialize the
SYS1.LOGREC data set.

Problem Determination: Table I, items 2,
4, 14, 29.

IFC019I PARAMETER FIELD SYNTAX ERROR

Explanation: A keyword or operand in the
PARM field of the EXEC statement for
IFCEREP0 is coded incorrectly.

System Action: The job step is terminated
with a return code of 4.

Programmer Response: Probable user error.
Correct the parameter and execute the job
step again.

Problem Determination: Table I, items 2,
4, 29.

IFC01AI PARAMETER CONFLICT

Explanation: Two of the parameters of the
EXEC statement for IFCEREP0 would endanger
the data if the job step were to continue
executing. Example: (ZERO=Y,PRSNT=NO).
The records would be lost without being
either edited or accumulated.

System Action: The job step is terminated
with a return code of 4.

Programmer Response: Probable user error.
Eliminate the conflicting parameters in
the EXEC statement for IFCEREP0 and
execute the job step again.

Problem Determination: Table I, items 2,
4, 29.

IFC01BI DUPLICATE KEYWORDS FOUND

> Explanation: Two identical keywords were specified in the PARM field of the EXEC statement for IFCEREP0.

> System Action: The job step is terminated with a return code of 4.

> Programmer Response: Probable user error. Eliminate one of the duplicate keywords and execute the job step again.

> Problem Determination: Table I, items 2, 4, 29.

IFC01CI STAT RECORD KEYS OUT OF SEQUENCE EXPCD yyy FND xxx

> Explanation: The key of a statistical record (SDR) is out of sequence. In the message text, yyy is the key which the IFCEREP0 program expected (EXPCD) to find, and xxx is the key which was found (FND).

> System Action: The IFCEREP0 program stops processing the SDR records only. No more records are zeroed.

> Programmer Response: Execute the IMASPZAP service aid program to obtain a dump of the SYS1.LOGREC data set. Then execute the IFCDIP00 program to reinitialize the SYS1.LOGREC data set.

> Problem Determination: Table I, items 2, 4, 29.

IFC020I ENCOUNTERED MORE THAN 16 SEQ ERRORS STOP RUN

> Explanation: The input measurement data set contains 16 or more consecutive records which are out of sequence. The RDE summary program is unable to handle sequence errors of this severity. Sequence errors normally result from a failure to accumulate the measurement data set in time order sequence.

> System Action: The IPL report will report on system initializations up to the point of the error but will not print the clusters or mean IPL time. The hardware error report will not be generated. The RDE summary program will be terminated.

> Programmer Response: None.

IFC021I INVALID START DATE; CORRECT AND RESTART JOB

> Explanation: The report starting date specified on the control card was either non-numeric or was before January 1, 1960. In order to obtain valid output the start date must be within 30 days of the first date on the first record of the measurement data set.

> System Action: The job is terminated.

> Programmer Response: Correct the start date and resubmit the job.

IFC022I INVALID END DATE CORRECT AND RESTART THE JOB

> Explanation: The end date of the report as specified on the control card was either not completely numeric or blank. This date must be greater than or equal to the start date.

> System Action: The job is terminated.

> Programmer Response: Correct the end date in the control card and resubmit the job.

IFC023I INVALID CLUSTER VALUE; CORRECT AND RERUN JOB

> Explanation: The IPL clustering time interval specified on the control card was not completely numeric or blank.

> System Action: The job is terminated.

> Programmer Response: Correct the control card's IPL clustering time interval or leave it blank and resubmit the job.

IFC024I SUPPLY AN RDE CONTROL CARD AND RERUN THE JOB

> Explanation: A control card must be present in order to run the RDE summary program. This control card must at least specify the start date for the report.

> System Action: The job is terminated.

> Programmer Response: Fill out the control card correctly and resubmit the job.

IFC025I NO IPL RECORDS PROCESSED

> Explanation: No IPL records were encountered in the measurement data set.

> System Action: Processing continues.

> Programmer Response: Ensure that the proper measurement tape was mounted.

Component Name	IFD
Program Producing Message	Online test executive program.
Audience and Where Produced	For programmer: SYSPRINT data set. For operator: console.

Message Format	IFDnnnI text (in SYSPRINT)
	xx IFDnnns text (on console)
	
	nnn
	    Message serial number.
	text
	    Message text.
	xx
	    Message reply identification (absent, if operator reply not
	    required).
	s
	    Type code:
	
	    D Decision; operator must choose an alternative.
	    I Information; no operator action is required.

Comments	None.
Associated Publications	IBM System/360 Operating System: Online Test Executive Program, GC28-6650
Problem Determination	Refer to the fold-out in part VI of this publication for problem determination instructions.

IFD100I message

Explanation: The message may be any of the following:

xxxxxyyy CANNOT RUN ON UNIT zzz

The configuration data in the OLT library or the UCB for unit zzz does not specify the device characteristics required by section yyy of test xxxxx. The test section is bypassed.

Operator Response: Probable user error. Check for an error in the test definition (OLTEP control statement or reply to message IFD105D).

Problem Determination: Table I, items 1, 2, 4, 5a, 16, 29. Cancel the job, requesting a dump.

NO DEVICE DESCRIPTORS FOR DEVICE

OLTEP scheduled a test for a device for which there is no configuration data entry in the OLTEP library. The test is bypassed.

Operator Response: None.

NOT ALL SELECTED ROUTINES WERE RUN

Not all the routines specified in the response to message IFD105D (ENTER-DEV/TEST/OPT) were executed. Either the routines do not exist, or the test section terminated before the routines were able to run.

Operator Response: None.

TEST CANCELLED. ATTEMPTED TO WRITE ON FILE PROTECTED DEVICE

A device is being tested in File Protect Mode. OLTEP is terminating a test section that tried to write on the device.

Operator Response: None.

test output
A test section is running and producing output. Because the Parallel Print (PP) option was selected, OLTEP sends this output to the console as well as to the output data set. Content depends on the value specified with the option:
PP(0) - header only
PP(1) - header, description, comments
PP(2) - header, results
PP(3) - header, description, comments, results

If no value was specified with the option, PP(2) is assumed.

Operator Response: None.

IFD101D message

Explanation: This message is issued by an OLT program (test section). The OLT program requires the operator to perform some action or to make a decision before testing can continue.

System Action: OLTEP waits for the operator to respond.

Operator Response: Respond as indicated in the message text.

IFD102I OLTS RUNNING

Explanation: The Online Test Executive Program (OLTEP) has been loaded. Note: OLTEP is the executive program for the Online Test System (OLTS).

System Action: OLTEP processes the first OLTEP control statement (if any), or issues message IFD105D.

Operator Response: None.

IFD103I UCB NOT READY BIT ON - ddddddd TESTS BYPASSED

Explanation: The not-ready bit in the unit control block for device ddddddd is set to 1.

System Action: OLTEP will bypass all tests on device ddddddd. If another device was specified in the test definition, OLTEP will schedule testing of that device.

Operator Response: Ready device ddddddd. Request the same test again when OLTEP sends you message IFD105D.

IFD104E TO FORCE COMMUNICATION WITH OLTEP EXECUTIVE, ENTER ANY CHAR

Explanation: This message enables the operator to stop a test in order to define a new test or terminate the job step.

Operator Response: Do not reply immediately. Reply when and if you want to stop a test in order to define a new test or terminate the job step.

To stop the running of a test, enter REPLY xx,'y', where y is any character on the console keyboard. OLTEP will suspend testing and issue message IFD105D. If you respond by defining a new test, OLTEP will reissue message IFD104E before the new test is started.

Note that you can reply to message IFD104E at any time before the end of the job step. If you do not reply to the message, it is not reissued.

IFD105D ENTER - DEV/TEST/OPT/

Explanation: OLTEP is asking the operator what to do next. The operator can define the next test to be run, or terminate the job step. He can also ask for help in defining the next test.

System Action: OLTEP waits for the operator to reply.

Operator Response: Define the next test (ask for help if necessary), or terminate the job step.

To define the next test, enter REPLY xx,'devices/tests/options/'.

This reply is a test definition: it specifies the devices to be tested, the tests to be run, and the OLTEP options to be applied. For example, REPLY xx,'180-184/2400//'

This means: "Test units 180 to 184; run basic IBM 2400 tape unit tests; use standard OLTEP options." For full information on how to enter a test definition, refer to the publication IBM System/360 Operating System: Online Test Executive Program, GC28-6650.

To ask OLTEP for help in defining a test, enter REPLY xx,'PROMPT yyyy', where yyyy is one of the following:

DEV - device field
TEST - test field
OPT - option field
ALL - all of the above

OLTEP will issue messages that give examples of correct device, test, and option specifications. OLTEP will then reissue message IFD105D to let you define the next test.

Note: Rather than ask OLTEP for help, you can get the same information by referring to this manual for descriptions of messages IFD147I, IFD148I, and IFD149I.

To terminate the job step, enter REPLY xx,'CANCEL'.

IFD106I INPUT DATA DOES NOT CONTAIN 3 SLASHES

Explanation: An incorrect test definition has been entered, either as an OLTEP control statement or as a reply to message IFD105D. The test definition is incorrect because it does not contain three slashes as field delimiters. For example,

devices/tests/options
should be
devices/tests/options/

NOTE: If you reply to message IFD168E and the RETAIN/370 Interface terminates before the response is transmitted to the remote specialist, you may receive first message IFD105D, then this message, then IFD105D again. In that case, you should ignore this message.

System Action: OLTEP will issue message
IFD105D to permit a new test definition to
be entered.

Operator Response: Probable user error.
Respond as indicated to message IFD105D.
If the test definition is correct, make
sure that the sequence of events described
in the NOTE above has occurred. Cancel
the job, requesting a dump.

Problem Determination: Table I, items 1,
2, 4, 5a, 16, 29.

IFD107I OPTIONS ARE xxx, ...xxx

Explanation: A correct test definition
has been entered. The test definition
specifies or implies the OLTEP options
indicated by the xxx fields in the
message.

System Action: Testing continues.

Operator Response: None.

IFD108I INVALID ENTRY IN DEV FLD xx

Explanation: An incorrect test definition
has been entered, either as an OLTEP
control statement or as a reply to message
IFD105D. The test definition is incorrect
because of an error in the device field.
The error is of type xx, which may be any
of the following:
• 01 - Invalid delimiter.
• 02 - Invalid address.
• 04 - Field omitted.
• 60 - Invalid range of device addresses.

System Action: OLTEP issues message
IFD161I, which explains how to request
help in entering the device field. OLTEP
then issues message IFD105D to permit
either a request for help or a new test
definition to be entered.

Operator Response: Probable user error.
Respond as indicated to message IFD105D.

Problem Determination: Table I, items 1,
2, 4, 5a, 16, 29. Cancel the job,
requesting a dump.

IFD109I xxxxxxxx {OFFLINE,} {UNALLOCATED}
                 {ONLINE, } {ALLOCATED }
       WILL NOT BE TESTED

Explanation: Device xxxxxxxx has been
presented to OLTEP for testing. OLTEP
determined that the device is unsuitable
for testing for one of the following
reasons:
• The device status is OFFLINE or ONLINE.
  Only certain DASD and local 3270
  graphics (BTAM controlled) devices can
  be tested online. All other devices
  presented to OLTEP for testing must
  first be offline.
• The device is allocated or unallocated
  in the operating system. Only certain
  DASD and local 3270 graphics (BTAM

controlled) devices can be tested when
allocated to another user in the system.
All other devices presented to OLTEP must
be unallocated in the system.

System Action: OLTEP bypasses testing the
device.

Operator Response: In cases where the
device is online or offline and allocated
or online and unallocated, the device must
be freed from any possible users and a
VARY OFFLINE command entered for the
device. The device can then be presented
to OLTEP for testing, by responding to
message IFD105D.

Note: 1) When OLTEP is the only active
task in the system, OLTEP must be
terminated and restarted in order for the
VARY command to take affect. If another
initiator is available, the starting of a
"dummy" job will also initiate the VARY
command.
2) For devices allocated to a
teleprocessing access method, the device
must first be freed from the access
method, and then a VARY OFFLINE command
entered before being presented to OLTEP.
3) For the 3705 (under BTAM control), a
VARY OFF command must be entered from BTAM
and then a VARY OFFLINE command entered in
the operating system. The device can then
be presented to OLTEP.

IFD110I TESTABLE DEVICES MAY NOT EXCEED 16

Explanation: In a test definition (OLTEP
control statement or reply to message
IFD105D), more than 16 devices were
selected for testing.

System Action: OLTEP will test the first
16 devices that meet test requirements;
the others will be ignored.

Operator Response: None. Devices not
tested at this time can be respecified the
next time that OLTEP issues message
IFD105D.

IFD111I NO DEVICES AVAILABLE FOR TEST

Explanation: In a test definition (OLTEP
control statement or reply to message
IFD105D), OLTEP has been asked to test one
or more devices. The devices do not
exist, or cannot be tested because they
are online to the operating system.

System Action: OLTEP processes the next
OLTEP control statement (if any), or
issues message IFD105D.

Operator Response: Make sure that devices
are specified correctly in the test
definition. Vary offline any of the
devices that are online.

Problem Determination: Table I, items 1,
2, 4, 5a, 16, 29. Cancel the job,
requesting a dump.

IFD

IFD112I INVALID ENTRY IN TEST FLD xx

    Explanation: An incorrect test definition
has been entered, either as an OLTEP
control statement or as a reply to message
IFD105D. The test definition is incorrect
because of an error in the test field.
The error is of type xx, which may be any
of the following:
- 01 - Invalid delimiter.
- 04 - Field omitted.
- 05 - Invalid test type (contains both
letters and numerics).
- 06 - Invalid test sections (name not
alphabetic).
- 07 - Invalid range of test sections.
- 08 - Invalid specification of test
section routine (more than one test
section is specified).
- 09 - Invalid test section routine (not
numeric).
- 10 - Invalid range of test section
routines.

    System Action: OLTEP issues message
IFD161I, which explains how to request
help in entering the test field. OLTEP
then issues message IFD105D to permit
either a request for help or a new test
definition to be entered.

    Operator Response: Probable user error.
Respond as indicated to message IFD105D.

    Problem Determination: Table I, items 1,
2, 4, 5a, 16, 29. Cancel the job,
requesting a dump.

IFD114I ALL GRAPHICS ON CONTROL UNIT NOT OFFLINE

    Explanation: OLTEP has been asked to test
one or more IBM 2250 graphic display
units. These units cannot be tested,
because other 2250s on the same control
unit are online to the operating system.

    System Action: OLTEP processes the next
OLTEP control statement (if any), or
issues message IFD105D.

    Operator Response: Vary all devices on
the control unit offline; request the same
test again when OLTEP issues message
IFD105D. (The VARY OFFLINE command will
take effect when the operating system
terminates or initiates a job step. If no
jobs are being run concurrently with
OLTEP, you must terminate OLTEP to let the
VARY command take effect).

IFD115I INVALID ENTRY IN OPT FLD--xxxxxxxxxxxx

    Explanation: An incorrect test definition
has been entered, either as an OLTEP
control statement or as a reply to message
IFD105D. The test definition is incorrect
because of an invalid entry in the option
field. The first three characters of the
invalid entry appear in the xxx field of
the message text. The first ten
characters of the invalid entry appear in
the xxxxxxxxxx field of the message text.

    System Action: OLTEP issues message
IFD161I, which explains how to request
help in entering the option field. OLTEP
then issues message IFD105D, to permit
either a request for help or a new test
definition to be entered.

    Operator Response: Probable user error.
Respond as indicated to message IFD105D.
statement. Cancel the job, requesting a
dump.

    Problem Determination: Table I, items 1,
2, 4, 5a, 16, 29.

IFD117I SECTION xxxxxyyy NOT FOUND

    Explanation: In a test definition (OLTEP
control statement or reply to message
IFD105D), OLTEP has been asked to run one
or more sections of test xxxxx. The OLT
program required to perform section yyy is
not available in the step library, job
library, or link library.

    System Action: OLTEP bypasses the test
section.

    Operator Response: Probable user error.
If the OLT program named xxxxxyyy has not
been included in the system link library
(SYS1.LINKLIB), be sure that it is
included in a private library that has
been defined as the step library or job
library.

    Problem Determination: Table I, items 2,
4, 29. If the program has been included
in the step, job, or link library, execute
the IEHLIST utility program to list the
library directory. Save the listing.

IFD118I UNREADABLE TAPE LABEL - dddddddd

    Explanation: OLTEP has been asked to test
device dddddddd, which is an IBM 2400/3400
magnetic tape unit. Because of a
permanent input error, OLTEP cannot
determine whether a standard label scratch
tape is mounted.

    System Action: OLTEP issues messages
IFD137I and IFD139D.

    Operator Response: Respond as indicated
below to messages IFD137I and IFD139D.

    Message IFD137I indicates the nature of
the error (for example, the device may not
be loaded). If you can correct the error,
enter REPLY xx,'R' in response to message
IFD139D; OLTEP in turn will try again to
read standard labels from the tape.

    If you cannot correct the error, probable
hardware error. Enter one of the
following responses to message IFD139D:
- REPLY xx,'B' to allow OLTEP to bypass
the device.
- REPLY xx,'P' to allow OLTEP to proceed
with the test, using the mounted volume
as a scratch tape; if the volume
contains data or labels, they may be
destroyed.

Problem Determination: Table I, items 30.

IFD119I NON-STANDARD TAPE LABEL - dddddddd

Explanation: OLTEP has been asked to test device dddddddd, which is an IBM 2400/3400 magnetic tape unit. Because the mounted volume does not have standard labels, OLTEP cannot determine whether the volume is a scratch tape. Device dddddddd may not be the one that the operator intended to test; in that case, the operator may have made a simple typing error when he entered the test definition.

System Action: OLTEP issues message IFD139D.

Operator Response: Make sure that the correct device was specified in the test definition. If it was not, this is probably a user error; enter REPLY xx,'B' in response to message IFD139D, and specify the correct device the next time message IFD105D is issued.

If the correct device was specified in the test definition, and the volume mounted on device dddddddd is not a scratch tape, remove the volume and replace it with a scratch tape. Then respond to message IFD139D as indicated below:
• If you mount a scratch tape with standard labels, enter REPLY xx,'R' in response to message IFD139D. OLTEP in turn will read the volume and data set labels to make sure that the tape can be used as a scratch volume.
• If you mount a scratch tape with no labels or with nonstandard labels, enter REPLY xx,'P' in response to message IFD139D. OLTEP will then proceed with the test. Data and labels may be destroyed.

If the volume mounted on device ddd has standard labels, or if you cannot mount a scratch volume, enter REPLY xx,'B' in response to message IFD139D and call IBM for support.

IFD120D CAN VOL DATA ON dddddddd BE DESTROYED REPLY YES OR NO

Explanation: Device dddddddd is an IBM 2311 or 2314/2319 disk storage device or an IBM 2301 or 2303 drum storage device; it is offline to the operating system. OLTEP is asking whether it can run tests that will destroy data stored on the device.

System Action: OLTEP waits for the operator to reply.

Operator Response: If OLTEP is permitted to destroy all data stored on the device, enter REPLY xx,'YES'. OLTEP will use the entire volume for testing. When testing is complete, you must use the IBCDASDI utility program to reinitialize the volume.

If the data on the volume must be preserved, enter REPLY xx,'NO' OLTEP will test the device in File Protect Mode; no write testing will be performed, and no data will be destroyed.

IFD121I xx MESSAGE CANCELLED BY OLTEP

Explanation: An OLT program previously issued message IFD154E with message identifier xx. The operator has not replied, and the OLT program can no longer accept a reply.

System Action: OLTEP has cancelled the message, making a reply impossible.

Operator Response: Ignore the cancelled message.

Note: If the system provides multiple console support (MCS), message IFD121I is preceded by message IEE600I (ACCEPTED REPLY TO MSG xx IS 'S').

IFD122I VOL ON dddddddd ⎰SECURITY PROTECTED⎱
⎱UNEXPIRED DATE   ⎰

Explanation: OLTEP has been asked to test device dddddddd, which is an IBM 2400/3400 magnetic tape unit or an IBM 2311/2314/3330 direct access device. The volume mounted on the device has standard labels, and the data set header label indicates that the volume contains a security-protected data set or a data set with an unexpired date. OLTEP cannot use this volume as a scratch tape for testing the device.

Device dddddddd may not be the one that the operator intended to test; in that case, the operator may have made a simple typing error when he entered the test definition.

System Action: OLTEP issues message IFD139D.

Operator Response: Make sure that the correct device was specified in the test definition. If it was not, this is probably a user error; enter REPLY xx,'B' in response to message IFD139D, and specify the correct device the next time message IFD105D is issued.

If the correct device was specified in the test definition, and the volume mounted on device dddddddd is not a scratch tape, remove the volume and replace it with a scratch tape that does not contain a security-protected data set. Then enter REPLY xx,'R' in response to message IFD139D. OLTEP will try again to recognize the volume as a scratch volume.

If the volume mounted on device dddddddd was not security-protected or if you cannot mount a scratch volume, enter REPLY xx,'B' in response to message IFD139D and call IBM for support.

IFD124I CE VOL NOT ON UNIT ddddddd

    Explanation: OLTEP has been asked to test
    unit ddddddd which is an IBM 2311, 2314,
    or 2319 direct access device. The volume
    label does not indicate a C.E. volume.

    System Action: OLTEP issues message
    IFD139D.

    Operator Response: If possible, replace
    the mounted volume with a C.E. volume.
    Then respond to message IFD139D as
    indicated below.

    If you can mount a C.E. volume, enter
    REPLY xx,'R' in response to message
    IFD139D. OLTEP will verify that the
    volume is a C.E. volume and proceed with
    the test.

    If a C.E. volume is not available to be
    mounted, enter one of the following
    responses to message IFD139D:
    • REPLY xx,'B' to allow OLTEP to bypass
      the device.
    • REPLY xx,'P' to allow OLTEP to proceed
      in File Protect Mode; the test will not
      destroy data on the volume unless you
      give permission in a later response to
      message IFD120D.

IFD125I UNREADABLE LABEL ON ddd

    Explanation: OLTEP attempted
    unsuccessfully to read the label of the
    volume on device ddd.

    System Action: OLTEP issues messages
    IFD137I and IFD139D.

    Operator Response: Respond to messages
    IFD137I and IFD139D as indicated below:

    Message IFD137I indicates the nature of
    the error. If you can correct the error,
    enter REPLY xx,'R' in response to message
    IFD139D. OLTEP will try again to read the
    volume label.

    If you cannot correct the error, this is
    probably a hardware error. Enter one of
    the following response to message IFD139D:
    • REPLY xx,'B' to allow OLTEP to bypass
      the device.
    • REPLY xx,'P' to allow OLTEP to proceed
      in File Protect Mode; tests will not
      destroy data on the volume unless you
      give permission in a later response to
      message IFD120D.

    Problem Determination: Table I, item 30.

IFD126I BIN 0 OF ddddddd DOES NOT INDICATE CE
       CELL

    Explanation: OLTEP has been asked to test
    device ddddddd, which is an IBM 2321 data
    cell drive. The operator replied YES to
    message IFD140D, indicating that a C.E.
    volume is mounted in bin 0. However, the
    C.E. sense bit is set to zero, which
    indicates that a C.E. volume is not
    mounted.

    System Action: OLTEP issued messages
    IFD137I and IFD139D.

    Operator Response: Make sure that a C.E.
    volume is mounted in bin 0 of device
    ddddddd. Then enter REPLY xx,'R' in
    response to message IFD139D; OLTEP will
    try again to recognize the mounted volume
    as a C.E. volume.

    If a C.E. volume is not available to be
    mounted, enter REPLY xx,'B' in response to
    message IFD139D. OLTEP will bypass the
    device.

    Problem Determination: Table I, items 2,
    4, 30.

IFD128I TEST BYPASSED CHANNEL DATA PROTECT NOT
       DONE

    Explanation: An OLT program (test
    section) has asked OLTEP to execute a
    special instruction (Diagnose) that is
    used only for channel testing. The device
    field of the test definition did not
    specify channel testing, (that is, it did
    not begin with the characters "CH").

    System Action: OLTEP terminates the test
    section and tries to execute any other
    test section specified in the test
    definition.

    Operator Response: Probable user error.
    Determine the error, and enter a corrected
    test definition when OLTEP next issues
    message IFD105D. (If you are trying to
    test a channel, enter the device field as
    CHddd, where ddd is a device attached to
    the channel. If you are not trying to
    test a channel, reenter the test field to
    specify the correct test type.) Cancel
    the job, requesting a dump.

    Problem Determination: Table I, items 1,
    2, 4, 5a, 16, 29.

IFD129I FIRST ERROR COMMUNICATION xxxxxxxx yyyy
       UNIT ddddddd [aaaaaaaa]

    Explanation: Section yyyy of OLT program
    xxxxxxxx has detected an error on device
    ddddddd. (OLT program xxxxxxxx performs
    section yyyy of the test.) Because the
    first error (FE) communication option is
    in effect, OLTEP will issue message
    IFD105D to let the operator determine
    whether testing should continue. aaaaaaaa
    is used if a symbolic name is applicable.

    System Action: OLTEP issues message
    IFD105D.

    Operator Response: If the PP option has
    been specified, message IFD100I will be
    issued to indicate the nature of the
    error. After you have determined the
    cause of the error and have taken the
    appropriate corrective action, you can
    choose to do one of the following:
    • You may resume testing with the same
      option in effect by entering REPLY
      xx,'///' in response to message IFD105D.

The First Error Communication option will
remain in effect. When the next
input/output error occurs, OLTEP will
again issue messages IFD129I and IFD105D.
• You may resume testing with different
options by entering REPLY
xx,'//yyy,yyy,.../' where yyy is an
OLTEP option. (For a list of OLTEP
options, refer to the description of
message IFD149I.) Any option that is
not specifically changed remains in
effect. Thus, the FE option remains in
effect unless you specify NFE; when the
next input/output error occurs, OLTEP
will again issue messages IFD129I and
IFD105D.
• You may define a new test or terminate
the job step; to do this, refer to the
description of message IFD105D.

If you are unable to correct the error
described by message IFD100I, or if you
are unable to determine the nature of the
error, call IBM for support.

IFD130I INTERVENTION REQ dddddddd

Explanation: OLTEP has been asked to test
device dddddddd. The device is not ready;
operator intervention is required.

System Action: OLTEP issues messages
IFD137I and IFD139D.

Operator Response: Ready the device; then
enter REPLY xx,'R' in response to message
IFD139D. OLTEP will again read or sense
to see if the device is ready. If the
device remains unready, OLTEP will issue
the same messages again.

If you cannot successfully ready the
device, you can either proceed with the
test or bypass it. To proceed with the
test; enter REPLY xx,'P' in response to
message IFD139D. If you are testing an
IBM 2311 or 2314 direct access device,
testing will proceed in File Protect Mode;
data on the device will not be destroyed
unless you give permission in response to
a later issuance of message IFD120D.
To bypass the test, enter REPLY xx,'B' in
response to message IFD139D.

IFD131I SENSE TO dddddddd FAILED

Explanation: OLTEP has been asked to test
device dddddddd, which is an IBM 2321 data
cell drive. The operator replied YES to
message IFD140D, indicating that a C.E.
volume is mounted in bin 0. A permanent
error occurred when OLTEP issued a sense
command to verify that a C.E. volume is
mounted.

System Action: OLTEP issues messages
IFD137I and IFD139D.

Operator Response: Probable hardware
error. Respond as indicated to messages
IFD137I and IFD139D.

Message IFD137I indicates the cause of the
error. If you can correct the error,
enter REPLY xx,'R' in response to message
IFD139D. OLTEP will try again to verify
that a C.E. volume is mounted. If you
cannot correct the error, enter REPLY
xx,'B' in response to message IFD139D;
OLTEP will bypass the device.

Problem Determination: Table I, items 2,
4, 29.

IFD132I CE BIT WILL NOT RESET-dddddddd

Explanation: OLTEP has been asked to test
device dddddddd, which is an IBM 2321 data
cell drive. The operator responded YES to
message IFD140D, indicating that a C.E.
volume is mounted. OLTEP issued a sense
command to verify the operator's reply.
The C.E. sense bit is set to 1, which
normally indicates that a C.E. volume is
mounted in bin 0; but the bit cannot be
reset. Therefore it is not certain that
the C.E. sense bit is meaningful.

System Action: OLTEP issues messages
IFD137I and IFD139D.

Operator Response: Probable hardware
error. Respond to messages IFD137I and
IFD139D as indicated below.

Message IFD137I indicates the nature of
the error. If you can correct the error,
enter REPLY xx,'R' in response to message
IFD139D; OLTEP will try again to verify
that a C.E. volume is mounted. If you
cannot correct the error, enter REPLY
xx,'B' in response to message IFD139D;
OLTEP will bypass the device.

Problem Determination: Table I, items 2,
30.

IFD133I TIMER NOT STEPPING, TIMING TEST BYPASSED.

Explanation: OLTEP has been asked to run
the tape motion test for an IBM 2400
magnetic tape unit. OLTEP cannot run the
test because the interval timer is not
working.

System Action: OLTEP bypasses the tape
motion test.

Operator Response: Set the timer switch
ON and request the tape motion test again
when OLTEP next issues message IFD105D.

Problem Determination: Table I, item 30.

IFD134I WARNING - DASD VOLUME LABELED CEPACK NOT
PROTECTED FROM WRITE

Explanation: A direct access volume with the
volume serial number CEPACK is mounted.
OLTEP will use that volume for a scratch
volume.

System Action: OLTEP issues message IFD105D,
asking for a test definition.

Operator Response: Before responding to
message IFD105D, make sure that the volumes
with a serial number of CEPACK are available
for OLTEP's use. Any data on those volumes
may be lost.

IFD135D ARE TIME DEPENDENT DEVICES ACTIVE(TP,
1419), REPLY YES OR NO

Explanation: OLTEP has been asked to run
the tape motion test for an IBM 2400
magnetic tape unit. OLTEP cannot run this
test if time-dependent devices are active
within the system. Time-dependent devices
are teleprocessing lines and the IBM 1419
magnetic character reader.

System Action: OLTEP waits for the
operator to reply.

Operator Response: If time-dependent
devices are active, enter REPLY xx,'YES';
OLTEP will bypass the tape motion test and
issue message IFD136I. If time-dependent
devices are not active, enter REPLY
xx,'NO'; OLTEP will then run the tape
motion test, provided that the interval
timer is working properly.

IFD136I TIME DEPENDENT DEVICES ARE ACTIVE, TIMING
TEST BYPASSED

Explanation: The operator replied YES to
message IFD135D, indicating that
time-dependent devices are active within
the system.

System Action: OLTEP bypasses the tape
motion test.

Operator Response: None.

IFD137I CSW - XXyyyyyyyyyyyyyy SNS - sns

Explanation: An error occurred during
execution of OLTEP data protection. This
message displays sense data resulting from
the error condition (indicated in the
message text by sns) and the low-order
bytes of the channel status word (CSW).

System Action: OLTEP issues message
IFD139D.

Operator Response: Examine the sense data
and the flag bytes of the CSW to determine
what action, if any, can be performed to
correct the error. (Note that some of the
sense data may be invalid; the number of
valid sense bytes depends on the device
type.) Respond as indicated to message
IFD139D.

IFD138I DEV dddddddd NOT OPERATIONAL, CC=3

Explanation: OLTEP has been asked to test
device dddddddd. The device is not
operational or does not exist. In the
message text, CC=3 represents the
condition code resulting from an SIO
instruction.

System Action: OLTEP issues message
IFD139D.

Operator Response: If device dddddddd
does not exist, enter REPLY xx,'B' in
response to message IFD139D. Enter the
correct device the next time message
IFD105D is issued.

If device ddd exists but is not loaded,
mount a C.E. volume or scratch volume and
ready the device. If the device exists
but is not ready, make it ready. In both
cases, enter REPLY xx,'R' in response to
message IFD139D; OLTEP will again test for
an operational device.

If you cannot make the device operational,
this is probably a hardware error. Enter
one of the following:
• REPLY xx,'B' to allow OLTEP to bypass
  the device.
• REPLY xx,'P' to allow OLTEP to proceed
  in File Protect Mode and attempt to
  perform the specified test; testing, if
  successful, will not destroy data,
  unless you give permission in response
  to a later issuance of message IFD120D.

In both cases, call IBM for hardware
support.

IFD139D REPLY/B TO BYPASS, R TO RETRY
             \B TO BYPASS, R TO RETRY, P TO\
             | PROCEED |
             |B TO BYPASS, R TO RETRY, P TO/
             | PROCEED (MAY DESTROY DATA) |
             \R TO RETRY, P TO PROCEED   /

Explanation: An input/output operation
has resulted in a permanent error
condition. The cause and nature of the
error has been given in messages issued
previously.

System Action: The system action depends
on the operator's response.

Operator Response: Respond as indicated
in the messages issued previously. If you
can, remove the cause of the error and
enter REPLY xx,'R'; OLTEP will try again
to perform the interrupted operation. If
you cannot remove the cause of the error,
enter REPLY xx,'B' to bypass testing of
the device, or REPLY xx,'P' to proceed
without retrying the unsuccessful
operation.

IFD142D OLTS WAITING FOR CHANNEL x, REPLY PROCEED
OR CANCEL

Explanation: OLTEP has been asked to test
channel x, but has been unable to get
exclusive use of the channel.

System Action: OLTEP waits for the
operator to reply.

Operator Response: To continue waiting
for the channel, enter REPLY xx,'PROCEED'.
OLTEP will try again to get exclusive use
of the channel. If it cannot do so in the
next minute, it will issue the same
message again.

To cancel the request for channel testing,
enter REPLY xx,'CANCEL'. OLTEP will issue
messages IFD152I and IFD105D to allow you
to define a new test or terminate the job
step. You must enter the word PROCEED or
CANCEL in uppercase.

Note: This message does not appear in the
OLTEP output data set.

IFD144D TIMEOUT, NO INTERRUPT-UNIT dddddddd.
REPLY WAIT OR CANCEL

Explanation: OLTEP is testing a device.
Thirty seconds have elapsed since the
start of an I/O operation; no interruption
has occurred to signal completion of the
operation. The interruption may have been
lost due to a device error; OLTEP is
asking whether to cancel the operation or
to wait for its completion.

System Action: OLTEP waits for the
operator to reply.

Operator Response: To wait for I/O
completion, enter REPLY xx,'WAIT'. To
cancel the I/O operation and continue
testing, enter REPLY xx,'CANCEL'.

Note: This message will appear only if
the interval timer is working, and the
operating system includes MVT or MFT and
the interval timer option.

IFD145D IS dddddddd OFFLINE TO ALL SHARING
SYSTEMS, REPLY YES OR NO

Explanation: Device dddddddd is an IBM
2311, 2314, or 2319 disk storage device or
an IBM 2301 or 2303 drum storage device;
it is shared by two or more computing
systems. The device is offline in the
system where OLTEP is being executed.
OLTEP is asking whether the device is also
offline in other systems that share the
device.

System Action: OLTEP waits for the
operator to reply.

Operator Response: Determine whether the
device is offline to all operating systems
that share the device.

If it is, enter REPLY xx,'YES'; OLTEP will
issue message IFD120D to allow you to
decide whether data on the device can be
destroyed.

If the device is not offline to all
operating systems, enter REPLY xx,'NO';
OLTEP will test the device in File Protect
Mode. No write testing will be performed,
and no data will be destroyed.

IFD146I SEE SRL - ONLINE TEST EXECUTIVE PROGRAM

Explanation: In response to message
IFD105D, the operator asked OLTEP for help
in entering a test definition. OLTEP has
issued one or more messages to provide
examples of correct device, test, and

option specifications. In this message,
OLTEP refers the operator to the SRL
publication IBM System/360 Operating
System: Online Test Executive Program,
GC28-6650.

System Action: OLTEP reissues message
IFD105D.

Operator Response: For additional help,
refer to the publication indicated by the
message. Then enter a test definition in
response to message IFD105D (or terminate
the job step).

IFD147I EXAMPLES OF DEVICE FIELD
IFD147I 181/   TEST DEVICE 181
IFD147I 185-187/   TEST DEVICES 185, 186,
                        AND 187
IFD147I 285-286,184,E/ TEST DEVICES 285, 286, 184
                        AND SYMBOLIC E
IFD147I .CH282/   TEST CHANNEL 2
IFD147I .NDR/   NO DEVICE REQUIRED FOR TEST
IFD147I / (slash alone) TEST PREVIOUSLY SELECTED
                        DEVICES

Explanation: In response to message
IFD105D, the operator asked for help in
entering the device field of a test
definition. In this message, OLTEP shows
the operator how to specify the devices to
be tested.

System Action: OLTEP issues message
IFD146I and reissues message IFD105D.

Operator Response: Respond as indicated
to messages IFD146I and IFD105D.

IFD148I EXAMPLES OF TEST FIELD
IFD148I 2400/   TAPE TESTS
IFD148I 2400A/   SECTION A OF TAPE
                       TEST 2400
IFD148I 2400C,2/   RTN. 2, SEC. C, TEST 2400
IFD148I 2400A-C,E,G/   SEC. A,B,C,E, AND G OF
                       TEST 2400
IFD148I R2540AA/   SEC. AA OF READER TEST
                       2540
IFD148I / (SLASH ALONE) RUN PREVIOUSLY SELECTED
                       TESTS

Explanation: In response to message
IFD105D, the operator asked for help in
entering the test field of a test
definition. In this message, OLTEP shows
the operator how to specify the test to be
run.

System Action: OLTEP issues message
IFD146I and reissues message IFD105D.

Operator Response: Respond as indicated
to messages IFD146I and IFD105D.

IFD

```
IFD149I              TABLE OF OPTIONS
IFD149I                  TO REQUEST TO OMIT BY
IFD149I OPTION            OPTION   OPTION DEFAULT
IFD149I TESTING LOOP      TL            NTL   NTL
IFD149I                   TL (value)   VAL=1-32767
IFD149I ERROR LOOP        EL            NEL   NEL
IFD149I                   EL (value)   VAL=1-32767
IFD149I ERROR PRINT       EP            NEP   EP
IFD149I CONTROL PRINT     CP            NCP   CP
IFD149I PARALLEL PRINT    PP            NPP   NPP
IFD149I REMOTE FE CONTROL RE            NRE   NRE
IFD149I                   PP (level)   VAL=1-3
IFD149I FIRST ERROR
        COMMUNICATION     FE            NFE   FE
IFD149I MANUAL INTERVENTION MI          NMI   NMI
IFD149I REMOTE            RE            NRE   NRE
IFD149I PRINT             PR            NPR   PR
IFD149I ILLUSTRATIVE EXAMPLES OF OPTION FIELD
IFD149I OPT-SPECIFICATION OF OPTIONS
IFD149I PP, NMI,RE/
IFD149I EP,TL(50),FE,EXT=A,B/
```

Explanation: In response to message
IFD105D, the operator asked for help in
entering the option field of a test
definition. In this message, OLTEP shows
the operator how to specify options.

System Action: OLTEP issues message
IFD146I and reissues message IFD105D.

Operator Response: Respond as indicated
to messages IFD146I and IFD105D.

IFD150I TEST BYPASSED. xxxxxxxxxxxxx ON dddddddd

Explanation: OLTEP has been asked to test
a channel. It is unable to do so because
the system requires the channel for access
to xxxxxxxxxxxxx on device dddddddd.

System Action: OLTEP bypasses the channel
test. OLTEP processes the next OLTEP
control statement (if any), or issues
message IFD105D.

Operator Response: None. Before you can
test the channel, you must assign device
dddddddd to another channel, or assign
xxxxxxxxxxxxx to another device (on
another channel).

IFD151I TEST BYPASSED, CHANNEL NOT A 2880

Explanation: OLTEP has been asked to test
a channel. The channel cannot be tested
because it is not an IBM 2880 block
multiplexor channel.

System Action: OLTEP bypasses the channel
test. OLTEP processes the next OLTEP
control statement (if any), or issues
message IFD105D.

Operator Response: Probable user error.
Ensure that the channel is an IBM 2880,
and that a device on the channel is
specified in the device field of the test
definition. The first digit of the device
address must identify the channel; for
example, enter the field CH183/ if channel
1 is to be tested. Request the channel
test again when OLTEP issues message
IFD105D.

Problem Determination: Table I, items 1,
2, 4, 5a, 16, 29. Cancel the job,
requesting a dump.

IFD152I TEST BYPASSED, CHANNEL CANNOT BE QUIESCED

Explanation: There has been a request for
OLTEP to test a channel, but the channel
cannot be tested because the operator
entered REPLY xx,'CANCEL' in response to
message IFD142I.

System Action: OLTEP processes the next
OLTEP control statement, if any, or issues
message IFD105D.

Operator Response: None.

IFD153I TEST BYPASSED, CPU NOT SUPPORTED FOR
CHANNEL TESTING

Explanation: OLTEP has been asked to test
an IBM 2880 block multiplexor channel.
The channel cannot be tested for one of
the following reasons:
• The computing system on which OLTEP is
  running is not an IBM System/360 Model
  85 or 195 or an IBM System/370 Model
  165.
• If the computing system is an IBM
  System/360 Model 85 or 195 or an IBM
  System/370 Model 165, the channel to be
  tested is not properly attached or is
  not enabled.
• If the channel to be tested is properly
  attached to the correct computing system
  and is operable, the operating system
  may have been defined as if it were
  running on a system other than an IBM
  System/360 Model 85 or 195 or an IBM
  System/370 Model 165.

System Action: OLTEP bypasses the channel
test and processes the next OLTEP control
statement (if any), or issues message
IFD105D.

Operator Response: If the computing
system on which OLTEP is running is not an
IBM System/360 Model 85 or 195 or an IBM
System/370 Model 165, no response is
necessary. If it is an IBM System/360
Model 85 or 195 or an IBM System/370 Model
165, determine whether the channel is
properly attached to the system.

If the channel is not attached to the
system and you wish to test the channel,
call IBM for hardware support in attaching
the channel. If you do not wish to test
the channel, no response is necessary.

If the channel is not enabled, enable it,
and make sure that it is operable. If you
cannot make it operable, call IBM for
hardware support.

If the channel is properly attached to the
correct system and is enabled and
operable, consult messages IEA218I and
IEA101A to determine whether the system
has been correctly defined to the
operating system. (Message IEA218I was
issued during system initialization to
tell you which computing system parameters

were assumed for the operating system. It was followed by message IEA101A, which allowed you to change the system parameters. These messages, and your reply to message IEA101A, should appear on the master console sheet.)

If the operating system has been defined for a system other than an IBM System/360 Model 85 or 195 or an IBM System/370 Model 165, do the following:
- Enter the HOLD Q command to stop scheduling of jobs.
- Stop all readers and writers.
- After scheduled tasks have completed, restart the system. Then when you receive message IEA101A, enter REPLY xx,'MOD=85', REPLY xx,'MOD=165', or REPLY xx,'MOD=195' to define the correct computing system to the operating system.

Then start OLTEP and specify this test again when you enter the first test definition.

Problem Determination: Table I, items 2, 29.

IFD154E message

Explanation: This message is issued by an OLT program that OLTEP has called to perform a test section. The text of the message varies, but always defines an operator response. The response is generally optional, and can be made at any time before the test section is completed.

System Action: The OLT program continues processing.

Operator Response: Respond as indicated in the message text. If you do not reply to the message before the test section is completed, OLTEP will cancel the message and notify you by issuing message IFD121I.

IFD155I TEST SECTIONS MAY NOT EXCEED 26, WILL TEST xxx-xxx

Explanation: Too many test sections were specified in a test definition (OLTEP control statement or reply to message IFD105D). The maximum number of test sections for a single test definition is 26.

System Action: OLTEP will run (or try to run) the first 26 test sections specified in the test definition. OLTEP will ignore the remaining sections. xxx - xxx indicates the names of the first - last sections tested.

Operator Response: None. Test sections not run at this time can be respecified when OLTEP next issues message IFD105D.

IFD156I DEVICE dddddddd STATUS CHANGED, BYPASS TESTS

Explanation: OLTEP has suspended testing of device dddddddd. During the test, the device status was changed from online to offline, or from offline to online.

System Action: OLTEP bypasses the device.

Operator Response: If the device status has changed from online to offline, no action is necessary. If the device status has changed from offline to online, do the following:

If the device can be tested while online, you can request the same test again when OLTEP next issues message IFD105D. If the device cannot be tested while online, you can enter a VARY command to return the device to offline status. (The VARY OFFLINE command will take effect when the operating system terminates or initiates a job step. If no other jobs are being executed concurrently, you must terminate OLTEP to let the VARY command take effect.) Note that for complete testing, direct access devices must always be offline.

IFD157I CATASTROPHIC ERROR ON DEVICE dddddddd[name]

Explanation: OLTEP has suspended testing of device dddddddd. The device is not ready, or for some other reason cannot be tested. When present, name indicates the symbolic name.

System Action: OLTEP issues message IFD105D.

Operator Response: Make sure that the device is ready. If it is not, make it ready and enter REPLY xx,'///' in response to message IFD105D.

If the device is ready, look for diagnostic information which will be issued by the OLT program. If the PP option has been specified, this information will appear on the console as the text of message IFD100I; otherwise, the information will be routed to the SYSOUT data set.

After you have determined the nature and cause of the error and have taken the appropriate corrective action, you can choose to resume testing by entering REPLY xx,'///' in response to message IFD105D. If you cannot correct the error, enter a new test definition or terminate the job step (use the procedure outlined in the description of message IFD105D), and call IBM for support.

IFD

IFD158I ww xxxxx{yyy}{y $} UNIT ddddgddd

    Explanation: New section yyy or old
    section y $ of test xxxxx has been started
    or terminated for unit ddddgddd. (If the
    test definition specifies NDR (no device
    required), the phrase UNIT ddd does not
    appear.) The ww field is one of the
    following:

    S
        Section has been started.
    T
        Section has been terminated.
    *T
        Section has been terminated; device
        errors were detected.

    Operator Response: None.

    Note: This message is issued only when
    the Control Print (CP) option is in
    effect.

IFD159I MODULE{xxxxxxxx}{G0000ddd}{aaaaaaaa} NOT FOUND

    Explanation: One of the following has
    occurred:
    • An OLT program has asked OLTEP to load
      module xxxxxxxx. This module is not in
      the step library, job library, or link
      library (SYS1.LINKLIB).
    • No configuration data exists for device
      ddd or for symbolically named terminal
      aaaaaaaa.

    System Action: If the message is issued
    because of a missing module, the OLT
    program terminates. If the message is
    issued because of missing configuration
    data, and if testing is taking place on a
    System/370 CPU, device ddd or aaaaaaaa is
    not tested. If testing is on a System/360
    CPU, testing may or may not proceed,
    depending on whether the online test
    program needs the configuration data.

    Operator Response: Do one of the
    following:
    • If the message is issued because of a
      missing module or because of missing
      configuration data for device ddd, and
      if the module or data is supposed to
      reside in a private library, make sure
      that a step library or job library is
      defined in the JCL which is used to
      invoke OLTEP.
    • If the message is issued because of
      missing configuration data for device
      aaaaaaaa, make sure that the data set
      which contains configuration data for
      symbolically named devices is specified
      in the JCL which is used to invoke
      OLTEP.

IFD160I INSUFFICIENT CORE

    Explanation: An OLT program has required
    more main storage than is available.

System Action: OLTEP returns control to
the OLT program with an error return code.
Testing will proceed if the OLT program
can recover from the error condition;
otherwise, testing will be terminated.

Operator Response: If you can provide
additional main storage, cancel the job
and reschedule it in a larger region (MVT)
or partition (MFT).

IFD161I FOR HELP ENTER PROMPT xxxx TO
       DEV/TEST/OPT/ MESSAGE

    Explanation: OLTEP has issued message
    IFD108I, IFD112I, or IFD115I to diagnose
    an error in the test definition. The
    error is in the xxxx field, where xxxx is
    DEV, TEST, or OPT. This message explains
    how to request help in correcting the
    error.

    System Action: OLTEP issues message
    IFD105D.

    Operator Response: Respond as indicated
    to message IFD105D. For help, enter REPLY
    xx,'PROMPT xxxx'.

IFD162I UNIT ddddgddd, DSNAME=xxxxxxxx COULD NOT
       BE SCRATCHED

    Explanation: OLTEP is testing an IBM 2301
    or 2303 drum storage device. An OLT
    program has created a data set on the
    device, and OLTEP has tried unsuccessfully
    to scratch the data set.

    System Action: OLTEP continues
    processing.

    Operator Response: Probable hardware
    error. Execute the IEHPROGM utility
    program to scratch the data set. (Refer
    to the publication IBM System/360
    Operating System: Utilities, GC28-6586.)

    Problem Determination: Table I, items 30.

IFD163I RETAIN/370 READY

    Explanation: This message is issued when
    a line connection has been successfully
    established between RETAIN/370 and the
    OLTEP REI interface.

    Operator Response: Proceed with testing.

IFD164I CANNOT LINK TO RETAIN/370

    Explanation: OLTEP attempted
    unsuccessfully to enable a
    telecommunication line between RETAIN/370
    center and the OLTEP REI interface.

    Operator Response: Make the attempt
    again.

    Problem Determination: Table I, items 30.

IFD165I ENTRY IN DEV FLD NOT ALLOWABLE BY REMOTE

> Explanation: The remote specialist has
> entered unit addresses in the device field
> in response to message IFD105D. NDR (no
> devices required) is the only permissible
> entry in the device field.
>
> System Action: OLTEP reissues message
> IFD105D.
>
> Operator Response: Respond to message
> IFD105D, making sure that no unit
> addresses are specified in the device
> field. Unless you wish to enter NDR in
> the device field, make sure that any
> information entered in the test and option
> fields is preceded only by a / (slash).

**IFD167I PERMANENT ERROR ON REI DEVICE
STATUS=XXyyyyyyyyyyyyyyyy, SENSE=xx**

> Explanation: Contact with the RETAIN/370
> center has been lost or cannot be
> established because of an uncorrectable
> error. The message includes the low-order
> seven bytes of the channel status word
> (indicated by yyyyyyyyyyyyyy) and sense
> data (indicated by xx); this information
> can be used to determine the nature of the
> error.
>
> System Action: OLTEP issues messages
> IFD169I and IFD105D.
>
> Operator Response: You can attempt to
> reestablish contact with the RETAIN/370
> center by entering REPLY xx,'REI' in
> response to message IFD105D.
>
> Problem Determination: Table I, items 30.

**IFD168E TO COMMUNICATE WITH REMOTE SPECIALIST
ENTER MESSAGE**

> Explanation: This message allows the
> on-site operator to communicate with the
> remote specialist.
>
> Operator Response: When you want to
> communicate with the remote specialist,
> enter REPLY xx,'message', where message is
> any character string that you wish to
> send. You need not reply to this message
> immediately.

IFD169I RETAIN/370 TERMINATED

> Explanation: This message is issued to
> indicate that RETAIN/370 has been
> terminated.
>
> Operator Response: None.

IFD173I REPLY xx NOT VERIFIED

> Explanation: OLTEP is unable to verify
> the reply ID specified by the remote
> specialist in his reply to a message.
>
> Operator Response: The remote specialist
> must reenter his response, making sure
> that he specifies the correct reply ID.

IFD174I UNABLE TO RESTORE LABEL ON DEVICE dddddddd

> Explanation: OLTEP has completed testing
> of device dddddddd, which is an IBM 2400
> magnetic tape unit. A standard-label
> scratch tape is mounted, but testing has
> destroyed the labels. OLTEP has tried
> unsuccessfully to create new labels on the
> tape.
>
> System Action: OLTEP issues messages
> IFD137I and IFD139D.
>
> Operator Response: Probable hardware
> error. Respond as indicated to messages
> IFD137I and IFD139D.
>
> Message IFD137I indicates the nature of
> the error, which may be, for example, that
> the device is not loaded. If you can
> correct the error, enter REPLY xx,'R' in
> response to message IFD139D. OLTEP will
> try again to write standard labels on the
> tape.
>
> If you cannot correct the error, enter
> REPLY xx,'B' in response to message
> IFD139D. OLTEP will leave the tape
> unlabelled. You must relabel the tape
> before you can use it again as a
> standard-label scratch tape.
>
> Problem Determination: Table I, items 30.

**IFD176I MUTUALLY EXCLUSIVE OPTIONS HAVE BEEN
SELECTED**

> Explanation: In responding to message
> IFD105D, the operator selected options RE
> and MI; these options are mutually
> exclusive.
>
> System Action: OLTEP issues message
> IFD161I and reissues message IFD105D.
>
> Operator Response: Probable user error.
> In responding to message IFD105D, select
> either option RE or option MI, but do not
> specify both.
>
> Problem Determination: Table I, items 2,
> 29.

IFD178I MESSAGE xx ANSWERED BY REMOTE

> Explanation: This message is issued to
> the on-site console to indicate that the
> remote specialist has replied to message
> IFD104E or IFD105D. In the message text,
> xx represents the reply ID of message
> IFD104E or IFD105D.
>
> Operator Response: None.

IFD179I NO UCB FOR ADDRESS dddddddd

> Explanation: OLTEP has been asked to test
> device dddddddd. There is no UCB (unit
> control block) for this address.
>
> System Action: OLTEP bypasses the device.

IFD

Operator Response: Probable user error.
Ensure that dddddddd is the correct
address for the device to be tested. If
the address is wrong, enter the correct
address when OLTEP next issues message
IFD105D.

Problem Determination: Table I, items 1,
2, 4, 5a, 16, 29. Cancel the job,
requesting a dump.

IFD186D VERIFY CHANNEL x RELEASE TO OLTS, REPLY
YES OR NO

Explanation: One of the following
conditions occurred:
• OLTEP has been asked to test channel x.
  It is therefore asking for exclusive use
  of that channel.
• Because of an error in the system, some
  unauthorized program is asking for
  exclusive control of the channel.

System Action: OLTEP waits pending the
operator's reply.

Operator Response: If you intend to test
the channel, enter REPLY xx,'YES.' OLTEP
will try again to gain exclusive use of
the channel. If it is successful, OLTEP
will proceed with the test. If it is
unsuccessful, it will issue the message
IFD142D to ask whether it should try again
or cancel the test.

If you do not desire to test the channel,
enter REPLY xx,'NO'. OLTEP will bypass
the test. You must enter the word YES or
NO in uppercase.

Note: This message does not appear in the
OLTEP output data set.

IFD210I ROUTINE xxxx BYPASSED, MANUAL INTV
REQUIRED

Explanation: OLT program routine xxxx
requires manual intervention by the
operator, but the Manual Intervention (MI)
option was not specified in the test
definition.

System Action: Routine xxxx is not
executed.

Operator Response: If you wish to run
routine xxxx, the next time you reply to
message IFD105D specify routine xxxx in
the test field and MI in the option field
of your test definition.

IFD212I CANNOT DATA PROTECT DEVICE ddd

Explanation: OLTEP attempted
unsuccessfully to verify the class and
type of device ddd.

System Action: OLTEP issues message
IFD120D.

Operator Response: Respond to message
IFD120D as indicated below:

If OLTEP is permitted to destroy all data
stored on the device, enter REPLY
xx,'YES'.

If the data on the volume must be
preserved, enter REPLY xx,'NO'. OLTEP
will bypass testing the device.

IFD243D ARE SHARED DEVS USED BY OTHERS, REPLY YES
OR NO

Explanation: This message is requesting
the CU TEST user to verify that all
devices shared by this system with other
systems (the devices listed in message
IFD244I) are logically disconnected from
the other sharing systems. (As a result
of CDS checks on the listed devices, it
was assumed that these devices are
shared.)

System Action: A 'NO' response allows
testing to proceed normally. A 'YES'
response sends return code '08' to the
online test (OLT), and OLTEP will reject
that particular CU TEST request.

Programmer Response: Verify that all
devices listed in message IFD244I are
logically disconnected from (offline to)
other sharing systems. Reply 'NO' if all
devices are disconnected from sharing
systems. Reply 'YES' if there are devices
which cannot be disconnected or if there
are devices having a shared status of
available.

IFD244I THE FOLLOWING CU TEST DEVS ARE
        {ASSUMED CPU SHARED;   }
        {ONLINE, NON BTAM ALLOCATED;}
        ddd,ddd,...,ddd

Explanation: This message indicates one
of the following:
• ASSUMED CPU SHARED - The listed devices
  are assumed to be shared with another
  system. (The CDS for the device
  indicates the device is shared, or the
  lack of a CDS forces the CU TEST
  function to assume the device is
  shared.)
• ONLINE, NON BTAM ALLOCATED - The devices
  in the list resulting were found to be
  online or allocated, and not under BTAM
  control; therefore, the devices could
  not be tested.

In any case, ddd,ddd,...,ddd indicates the
list of shared or online/allocated
devices. The devices listed apply only to
the associated message text.

System Action: The system action depends
on the text of the message. In the first
case, the list of shared devices is
followed by message IFD243D, requesting
the operator to examine the shared devices
and make sure that they are disconnected
from the other sharing systems. In the
second case, the CU TEST facility is not
honored for online/allocated, non-BTAM
devices. A return code of 08 is sent to
the OLT.

Operator Response: In the first case, logically disconnect any shared devices from other sharing systems, and reply to message IFD243D. In the second case, vary the non-BTAM devices offline, and reenter the D/T/O/ OLTEP command.

IFD255I message

Explanation: This is a communications message from an on-site C.E. to the remote specialist, or vice versa.

Operator Response: If applicable, respond as indicated in the message text.

IFD400I TP LINE CONNECTION, LINE=xxxxxxxx, TERMINAL=xxxxxxxx

Explanation: OLTEP is testing teleprocessing equipment, and the above message is the output for each TP test where:

    LINE=address of the line
    TERMINAL=symbolic name of the terminal.

System Action: Processing continues.

Operator Response: None.

IFD405I OPERATOR CALL REQUIRED, TELEPHONE NUMBER NOT IN CDS

Explanation: OLTEP is testing Teleprocessing equipment. The telephone number for the terminal to be tested is not in the configuration data set; therefore, the operator must establish the line connection by placing a call to that terminal.

System Action: If the call has not been made within 4 minutes, the line connection is terminated.

Operator Response: If the telephone number is known, place a call to the terminal.

IFD406I OPERATOR CALL TERMINAL ON NUMBER xxxxxxxxxxxxxxxxxxxx

Explanation: OLTEP is attempting to test a terminal. To continue with the line connection, the operator must call the terminal.

System Action: If the call has not been made within 4 minutes, the line connection is terminated.

Operator Response: Place a call to the terminal on the number displayed.

IFD407I OPERATOR CALL NOT COMPLETED WITHIN TIME LIMITS

Explanation: OLTEP is attempting to test a terminal, and the operator has been requested to call that terminal within a specific time interval. The call was not placed to terminal within the allotted time (4 minutes) after message IFD405I or IFD406I appeared.

System Action: Line connection for that terminal is not made.

Operator Response: None.

IFD412I CCW CHAIN TERMINATED ON xxxxxxxxxxxxxxxx

Explanation: The displayed CCW chain, used for a line connection, has terminated.

System Action: The line connection is not made.

Operator Response: Make sure that the terminal is operational and retry the procedure.

IFD413I REQUIRED CDS POINTER NOT PRESENT

Explanation: The OLT did not specify the configuration data set for this device.

System Action: Line connection is not made.

Operator Response: None.

IFD415I REQUIRED DATA INCORRECT OR MISSING IN CDS

Explanation: One of the following errors occurred:
• an invalid CCW line connection code
• the set mode bytes were not present
• the number of dial digits exceeds 20
• the dial digit count equals zero

System Action: Line connection is not made.

Operator Response: Correct the CDS file to include all the necessary information.

IFD501I xxxxxxxx BYPASSED, INVALID TEST

Explanation: OLTEP has been asked to run an invalid test (xxxxxxxx). That test is being withdrawn from use.

System Action: OLTEP bypasses the test.

Operator Response: None.

IFD505I TIME INTERVAL EXPIRED, NO LINE ACTIVITY

Explanation: One of the following conditions has occurred:
1. The RETAIN/370 Interface has been activated successfully, but no line activity to or from the remote terminal has occurred for ten minutes. The Interface must be reactivated before it can be used.
2. An unsuccessful attempt was made to activate the RETAIN/370 Interface. (That is, message IFD163I was not issued within ten minutes after the command was entered.)

System Action: In the second case, OLTEP terminates the RETAIN/370 Interface. In both cases, OLTEP issues message IFD105D.

(Note: Sometimes the system enters a two-minute wait state after issuing message IFD505I. If that happens, wait for OLTEP to issue this message again and then respond as indicated below.)

Operator Response: In the first case, do
one of the following:
- Attempt to reactivate the RETAIN/370
  Interface by entering REPLY xx,''REI''
  in response to message IFD105D. If you
  receive message IFD163I you may then
  resume testing from the point where the
  Interface was interrupted.
      To resume testing with the RE option,
      enter REPLY xx,'//RE/' in response to
      message IFD105D. (You must reenter
      the option, even if it had already
      been specified in the previous test
      definition. To resume testing
      without the RE option, enter REPLY
      xx,'///' in response to message
      IFD105D.
- To resume testing from the point where
  the RETAIN/370 Interface was interrupted
  without using the RETAIN/370 feature of
  OLTEP, enter REPLY xx,'///' in response
  to message IFD105D.
- To define a new test or terminate the
  job step without first trying to
  reactivate the RETAIN/370 Interface
  enter REPLY xx,'dev/test/opt/' or REPLY

xx,'CANCEL' in response to message
IFD105D.

In the second case, do one of the
following:
- Attempt to activate the RETAIN/370
  Interface again by entering REPLY
  xx,'REI' in response to message IFD105D.
- To proceed without the RETAIN/370
  feature, enter REPLY xx,'dev/test/opt/'
  or REPLY xx,'CANCEL' in response to
  message IFD105D.

IFD899I OLTEP INITIALIZATION CONFLICTS, OLTEP MUST
         TERMINATE

Explanation: The operator initiated a
second OLTEP when OLTEP was already
active.

System Action: The second OLTEP is
terminated.

Operator Response: Use the executing
OLTEP to run the tests desired.

Component Name	IFF
Program Producing Messages	Graphics Access Method Program
Audience and Where Produced	For the Operator: console For 2250 display unit programmer: 2250 display unit

Message Format	IFFnnnI text (for 2250 display unit)
	xx IFFnnnI text (for system console)
	xx
	    message reply identifier (absent if no operator reply is
	    needed).
	
	nnn
	    Message serial number; (also indicates recipient of message)
	    0nn message routed to console.
	    1nn message routid to 2250 display unit programmer.
	
	I
	    Information: no operator action is required except to inform
	    the system programmer.
	
	text
	    Message text.

Comments	IFF messages are not included in this publication. They are documented in the publication Problem Determination Aids and Messages and Codes for GPS and GSP, GC27-6970.
Associated Publications	Problem Determination Aids and Messages and Codes for GPS and GSP, GC27-6970.

IFF

Component Name	IGF
Program Producing Message	Machine-check handler program and dynamic device reconfiguration program.
Audience and Where Produced	For operator: console.

Message Format	IGFnnns text CPU ID $\begin{Bmatrix}1\\2\end{Bmatrix}$
	
	nnn
	    Message serial number.
	s
	    Type code.
	
	  I This message supplies information about the error recovery attempt.
	  W The system has been placed in wait state by MCH.
	  E This message supplies error recovery information and indicates that operator action is required, but that the action may be delayed until convenient.
	
	  Type code (dynamic device reconfiguration program):
	
	  A Action; operator must perform a specific action.
	  D Decision; operator must choose an alternative.
	  E Eventual action; operator must perform action when he has time.
	  I Information; no operator action is required.
	text
	    Message text.
	CPU ID $\begin{Bmatrix}1\\2\end{Bmatrix}$
	    The identification of the CPU to which the message applies (for Model 65 only). For a uniprocessing system, the CPU ID is always 1; for a multiprocessing system, the CPU ID can be either 1 or 2.

Comments	The first format of the message is used for the machine-check handler program; the second format of the message is used for the dynamic device reconfiguration program.

Associated Publications	IBM System/360 Operating System:
	  Input/Output Supervisor, Program Logic Manual, GY28-6616.
	  Machine-Check Handler for IBM System/360 Model 65, Program Logic Manual, GY27-7155.
	  Machine-Check Handler for IBM System/360 Model 85, Program Logic Manual, GY27-7184.
	  Machine-Check Handler for IBM System/370 Models 155 and 165, Program Logic Manual, GY27-7198.
	  Machine-Check Handler For the IBM System/370 Models 135 and 145, GY27-7237.
	  Machine-Check Handler for IBM System/370 Model 145, Program Logic Manual, GY27-7237.

Problem Determination	Refer to the fold-out in part VI of this publication for problem determination instructions.

IGF

```
IGF001W [S] (P) aaaaaa  [CPU ID (1)]          aaaaaa = Starting address of storage
            {B}                {2}                            failure
            (U)

     P = Primary storage failure               Explanation:  MCH has encountered a
     B = Block storage failure                 permanent storage failure within a
     U = Unit storage failure                  supervisor area.
```

System Action: Enter wait state.

Operator Response: Probable hardware error. If 'S' is present, execute the SEREP program for the model. If 'S' is not present, restart the system and execute the IFCEREP0 program.

Problem Determination: Table I, items 14, 30.

IGF002W [S] SUPVR MC CPU ID $\begin{Bmatrix}1\\2\end{Bmatrix}$

Explanation: MCH has encountered a nonrecoverable failure within a supervisor area.

System Action: Enter wait state.

Operator Response: Probable hardware error. If 'S' is present, execute the SEREP program for the model. If 'S' is not present, restart the system and execute the IFCEREP0 program.

Problem Determination: Table I, items 14, 30.

IGF003W [S] UNEX MCI

Explanation: MCH has encountered an unexpected machine-check interruption during its error recovery attempt.

System Action: Enter wait state.

Operator Response: Probable hardware error. If 'S' is present, execute the SEREP program for the model. If 'S' is not present, restart the system and schedule the execution of the IFCEREP0 program.

Problem Determination: Table I, items 14, 30.

IGF004W [S] PGM CHK CPU ID $\begin{Bmatrix}1\\2\end{Bmatrix}$

Explanation: A program interruption occurred during MCH processing.

System Action: Enter wait state.

Operator Response: Probable hardware error. If 'S' is present, execute the SEREP program for the model. If 'S' is not present, restart the system and schedule the execution of the IFCEREP0 program.

Problem Determination: Table I, items 14, 30.

IGF006W [S] I/O ERR $\begin{Bmatrix}\text{CPU ID}\begin{Bmatrix}1\\2\end{Bmatrix}\\\text{cua}\end{Bmatrix}$

Explanation: The MCH Resident Nucleus module was unable to load a schedule MCH transient module. MCH operation must terminate. For Model 65, an I/O error occurred during MCH processing. Consult the wait state code for further information about the type of error.

System Action: Enter wait state.

Operator Response: Probable hardware error. If 'S' is present, execute the SEREP program for the model. If 'S' is not present, restart the system and schedule the execution of the IFCEREP0 program.

Problem Determination: Table I, items 14, 30.

IGF010W S NOT M/xx CPU ID $\begin{Bmatrix}1\\2\end{Bmatrix}$

xx = 65 or 85

Explanation: MCH determined that the machine is not an IBM System/360 Model 65, or it is not an IBM System/360 Model 85.

System Action: Enter wait state.

Operator Response: Probable hardware error. Execute the SEREP program for the model. Ensure that the correct operating system is being used.

Problem Determination: Table I, items 14, 30.

IGF011W S MCI-NIP CPU ID $\begin{Bmatrix}1\\2\end{Bmatrix}$

Explanation: MCH determined that it has not been properly initialized by NIP.

System Action: Enter wait state.

Operator Response: Probable hardware error. Execute the SEREP program for the model.

Problem Determination: Table I, items 14, 30.

IGF012W [S] MCI-CCH $\begin{Bmatrix}\text{CPU ID}\begin{Bmatrix}1\\2\end{Bmatrix}\\c\end{Bmatrix}$

Explanation: MCH determined that a machine-check interruption occurred during Channel-Check Handler processing.

System Action: Enter wait state.

Operator Response: Probable hardware error. If 'S' is present, execute the SEREP program for the model. If 'S' is not present, restart the system and schedule the execution of the IFCEREP0 program.

Problem Determination: Table I, items 14, 30.

IGF013W [S] CHAN ERR $\begin{Bmatrix}\text{CPU ID}\begin{Bmatrix}1\\2\end{Bmatrix}\\c\end{Bmatrix}$

Explanation: MCH was entered because there was a channel-check interruption and

a) CCH was not in the system or b) CCH could not recover from the failure.

System Action: Enter wait state.

Operator Response: Probable hardware error. If 'S' is present, execute the SEREP program for the model. If 'S' is not present, restart the system and schedule the execution of the IFCEREP0 program.

Problem Determination: Table I, items 14, 30.

IGF014 {I}{cua csw }
       {W}{S cua csw}

cua = device address
csw = channel status word

Explanation: An I/O error occurred while MCH was clearing the channel path to an I/O device.

System Action: Continue operation or enter wait state according to the severity of the error.

Operator Response: Problem hardware error. If 'S' is present, execute the SEREP program for the model. If 'S' is not present, restart the system and schedule the execution of the IFCEREP0 program.

Problem Determination: Table I, items 14, 30.

IGF015 {I}{UNEX ERR   },hh.mm.ss
       {W}{[S] UNEX ERR}

Explanation: An unexpected error occurred while MCH was making a recovery attempt. For System/370, probable causes of this error are:
• The system encountered an erroneous machine check interrupt code.
• The machine check handler program was processing a hard machine check interruption when another hard machine check interruption occurred.
• The system encountered a program check in the machine check handler.

System Action: Continue operation or enter WAIT state according to the severity of the error.

Operator Response: Probable hardware error. If the type code in the message is I, no response is necessary. If the type code is W and S appears in the message text, execute the SEREP program for the model. If the type code is W and S does not appear in the message text, restart the system and schedule the execution of the IFCEREP0 program.

Problem Determination: Table I, items 14, 30.

IGF016W [S] 2880 CHx

Explanation: MCH encountered a catastrophic failure on the 2880 channel identified by x. The failure occurred when hardware could not perform a channel logout.
If 'S' is not present in the message text, the error was recorded in the SYS1.LOGREC data set. If 'S' is present in the message text, the error was not recorded.

System Action: Enter wait state.

Operator Response: Probable hardware error. If 'S' is present, execute the SEREP program for the model. If 'S' is not present, restart the system and schedule the execution of the IFCEREP0 program.

Problem Determination: Table I, items 14, 30.

IGF020I ABEND, hh.mm.ss

Explanation: MCH has encountered a nonretryable or a retry-failed condition in a task which can be abended.

System Action: The affected task is scheduled for an abnormal termination. System operation continues.

Operator Response: Probable hardware error.

Problem Determination: Table I, items 30.

IGF021I nnnnnnnn

Explanation: MCH has encountered a nonrefreshable error in the Resident Access Method (RAM) entry Area. The module name has been deleted from RAM (this message is applicable only to MFT).

nnnnnnnn = Request Block (RB) name

System Action: The requestor is abnormally terminated; system operation continues.

Operator Response: Probable hardware error. If a system task was terminated, this task should reinitialized. If a problem program was terminated, this program should be rescheduled.

Problem Determination: Table I, items 30.

IGF022I RAM xx

Explanation: MCH has detected a nonrefreshable error and has determined that the RAM chain has been altered (applicable to MFT only). 1

xx = RAM chain ID of the last good chain member

System Action: System operation continues.

IGF

Operator Response: None. Probable
hardware error.

Problem Determination: Table I, items 30.

| IGF023I BLDL DLT, hh.mm.ss

    Explanation: MCH has detected a
nonrefreshable error in the LINKLIB BLDL
table and has either deleted the affected
entry (Model 65 only), or has deleted the
table from use.

    System Action: The requestor has been
scheduled for an abnormal termination.
System operation continues.

    Operator Response: None. Probable
hardware error.

    Problem Determination: Table I, items 30.

| IGF024I $\begin{Bmatrix} P \\ B \\ U \end{Bmatrix}$ address $\begin{Bmatrix} S \\ P_1 \end{Bmatrix}$, hh.mm.ss

    nnnnnnnn SET NON-DISPATCHABLE
    xxxxxxxx

    P   = Primary storage failure
    B   = Block storage failure
    U   = Unit storage failure
    address = Address of storage failure
    S   = System task
    P_1 = Problem program
    xxxxxxxx = Job identity not available.

    Note: The second format of this message
is for System/370 only.

    Explanation: If the first format of this
message is issued, MCH encountered a
permanent storage failure in the dynamic
area which affects the indicated task. If
the second form of the message is issued,
MCH encountered a permanent error in
storage which affects the indicated job.

    System Action: The affected task's TCB is
set nondispatchable with the result of
system degradation; system operation may
either quiesce or continue.

    Operator Response: Probable hardware
error. Monitor the system until it
quiesces, then attempt to restart the
system.

    Problem Determination: Table I, item 29.

IGF025I $\begin{Bmatrix} \text{MSTRSCHD} \\ \text{bbbbbbbb} \end{Bmatrix}$
    MSTRSCHD = Master Scheduler (MVT)
    bbbbbbbb = Master Scheduler or
               Communication Task -- not
               determinable (MFT)

    Explanation: MCH has encountered a
nonretryable or retry-failed condition
within the indicated task.

    System Action: The affected task's TCB is
set nondispatchable with the result of
system degradation; system operation
quiesces.

Operator Response: Probable hardware
error. Monitor the system until it
quiesces, then restart the system.

Problem Determination: Table I, item 30.

IGF026I $\begin{Bmatrix} \text{RDR} & \text{xx} \\ \text{WTR} & \text{xx} \\ \text{I/T} & \text{xx} \\ \text{SYTSK} & \text{xx} \\ \text{STC} & \text{xx} \end{Bmatrix}$
RDR = Reader system task
WTR = Writer system task
I/T = Initiator/Terminator task (MVT)
SYTSK = System Task (MFT)
STC = System Task Control Routine (MVT)
xx = bb (MVT) or Partition ID (MFT)

    Explanation: MCH has encountered a
nonretryable or retry-failed condition in
the indicated task.

    System Action: The affected task is
abnormally terminated with the result of
system degradation; system operation
continues.

    Operator Response: Probable hardware
error. Reintialize the affected task.

    Problem Determination: Table I, item 30.

IGF027I STORAGE DAMAGE aaaaaa-bbbbbb JOB ABEND
       (DS OPEN)
IGF027I jjj(dsn)(dsn)...; jjj(dsn);...

    aaaaaa = starting address of damaged
           storage area
    bbbbbb = final address of damaged storage
           area
    jjj = name of job(s) that have been
           abnormally terminated
    dsn = name of data set(s) that were left

IGF028I I/O ERR

    Explanation: The MCH error recorder has
failed because of an I/O failure on the
SYSRES device.

    System Action: System operation
continues.

    Operator Response: Probable hardware
error. Relocate the SYSRES volume on
another device and restart the system.

    Problem Determination: Table I, item 30.

| IGF029I csw, hh.mm.ss
    csw = channel status word

    Explanation: The MCH error recorder has
failed because of an I/O failure on the
SYSRES device.

    System Action: System operation
continues.

    Operator Response: Probable hardware
error. Relocate the SYSRES volume on
another device and restart the system.

    Problem Determination: Table I, item 30.

IGF032I aaaaaa, hh.mm.ss

      aaaaaa = the address of the instruction
             which was successfully retried

      Explanation: MCH instruction retry was
      successful.

      System Action: System operation
      continues.

      Operator Response: None. Probable
      hardware error.

      Problem Determination: Table I, item 30.

IGF033E RUN EREP, hh.mm.ss

      Explanation: The SYS1.LOGREC data set
      lacks adequate space for an MCH record
      entry. At least one MCH recovery record
      has been lost.

      System Action: System operation
      continues.

      Operator Response: None. Probable
      hardware error.

      Problem Determination: Table I, items 18,
      30.

IGF040I TSO $\begin{Bmatrix} S \\ R \end{Bmatrix}$ $\begin{Bmatrix} ND \\ AB \end{Bmatrix}$

      TSO - TSO Subsystem
      S - Subsystem is affected by MCI
      R - Region is affected by MCI
      ND - Affected task has been set
           non-dispatchable
      AB - Affected task has been abnormally
           terminated

      Explanation: MCH has associated an error
      with a task which is in a nonrefreshable
      portion of code in the TSO subsystem area.

      System Action: The affected task in the
      TSO subsystem has been either set
      non-dispatchable or abnormally terminated
      by the TSO recovery routine. System
      operation continues.

      Operator Response: None. Probable
      hardware error.

      Problem Determination: Table I, items 30.

IGF041I STAT ERR, hh.mm.ss

      Explanation: The machine status as
      indicated in logout does not agree with
      the status record of MCH.

      System Action: MCH restored the machine
      to the status per its record and continued
      its execution.

      Operator Response: None. Probable
      hardware error.

Problem Determination: Table I, items 30.

IGF042I HSM-ERR, hh.mm.ss

      Explanation: A residue or parity error
      has been detected in the high speed
      multiply feature.

      System Action: The regular multiply
      algorithm has been loaded in writable
      control storage (WCS). The MCW bit to
      bypass the high speed multiply feature has
      been turned on. All multiply instructions
      will now be executed by the regular
      multiply algorithm. System operation
      continues.

      Operator Response: None. Probable
      hardware error.

      Problem Determination: Table I, items 30.

IGF043I $\begin{Bmatrix} HIR \\ ECC \end{Bmatrix}$ CNT, hh.mm.ss
      HIR = Hardware Instruction Retry
      ECC = Error Correction Code

      Explanation: The threshold provided by
      the operator to control mode switching
      automatically has been reached.

      System Action: The indicated machine
      recovery facility (HIR or ECC) has been
      switched to count mode.

      Operator Response: None. Probable
      hardware error.

      Problem Determination: Table I, items 30.

IGF044I ECC SUCCESSFUL

      Explanation: MCH has identified a soft
      machine-check interruption which resulted
      from an ECC-corrected single-bit storage
      data failure.

      System Action: Continue operation.

      Operator Response: None. Probable
      hardware error.

      Problem Determination: Table I, items 30.

IGF045I $\begin{Bmatrix} \text{MULT BIT } x_1\ x_2\ x_3 \\ \text{MULTIPLE BIT ERROR} \end{Bmatrix}$,hh.mm.ss

      Explanation: MCH has identified a
      permanent machine-check interruption which
      resulted from an uncorrectable
      multiple-bit storage data failure. (The
      second format of the message appears only
      for an IBM System/370 model).

      For IBM 2365 system:
      $x_1\ x_2\ x_3$ is the sub-unit in which the
      failing storage is located.
           0   0 = Biframe 0
      x_1 = 1   1 = Biframe 1

           L   L = Left unit
      x_2 = R   R = Right unit

```
              O   O = odd BOM
       x₃ =   E   E = even BOM

       For IBM 2385 storage system:

              0   0 = Core Storage Unit 0
       X₁ =   1   1 = Core Storage Unit 1
              2   2 = Core Storage Unit 2
              3   3 = Core Storage Unit 3

              0   0 = Logical Storage Unit 0
       X₂ =   1   1 = Logical Storage Unit 1
              2   2 = Logical Storage Unit 2
              3   3 = Logical Storage Unit 3

              L   L = Left Basic Storage Module
       X₃ =   R   R = Right Basic Storage Module
```

System Action: Continue operation.

Operator Response: None. Probable hardware error.

Problem Determination: Table I, items 30.

IGF046I n SEC xx, hh.mm.ss

```
       n = 1 Buffer In Key
           2 Block Valid
           3 Sector Compare
           4 Multiple Sector Compare
           5 Sector Key
           6 Buffer Mark
           7 Buffer Address Bus
           8 Buffer Data Bus Out
```

xx = two digit number from 00 to 31

Explanation: The check indicated by n has occurred.

System Action: MCH has deleted the buffer sector indicated by xx to prevent further machine check interruptions.

Operator Response: None. Probable hardware error.

Problem Determination: Table I, items 30.

IGF047I n BUFFER, hh.mm.ss

Explanation: The check indicated by n has occurred. (See IGF046I for meaning of n).

System Action: MCH has disabled the buffer to prevent further machine check interruptions.

Operator Response: None. Probable hardware error.

Problem Determination: Table I, items 30.

IGF048I HIR SUCCESSFUL, hh.mm.ss

Explanation: MCH has identified a soft machine check interruption which resulted from a successful hardware retry.

System Action: System operation continues.

Operator Response: None. Probable hardware error.

Problem Determination: Table I, items 30.

IGF049I MODE STATUS

```
IGF049I HIR - mode         SECTORS DELETED       MULT
                           ECC - mode
                           00-10 nnnnnnnnnnn    status
IGF049I THR-ddddddddddd    THR-ddddddddddd
                           11-21 nnnnnnnnnnn    BUFR
IGF049I CNT-ddddddddddd    CNT-ddddddddddd
                           22-31 nnnnnnnnnn     status
```

Note: These formats issued on Model 85 only.

Explanation: This message gives the status of certain machine facilities of the Model 85, in response to the operator command MODE entered with the parameter STATUS. It gives the mode, threshold, and present number count of the machine recovery facilities Hardware Instruction Retry (HIR) and Error Correction Code (ECC); a list of sectors deleted from the high speed buffer; and the status of the high speed multiply and high speed buffer facilities, as follows (descriptions of all these terms may be found in IBM System/360 Operator's Reference, GC28-6691):

mode
    for Hardware Instruction Retry (HIR) and Error Correction Code (ECC), may be either RECORD, indicating that the facility is in recording mode, or COUNT, indicating count mode.
ddddddddddd
    indicates the threshold (THR) and the present error count (CNT) in decimal.
nnnnnnnnnnn
    indicates, for each sector, whether the sector is active or deleted. Each number in each row represents a sector; '0' indicates that the sector is active, '1' that it has been deleted.
status
    for the high speed multiply facility (MULT), may be either NORM, indicating that the facility is working normally, or ALT, indicating that it is not working, and the alternate multiply control is being used instead; for the high speed buffer (BUFR), may be either ENB, indicating that the buffer is enabled, or DSB, indicating that the buffer is disabled.

Operator Response: None.

IGF049I HIR, {R},aaaa/bbbb,cccc/dddd ECC,
              {Q}
          BUF DEL=xxxx

R=recording mode
Q=quiet mode
aaaa=current error count
bbbb=error count threshold
cccc=elapsed time or 'INVL' if the TOD clock is invalid
dddd=time threshold
xxxx=number of buffer pages deleted
Note: This format is issued on Model 155 only.

Explanation: This message gives the status of the machine recovery facilities for IBM System/370 Model 155. These facilities are the Hardware Instruction Retry (HIR) and Error Correction Code (ECC). See IBM System/360 Operator's Reference, GC28-6691 for further details on the terms used above.

Operator Response: None.

IGF050W [S] TOD ERROR

Explanation: An error has occurred in the Time of Day Clock.

System Action: Enters wait state.

Operator Response: Probable hardware error. If 'S' is present, execute the SEREP program for the model. If 'S' is not present, restart the system and schedule the execution of the IFCEREP0 program.

Problem Determination: Table I, items 14, 30.

IGF051I HRT ERROR, hh.mm.ss

Explanation: An error has occurred in the High Resolution Timer (HRT).

System Action: MCH has corrected the damage. System operation continues.

Operator Response: None. Probable hardware error.

Problem Determination: Table I, items 30.

IGF052I xxxx BUFF PG DELETED, hh.mm.ss

Explanation: In the message text, xxxx is the number of buffer pages which have been deleted.

Note: This message is for IBM System/370 Model 155 only.

System Action: System operation continues.

Operator Response: None. Probable hardware error.

Problem Determination: Table I, item 30.

IGF053I MODE STATUS-ECC {QUIET / RECORD} HIR {QUIET / RECORD}
        COUNT-n THRESHOLD-n

IGF053I MODE STATUS {RECORD / QUIET} COUNT-n THRESHOLD-n
        BUFFER {ENABLED / DISABLED}

Note: The first format of the message is for the System/370 Model 135 and the second is for the System/370 Model 165.

Explanation: This message gives the status of the machine recovery features of the IBM System/370 Models 135 and 165. The message tells whether the system is in

recording or quiet mode, what the soft error count and soft error threshold are, and whether the buffer is enabled or disabled.

System Action: System operation continues.

Operator Response: None.

IGF054E SYS1.LOGREC FULL, hh.mm.ss

Explanation: The SYS1.LOGREC data set lacks adequate space for an MCH or CCH record entry. At least one MCH or CCH recovery record has not been recorded.

System Action: System operation continues.

Operator Response: Schedule the IFCEREP0 program.

Problem Determination: Table I, items 14, 30.

IGF055I {QUIET MODE / QUIET MODE ECC} [,HIR], hh.mm.ss

Note: The second format is for the IBM System/370 Models 135 and 155 only.

Explanation: The threshold counts for CPU retry or Error Correction Code have been exceeded and the facility has been placed in quiet mode.

System Action: System operation continues.

Operator Response: None. Probable hardware error.

Note: For the Model 145 this message only applies to control storage.

Problem Determination: Table I, items 30.

IGF056I I/O ERR IN RECORDER, hh.mm.ss

Explanation: An uncorrectable I/O error occurred while the MCH recording routine was recording on the SYS1.LOGREC data set.

System Action: The routine may not have been able to the present records, but will attempt to record subsequent records. System operation continues.

Operator Response: Probable hardware error. Schedule the IFCEREP0 program. Then execute the IFCDIP00 program.

Problem Determination: Table I, items 14, 30.

IGF057E DISK FORMAT ERROR, hh.mm.ss

Explanation: The MCH recording routine found that the preformatted area of SYS1.LOGREC is incorrect.

System Action: The system will proceed as usual except that further errors will not be recorded.

Operator Response: Probable hardware
error. Schedule the IFCEREP0 program.
Then schedule the IFCDIP00 program.

Problem Determination: Table I, items 14,
30.

IGF058I BUFFER DISABLED

Explanation: The following has occurred
depending on the Model: Model 165 - four
buffer errors were detected by MCH. Model
165II and 168 - part of the buffer has
been deleted by hardware.

System Action: One of the following
occurs: Model 165 - MCH has disabled the
buffer between main storage and the CPU to
prevent further machine-check
interruptions. System operation continues
without the use of the buffer. Model
165II and 168 - Processing continues.

Operator Response: Probable hardware
error. If the problem recurs, call IBM
for hardware support.

IGF060I SYS1.LOGREC NEAR FULL

Explanation: The SYS1.LOGREC data set,
used by the Machine-Check Handler for
error recording, is nearly full. This
message may be followed by the message
IGF054E SYS1.LOGREC FULL. See Operator
Response.

System Action: System operation
continues.

Operator Response: Print out the
Environment Record, Edit and Print (EREP)
data set by running the IFCEREP0 program.
If space is not made available thus, an
MCH recovery record may be lost.

IGF061I MODE SWITCH COMPLETEQQ

Explanation: The machine status has been
successfully altered through the use of
the MODE command.

System Action: System operation
continues.

Operator Response: None.

IGF063I SVC BLDL DLT

Explanation: MCH has detached a
nonrefreshable error in the SVCLIB BLDL
table and has deleted the affected entry
or has deleted the table.

System Action: The requestor has been
scheduled for an abnormal termination.
System operation continues.

Operator Response: None. Probable
hardware error.

Problem Determination: Table I, item 30.

IGF500I SWAP xxx TO yyy

IGF500D {REPLY 'YES', DEVC, OR 'NO'}
         {REPLY 'YES', OR 'NO'   }

Explanation: The message is a repeat of a
SWAP command entered by the operator.
If IGF500D is REPLY 'YES', OR 'NO', device
xxx is a shared direct access storage
device, which can only be removed from and
remounted on itself.

Caution: If a 7-track tape drive in being
used at 200 BPI, the operator must make
sure that the 'TO' device has the 200 BPI
feature.

System Action: The system continues
operation. The 'YES' or DEVC reply
invokes the dynamic device reconfiguration
function. The 'NO' reply causes a
permanent I/O error to be posted for
device xxx, or, if the request is
operator-initiated, causes the SWAP
command to be cancelled.

Operator Response: When IGF500D is REPLY
'YES', DEVC, OR 'NO':
• If a swap to device yyy is desired, then
  enter YES . See note below.
• If dynamic device reconfiguration is
  desired but device yyy is not
  acceptable, enter the primary channel
  unit address of the device to which the
  volume on xxx is to be moved. Warning:
  Insure that the specified device is
  available to the system before entering
  the reply. See note.
• If dynamic device configuration is not
  desired, enter NO.
  When IGF500D is REPLY 'YES', OR 'NO':
• If you wish to remove the volume from
  shared direct access device xxx and then
  remount it on device xxx, enter YES.
  See note.
• If you do not wish to remove the volume
  from shared direct access device xxx and
  then remount it on device xxx, enter NO.

Notes: When entering YES or 3-character
device address, do not move the volume
until the "PROCEED" message for device xxx
is written. If the volume is moved before
the "PROCEED" message is written, data set
integrity may be lost.

DDR does not check 'TO' device for an
AVR mount.

CAUTION: If 2314 or 2319 is indicated.
insure before swapping that no head-disk
interference ("head crash") problem
exists.

If you decide to cancel the job that
was running when DDR got control, or if
that job ABENDs, you must reply to any
outstanding DDR messages that require
replies.

If message IGF500I (or IGF509I) is
received again for the same error on the
2314/2319, do not SWAP again. Devices
actively involved in DDR should not be
varied offline.

Problem Determination: Table I, items 2,
30.

IGF501D SWAP SYSRES FROM xxx TO yyy

Explanation: Either a permanent I/O error
has occurred on the primary SYSRES device
or a SWAP command has been entered for the
primary SYSRES device.

System Action: The system will not start
any I/O operations on the SYSRES device or
on device yyy until the swap is completed
as instructed.

Operator Response: Take one of the
following actions:
• Move the primary SYSRES volume from
device xxx to yyy. (If there is a
volume mounted on yyy, exchange it with
SYSRES.) Ready the device with the
primary SYSRES volume first.
• Put a duplicate SYSRES volume on device
yyy and ready the device. Before using
the duplicate volume, the installation
must insure that writing to SYSRES has
been prohibited except to the
SYS1.LOGREC data set.
• If xxx = yyy:

For 2311's, ready the current SYSRES
device.

For 2314's and 2319's, move SYSRES to any
spare drive belonging to the same control
unit as the SYSRES device and ready the
device with the address plug xxx.

IGF502E PROCEED WITH SWAP xxx TO yyy

Explanation: Dynamic device
reconfiguration (DDR) is waiting for
swapping of volumes.

System Action: The system continues
operation.

Operator Response: Move the volume on
device xxx to device yyy. If a volume
resides on yyy, move that volume to device
xxx. Make both devices ready.

If xxx and yyy are the same device, make
the device not ready, then make it ready.

If you decide to cancel the job that was
running when DDR got control, or if that
job ABENDs, you must reply to any
outstanding DDR messages that require
replies.

You must complete the physical swap.

IGF503I ERROR ON yyy, SELECT NEW DEVICE

Explanation: A permanent I/O error has
occurred during dynamic device
reconfiguration tape repositioning; tape
repositioning was in process as the result
of a SWAP request to yyy. The error
occurred positioning the tape from the
load point on yyy.

System Action: The tape is rewound and
unloaded. The system continues operation.

Operator Response: Select a new "to"
device for yyy. If the reply is NO, the
job must be cancelled.

CAUTION: If you decide to cancel the job
that was running when DDR got control or
if that job ABENDs, you must reply to any
outstanding DDR messages.

IGF504I AN ERP IS IN PROCESS FOR xxx

Explanation: A swap was requested from
tape device xxx. By the time dynamic
device reconfiguration gained control, an
error recovery procedure had begun
processing for that device. This message
will always be followed by message
IGF512I.

System Action: The system continues
operation. The operator-initiated swap
request is cancelled. If the error
recovery procedure is unsuccessful, the
system will request dynamic device
reconfiguration.

Operator Response: If the system does not
request dynamic device reconfiguration,
the error recovery procedure was
successful. Enter the SWAP command again.

IGF505I SWAP FROM xxx TO yyy COMPLETE

Explanation: The swap requested for the
tape volume on device xxx is now complete.

System Action: The system continues
operation.

Operator Response: If an
operator-initiated swap has previously
been rejected by the system, because
another dynamic device reconfiguration
request was processing, reissue the SWAP
command. Otherwise, no action is
required.

IGF507A VOLUME ON DEVICE yyy UNIDENTIFIABLE, SWAP
SYSRES TO zzz

Explanation: While swapping the system
residence volume during dynamic device
reconfiguration, the label of the volume
made ready as SYSRES could not be
determined on the device with address yyy.
Either an I/O error occurred during the
volume label verification, or device yyy
was made not ready prior to readying
volume identification.

System Action: The system is no longer
certain of the whereabouts of SYSRES. It
is now waiting for SYSRES to be mounted on
the "to" device zzz as specified in the
message.

Operator Repsonse: If yyy is not equal to
zzz, move SYSRES to zzz and ready it. If
there is a volume already mounted on zzz,
demount it move SYSRES to zzz and ready
zzz, then mount the volume removed from
zzz on the original failing SYSRES device.

If yyy=zzz:

For 2311's, ready the device zzz.

For 2314's, 2319's, ready the device
zzz, but if the message is
repeated, move SYSRES to
any spare drive belonging
to the same control unit as
zzz, then ready the device
with the address plug zzz.

IGF508I OPERATOR INITIATED SWAP CANCELED BY SYSTEM

Explanation: (1) A conflict among DDR,
WTO, and device allocation is imminent;
DDR cannot continue processing. (2) For
SYSRES: Either the "to" device specified
in the SWAP command was found not
operative or the execution of the command
was interrupted by a system-initiated
system residence volume swap.

System Action: The SWAP command is
rejected. The system continues operation.

Operator Response: If you still wish to
swap, re-enter the SWAP command.

IGF509I SWAP xxx

IGF509D REPLY DEVC, OR 'NO'

Explanation: A permanent I/O error has
occurred on the device with channel unit
address xxx. The I/O error recovery
procedures may be recycled by removing the
volume from device xxx and then replacing
the volume on a device of the same type as
device xxx.

Caution: If a 7-track tape drive is being
used at 200 BPI, the operator must make
sure that the 'TO' device has the 200 BPI
feature.

For tape swaps, if you reply 'NO' to this
message and this message was preceded by
message IGF503I, DDR will unload the tape;
you should not re-ready this particular
tape because the system will not reposition
it before writing labels on it during
CLOSE processing. A non-labelled scratch
tape should be mounted to satisfy CLOSE.

System Action: The system continues
operation. Job jjj will not complete until
the operator responds with one of the
indicated replies.

Reply with a 3-character device address
(indicated in the message by DEVC) to
invoke the dynamic device reconfiguration
function.

Reply NO to cause a permanent I/O error
to be posted for device xxx.

Operator Response: If the DDR function is
desired, the primary address of a device
of the same type as xxx. (An unallocated
device on a different channel is
preferred.) Do not move the volume until
the system directs to do so with the
"PROCEED" message. If the volume is moved
before the "PROCEED" message is written,
data set integrity may be lost.

Warning: Insure that the specified device
is available to the system
before entering the reply.

If the DDR function is not desired,
enter NO.

CAUTION: If xxx is a 2314 or 2319 direct
access storage device, insure before
swapping that no head-disk interference
("head crash") problem exists.

If message IGF509I (or IGF500I) is
received again for the same error on the
2314 or 2319, do not swap.

If you decide to cancel the job that
was running when DDR got control, or if
that job ABENDs, you must reply to any
outstanding DDR messages that require
replies.

Problem Determination: Table I, items 2,
30.

IGF510I SYSRES RESIDES ON xxx

Explanation: This is a reminder in
response to a SWAP command for SYSRES.

System Action: This message is always
followed by a WTOR (IGF500D), requesting
confirmation.

Operator Response: None.

IGF511A WRONG VOLUME MOUNTED ON yyy

Explanation: In performing a swap, the
volume that had been on the "from" device
was not put on yyy. Some other volume has
been mounted.

System Action: The system continues
operation.

Operator Response: Demount the volume on
yyy and put the volume that was on the
"from" device on yyy.

IGF512I DDR TERMINATED

Explanation: One of the following
conditions exists, following an
operator-initiated Swap request:
1. The user did not specify REPOS=Y in
   his DCB when using EXCP. This is an
   indication that the user is not
   keeping an accurate block count and
   therefore DDR for tape cannot be
   performed.
2. Open, CLOSE, or EOV was found to be in
   process and therefore DDR for tape
   cannot be performed.
3. There was no user on the "from"
   device, so DDR is not needed at this
   time.
4. The user replied NO to message IGF500D
   or IGF509D.
5. For an operator-initiated tape swap:
   the 'from' device is allocated to a
   TSO task that is currently out of
   core. The user control blocks cannot
   be found.

System Action: The system continues
operation.

Operator Response: For case 1), none.
For case 2), re-enter the SWAP command.
For case 3), if you still desire to move
the tape, you can do so without DDR. For

case 4), none. For case 5), if you still
wish to swap, re-enter the SWAP command.

IGF513I yyy INVALID FOR SWAP

Explanation: Device yyy specified in
reply to message IGF500D for SWAP xxx,yyy
is one of the following:
• not of the same device type as xxx.
• not a supported device (see note).
• an invalid address.
• not operational.
• reply was made in lower case.

Notes:
• Teleprocessing devices are not
  supported.
• Emulator 7-track "native mode" tapes are
  not supported.
• For a systems residence volume swap
  request, the system residence volume
  must be on the xxx device.
• The following unit record swaps are
  supported:
  • 1403/1404 to 1403/1404.
  • 1442 to 1442.
  • 1443 to 1443.
  • 2501 to 2501.
  • 2520 to 2520.
  • 2540 to 2540.
  • 3505 to 3505.
  • 3525 to 3525.
• Unit record devices must be out of ready
  state when a SWAP is performed.
• When swapping printers, both printers
  must either have or not have the UCS
  option; that is, one printer cannot have
  the UCS option when the other does not.
• The system will not initiate requests
  for DDR on readers, punches, and
  printers, but the operator may request
  DDR for these devices during
  "intervention required" conditions only.
• Shared direct access storage devices can
  only be removed from and remounted on
  themselves.
• The following tape swaps are supported:
  • 7-track to 7-track.
  • 9-track to 9-track 800 bpi, and
    9-track 800 dual density to 9-track
    800 bpi or dual density.
  • 9-track 1600 bpi to 9-track 1600 bpi,
    and 9-track 1600 dual density to
    9-track 1600 bpi or dual density.
• An allocated tape device may not be
  specified as the yyy device in a SWAP
  command.
• An error occurred on the addressed
  device during a rewind/unload operation.

System Action: The system continues
operation. You may choose another yyy
device.

Operator Response: Wait for the recurring
messages IGF500I and IGF500D to either
correct the yyy device or cancel the swap.

IGF991E
$$\text{DEVICE } \begin{cases} \text{MOUNT} \\ \text{AND CHANNEL END} \\ \text{CHANNEL END} \\ \text{DEVICE END} \end{cases} \text{PENDING FOR} \\ \text{DEVICE ddd}$$

Explanation: The missing interrupt
checker found the named condition pending
for device ddd for more than the time
period specified by the installation; the
default time is 3 minutes. The
explanation depends on the condition named
in the message:
• MOUNT - System-issued MOUNT request for
  device ddd has not been satisfied within
  the specified period of time.
• DEVICE AND CHANNEL END - Both a channel
  end and a device end interruption have
  been pending for device ddd for more
  than the specified period of time.
• CHANNEL END - A channel end interruption
  for device ddd has been pending for more
  than the specified period of time.
• DEVICE END - A device end interruption
  for device ddd has been pending for more
  than the specified period of time.

System Action: Processing continues.

Operator Response: The response depends
on the condition named in the message:
• MOUNT - Ready device ddd. If the unit
  is ready, issue a VARY ONLINE command to
  generate a pseudo device end so that
  MOUNT command processing can continue.
• DEVICE AND CHANNEL END
  CHANNEL END - A hardware malfunction
  has occurred. The jobs using device
  ddd should be cancelled.
• DEVICE END - Examine device ddd for
  hardware malfunctions such as the SELECT
  light on a tape drive, or the SELECT
  LOCK light on disk drives. Check
  control or switching units for proper
  connection. If the device was just
  rewound or mounted, issue a VARY ONLINE
  command to generate a pseudo device end.
  Note: Issuing a VARY ONLINE command at
  any other time is inadvisable since data
  set integrity may be lost.

Problem Determination: Table I, items 2,
5a, 16, 24, 30.

Supervisor and Data Management Assembler Macro Expansion Messages (IHB)

Component Name	IHB
Program Producing Message	Assembler program during expansion of supervisor and data management macro instructions.
Audience and Where Produced	For programmer: assembler listing in SYSPRINT data set.

Message Format	ss, ***IHB {nnn / nnnn} text
	
	ss
	    Severity code indicating effect of error on execution of program being assembled:
	
	    * Informational message; no effect on execution.
	    0 Information only; normal execution is expected.
	    4 Warning message; successful execution is probable.
	    8 Error; execution may fail.
	    12 Serious error; successful execution is improbable.
	    16 Terminal error; successful execution is impossible.
	nnn or nnnn
	    Message serial number.
	text
	    Message text.

Comments	None.

Associated Publications	IBM System/360 Operating System:
	    Supervisor and Data Management Macro Instructions, GC28-6647
	    TCAM Programmer's Guide and Reference Manual, GC30-2024.

Problem Determination	Refer to the fold-out in part VI of this publication for problem determination instructions.

IHB001 xxx OPERAND REQ'D-NOT SPECIFIED

> **Explanation:** A required positional or keyword operand was omitted. The position or name of the operand is xxx.

> **System Action:** The macro instruction was partially expanded; expansion stopped on detection of the error. Severity code = 12.

> **Programmer Response:** Probable user error. Provide the required operand and reassemble.

> **Problem Determination:** Table I, items 15, 29.

> **Problem Determination:** Table I, items 13, 23, 29.

IHB002 INVALID xxx OPERAND SPECIFIED-yyy

> **Explanation:** An operand, whose position or name is xxx, was specified as yyy. The specified operand is invalid.

> **System Action:** The macro instruction was partially expanded; expansion stopped on detection of the error. Severity code = 12.

> **Programmer Response:** Probable user error. Correct the invalid operand and reassemble.

> **Problem Determination:** Table I, items 15, 29.

IHB004 REQUIRED OPERAND(S) NOT SPECIFIED

> **Explanation:** One or more required operands were omitted.

> **System Action:** The macro instruction was partially expanded; expansion stopped on detection of the error. Severity code = 12.

> **Programmer Response:** Probable user error. Provide all required operands and reassemble.

> **Problem Determination:** Table I, items 15, 29.

IHB005 INVALID REGISTER NOTATION IN RC OPERAND-xxx

> **Explanation:** The RC operand of a RETURN macro instruction specifies a return code location other than register 15. xxx is the operand as specified.

System Action: The macro instruction was not expanded. Severity code = 12.

Programmer Response: Probable user error. Either load the return code into register 15 and rewrite the operand as RC=(15), or specify the return code in the RC operand; recompile.

Problem Determination: Table I, items 13, 23, 29.

IBB006   INVALID REGISTER NOTATION WITH MF=L FCRM

Explanation: An operand of an L-form macro instruction (with an MF=L operand) is specified in register notation.

System Action: The macro instruction was partially expanded; expansion stopped on detection of the error. Severity code = 12.

Programmer Response: Probable user error. Specify the value in the operand, or omit the operand; resubmit the job.

Problem Determination: Table I, items 13, 23, 29.

IBB007   PARAM= OPERAND INVALID WITH SF=L FORM

Explanation: A PARAM operand is in an L-form ATTACH or LINK macro instruction.

System Action: The macro instruction was partially expanded; expansion stopped on detection of the error. Severity code = 12.

Programmer Response: Probable user error. Omit the PARAM operand. To create a remote problem program parameter list, use the L-form of the CALL macro instruction; resubmit the job.

Problem Determination: Table I, items 13, 23, 29.

IBB008   INVALID REGISTER NOTATION WITH SF=L FORM

Explanation: An operand of an L-form macro instruction (with an SF=L operand) is specified in register notation.

System Action: The macro instruction was partially expanded; expansion stopped on detection of the error. Severity code = 12.

Programmer Response: Probable user error. Specify the value in the operand or omit the operand; resubmit the job.

Problem Determination: Table I, items 13, 23, 29.

IBB009   ENTRY SYMBOL NOT ALLOWED WITH MF=L FORM

Explanation: The first positional (entry point) operand is specified in an L-form CALL macro instruction.

System Action: The macro instruction was partially expanded; expansion stopped on detection of the error. Severity code = 12.

Programmer Response: Probable user error. Omit the first positional operand and resubmit the job.

Problem Determination: Table I, items 13, 23, 29.

IBB010   ID= OPERAND INVALID WITH MF=L FORM

Explanation: The ID operand is specified in an L-form CALL macro instruction.

System Action: The macro instruction was partially expanded; expansion stopped on detection of the error. Severity code = 12.

Programmer Response: Probable user error. Omit the ID operand and resubmit the job.

Problem Determination: Table I, items 13, 23, 29.

IBB011   INVALID OPERAND SPECIFIED WITH SF=L FORM

Explanation: An operand does not conform to the special operand requirements of an L-form macro instruction (with an SF=L operand).

System Action: The macro instruction was partially expanded; expansion stopped on detection of the error. Severity code = 12.

Programmer Response: Probable user error. Check the special operand requirements for L-form use; omit the invalid operand and resubmit the job.

Problem Determination: Table I, items 13, 23, 29.

IBB012   PARAM OR VL ALLOWED ONLY WITH MF=(E,ADDR)

Explanation: A PARM or VL operand is specified in an XCTL macro instruction.

These operands are allowed only in the E-form of the macro instruction (with an MF=E operand).

System Action: The macro instruction was partially expanded; expansion stopped on detection of the error. Severity code = 12.

Programmer Response: Probable user error. Omit the PARAM or VL operand, or provide an MF=E operand that specifies the address of a remote problem program parameter list; resubmit the job.

Problem Determination: Table I, items 13, 23, 29.

IHB013 MF=L NOT ALLOWED

Explanation: An MF=L operand appears in an ATTACH, LINK, or XCTL macro instruction.

System Action: The macro instruction was partially expanded; expansion stopped on detection of the error. Severity code = 12.

Programmer Response: Probable user error. To form a remote supervisor parameter list, specify an SF=L operand. To form a remote problem program parameter list, use an L-form CALL macro instruction; resubmit the job.

Problem Determination: Table I, items 13, 23, 29.

IHB014 DECB NOT SPECIFIED AS SYMBOL

Explanation: The first positional operand of a READ or WRITE macro instruction does not specify a name for an associated data event control block (DECB).

System Action: The macro instruction was partially expanded; expansion stopped on detection of the error. Severity code = 12.

Programmer Response: Probable user error. Write the first operand as a symbolic name for a data event control block to be posted on completion of the input or output operation. Resubmit the job.

Problem Determination: Table I, items 13, 29.

IHB015 MORE THAN ONE OF EP, EPLOC, OR DE PRESENT

Explanation: More than one of the alternate operands EP, EPLOC, and DE is specified in an ATTACH, DELETE, LINK, LOAD, or XCTL macro instruction.

System Action: The macro instruction was partially expanded; expansion stopped on detection of the error. Severity code = 12.

Programmer Response: Probable user error. Rewrite the macro instruction, specifying only one of the 3 alternate operands, and resubmit the job.

Problem Determination: Table I, items 13, 23, 29.

IHB016 LV OPERAND NOT ALLOWED WITH SPECIFIED MODE

Explanation: The LV operand is inconsistent with the first positional (mode) operand of an S-type GETMAIN or FREEMAIN macro instruction. The mode operand is VU, VC, or V, which specifies allocation or release of a variable-length storage area, or it is LU, LC, or L, which specifies allocation or release of a list of fixed-length storage areas. The LV operand implies allocation or release of a single fixed-length storage area; this

operand can be used only if the mode operand is EU, EC, or E.

System Action: The macro instruction was partially expanded; expansion stopped on detection of the error. Severity code = 12.

Programmer Response: Probable user error. Change the mode operand to EU, EC, or E, or replace the LV operand; resubmit the job.

Problem Determination: Table I, items 13, 23, 29.

IHB017 LA OPERAND NOT ALLOWED WITH SPECIFIED MODE

Explanation: The LA operand is inconsistent with the first positional (mode) operand of an S-type GETMAIN or FREEMAIN macro instruction. The mode operand is EU, EC, or E, which specifies either allocation or release of a single fixed-length storage area, or it is V, which specifies release of a variable-length storage area. The LA operand implies allocation or release of a list of fixed-length storage areas, or allocation of a variable-length storage area; this operand can be used only if the mode operand is VU, VC, LU, LC, or L.

System Action: The macro instruction was partially expanded; expansion stopped on detection of the error. Severity code = 12.

Programmer Response: Probable user error. For a GETMAIN macro instruction, change the mode operand to VU, VC, LU, LC, or L, or replace the LA operand with an LV operand. For a FREEMAIN macro instruction, omit the LA operand. Resubmit the job.

Problem Determination: Table I, items 13, 23, 29.

IHB018 BOTH LV AND LA OPERANDS SPECIFIED

Explanation: Both the LV and LA operands are specified in an S-type GETMAIN or FREEMAIN macro instruction.

System Action: The macro instruction was partially expanded; expansion stopped on detection of the error. Severity code = 12.

Programmer Response: Probable user error. Omit one or both of these operands, according to which mode operand is specified, and resubmit the job.

Problem Determination: Table I, items 13, 23, 29.

IHB019 SP NOT ALLOWED WITH LV SPECIAL REG. NOTATION

Explanation: The SP operand is specified in an R-type GETMAIN or FREEMAIN macro instruction and the optional value of the

LV operand is specified in special register nctation.

System Action: The macro instruction was partially expanded; expansicn stopped on detecticn cf the error. Severity code = 12.

Programmer Response: Probable user error. Either load the subpool number into the leftmost byte of parameter register 0 and omit the SP operand, or specify both the LV and SP operand values in the macro instruction resubmit the jcb.

Problem Determinaticn: Table I, items 13, 23, 29.

IHB020   A= OPERAND NOT ALLOWED IN R-TYPE MACRC

Explanation: The A operand is specified in an R-type GETMAIN macrc instruction.

System Action: The macro instruction was partially expanded; expansicn stopped on detection cf the error. Severity code = 12.

Programmer Response: Prbable user error. Omit the A operand and resubmit the job.

Problem Determinaticn: Table I, items 13, 23, 29.

IHB021   MORE THAN MAXIMUM VALUE IN FIELDS OPERAND

Explanation: The FIELDS cperands of an EXTRACT macro instructicn ccntain more than the maximum value.

System Action: The macro instruction was partially expanded; expansicn stopped on detection of the error. Severity code = 12.

Programmer Response: Probable user error. Reduce the number of value tc the maximum value and recompile.

Problem Determinaticn: Table I, items 13, 23, 29.

IHB023   THIRD OPERAND INVALID WITH SCRATCH - SPECIFIED AS - xxx

Explanation: In a CAMLST macro instructicn, the first cperand specifies SCRATCH and the third cperand specifies xxx. This combination cf cperands is invalid.

System Action: The macro instruction was partially expanded; expansicn stopped on detection of the error. Severity code = 12.

Programmer Response: Probable user error. Change the first or third cperand. Resubmit the job.

Problem Determination: Table I, items 13, 19, 29.

IHB024   CSECT NAME OMITTED.   MACRO NAME FIELD BLANK

Explanaticn: A SAVE macrc instruction, in an unnamed contrcl section, ccntains an asterisk as the third positional (entry pcint identifier) cperand, but it does not ccntain a name in its name field.

System Action: The macro instruction was expanded normally. Severity code = 4.

Programmer Respcrse: Probable user error. Prcvide an entry pcint identifier for the program by specifying a name for the SAVE macrc instructicn cr fcr the ccntrcl secticn in which it is located and resubmit the jcb.

Prcblem Determinaticn: Table I, items 13, 23, 29.

IHB025   INVALIC HIARCHY OPERANC SPECIFIED

Explanaticn: In a GETMAIN, GETPOOL, DCB, LINK, LOAD, XCTL, cr ATTACH macro instruction, the HIARCHY parameter specified a value cther than 0 cr 1.

System Acticn: The macro instruction was nct expanded. Severity code = 12.

Programmer Respcrse: Probable user error. Ccrrect the HIARCHY parameter tc specify a value cf 0 or 1. Resubmit the jcb.

Prcblem Determiraticn: Table I, items 13, 19, 29.

IHB026   FCB SUBLIST IS INVALIC

Explanaticn: In a SETPRT macrc instructicn, the FCB parameter list was inccrrectly specified. One of the fcllcwing cccurred:
• The fcrmat cf the FCB parameter list was invalid. Fcr example, ccmmas or parentheses were inccrrectly placed.
• Cne cf the FCB parameters was invalid. For example, the image-id was omitted, cr the ALIGN cr VERIFY parameter was misspelled.

System Action: The macro instruction was nct expanded. Severity code = 12.

Programmer Respcnse: Probable user error. Ccrrect the FCB parameter list. Resubmit the job.

Prcblem Determiraticn: Table I, items 4, 15, 29.

IHB027   EXCESSIVE POSITIONAL PARAMETERS SPECIFIED

Explanation: Mcre pcsiticnal parameters are specified in an CPEN, CLOSE, or RDJFCB macrc instructicn than are in the macro prctctypes.

System Action: The macro instruction is expanded, but the extra parameters are ignored. (The severity code is 12.)

Programmer Response: Probable user error. This error often occurs because the parameter list is not enclosed with parenthesis. Omit invalid or unnecessary parameters and rerun the job.

Problem Determination: Table I, items 15, 29.

IHB030 LPS MACRO xxx IMPROPERLY USED

Explanation: Macro instruction xxx cannot be used in all Line Procedure Specifications (LPS).

System Action: The macro instruction was not expanded. Severity code = 12.

Programmer Response: Probable user error. Remove the macro instruction from the Line Procedure Specifications and resubmit the job.

Problem Determination: Table I, items 15, 29.

IHB050 xxx OPERAND INCONSISTENT-IGNORED

Explanation: In a DCB macro instruction, an operand is inconsistent with the optional value of the DSORG, DEVD, LRECL, MACRF, or RECFM operand. The name of the inconsistent operand is xxx.

System Action: The macro instruction was expanded, but the inconsistent operand was ignored. Severity code = 4.

Programmer Response: Probable user error. Correct the inconsistent operand. Resubmit the job.

Problem Determination: Table I, items 13, 19, 29.

IHB051 xxx INVALID CODE FOR yyy-IGNORED

Explanation: In a DCB macro instruction, an invalid character string was specified as the optional value of a keyword operand. The name of the keyword operand is yyy. The character string is xxx.

System Action: The macro instruction was expanded, but the invalid operand was ignored. Severity code = 8.

Programmer Response: Probable user error. Correct optional value. Resubmit the job.

Problem Determination: Table I, items 13, 19, 29.

IHB052 DSORG OMITTED

Explanation: The DSORG operand was omitted from a DCB macro instruction. The MACRF operand does not specify use of the EXCP macro instruction.

System Action: The macro instruction was partially expanded; expansion stopped on detection of the error. Severity code = 12.

Programmer Response: Probable user error. Provide the DSORG operand, or specify in the MACRF operand use of the EXCP macro instruction. Resubmit the job.

Problem Determination: Table I, items 13, 19, 29.

IHB053 yyy INVALID CODE FOR DSORG

Explanation: In a DCB macro instruction, the optional value of a DSORG operand is yyy. This optional value is not valid for the DSORG operand.

System Action: The macro instruction was partially expanded; expansion stopped on detection of the error. Severity code = 12.

Programmer Response: Probable user error. Correct the optional value of the DSORG operand. Resubmit the job.

Problem Determination: Table I, items 13, 19, 29.

IHB054 y INVALID DSORG QUALIFIER-IGNORED

Explanation: In a DCB macro instruction, the third character of the optional value of a DSORG operand is y. This character is not a valid qualifier for the specified data set organization.

System Action: The macro instruction was expanded, but the invalid operand was ignored. Severity code = 8.

Programmer Response: Probable user error. Correct the optional value of the DSORG operand. Resubmit the job.   0

Problem Determination: Table I, items 13, 19, 29.

IHB055 MACRF NOT SPECIFIED-EXCP ASSUMED

Explanation: The MACRF operand was omitted from a DCB macro instruction.

System Action: The macro instruction was expanded; use of the EXCP macro instruction was assumed. Severity code = 8.

Programmer Response: Probable user error. If the EXCP macro instruction is not used, provide the MACRF operand. Resubmit the job.

Problem Determination: Table I, items 13, 19, 29.

IHB056 z OF MACRF INVALID WITH DSORG=yyy-IGNORED

Explanation: In a DCB macro instruction, the first or only character of a sublist element for the MACRF operand is z. This character is not consistent with the optional value of the DSORG operand, which is yyy.

System Action: The macro instruction was expanded, but the invalid MACRF sublist element was ignored. Severity code = 8.

Programmer Response: Probable user error. Correct the MACRF operand to specify a type of macro instruction consistent with the specified data set organization. Resubmit the job.

Problem Determination: Table I, items 13, 19, 29.

IHB057 x INVALID QUALIER FOR z OF MACRF IF DSORG= yyy-IGNORED

Explanation: In a DCB macro instruction, z is the first character, and x is a qualifier, of a sublist element for the MACRF operand. The optional value of the DSORG operand is yyy. For this combination of data set organization and z, x is not valid.

System Action: The macro instruction was expanded, but the x in the MACRF sublist element was ignored. Severity code = 8.

Programmer Response: Probable user error. Correct the MACRF operand to specify a type of macro instruction consistent with the specified data set organization. Resubmit the job.

Problem Determination: Table I, items 13, 19, 29.

IHB058 x OF RECFM INVALID WITH DSORG=yyy-IGNORED

Explanation: In a DCB macro instruction, the optional value of the RECFM operand is x. This optional value is not consistent with the optional value of the DSORG operand, which is yyy.

System Action: The macro instruction was expanded, but the x in the RECFM operand was ignored. Severity code = 8.

Programmer Response: Probable user error. Correct the RECFM operand to specify a record format consistent with the specified data set organization. Resubmit the job.

Problem Determination: Table I, items 13, 19, 29.

IHB059 x OF OPTCD INVALID WITH DSORG=yyy-IGNORED

Explanation: In a DCB macro instruction, a character in the optional value of the OPTCD operand is x. This character is not consistent with the optional value of the DSORG operand, which is yyy.

System Action: The macro instruction was expanded, but the x in the OPTCD operand was ignored. Severity code = 8.

Programmer Response: Probable user error. Correct the OPTCD operand to specify an optional service consistent with the specified data set organization. Resubmit the job.

Problem Determination: Table I, items 13, 19, 29.

IHB060 xxx INVALID CODE FOR DEVD WITH DSORG=yyy-IGNORED

Explanation: In a DCB macro instruction, the optional value of the DEVD operand is xxx. This optional value is not consistent with the optional value of the DSORG operand, which is yyy.

System Action: The macro instruction was expanded, but the DEVD operand was ignored. Severity code = 8.

Programmer Response: Probable user error. Correct the DEVD operand to specify a device dependence consistent with the specified data set organization. Resubmit the job.

Problem Determination: Table I, items 13, 19, 29.

IHB061 DDNAME NOT SPECIFIED

Explanation: The DDNAME operand was omitted from a DCB macro instruction.

System Action: The macro instruction was expanded normally. Severity code = *.

Programmer Response: If the name of the DD statement is not placed in the data control block during execution of the problem program, reassemble the program and provide the name through the DDNAME operand of the DCB macro instruction.

Problem Determination: Table I, items 13, 19, 29.

IHB062 DDNAME LONG-TRUNCATED TO 8 CHAR

Explanation: In a DCB macro instruction, the optional value of the DDNAME operand is longer than 8 characters.

System Action: The macro instruction was expanded; the name in the DDNAME operand was truncated to 8 characters. Severity code = 4.

Programmer Response: Probable user error. Correct the DDNAME operand by specifying not more than 8 alphameric characters, the first of which must be alphabetic. Resubmit the job.

Problem Determination: Table I, items 13, 19, 29.

IHB065 MACRF=xxx INVALID-EXCP ASSUMED

Explanation: In a DCB macro instruction, the optional value of the MACRF operand is xxx. This optional value is invalid.

System Action: The macro instruction was expanded; the invalid MACRF operand was ignored and use of the EXCP macro instruction was assumed. Severity code = 8.

Programmer Response: Probable user error. If the EXCP macro instruction is not used, correct the MACRF operand. Resubmit the job.

Problem Determination: Table I, items 13, 19, 29.

IHB066   INCONSISTENT OPERAND

Explanation: In a DCB macro instruction, the first character of every sublist element of the MACRF operand is not consistent with the optional value of the DSORG operand. Message IHB056 was given for each MACRF sublist element.

In a TCAM DATETIME macro instruction, both the Date and Time operands specified "NC".

In a TCAM SETSCAN macro instruction any of the following invalid conditions were specified:
• MOVE = RETURN, POINT = BACK
• Skip characters, POINT = BACK
• MOVE = RETURN, RESULT = Not Specified
• MOVE = KEEP, RESULT = Specified

In a TCAM STARTMH macro instruction, when neither STOP= or CONT= are specified, either CONV= or LOGICAL= is coded.

System Action: The DCB macro instruction was not expanded. The MH macros were partially expanded; expansion stopped on detection of the error. Severity code = 12.

Programmer Response: Probable user error. Correct the DSORG and MACRF operands to specify a data set organization and macro instruction types that are consistent. Resubmit the job.

Problem Determination: Table I, items 13, 19, 29.

IHB067   xxx MACRO PREVIOUSLY USED

Explanation: More than one xxx macro instruction is present in a single assembly. Only the first is used.

System Action: No xxx macro instruction beyond the first encountered is expanded. Severity code: for TCAM macros, 12; for DCBD macro, 4.

Programmer Response: Probable user error. Limit to one the number of DCBD macro instructions in each assembly. Resubmit the job.

Problem Determination: Table I, items 13, 19, 29.

IHB068   NO VALID DSORG SPECIFIED-EXCP ASSUMED

Explanation: In a DCBD macro instruction, the DSORG operand is either absent or invalid.

System Action: The macro instruction was expanded; the DSORG operand, if present, was ignored and use of the EXCP macro

instruction was assumed. Severity code = *.

Programmer Response: If the EXCP macro instruction is not used, provide or correct the DSORG operand. Resubmit the job.

Problem Determination: Table I, items 13, 19, 29.

IHB069   DEVD NOT SPECIFIED-ALL ASSUMED

Explanation: The DEVD operand was omitted from a DCBD macro instruction.

System Action: The macro instruction was expanded; if PS, BS, or QS was specified in the DSORG operand, symbolic names were provided for all possible device dependencies. If other values were specified in the DSORG operand, no symbolic names were provided. Severity code = *.

IHB070   SEQUENCE ERROR-MUST FOLLOW xxx MACRO

Explanation: The QTAM LPS macro instruction or the TCAM MH macro instruction is improperly placed in the source program. It must follow an xxx macro instruction.

System Action: The macro instruction is not expanded. Severity code =12.

Programmer Response: Probable user error. Correctly place the macro instruction following an xxx macro instruction and resubmit the job.

Problem Determination: Table I, items 15, 29.

IHB071   SEQUENCE ERROR IN LPS DELIMITER MACRO.

Explanation: The LPS delimiter macro instruction is improperly placed in the source program. The previous macro instruction or section may require a specific macro instruction.

System Action: The macro instruction was not expanded. Severity code = 12.

Programmer Response: Probable user error. Place the macro instruction in the LPS section and resubmit the job.

Problem Determination: Table I, items 15, 29.

IHB072   LERB REQUESTED - ERROPT=C ASSUMED

Explanation: LERB was coded in the DCB but ERROPT=C (indicating a request for line error recording) was not coded.

System Action: The macro instruction was expanded normally with line error recording provided. Severity code=*.

Programmer Response: Probable user error. Delete the LERB operand if line error recording is not wanted. Resubmit the

job. If line error recording is wanted, code ERROPT=C.

Problem Determination: Table I, items 15, 29.

IHB073   LERB OMITTED-ERROPT=C IGNORED

Explanation: Line error recording was requested by ERROPT=C but no LERB address was given.

System Action: The macro instruction was expanded normally with no line error recording provided. Severity code=*.

Programmer Response: Probable user error. Delete ERROPT=C if line error recording is not wanted. If line error recording is wanted, code a LERB address. Resubmit the job.

Problem Determination: Table I, items 15, 29.

IHB074   ERROPT=N - LERB IGNORED

Explanation: LERB was coded in the DCB but error recovery procedure was not requested (ERROPT=N).

System Action: The macro instruction was expanded normally with no line error recording provided. Severity code=*.

Programmer Response: Probable user error. Delete the LERB operand if the line error recording is not wanted. If line error recording is wanted, code ERROPT=C. Resubmit the job.

Problem Determination: Table I, items 15, 29.

IHB075   TABLENAME OPERAND REPEATED-XXX

Explanation: In the ASMTRTAB macro instruction, a table name operand was coded more than once. XXX is the repeated operand.

System Action: The macro instruction was expanded normally. Severity code=*.

Programmer Response: Probable user error. Remove the duplicate operand. Resubmit the job.

Problem Determination: Table I, items 15, 29.

IHB076   MACRO NAME FIELD BLANK - NAME REQUIRED

Explanation: A name must be specified in the name field of this macro instruction.

System Action: The macro instruction was not expanded. Severity code=12.

Programmer Response: Probable user error. Code a name in the name field of the macro instruction and resubmit the job.

Problem Determination: Table I, items 15, 29.

IHB077   prm INVALID - SET TO xx

Explanation: The error occurred either in a SNAP macro instruction, or in a Graphics input/output (I/O) macro instruction for a 2260 device.

In a SNAP macro instruction, the parameter named prm (either SDATA or PDATA) was invalid.

In a GREAD, GWRITE, GCNTRL, or GREADR macro instruction for a 2260 device, the UNIT parameter (named prm) was not a self-defining term and may be invalid. This message may be issued as a result of a user-written, inner macro calle.

System Action: The macro instruction was expanded.

If the error is the result of a SNAP macro instruction, the value of the parameter is made xx (CB for SDATA or ALL for PDATA).

If the error is the result of a Graphics I/O macro instruction (GREAD, GWRITE, GCNTRL, or GREADR), the UNIT field was assigned a value of xx.

Severity code = 4.

Programmer Response: Probable user error.

If the error is in a SNAP macro instruction, correct the SDATA or PDATA operand resubmit the job.

If the error is in a Graphics I/O macro instruction issued by a user-written inner macro call, determine that the value xx is the desired unit; if it is, no further action is required. If it is not, correct the user-written inner macro instruction and resubmit the job. If the Graphics I/O macro instruction was not issued by an inner macro call, correct the UNIT operand so that it is a decimal integer between 1 and 25 and resubmit the job.

Problem Determination: Table I, items 15, 29.

IHB078 $\begin{Bmatrix} XXX \\ YYY \end{Bmatrix}$ OPERAND REGISTER NOTATION INVALID -

Explanation: For the XXX operand, the operand was not enclosed in parentheses or specified an invalid register. YYY is an invalid notation.

System Action: The macro instruction was not expanded. Severity code=12.

Programmer Response: Probable user error. Correct the register notation or specify a valid register and resubmit the job.

Problem Determination: Table I, items 15, 29.

IHB079   FIRST OPERAND REGISTER NOTATION REQUIRED

Explanation: Register notation is required for the first operand.

System Action: The macro instruction was not expanded. Severity code=12.

Programmer Response: Probable user error. Specify a register notation for the first operand and resubmit the job.

Problem Determination: Table I, items 15, 29.

IHB080 ONE ECBLIST OPERAND ONLY REQUIRED

Explanation: The ECBLIST operand was omitted, or more than one supplied.

System Action: The macro instruction was not expanded. Severity code=12.

Programmer Response: Probable user error. Supply only one ECBLIST operand and resubmit the job.

Problem Determination: Table I, items 15, 29.

IHB083 MF, STORAGE, OR LIST OPERAND INVALID

Explanation: In the SNAP macro instruction, the MF, STORAGE, or LIST operand was invalid.

System Action: The macro instruction was not expanded. Severity code = 12.

Programmer Response: Probable user error. Correct the MF, STORAGE, or LIST operand and resubmit the job.

Problem Determination: Table I, items 13, 23, 29.

IHB084 IPLTXID OPERAND EXCEEDS 7 CHARACTERS

Explanation: An IPLTXID operand in a DCB macro instruction exceeds the allowable limit of 7 characters.

System Action: The macro instruction was not expanded. Severity code = 12.

Programmer Response: Probable user error. Correct the IPLTXID operand so that the operand does not exceed 7 characters.

Problem Determination: Table I, items 15, 29

IHB085 DEVD = xx CODED - ERROPT = y IGNORED

Explanation: In a DCB macro instruction, one of the following occurred:
• Both DEVD=BS and ERROPT=N were coded. However, ERROPT=N is invalid for Binary Synchronous devices. Error recovery procedures are required.
• Both DEVD=WT and ERROPT=R, W, or T were coded. However, ERROPT=R, W, or T is invalid for World Trade Telegraph Terminals (WTTA).

System Action: The macro instruction was expanded normally. The ERROPT parameter was ignored. Severity code = *.

Programmer Response: Probable user error. Remove the ERROPT parameter and resubmit the job.

Problem Determination: Table I, items 15, 29.

IHB086 xxx INVALID KEYWORD, yyy ASSUMED

Explanation: Operand xxx does not conform to the requirements of the operand format.

System Action: The macro instruction was expanded, but the invalid operand was ignored and yyy was assumed. Severity code = 4.

Programmer Response: Probable user error. Correct the invalid operand. Resubmit the job.

Problem Determination: Table I, items 15, 29.

IHB087 INVALID OPERAND xxx PASSED TO SYSTEM MACRO IHBERMAC

Explanation: Operand nnn is not valid.

System Action: Expansion of the macro instruction is terminated when the error is detected. Severity code = 12.

Programmer Response: Probable user error. Correct the listed operand, and resubmit the job.

Problem Determination: Table I, items 15, 29.

IHB088 REQUIRED OPTION MACRO NOT GENERATED

Explanation: The number of OPTION macros generated does not match the number of optional subfields specified in the TERM macro.

System Action: The macro instruction was not expanded. Severity code = 12.

Programmer Response: Probable user error. Check OPTION macros for errors or correct the optional subfields specified in the TERM macro. Resubmit the job.

Problem Determination: Table I, items 15, 29.

IHB090 INVALID AUTOPOL VALUE

Explanation: In a POLL macro instruction, the AUTOPOL operand specified a value other than 1 or 2.

System Action: The macro instruction was not expanded. Severity code = 12.

Programmer Response: Probable user error. For IBM 1030 terminals, specify an AUTOPOL operand of 1 in the POLL macro instruction. For other terminals, specify an AUTOPOL operand of 2 in the POLL macro instruction. Resubmit the job.

IHB

Problem Determination: Table I, items 15, 29.

IHB091 MORE THAN 123-1030'S OR 82 NON 1030'S

Explanation: The POLL macro instruction specified more than the allowable number of terminals.

System Action: The macro instruction was not expanded. Severity code = 12.

Programmer Response: Probable user error. For IBM 1030 terminals, reduce the number of terminals specified in the POLL macro instruction to 123 or less. For other terminals, reduce the number of terminals specified in the POLL macro instruction to 82 or less. Resubmit the job.

Problem Determination: Table I, items 15, 29.

IHB092 DCB IS MISSING OR INVALID

Explanation: In a SETPRT macro instruction, the DCB operand, which specifies the opened data control block (DCB) for the UCS printer data set, was either missing or incorrectly specified for the form of the macro instruction used.

System Action: The macro instruction was not expanded. Severity code = 12.

Programmer Response: Probable user error. Supply the missing DCB operand or correct the one that is in error. Resubmit the job.

Problem Determination: Table I, items 13, 19, 29.

IHB093 UCS SUBLIST IS INVALID

Explanation: In a SETPRT macro instruction, the UCS parameter list was incorrectly specified. One of the following occurred:
• The format of the UCS parameter list was invalid. For example, the commas or parentheses were incorrectly placed.
• One of the UCS subparameters was invalid. For example, the character set code was omitted, the FOLD and/or VERIFY subparameters were misspelled, or the subparameters were out of order.

System Action: The macro instruction was not expanded. Severity code = 12.

Programmer Response: Probable user error. Correct the UCS parameter list. Resubmit the job.

Problem Determination: Table I, items 13, 19, 29.

IHB094 MACRO-FORM IS INVALID

Explanation: In a SETPRT macro instruction, the MF operand was not specified as MF=L for the list form of the

macro instruction or did not begin with MF=(E, for the execute form of the macro instruction.

System Action: The macro instruction was not expanded. Severity code = 12.

Programmer Response: Probable user error. Correct the MF operand according to the form of the macro instruction desired. Resubmit the job.

Problem Determination: Table I, items 13, 19, 29.

IHB095 OPTCD IS INVALID

Explanation: In a SETPRT macro instruction, the OPTCD operand was not specified as either U or B.

System Action: The macro instruction was not expanded. Severity code = 12.

Programmer Response: Probable user error. Correct the OPTCD operand. Resubmit the job.

Problem Determination: Table I, items 13, 19, 29.

IHB096 UCS, FCB, AND OPTCD SUBLISTS MISSING

Explanation: In a SETPRT macro instruction, the UCS, FCB, and OPTCD operands were omitted. At least one of these operands must be specified to execute the standard form of SETPRT macro instruction.

System Action: The macro instruction was not expanded. Severity code = 12.

Programmer Response: Probable user error. Specify the UCS operand, FCB operand, and/or the OPTCD operand according to the function desired. Resubmit the job.

Problem Determination: Table I, items 4, 15, 29.

IHB097 TCB OPERAND INVALID WITH MF=L FORM

Explanation: The TCB operand was specified in the list form of the SNAP macro instruction.

System Action: The macro instruction was not expanded. Severity code = 12.

Programmer Response: Probable user error. Omit the TCB operand and resubmit the job.

Problem Determination: Table I, items 13, 23, 29.

IHB098 BUFNO LESS THAN 12. 12 ASSUMED.

Explanation: In a DCB macro instruction, at least twelve buffers must be specified when processing a 1419/1275 data set.

System Action: Twelve buffers are assumed. Severity code = *.

Programmer Response: Probable user error. Correct the BUFNO parameter cf the DCB and resubmit the job.

Problem Determination: Table I, items 3, 15, 29.

IHB099   BUFL AND BLKSIZE UNEQUAL. BUFL ASSUMED.

Explanation: In a DCB macrc instruction, BLKSIZE and BUFL must be equal for a 1419/1275 data set.

System Action: BUFL length is assumed for BLKSIZE. Severity code = *.

Programmer Response: Probable user error. Correct the parameters and resubmit the job.

Problem Determination: Table I, items 3, 15, 29.

IHB100   X OR Y PARAMETER NOT WITHIN ALLOWABLE VALUE RANGE.

Explanation: In the ONLTST macro instruction, either the X cr Y parameter specified an incorrect value. The X parameter must specify a value from 00 through 19, and the Y parameter must specify a value from 01 through 99.

System Action: The macro instruction was not expanded. Severity code = 12.

Programmer Response: Probable user error. Correct the X or Y parameter in the specification of the ONLTST macro instruction and resubmit the jcb.

Problem Determination: Table I, items 15, 29.

IHB101   SSRTN TOO LONG. TRUNCATED TO 8 CHAR

Explanation: In a DCB macrc instruction, the name cf the user's stacker select routine must not be more than eight characters.

System Action: The name is truncated to eight characters. Severity code = *.

Programmer Response: Probable user error. Correct the name, if necessary, and resubmit the job.

Problem Determination: Table I, items 3, 15, 29.

IHB102   LREC PLUS 6 IS GREATER THAN BUFL. BUFL ASSUMED.

Explanation: In a DCB macrc instruction, LRECL plus 6 must nct be greater than BUFL for the 1419/1275 data set.

System Action: BUFL is assumed to be correct. Severity code = *.

Programmer Response: Probable user error. Correct the parameter, if necessary, and resubmit the job.

Problem Determination: Table I, items 3, 15, 29.

IHB103   TEXT CR LENGTH MISSING WHEN X = 0 OR X = 1.

Explanation: In the ONLTST macro instruction, although the X parameter specified 0 cr 1, either the TEXT cr LENGTH parameter was missing. Whenever the X parameter specifies 0 cr 1, the TEXT and LENGTH parameters must also be specified.

System Action: The macro instruction was nct expanded. Severity code = 12.

Programmer Response: Probable user error. Include bcth the TEXT and LENGTH parameters in the specificaticn of the CNLTST macro instruction and resubmit the jcb.

Problem Determination: Table I, items 15, 29.

IHB104   TEXT CR LENGTH MISSING.

Explanation: In the ONLTST macro instruction, either the TEXT cr LENGTH parameter was missing. If cne cf these twc parameters is specified, the other parameter must be specified also.

System Action: The macro instruction was nct expanded. Severity code = 1.

Programmer Response: Probable user error. Include bcth the TEXT and LENGTH parameters in the specificaticn of the CNLTST macro instruction and resubmit the jcb.

Problem Determination: Table I, items 15, 29.

IHB105   X GREATER THAN 1. TEXT AND LENGTH PARAMETERS IGNCRED.

Explanation: In the ONLTST macro instruction, although the X parameter specified a value greater than 1, the TEXT and LENGTH parameters were also specified. Whenever the X parameter specifies a value greater than 1, the TEXT and LENGTH parameters should nct be specified.

System Action: The macro instruction is expanded normally, and the TEXT and LENGTH parameters are ignored.

Programmer Response: Probable user error. Remove the TEXT and LENGTH parameters from the specificaticn cf the ONLTST macro instruction. Resubmit the jcb.

Problem Determination: Table I, items 15, 29.

IHB107   DIALCCUNT AND CIALCHARS NOT IN AGREEMENT.

Explanation: In the DFTRMLST macrc instruction, the length cf the telephone number specified in the dialccunt parameter is nct the same as the number of

dial digits specified in the dialchars parameter.

System Action: The dial digits are generated as specified in the dialchars parameter without regard to the length specified in the dialcount parameter. Severity code = 4.

Programmer Response: Probable user error. Correct the dialcount cr dialchars parameter in error. Resubmit the job.

Problem Determination: Table I, items 15, 29.

IHB108   POLLING CHARACTERS ARE IMPROPER.

Explanation: In the DFTRMLST macro instruction, the number of entries specified in the polling list was greater than 253 or one of the polling characters in an entry was hexadecimal FE, a value that must not be used as a polling character.

System Action: The macro instruction was not expanded. Severity code = 12.

Programmer Response: Probable user error. Correct the polling list. Resubmit the job.

Problem Determination: Table I, items 15, 29.

IHB109   LENGTH OF POLLING CHARACTERS PER ENTRY IS IMPROPER.

Explanation: In the DFTRMLST macro instruction, the entries in the polling list are not all of the same length.

System Action: All entries are truncated or expanded to equal the length of the first entry. Severity code = 4.

Programmer Response: Probable user error. Correct the polling list so that all the entries are of the same length. Resubmit the job.

Problem Determination: Table I, items 15, 29.

IHB110   DIAL CHARACTERS INVALID IN WTLIST.

Explanation: In the DFTRMLST macro instruction, dial digits were specified. However, a WTLIST should only be used for a manual dial, and no dial digits can be used.

System Action: The macro instruction was not expanded. Severity code = 12.

Programmer Response: Probable user error. Correct the specification cf the dial digits in the terminal list and resubmit the job.

Problem Determination: Table I, items 15, 29.

IHB111   LENGTH CR ADDRESS OF TONE OMITTED.

Explanation: In the DFTRMLST macro instruction, either the address or length operand was omitted. However, both operands must be included for an answering WTLIST.

System Action: The macro instruction was not expanded. Severity code = 12.

Programmer Response: Probable user error. Make sure both length and address operands are specified fcr an answering WTLIST. Resubmit the job.

Problem Determination: Table I, items 15, 29.

IHB113   IDCCUNT AND IDSENT DO NOT AGREE

Explanation: In a DFTRMLST macro instruction, the value specified for IDCCUNT does not equal the number cf characters in IDSENT.

System Action: The macro instruction was partially expanded; expansion stopped upon detection of the error. Severity code = 12.

Programmer Response: Probable user error. Ccrrect the IDCCUNT value. Resubmit the job.

Problem Determination: Table I, items 15, 29.

IHB114   IDCCUNT IS TOO LARGE

Explanation: In a DFTRMLST macro instruction, the value specified fcr IDCOUNT is greater than 16 (AD cr MD calling list), cr is greater than 17 (AN answering list).

System Action: The macro instruction was partially expanded; expansion stopped upon detection of the error. Severity code = 12.

Programmer Response: Probable user error. Ccrrect the IDCOUNT value and resubmit the job.

Problem Determination: Table I, items 15, 29.

IHB115   INVALID TYPE ATTRIBUTES

Explanation: In a DFTRMLST macro instruction, an invalid type attribute was specified for cne cf the operands.

System Action: The macro instruction was partially expanded; expansion stopped upon detection of the error. Severity code = 12.

Programmer Response: Probable user error. Ccrrect the operand and resubmit the job.

Problem Determination: Table I, items 15, 29.

IHB116 AUTHORIZED SEQUENCE IS MISSING

Explanation: In a DFTRMLST macro instruction, either a control value or user data area was specified without an authorized sequence having been specified.

System Action: The macro instruction was partially expanded; expansion stopped upon detection of the error. Severity code = 12.

Programmer Response: Probable user error. Either specify an authorized sequence or eliminate the control value or user data area. Resubmit the job.

Problem Determination: Table I, items 15, 29.

IHB117 PARENTHESIS IS MISSING

Explanation: In a MFTRMLST macro instruction, the authorized sequence was not enclosed in parenthesis.

System Action: The macro was partially expanded; expansion stopped upon detection of the error. Severity code = 12.

Programmer Response: Probable user error. Enclose the authorized sequence in parentheses and resubmit the job.

Problem Determination: Table I, items 15, 29.

IHB120 DCB ADDRESS MISSING OR INVALID. GENERATION TERMINATED.

Explanation: In a RDLNE, DSPLY, or RESCN macro instruction, the required DCB address was not specified correctly.

System Action: The macro instruction was not expanded. Severity code = 16.

Programmer Response: Probable user error. Correct the DCB address operand and resubmit the job.

Problem Determination: Table I, items 3, 15, 29.

IHB121 REGISTER SPECIFICATION INVALID. GENERATION TERMINATED.

Explanation: In a DSPLY macro instruction, an optional register specification was not specified correctly.

System Action: The macro instruction was not expanded. Severity code = 16.

Programmer Response: Probable user error. Correct the register specification and resubmit the job.

Problem Determination: Table I, items 3, 15, 29.

IHB122 REGISTER SPECIFICATIONS NOT PAIRED. GENERATION TERMINATED.

Explanation: In a RESCN or DSPLY macro instruction, two valid registers were not specified.

System Action: The macro instruction was not expanded. Severity code = 16.

Programmer Response: Probable user error. Correct the register specification and resubmit the job.

Problem Determination: Table I, items 3, 15, 29.

IHB123 NUMBER OF RETRIES EXCEEDS 9. 9 ASSUMED.

Explanation: In a RESCN macro instruction, a number of retries greater than 9 was specified.

System Action: The macro instruction was expanded normally with a retry value of 9. Severity code = 4.

Programmer Response: Probable user error. Correct the retry value and resubmit the job.

Problem Determination: Table I, items 3, 15, 29.

IHB124 NUMBER OF RETIRES INVALID. 1 ASSUMED.

Explanation: In a RESCN macro instruction, an invalid number of retries (other than greater than 9) was specified.

System Action: The macro instruction was expanded normally with a retry value of 1. Severity code = 4.

Programmer Response: Probable user error. Correct the retry value and resubmit the job.
Problem Determination: Table I, items 3, 15, 29.

IHB125 UNRECOGNIZABLE PARAMETER. PARAMETER IGNORED.

Explanation: In a RESCN macro instruction, an unrecognizable parameter was specified.

System Action: The parameter was ignored, and the macro instruction was expanded normally. Severity code = 8.

Programmer Response: Probable user error. Correct the invalid parameter and resubmit the job.

Problem Determination: Table I, items 3, 15, 29.

IHB126 PARAMETER PREVIOUSLY DEFINED. FIRST DEFINITION ASSUMED.

Explanation: In a RESCN macro instruction, either the number of retries or the register specifications was repeated.

IHB

System Action: The macro instruction was expanded normally, using the first specification. Severity code = 4

Programmer Response: Probable user error. Delete the unwanted specification and resubmit the job.

Problem Determination: Table I, items 3, 15, 29.

IHB127　LABEL PREFIX MISSING OR INVALID. GENERATION TERMINATED.

Explanation: In a DEFAREA macro instruction, the required label prefix was not supplied correctly.

System Action: The macro instruction was not expanded. Severity code = 16.

Programmer Response: Probable user error. Supply a correct label prefix and resubmit the job.

Problem Determination: Table I, items 3, 15, 29.

IHB128　UNRECOGNIZABLE PARAMETER SPECIFIED. GENERATION TERMINATED.

Explanation: In a DEFAREA or DEFCCW macro instruction, an unrecognizable parameter was specified.

System Action: The macro instruction was not expanded. Severity code = 16.

Programmer Response: Probable user error. Correct the parameter in error and resubmit the job.

Problem Determination: Table I, items 3, 15, 29.

IHB129　TIMES NOT PRECEDED BY FIELD LENGTH. GENERATION TERMINATED.

Explanation: In a DEFAREA macro instruction, a TIMES operand was not preceded by a valid field length.

System Action: The macro instruction was not expanded. Severity code = 16.

Programmer Response: Probable user error. Supply a valid field length and resubmit the job.

Problem Determination: Table I, items 3, 15, 29.

IHB130　TIMES NOT FOLLOWED BY NUMBER. GENERATION TERMINATED.

Explanation: In a DEFAREA macro instruction, a TIMES operand was not followed by a valid duplication factor.

System Action: The macro instruction was not expanded. Severity code = 16.

Programmer Response: Probable user error. Supply a valid duplication factor and resubmit the job.

Problem Determination: Table I, items 3, 15, 29.

IHB131　OPTIONAL PARAMETER SPECIFIED AFTER FIELD DEFINITION. PARAMETER IGNORED

Explanation: In a DEFAREA macro instruction, an optional parameter (FLAG, CNTR, or RGHT) was specified after the first field was defined.

System Action: The parameter was ignored, and the macro instruction was expanded normally. Severity code = 4.

Programmer Response: Probable user error. Remove the optional parameter and resubmit the job.

Problem Determination: Table I, items 3, 15, 29.

IHB132　LABEL FOR LOAD FORMAT DATA MISSING OR INVALID. GENERATION TERMINATED.

Explanation: In a DEFCCW macro instruction, the required label for the load format data was not specified correctly.

System Action: The macro instruction was not expanded. Severity code = 16.

Programmer Response: Probable user error. Supply a valid label and resubmit the job.

Problem Determination: Table I, items 3, 15, 29.

IHB133　LABEL PREFIX FOR DEFAREA MISSING OR INVALID. GENERATION TERMINATED.

Explanation: In a DEFCCW macro instruction, the label prefix from the associated DEFAREA macro instruction was not specified correctly.

System Action: The macro instruction was not expanded. Severity code = 16.

Programmer Response: Probable user error. Supply a valid label prefix and resubmit the job.

Problem Determination: Table I, items 3, 15, 29.

IHB134　REFMARK OR UNFORMAT NOT SPECIFIED PRIOR TO DEFINITION OF FIRST FIELD. FORMATTED MODE ASSUMED.

Explanation: In a DEFCCW macro instruction, the parameter REFMARK or UNFORMAT was not specified before defining the field.

System Action: The macro instruction was expanded normally in the formatted mode. REFMARK was assumed. Severity code = 4.

Programmer Response: Probable user error. If unformatted mode was desired, specify the UNFORMAT parameter, and resubmit the job.

Problem Determination: Table I, items 3, 15, 29.

IHB135 REFMARK SPECIFIED WHEN PROCESSING IN UNFORMATTED MODE. GENERATION TERMINATED.

Explanation: In a DEFCCW macro instruction, REFMARK was specified after UNFORMAT was specified.

System Action: The macro instruction was not expanded. Severity code = 16.

Programmer Response: Probable user error. Re-evaluate the desired CCW chain, and resubmit the job.

Problem Determination: Table I, items 3, 15, 29.

IHB136 THRU NOT PRECEDED BY FIELD NUMBER. GENERATION TERMINATED.

Explanation: In a DEFCCW macro instruction, a THRU parameter was not preceded by a valid field number.

System Action: The macro instruction was not expanded. Severity code = 16.

Programmer Response: Probable user error. Supply a valid field number, and resubmit the job.

Problem Determination: Table I, items 3, 15, 29.

IHB137 THRU NOT FOLLOWED BY FIELD NUMBER. GENERATION TERMINATED.

Explanation: In a DEFCCW macro instruction, a THRU parameter was not followed by a valid field number.

System Action: The macro instruction was not expanded. Severity code = 16.

Programmer Response: Probable user error. Supply a valid field number, and resubmit the job.

Problem Determination: Table I, items 3, 15, 29.

IHB138 ENDING VALUE IN THRU LESS THAN STARTING VALUE. GENERATION TERMINATED.

Explanation: In a DEFCCW macro instruction, a THRU parameter was specified with a starting value greater than the ending value.

System Action: The macro instruction was not expanded. Severity code = 16.

Programmer Response: Probable user error. Correct the ending value in THRU, and resubmit the job.

Problem Determination: Table I, items 3, 15, 29.

IHB139 LAST CCW GENERATED USES COMMAND CHAINING. POSSIBLE ERROR.

Explanation: In a DEFCCW macro instruction, the last defined CCW has the command chaining bit on.

System Action: The macro instruction was expanded normally. Severity code = 8.

Programmer Response: Probable user error. If command chaining was not desired, specify the parameter NOCHAIN immediately before the parameter(s) which generate the last CCW, and resubmit the job.

Problem Determination: Table I, items 3, 15, 29.

IHB140 SYMBOL WITH LABEL PARAMETER MISSING OR INVALID. GENERATION TERMINATED.

Explanation: In a DEFCCW macro instruction, a LABEL parameter was specified without a valid symbol.

System Action: The macro instruction was not expanded. Severity code = 16.

Programmer Response: Probable user error. Supply a valid symbol and resubmit the job.

Problem Determination: Table I, items 3, 15, 29.

IHB141 FIELD NUMBER FOR RPT/RFT MISSING OR INVALID. GENERATION TERMINATED.

Explanation: In a DEFCCW macro instruction, an RPT or RFT parameter was not followed by a valid field number.

System Action: The macro instruction was not expanded. Severity code = 16.

Programmer Response: Probable user error. Supply a valid field number, and resubmit the job.

Problem Determination: Table I, items 3, 15, 29.

IHB142 SYMBOL FOR RPT/RFT MISSING OR INVALID. GENERATION TERMINATED.

Explanation: In a DEFCCW macro instruction, an RPT or RFT parameter was specified without a validly specified symbol.

System Action: The macro instruction was not expanded. Severity code = 16.

Programmer Response: Probable user error. Supply a valid symbol, and resubmit the job.

Problem Determination: Table I, items 3, 15, 29.

IHB143 SYMBOL(S) FOR COMPARE MISSING OR INVALID. GENERATION TERMINATED.

Explanation: In a DEFCCW macro instruction, a COMPARE parameter was specified with one or both of its associated symbols invalidly specified.

System Action: The macro instruction was not expanded. Severity code = 16.

Programmer Response: Probable user error. Supply valid symbol(s), and resubmit the job.

Problem Determination: Table I, items 3, 15, 29.

IHB144 SYMBOL FOR BRANCH MISSING OR INVALID. GENERATION TERMINATED.

Explanation: In a DEFCCW macro instruction, a BRANCH parameter was specified without a validly specified symbol following it.

System Action: The macro instruction was not expanded. Severity code = 16.

Programmer Response: Probable user error. Supply a valid symbol, and resubmit the job.

Problem Determination: Table I, items 3, 15, 29.

IHB145 STACKER NUMBER FOR ESD MISSING OR INVALID. GENERATION TERMINATED.

Explanation: In a DEFCCW macro instruction, an ESD parameter was specified without a valid stacker number.

System Action: The macro instruction was not expanded. Severity code = 16.

Programmer Response: Probable user error. Supply a valid stacker number, and resubmit the job.

Problem Determination: Table I, items 3, 15, 29.

IHB146 SYMBOL FOLLOWING REFMARK MISSING OR INVALID. GENERATION TERMINATED.

Explanation: In a DEFCCW macro instruction, a REFMARK parameter was specified without a valid symbol.

System Action: The macro instruction was not expanded. Severity code = 16.

Programmer Response: Probable user error. Supply a valid symbol and resubmit the job.

Problem Determination: Table I, items 3, 15, 29.

IHB147 GENERATION TERMINATED BY E OR DE LINETYPE

Explanation: In a multiple-line WTO macro instruction, a line type of E (end) or DE (data end) was encountered prior to the end of the message.

System Action: The macro expansion is terminated at the line in which the DE or E specification was found. Severity code = *.

Programmer Response: Probable user error. Supply a valid line type and resubmit the job.

Problem Determination: Table I, items 2 (with a printout of the WTO), 3, 15, 29.

IHB148 INVALID LINETYPE, E OR DE ASSUMED

Explanation: In a multiple-line WTO macro instruction expansion, a linetype other than C, L, D, DE, or E was encountered.

System Action: The expansion is terminated with the line containing the invalid line type. Any lines following that line are ignored. Severity code = *.

Programmer Response: Probable user error. Supply a valid line type, and resubmit the job.

Problem Determination: Table I, items 2 (with a printout of the WTO), 3, 15, 29.

IHB149 INVALID C OR L LINETYPE, DE ASSUMED - GENERATION TERMINATED

Explanation: In a multiple-line WTO macro instruction expansion, an invalid C (control) or L (label) line type was encountered:
• Line type C can be coded only for the first line of the multiple-line WTO message; any other specification is invalid.
• Line type L can be coded only for the first line of the message, the line following the C line of the message, or the line following the first L line of the message; any other specification is invalid.

System Action: Expansion is terminated with the line the line in which the invalid specification is encountered; any lines following that line are ignored, and SVC 35 is not issued. Severity code = 16.

Programmer Response: Probable user error. Supply the correct line type, and resubmit the job.

Problem Determination: Table I, items 2 (with a printout of the WTO), 3, 15, 29.

IHB150 INVALID COMBINATION OF CHARACTERS IN xxxx OPERAND - yyyy

Explanation: The xxxx operand of the DCB macro instruction was specified with yyyy, which is an invalid combination of characters.

System Action: The xxxx field was set to zero. Severity code = 12.

Programmer Response: Probable user error. Correct the specified operand and resubmit the job.

Problem Determination: Table I, items 15, 29.

IHB151 INVALID CHARACTER IN xxxx OPERAND-y

Explanation: The xxxx operand of the DCB macro instruction was specified with y, which is an invalid character for that function.

System Action: The xxxx field was set to zero. Severity code = 12.

Programmer Response: Probable user error. Correct the specified operand and resubmit the job.

Problem Determination: Table I, items 15, 29.

IHB152 NUMBER OF LINES REQUESTED IS 0 OR GREATER THAN 10 - GENERATION TERMINATED

Explanation: In a WTO macro expansion, the number of lines coded was either 0 or greater than 10.

System Action: The macro is not expanded. Severity code = 16.

Programmer Response: Probable user error. Recode the WTO macro with a valid number of lines, and resubmit the job.

Problem Determination: Table I, items 3, 15, 29.

IHB153 MLWTO/WTOR MUTUALLY EXCLUSIVE - GENERATION TERMINATED

Explanation: A WTOR macro instruction was coded using the multiple-line WTO macro instruction format.

System Action: The macro is not expanded. Severity code = 16.

Programmer Response: Probable user error. Recode the WTOR using the correct format, and resubmit the job.

Problem Determination: Table I, items 3, 15, 29.

IHB154 xxxx NOT A MULT. OF 2, POSSIBLE ERROR

Explanation: The operand xxxx should be specified in unframed hexadecimal. A number of characters not evenly divisible by two was specified. The assembled data may be incorrect.

System Action: The macro is expanded. Severity code = 4.

Programmer Response: Probable user error. Check the operand specified and resubmit the job.

Problem Determination: Table I, items 3, 4, 13, 29.

IHB232 CLOCK= OR CINTVL= REQD WHEN RETRY SPECIFIED.

Explanation: Either CLOCK= or CINTVL= is a required operand of the TERMINAL macro instruction when RETRY is specified. Neither was present.

System Action: The macro instruction is not expanded. Severity code = 12.

Programmer Response: Probable user error. Make sure that either the CLOCK= or CINTVL= operand is coded with the TERMINAL macro instruction if RETRY is specified.

Problem Determination: Table I, items 13, 19, 29.

IHB233 INCONSISTENT WITH xxxx OPERAND OF THE yyyy MACRO

Explanation: The macro instruction specified does not agree with the specification of the xxxx operand of the yyyy macro.

System Action: The macro instruction is not expanded. Severity code = 8.

Programmer Response: Probable user error. Change the specification of the xxxx operand of the yyyy macro to agree with this macro specification.

Problem Determination: Table I, items 3, 4, 13, 29.

IHB234 xxxx MACRO PREVIOUSLY DEFINED IN INBLOCK

Explanation: Only one xxxx macro instruction is allowed in this INBLOCK subgroup; more than one was specified.

System Action: The macro instruction is not expanded. Severity code = 12.

Programmer Response: Make sure that only one xxxx macro instruction is coded in each inblock subgroup.

Problem Determination: Table I, items 13, 19, 29.

IHB236 SECOND OPERAND NOT ALLOWED -- IGNORED

Explanation: In a TIME macro instruction, a second operand was specified with the DEC, BIN, or TU operands. A second operand (,address) can be used only with the MIC operand.

System Action: The macro expansion took place as if the second operand had not been specified. Severity code = 4.

Programmer Response: Probable user error.
Omit the second operand or code the macro
instruction with the MIC operand.
Resubmit the job.

Problem Determination: Table I, items 13,
23, 29.

IHB245   COMPLETION CODE CANNOT APPEAR IN LIST FORM

Explanation: The completion code operand
cannot appear in the list form of the POST
macro instruction.

System Action: The macro instruction was
not expanded. The severity code = 12.

Programmer Response: Problem user error.
Correct the POST macro instruction by
removing the completion code operand.
Rerun the job.

Problem Determination: Table I, 15, 22,
29.

IHB246   TCB OPERAND SPECIFIED WITHOUT TJID OPERAND

Explanation: In the list form of the POST
macro instruction, the TCB operand was
specified without including the TJID
operand.

System Action: The macro instruction was
partially expanded; expansion stopped when
the error was detected. Severity code =
12.

Programmer Response: Correct the POST
macro instruction by including the TJID
operand. Rerun the job.

Problem Determination: Table I, items 15,
22, 29.

IHB250   DDNAME SHORT-PADDED TO 8 CHAR

Explanation: In a DCB macro instruction,
the optional value of the DDNAME operand
is shorter than 8 characters.

System Action: The macro instruction was
expanded; the name in the DDNAME operand
was padded to 8 characters. The severity
code is 0.

Programmer Response: None.

IHB252   id TOO LONG FOR apdg - TRUNCATED TO 2 CHAR

Explanation: In a EXCP DCB macro
instruction, the user supplied ID (id) for
the appendage (apdg) was too long.

System Action: The macro instruction was
expanded; the user supplied ID was
truncated to 2 characters. Severity code
= *.

Programmer Response: Correct the ID
specifying no more than 2 characters.

Problem Determination: Table I, items 15,
22, 29.

IHB253   id TOO SHORT FOR apdg - PADDED TO 2 CHAR

Explanation: In an EXCP DCB macro
instruction, the user supplied ID (id) for
the appendage (apdg) was too short.

System Action: The macro instruction was
expanded; the user supplied ID was padded
to 2 characters. Severity code is 0.

Programmer Response: Correct the ID
specifying 2 characters.

Problem Determination: Table I, items 15,
22, 29.

IHB254   oprnd NOT SPECIFIED - PRESET TO y

Explanation: In a macro instruction, a
required operand, oprnd, is not specified;
therefore, it is assigned the value y.

System Action: The macro instruction is
expanded; the severity code is 0.

Programmer Response: Check to see if the
operand in question is required; if so,
specify the correct value and reassemble
the program.

Problem Determination: Table I, items 15,
22, 29.

IHB256   oprnd OPERAND INVALID OR NOT SPECIFIED -
SET TO y

Explanation: In a macro instruction, a
required operand, oprnd, is invalid or not
specified; therefore, it is set to the
value y.

System Action: The macro instruction is
expanded; the severity code is 4.

Programmer Response: Correct the invalid
operand, and reassemble the program.

Problem Determination: Table I, items 15,
22, 29.

IHB257   BPX COUNTER INDICATES WRAP AROUND TO TOP
OF CRT

Explanation: The beam position counter
for the X coordinate indicates that the
wrap around condition is about to occur.
That is, the beam position will change
from the lower right-hand corner of the
matrix to the upper left-hand corner.

System Action: The macro instruction is
expanded; the severity code is 4.

Programmer Response: Verify previously
specified image generation macros to
determine if display distortion will
occur.

Problem Determination: Table I, items 15,
22, 29.

IHB258   BLC GREATER THAN OR EQUAL TO BLIM

          Explanation: The buffer load counter
          (BLC) exceeds specified or default buffer
          limits (BLIM).

          System Action: The macro instruction is
          expanded; the severity code is 4.

          Programmer Response: Adjust the graphic
          order program so that the Buffer Load
          Counter does not exceed the buffer limits.
          Rerun the job.

          Problem Determination: Table I, items 15,
          22, 29.

IHB259   CURRENT BUFFER xxx=y

          Explanation: This message is issued as a
          result of a FIND macro instruction. xxx
          is the specified counter and y is the
          current value.

          System Action: None. The severity code
          is 0.

          Programmer Response: None.

IHB260   CURRENT BEAM POSITION COUNTER IS X=m, Y=n

          Explanation: This message is issued as a
          result of a GBPOS macro instruction where
          m is the value of the X coordinate
          counter, and n is the value of the Y
          coordinate counter.

          System Action: None. The severity code
          is 0.

          Programmer Response: None.

IHB261   ctr COUNTER EXCEEDS CRT LIMITS

          Explanation: The ctr counter value has
          exceeded the limits of the specified CRT
          device.

          System Action: The macro instruction is
          expanded; the severity code is 4.

          Programmer Response: Correct the graphic
          order program to remain within the CRT
          limits.

          Problem Determination: Table I, items 15,
          29.

IHB262   LOAD VARIABLE SPACE ORDER MAY HAVE NOT
          BEEN SPECIFIED PRIOR TO ENTERING STROKE
          MODE

          Explanation: The Load Variable Space
          order has not been specified, and a
          request has been made to enter Stroke
          Mode. This is not allowed.

          System Action: The assembly continues;
          the severity code is 4.

          Programmer Response: Verify that the GIVS
          macro.instruction is specified. If it is
          not, correct and reassemble the program.

          Problem Determination: Table I, items 15,
          29.

IHB263   INVALID ctlbk ADDRX-y

          Explanation:. The indicated system control
          block (ctlbk) has an invalid address, and
          y indicates what action the system takes.

          System Action: The severity code is 8.

          Programmer Response: Correct the control
          block address and reassemble the program.

          Problem Determination: Table I, items 15,
          22, 29.

IHB264   mac MORE THAN 5 POSITIONAL OPERANDS

          Explanation: The macro instruction (mac)
          contains more than 5 positional operands;
          this is not allowed.

          System Action: Expansion of the macro
          (mac) is terminated; the severity code is
          12.

          Programmer Response: Correct the macro
          instruction, specifying no more than 4
          positional operands, and reassemble the
          program.

          Problem Determination: Table I, items 15,
          22, 29.

IHB276   xINCOMPATIBLE WITH y - IGNORED

          Explanation: Operand 'X' cannot be specified
          with operand 'Y'.

          System Action: Operand 'Y' has been ignored
          and the macro expansion continues. Severity
          code = 4.

          Programmer Response: Correct the
          incompatible operand and reassemble the job
          if the macro instruction does not expand
          as desired.

          Problem Determination: Table I, items 13,
          23, 29. (Ref. GC38-1001, OS/VS Message
          Library: VS1 System Messages, page IHB-24)

IHB300   xxxx OPERAND INVALID AS SPECIFIED

          Explanation: In an INTRO macro
          instruction or an MH macro instruction,
          the specified operand did not satisfy TCAM
          requirements.

          System Action: The macro instruction was
          partially expanded; expansion stopped when
          the error was detected. Severity code=12.

          Programmer Response: Probable user error.
          Check the requirements for the operand in
          error and correct it.

          Problem Determination: Table I, items 13,
          19, 29.

IHB301   QSTART SPECIFIED - NO EXPANSION

          Explanation: The user has coded a QSTART
          macro instruction in a QTAM application
          program that is assumed to be compatible
          with TCAM.

          System Action: The macro is not expanded.

          Programmer Response: Probable user error.
          Check to see that the program containing
          the macro is being reassembled to achieve
          TCAM compatibility.

          Problem Determination: Table I, items 13,
          19, 29.

IHB302   NAME FIELD LONG - TRUNCATE TO xxx
          CHARACTERS

          Explanation: The user coded a TERMINAL,
          PROCESS, or TLIST entry whose name field
          exceeds the length specified in the TTABLE
          macro instruction.

System Action: The entry name is truncated to xxx characters.

Programmer Response: Probable user error. Correct the erroneous entry, specifying the correct number of characters.

Problem Determination: Table I, items 13, 19, 29.

IHB303 INVALID OPERAND xxx, yy ASSUMED

Explanation: Operand xxx in an INTRO macro instruction is specified incorrectly. In the message text, yy is the default value assigned for the operand in error.

System Action: The macro instruction will be expanded with yy substituted for the invalid operand. Severity code = 12.

Programmer Response: Probable user error. If the default value does not satisfy the user's requirements, either recode the INTRO macro specifying the correct value for the operand in error and reassemble, or instruct the operator to specify a satisfactory value in responding to a message issued during execution.

Problem Determination: Table I, items 13, 19, 29.

IHB304 xxx SPECIFIED TOO MANY CHARACTERS

Explanation: The xxx operand on the INTRO macro instruction has specified a character string longer than eight characters.

System Action: The macro instruction is expanded and the default value is substituted for the erroneous operand. Severity code = 12.

Programmer Response: Probable user error. If the default value is unsatisfactory, either respecify the INTRO macro instruction correctly and reassemble, or instruct the operator to specify a satisfactory value in responding to a message issued at INTRO execution time.

Problem Determination: Table I, items 13, 19, 29.

IHB305 xxx MACRO NOT SPECIFIED

Explanation: An INTRO macro instruction has not been specified prior to the READY macro instruction, or a TTABLE macro instruction has not been specified prior to the INVLIST macro instruction.

System Action: The READY or INVLIST macro instruction is not expanded. Severity code = 12.

Programmer Response: Probable user error. Make sure that READY follows INTRO and/or that INVLIST follows TTABLE in the assembly of the TCAM message control program.

Problem Determination: Table I, items 13, 19, 29.

IHB306 TOO MANY OPDATA PARAMETERS

Explanation: The OPDATA operand of a TERMINAL, TPROCESS, or TLIST macro specified more OPTION fields than were defined by OPTION macro instructions.

System Action: The OPDATA operand(s) that exceeded the number of OPTION fields are ignored. Severity code = 12.

Programmer Response: Probable user error. Make sure that a sufficient number of OPTION macros is used to define the necessary number of OPTION fields.

Problem Determination: Table I, items 13, 19, 29.

IHB307 INCONSISTENT LENGTH FOR xxx

Explanation: The operand lengths of the INVLIST macro instructions are not consistent.

System Action: The macro instruction is not expanded.

Programmer Response: Probable user error. Make sure that the operands of the INVLIST macro instructions macro instructions specify the same length for the polling characters.

Problem Determination: Table I, items 13, 19, 29.

IHB308 INVALID LENGTH QUALIFIER SPECIFIED

Explanation: The length qualifier for an OPTION macro instruction is invalid.

System Action: The macro instruction is not expanded.

Programmer Response: Probable user error. Make sure that any length qualifiers for OPTION macro instructions are coded correctly. CL8' ' or XL4'0' are examples of correctly coded length qualifiers.

Problem Determination: Table I, items 13, 19, 29.

IHB309 LENGTH QUALIFIER REQUIRED

Explanation: The length has not been given for the fields defined by an OPTION macro instruction; length qualifiers are required.

System Action: The macro instruction is not expanded.

Programmer Response: Probable user error. Make sure that any fields defined by an OPTION macro instruction include length qualifiers; for example, make sure that XL8'0' is specified and not X'0000000000000000'.
Problem Determination: Table I, items 13, 19, 29.

IHB310 INVALID CONSTANT TYPE SPECIFIED

Explanation: An invalid constant has been specified while defining the fields for an OPTION macro instruction.

System Action: The macro instruction is not expanded.

Programmer Response: Probable user error. Make sure that the constants specified are defined correctly; for example, make sure that XL3'0' is specified, and not GL3'0'.

Problem Determination: Table I, items 13, 19, 29.

IHB311 xxx MACRO PREVIOUSLY SPECIFIED

Explanation: More than one xxx macro has been included in this Message Control Program.

System Action: The macro instruction is not expanded.

Programmer Response: Probable user error. Include only one xxx macro instruction in a Message Control Program. Resubmit the job.

Problem Determination: Table I, items 13, 19, 29.

IHB312 MACRO MUST FOLLOW xxx MACRO WITH yyy

Explanation: A TCAM macro instruction was improperly placed in the source program. It must follow an xxx macro instruction, and it must specify the required yyy operand.

System Action: The macro instruction was not expanded.

Programmer Response: Probable user error. Make sure that the macro instruction, with the required yyy operand, correctly follows the xxx macro instruction.

Problem Determination: Table I, items 13, 19, 29.

IHB313 MORE THAN ONE NOLOG EXIT

Explanation: More than one LOGON macro instruction in an MH has specified a NOLOG= operand, and only one exit routine may be specified for each MH.

System Action: The macro instruction is not expanded. Severity code = 12.

Programmer Response: Probable user error. Only one LOGON macro instruction per MH may specify the NOLOG= operand. Remove any additional NOLOG= operands from subsequent LOGON macro instructions and reassemble the Message Control Program.

Problem Determination: Table I, items 13, 19, 29.

IHB315 SEQUENCE ERROR - MUST PRECEDE LAST ENTRY SPECIFIED BY TTABLE MACRO

Explanation: The last entry defined by the TTABLE macro instruction is not the last terminal entry specified.

System Action: The macro instruction is not expanded.

Programmer Response: Probable user error. Make sure that the last entry in the terminal table specified by the TTABLE macro instruction is the last terminal specified by a TERMINAL macro instruction.

Problem Determination: Table I, items 13, 19, 29.

IHB316 MAXIMUM NUMBER OF OPTION FIELDS EXCEEDED

Explanation: The TCAM user has specified more than the maximum number of OPTION macro instructions permitted in one Message Control Program.

System Action: The macro instruction will not be expanded. Severity code = 12.

Programmer Response: Make sure that no more than 253 OPTION macro instructions are included in one Message Control Program.

Problem Determination: Table I, items 13, 19, 29.

IHB317 OPDATA INVALID - NO OPTION FIELDS SPECIFIED

Explanation: No OPTION macro instructions were coded in the terminal table, by an OPDATA operand was coded on a TERMINAL, TPROCESS, or TLIST macro instruction.

System Action: All OPDATA operands are ignored. The macro is partially expanded. Severity code = 12.

Programmer Response: Probable user error. Make sure that the required OPTION macro instructions are coded, or remove OPDATA operand(s) from the macro instruction.

Problem Determination: Table I, items 13, 19, 29.

IHB318 QUEUES OPERAND xx INVALID WITH MSUNITS = 0

Explanation: The MSUNITS operand of the INTRO macro instruction specified that no main-storage Message Queues Data Set was to be used, but the QUEUES operand of a TERMINAL or TPROCESS macro instruction specified that main-storage message queues would be used.

System Action: The macro instruction is not expanded. Severity code = 12.

Programmer Response: Probable user error. Modify the QUEUES operand to indicate disk message queues only, or code the MSUNITS operand of the INTRO macro instruction with a non-zero integer.

Problem Determination: Table I, items 13, 19, 29.

IHB319 CONTINUATION EXPECTED GENERATION DEFERRED

Explanation: An INVLIST macro instruction series using the continuation capability was coded. This statement is not the last in the series, and generation of the macro instruction is deferred until the operands of the last macro instruction have been validated.

Programmer Response: None.

IHB320 TOO MANY ENTRIES SPECIFIED

Explanation: More than 200 entries were specified by one INVLIST macro series using the continuation capability. Two hundred is the maximum number of entries supported by an INVLIST macro instruction.

System Action: The macro instruction is not expanded. Severity code = 12.

Programmer Response: Probable user error. Recode the INVLIST macro series that is in error, and resubmit the job.

Problem Determination: Table I, items 13, 19, 29.

IHB342 INVALID OPERANDS SPECIFIED

Explanation: Operands invalid for a TCAM macro instruction are present.

System Action: The macro instruction is not expanded. Severity code = 12.

Programmer Response: Probable user error. Specify correct operands for the macro instruction, and resubmit the job.

Problem Determination: Table I, items 13, 19, 29.

IHB345 DIALNO = REQD WHEN CINTVL OR CLOCK SPECIFIED

Explanation: TERMINAL macro instruction operand DIALNO is required when CINTVL or CLOCK is specified.

System Action: The macro instruction is not expanded. Severity code = 12.

Programmer Response: Probable user error. Make sure that the DIALNO operand is coded with the TERMINAL macro instruction if CINTVL or CLOCK is specified.

Problem Determination: Table I, items 13, 19, 29.

IHB346 xxx AND yyy MUTUALLY EXCLUSIVE

Explanation: TERMINAL macro instruction operands xxx and yyy are mutually exclusive.

System Action: The macro instruction is not expanded. Severity code = 12.

Programmer Response: Probable user error. Make sure that the operands xxx and yyy are not coded with the same TERMINAL macro instruction.

Problem Determination: Table I, items 13, 19, 29.

IHB347 WARNING - RESULT IS RETURNED IN REG 15

Explanation: The user has specified SETSCAN with the integer operand and has requested that the result (scan pointer address) be returned in a register other than 15. This request is invalid.

System Action: The macro instruction is expanded. Severity code = 12.

Programmer Response: Probable user error. Do not code a register other than 15 as the result register if 'integer' coded on SETSCAN.

Problem Determination: Table I, items 13, 19, 29.

IHB375 MCSFLAG=HRDCPY INVALID FOR MLWTO - GENERATION TERMINATED

Explanation: The queue for the hardcopy only option, MCSFLAG=HRDCPY, was specified for a multiple line WTO message; this is invalid.

System Action: The macro generation is terminated. Severity code = 16.

Programmer Response: Modify the invalid parameter and resubmit the job.

Problem Determination: Table I, items 13, 19, 29.

Component Name	IHC
Program Producing Message	Object program originally coded in FORTRAN IV G cr H language.
Audience and Where Produced	Fcr programmer: object errcr unit, generally the SYSOUT data set (defined using SYSCUT=A parameter in CC statement). Fcr Operator: console.

Message Format	IHCnnnI (in SYSPRINT)
	xx IHCnnns text (cn ccnsole)
	
	nnn
	    Message serial number.
	xx
	    Message reply identificaticn (absent, if cperator reply nct required).
	s
	    Type code:
	
	    A Action; operator must perfcrm a specific acticn.
	    I Information; no operatcr action is required.
	text
	    Message text.

Comments	IHC messages are not included in this publicaticn. They are documented in the publicaticn IBM Systerr/360 Cperating System: FORTRAN IV (G and H) Prograrrer's Guide, GC28-6817. If your installation uses FCRTRAN IV G cr H frequently, ycu may prefer to have the IHC messages in this publicaticn; the index tab cn this page is prcvided so that you can remcve the IHC messages frcm the Prcgrammer's Guide and insert them here. For routing and descriptor codes cf IHC messages, see Table 21 in Part V of this publication: "Rcuting and Lescriptcr Ccdes."
Associated Publications	IBM System/360 Cperating Systerr: FORTRAN IV (G and H) Prograrrer's Guide, GC28-6817 IBM System/360 FCRTRAN IV Ianguage, GC28-6515

IHC

Component Name	IHD
Program Producing Message	Object program originally coded in COBOL E language.
Audience and Where Produced	For programmer: SYSPRINT data set and console. For operator: console.

Message Format	IHD9nnI text
	
	9nn
	    Message serial number.
	text
	    Message text.

Comments	IHD messages are not included in this publication. They are documented in the publication IBM System/360 Operating System: COBOL E Programmer's Guide, GC24-5029. If your installation uses COBOL E frequently, you may prefer to have the IHD messages in this publication; the index tab on this page is provided so that you can remove the IHD messages from the Programmer's Guide and insert them here. For routing and descriptor codes of IHD messages, see Table 22 in Part V of this publication: "Routing and Descriptor Codes."

Associated Publications	IBM System/360 Operating System:
	    COBOL E Programmer's Guide, GC24-5029
	    COBOL Language, GC28-6516

Component Name	IHE
Program Producing Message	Object program originally ccded in PL/I F larguage.
Audience and Where Produced	Fcr programmer: in SYSPRINT data set. (If SYSPRINT is absent, on ccnscle. In this case, CN CHECK system acticr messages and COPY opticn output are not produced.) Note: Certain IHE messages always appear cr the ccnsole; this is indicated in the explanations cf such messages.

Message Format	IHEnnnI FILE name - text IN STATEMENT xxxxx AT lccation message
	IHEnnnI rtname - text IN STATEMENT xxxxx AT lccaticn message
	IHEnnnI text IN STATEMENT xxxxx AT lccaticn message
	
	nnn
	    Message serial number.
	name
	    Name of file associated with the errcr (given cnly in input/output messages).
	rtname
	    Name of the library routine in which the errcr cccurred (given cnly for computational subrcutines):
	
	    IHEATI Iong float arctan.
	    IHEATS Short float arctan.
	    IHEATW Short float ccmplex arctan and hyperbclic arctan.
	    IHEATZ Iong float ccmplex arctan and hyperbclic arctan.
	    IHEHTI Iong float hyperbclic arctan.
	    IHEHTS Short float hyperbclic arctan.
	    IHEINI Iong float logarithm.
	    IHEINS Short float logarithm.
	    IHESNI Iong float sine and ccsine.
	    IHESNS Short float sine and ccsine.
	    IHESQI Iong float square rcct.
	    IHESQS Short float square rcct.
	    IHETNI Iong float tangent.
	    IHETNS Short float tangent.
	    IHEXII Iong float integer expcnentiaticn.
	    IHEXIS Short float integer expcnentiaticn.
	    IHEXIW Short float ccmplex integer expcnentiaticn.
	    IHEXIZ Iong float ccmplex integer expcnentiaticn.
	    IHEXXI Iong float general expcnentiaticn.
	    IHEXXS Short float general expcnentiaticn.
	    IHEXXW Short float ccmplex general expcnentiation.
	    IHEXXZ Iong float ccmplex general expcnentiaticn.
	text
	    Message text.
	xxxxx
	    Number of statement in which the ccnditicn cccurred. Phrase IN STATEMENT xxxxx appears cnly when statement number cpticn is specified.
	lccaticn message
	    Lccation of error in prcgram, expressed in either cf twc fcrmats:
	
	    OFFSET ± hhhhh FRCM ENTRY FCINT xx
	    OFFSET ± hhhhh FRCM ENTRY FCINT OF cccc ON-UNIT
	
	    Phrase AT CFFSET... is replaced by NEAR OFFSET... if message is a model 91 or model 195 message resulting from an imprecise interrupt.

Comments	These messages are produced usually fcr twc reascns: • An error occurs for which nc specific CN-ccnditicn exists. When the message is produced, an ERRCR CN-ccrditicr is raised. • An ON-condition is raised by ccmpiled ccde cr a PL/I library rcutine; system action is required, fcr which the language specifies CCMMENT as part cf the necessary acticn. Input/cutput and computational CN-ccnditicn messages may cccur because of SIGNAL statements. Tasking errors are associated with CALL, READ, cr WRITE statements with TASK option; with WAIT statement; with TASK cr EVENT variables; with PRIORITY pseudo-variable cr built-in functicn; or with COMPLETION pseudo-variable. Ccnversion errors occur most cften cn input because cf errcrs in input data or in format list. Ncn-ccmputational program interrupt errcrs may be caused by a program interruption in a PL/I object program because cf a severe prcgram errcr which cannot be detected until executicn time. Other prcgram interrupts may arise if PL/I ccntrcl blccks have been destrcyed. After a multiple-exception imprecise interrupt cn a model 91, certain exceptions will remain unprccessed if the ERRCR ccnditicn is raised befcre all the exceptions have been handled. If the prcgram subsequently is terminated as a direct result cf the ERROR ccndition being raised in these circumstances, a message is prcduced. Stcrage management error messages are asscciated with stcrage handling and transfer of ccntrcl. These errcrs can result from prcgram errors, but they may arise because the save area chain, allccation chain, or pseudo-register vectcr has been overwritten. Tc assist error determinaticn, use diagncstic aids with these guidelines: 1. Enable SIZE, SUBSCRIPTRANGE, STRINGRANGE ccnditicns. 2. Dc not disable any of conditicns CCNVERSICN, FIXEDOVERFLOW, OVERFLCW, UNDERFLCW, ZERCDIVIDE. 3. Insert an on-unit for the ERRCR ccnditicr in the Main Procedure, and include a PL1DUMP DD statement fcr the failing jcb step. e.g. CN ERRCR SNAP CALL IHEDUMP; 4. Recompile program with ccmpiler opticns 'ST,A,X,L'. 5. Use Linkage Editor options 'LIST,MAP', cr Lcader cpticns 'PRINT,MAP'. 6. Specify MSGLEVEL=(1,1) on jcb statement. 7. Include a SYSABEND DD statement fcr the failing jcb step. Ncte: If the shared-library feature is in use, dc the fcllcwing befcre calling IBM for programming suppcrt: • Obtain a list of the opticns specified in the PL1LIB macro used during system generaticn. • Obtain a linkage editor map cf the resident shared-library mcdule IHELTVA.
Comments	IHE messages are not included in this publicaticn. They are dccumented in the publicaticn IBM System/360 Cperating System: PL/I (F) Prcgrammer's Guide, GC28-6594. If ycur installaticn uses PL/I (F) frequently, you may prefer tc have the IHE messages in this publication; the index tab cn this page is prcvided sc that you can remcve the IHE messages frcm the Prcgrammer's Guide and insert them here. Fcr rcuting and descriptor ccdes cf IHE messages, see Table 23 in Part V of this publication: "Rcuting and Descriptcr Ccdes."
Associated Publications	IBM System/360 Cperating System: PL/I (F) Prcgrammer's Guide, GC28-6594

Component Name	IHG
Program Producing Message	Analyzer of maintenance program.
Audience and Where Produced	For system programmer: console.

Message Format	IHGnnnI text
	
	nnn
	    Message serial number.
	text
	    Message text.

Comments	None.
Associated Publications	IBM System/360 Operating System: Maintenance Program, GC27-6918
Problem Determination	Refer to the fold-out in part VI of this publication for problem determination instructions.

IHG001I NO BLANK AFTER OP (image of control card)

Explanation: No blank follows the operation code in this control card; the analyzer cannot be certain of the operand field.

System Action: The analysis run is terminated immediately after control-card processing is completed.

Programmer Response: Probable user error. Correct the construction of the control statement accompanying this message, and resubmit the job.

Problem Determination: Table I, items 1, 2, 3, 4, 29.

IHG002I OP CODE IN ERROR (image of control card)

Explanation: This control card contains an invalid operation code.

System Action: The analysis run is terminated immediately after control-card processing is completed.

Programmer Response: Probable user error. Correct the op code of the control statement accompanying this message, and resubmit the job.

Problem Determination: Table I, items 1, 2, 3, 4, 29.

IHG003I OPERAND IN ERROR (image of control card)

Explanation: This control card contains an invalid operand.

System Action: The analysis run is terminated immediately after control-card processing is completed.

Programmer Response: Probable user error. Correct the operand(s) of the control statement accompanying this message, and resubmit the job.

Problem Determination: Table I, items 1, 2, 3, 4, 29.

IHG004I NOT AN UAP CTL CARD (image of control card)

Explanation: This card is not a valid control card for the analyzer. (This message is written when a card contains information in column 1, but is not one of the job-information cards, which contain 2-character identifications in columns 1 and 2.)

System Action: The analysis run is terminated immediately after control-card processing is completed.

Programmer Response: Probable user error. Ensure that column 1 is blank for the UAP control statement accompanying this message, and resubmit the job.

Problem Determination: Table I, items 1, 2, 3, 4, 29.

IHG005I PRIOR CARD THIS TYPE (image of control card)

Explanation: A job-information card of this type has already been read and stored. (This card is not assumed to be a continuation of the first card, since it did not immediately follow that first card in the input job stream.)

System Action: The analysis run is terminated immediately after control-card processing is completed.

Programmer Response: Probable user error. Supply the correct job-information identification characters in columns 1-2 of the job-information statement accompanying this message. Correct the sequence of the statements, as necessary, and resubmit the job.

Problem Determination: Table I, items 1, 2, 3, 4, 29.

IHG006I IS NOT CONT OF PREV (image of control card)

Explanation: This card was expected to be a continuation of the last job-information card processed, but it is not. (That is, this job-information card is a different type from the one that contained a punch in its continuation column.)

System Action: The analysis run is terminated immediately after control-card processing is completed.

Programmer Response: Probable user error. Correct the condition indicated in the message text for the job-information statement accompanying this message and resubmit the job.

Problem Determination: Table I, items 1, 2, 3, 4, 29.

IHG007I LAST CARD PROCESSED EXPECTED A CONTINUATION NONE ENTERED

Explanation: The last analyzer control card processed, or the last job-information card processed, indicated that a continuation card was to follow, but none did.

System Action: The analysis run is terminated immediately after control-card processing is completed.

Programmer Response: Probable user error. Insert the missing continuation statement as indicated in the message text. If no continuation is desired, correct the statement that indicates a continuation. Resubmit the job.

Problem Determination: Table I, items 1, 2, 3, 4, 29.

IHG008I LIBSEQ CARD MISSING OR CARD NUMBER DUPLICATED

Explanation: In checking the numbers subscripted to the change PDS name, the analyzer has detected that a number is missing or duplicated.

System Action: The analysis run is terminated immediately after control-card processing is completed.

Programmer Response: Probable user error. Ensure that the LIBSEQ statements are uniquely and sequently numbered for a particular change PDS. Then resubmit the job.

Problem Determination: Table I, items 1, 2, 3, 4, 29.

IHG009I ALIAS TABLE IS FULL (image of control card)

Explanation: The space allotted for storing aliases has been filled. (This message is repeated each time an alias card is read subsequent to the overflow condition.)

System Action: The analysis run is terminated immediately after control-card processing is completed.

Programmer Response: Probable user error. Take one or both of the following table-overflow steps and resubmit the job:
• Reduce the number of analysis phases per the PARM field of the Analyzer's EXEC statement; also, remove any associated control statements from the Analyzer's input job stream.
• Suppress processing one or more libraries specified in the LIBSEQ statement; also, remove any associated control statements from the Analyzer's input job stream.

Problem Determination: Table I, items 1, 2, 3, 4, 29.

IHG010I DATA TABLE IS FULL (image of control card)

Explanation: The space allotted for storing job-information cards has been filled. (This message is repeated each time a job-information card is read subsequent to the overflow condition.)

System Action: The analysis run is terminated immediately after control-card processing is completed.

Programmer Response: Probable user error. Reduce the number of job-information continuation statements and resubmit the job.

Problem Determination: Table I, items 1, 2, 3, 4, 29.

IHG011I NO SPACE/BASE JOB CD

Explanation: The space allotted for storing job-information cards has been filled, but no JOB card has been stored there. (And there is no room to store an analyzer-generated JOB card.)

System Action: The analysis run is terminated immediately after control-card processing is completed.

Programmer Response: Probable user error. Reduce the number of job-information continuation statements and resubmit the job.

Problem Determination: Table I, items 1, 2, 3, 4, 29.

IHG012I LIBSEQ TABLE IS FULL (image cf control card)

> Explanation: The space allctted for storing library-sequence infcrmation has been filled. (This message is repeated each time a LIBSEQ card is read subsequent to the overflow condition.)

> System Action: The analysis run is terminated immediately after ccntrol-card processing is completed.

> Programmer Response: Probable user error. Reduce the number of LIBSEQ statements and/or refer to message IHG009I for further table-overflow steps. Then resubmit the job.

> Problem Determinaticn: Table I, items 1, 2, 3, 4, 29.

IHG013I IHGUAP PARM ERROR

> Explanation: The PARM field cf the EXEC card for the analyzer ccntains an invalid parameter.

> System Action: The analysis run is terminated immediately after ccntrol-card processing is completed.

> Programmer Response: Probable user error. Correct the PARM field cf the Analyzer's EXEC statement and resubmit the job.

> Problem Determinaticn: Table I, items 1, 2, 3, 4, 29.

IHG014I CARD FORMAT ERROR

> Explanation: If any of the error messages related to control cards (IHG001I through IHG013I and IHG015I thrcugh IHG018I) have been given, this message is written to indicate that an error ccnditicn was detected, and that the analysis run is being terminated at this pcint.

> Programmer Response: Probable user error. Correct the error(s) indicated in previous diagnostics and resubmit the jcb.

> Problem Determinaticn: Table I, items 1, 2, 3, 4, 29.

IHG015I DU/DP DATA MISSING

> Explanation: Job-informaticn cards for the SYSUT1 and/or the SYSPRINT DD cards were nct included in the ccntrcl-card input.

> System Action: The analysis run is terminated immediately after ccntrol-card processing is completed.

> Programmer Response: Probable user error. Insert the missing job-infcrmation statement(s) and resubmit the job.

> Problem Determinaticn: Table I, items 1, 2, 3, 4, 29.

IHG016I FELIE TABLE IS FULL (image cf ccntrol card)

> Explanaticn: The space allctted fcr library-name entries in the fcrce and except table has been filled. (This message is repeated each time a FORCE or EXCEPT card ccrtaining a new litrary name is read subsequent tc the cverflcw ccnditicn.)

> System Action: The analysis run is terminated immediately after ccntrcl-card prccessing is ccmpleted.

> Prcgrammer Respcrse: Protable user error. Refer tc message IHG009I fcr table-cverflcw steps and resutmit the job.

> Prcblem Determiraticn: Table I, items 1, 2, 3, 4, 29.

IHG017I FEITEM TABLE IS FULL (image cf control card)

> Explanaticn: The space allctted fcr change-item entries in the fcrce and except table has been filled. (This message is repeated each time a FORCE or EXCEPT card is read subsequent to the cverflcw ccnditicn.)

> System Action: The analysis run is terminated immediately after ccntrcl-card prccessing is ccmpleted.

> Prcgrammer Respcrse: Protable user error. Refer tc message IHG009I fcr table-cverflcw steps and resutmit the job.

> Prcblem Determiraticn: Table I, items 1, 2, 3, 4, 29.

IHG018I DUPLICATE ALIAS CARD (image of alias card)

> Explanaticn: A seccnd ALIAS card has been read fcr the same litrary member. (This card (listed in the message) is nct a ccntinuaticn cf the ALIAS card previously read fcr this member.

> System Action: The analysis run is terminated immediately after ccntrcl-card prccessing is ccmpleted.

> Prcgrammer Respcrse: Protable user error. Apply standard ccntiruaticn rules when using multiple ALIAS statements for the same library member. Then resutmit the jcb.

> Prcblem Determiraticn: Table I, items 1, 2, 3, 4, 29.

IHG021I DISTN ERROR. CHANGE TYPE SHOULD BE M OR R CR D.

> Explanaticn: Pcsiticn 15 cf the distributicn ccntrcl statement for this change member ccrtains an errcr.

> System Action: Executicn ccntinues. The change member is disregarded.

Programmer Response: Probable user error.
For an existing member in the user's
library, the add update is unacceptable.
If the error occurred in user supplied
input, correct the type-of-change field in
the distribution control statement and
resubmit the job.

Problem Determination: Table I, items 1,
2, 3, 4, 5a, 7c, 29.

IHG022I DISTN ERROR. CT HDR CARD MISSING OR
MISPUNCHED.

Explanation: The CT header card for this
change member is either missing or
contains an error.

System Action: Execution continues. The
change member is disregarded.

Programmer Response: Probable user error.
For user supplied input, correct or supply
the missing CT header statement as the
second statement in the symbolic or macro
change PDS and resubmit the job for this
change member.

Problem Determination: Table I, items 1,
2, 3, 4, 5a, 7c, 29.

IHG023I BLDL PERM I/O ERROR.

Explanation: A permanent input/output
error occurred when the analyzer attempted
to issue a BLDL macro instruction against
the target library.

System Action: Execution continues. The
library is closed; the current and further
change items for the library are
disregarded.

Programmer Response: None.

Problem Determination: Table I, items 1,
2, 3, 4, 5a, 7c, 29. Table II, Format 1:
trace option - TRACE=SYS.

IHG024I DISTN ERROR. DISTN CTL CARD MISSING OR
MISPUNCHED.

Explanation: The distribution control
statement for this change member is either
missing or contains an error.

System Action: Execution continues. The
change member is disregarded.

Programmer Response: Probable user error.
For user supplied input, correct or
supply, as the first statement in this
change PDS, the missing distribution
control statement, and resubmit the job
for this change member.

Problem Determination: Table I, items 1,
2, 3, 4, 5a, 7c, 29.

IHG025I DISTN ERROR. SYSLIN DD CARD MISSING OR
MISPUNCHED.

Explanation: The SYSLIN DD card for this
change member is either missing or
contains an error.

System Action: Execution continues. The
change member is disregarded.

Programmer Response: Probable user error.
For user supplied input, correct or supply
the missing SYSLIN DD statement in this
change PDS to mark the beginning of the
input data set to the linkage editor, and
resubmit the job for this change member.

Problem Determination: Table I, items 1,
2, 3, 4, 5a, 7c, 29.

IHG026I DISTN ERROR. IE EXEC CARD MISSING OR
MISPUNCHED.

Explanation: The EXEC card to execute the
linkage editor is either missing or
contains an error.

System Action: Execution of the analyzer
continues. The change member is
disregarded.

Programmer Response: Probable user error.
For user supplied input, correct or
supply, as the second statement in the
change PDS, the missing EXEC statement to
execute the linkage editor and resubmit
the job for this change member.

Problem Determination: Table I, items 1,
2, 3, 4, 5a, 7c, 29.

IHG027I DISTN ERROR. CHANGE TYPE SHOULD BE A OR
R.

Explanation: Position 15 of the
distribution control statement for this
change member contains an error.

System Action: Execution continues. The
change member is disregarded.

Programmer Response: Probable user error.
Only an add or replace update is
acceptable for user forced updating to a
non-existent member in a library. If the
error occurred in user supplied input,
correct the type-of-change field in the
distribution control statement, and
resubmit the job for this change member.

Problem Determination: Table I, items 1,
2, 3, 4, 5a, 7c, 29.

IHG031I member HAS BEEN DELETED.

Explanation: This message, written by the
analyzer's deletion routine, indicates
that the member name identified in the
message has been successfully deleted from
the directory of the system library in
which the member resided.

Programmer Response: None.

IHG032I member WAS NOT IN DIRECTORY.

Explanation: This message, written by the
analyzer's deletion routine, indicates
that the member name identified in the
message could not be found in the
directory of the system library that
supposedly contained the member.

Programmer Response: Probable user error.
If the member was inadvertently deleted
subsequent to the preprocessor analysis
run, disregard this message.

If the member was relocated to another
library, correct the DD statement for the
affected library and rerun the deletion
routine for this member.

Problem Determination: Table I, items 1,
2, 3, 4, 5a, 7c, 29.

IHG033I member, PERM I/O ERROR.

Explanation: This message, written by the
analyzer's deletion routine, indicates
that an irrecoverable I/O error occurred
while trying to delete the member name
identified in the message.

Programmer Response: None.

Problem Determination: Table I, items 1,
2, 3, 4, 5a, 7c, 29. Table II, Format 1:
trace option - TRACE=SYS.

IHG040I NO CHANGE TO LIBRARY ON LIBSEQ CARD
libname

Explanation: A LIBSEQ card specifies a
library, libname, for which no change
items are included in the change PDS.

System Action: The specification is
ignored.

Programmer Response: Probable user error.
If job rerun is required, remove the
subject record; otherwise no action is
required.

IHG041I changepds member name DIST CTL CD MEMBER
OR LIBRARY NAME ERROR

Explanation: A distribution control
record from the specified change PDS
contains a member name that is not in the
change PDS directory, or a library name
that is unrecognizable.

System Action: This error condition is
discovered prior to analyzing any of the
change items from this change PDS. The
analyzer continues reading the
distribution control records from this
change PDS in order to determine whether
the error condition occurs again. (Thus,
this message may be repeated for the same
change PDS.) However, no analysis is
performed for the change items from this
change PDS, and the analyzer proceeds to
the analysis phase associated with the
next change PDS (if any).

Programmer Response: Probable user error.
If the error occurred in user supplied
input, use the IEBPTCH data set utility
program to list the incorrect distribution
control record. Then use the appropriate
data set utility program (IEBUPDAT,
IEBUPDTE) to modify the incorrect member
name or library name in the distribution
control record.

Problem Determination: Table I, items 1,
2, 3, 4, 5a, 7c, 29.

IHG042I TABLE AREA OVERFLOW

Explanation: Insufficient space is
available to build tables of control
information related to the change PDS.

System Action: This condition is
discovered prior to analyzing any of the
change items from this change PDS. No
analysis is performed for any of these
change items, and the analyzer immediately
proceeds to the analysis phase associated
with the next change PDS (if any).

Programmer Response: Probable user error.
Refer to Message IHG009I for
table-overflow steps, and resubmit the
job.

Problem Determination: Table I, items 1,
2, 3, 4, 5a, 7c, 29.

IHG043I I/O ERROR

Explanation: An irrecoverable I/O error
has occurred while reading the change PDS.

System Action: This condition is
discovered prior to analyzing any of the
change items from this change PDS. No
analysis is performed for any of these
change items, and the analyzer immediately
proceeds to the analysis phase associated
with the next change PDS (if any).

Programmer Response:

Problem Determination: Table I, items 1,
2, 3, 4, 5a, 7c, 29. Table II, Format 1:
trace option - TRACE=SYS.

IHG044I changepds NOT PROCESSED

Explanation: The change PDS identified in
the message (MACCHG, SYMCHG, or UPCTL)
cannot be processed. This message is
written if one of the 3 preceding messages
(IHG041I through IHG043I) has been given
as the result of an error condition
related to the change PDS.

System Action: The analysis phase
associated with this change PDS has been
discontinued, and the analyzer is
proceeding with the next analysis phase
(if any).

Programmer Response: Probable user error.
Correct the error indicated in the
previous diagnostic and resubmit the job.

Problem Determination: Table I, items 1,
2, 3, 4, 5a, 7c, 29.

IHG050I UPDATE ANALYSIS COMPLETED

Explanation: Normal end-of-job message.

Programmer Response: None.

Component Name	IHI
Program Producing Message	Object program originally ccded in ALGCL larguage.
Audience and Where Produced	For programmer: SYSPRINT data set. For operator: console.

Message Format	IHIrnnI SC nnnnn text
	
	nnn
	    Message serial number.
	nnnnn
	    Semicolon number, right-adjusted, and in decimal.
	text
	    Message text. Where apprcpriate, begin with:
	
	    DSN=nn or DSN=ddname
	        Indicates the number (nn) cr name (ddrane) cf the data set
	        involved in the errcr.
	    PSW=nnnn nnnn
	        Contents of the program status wcrd (PSW) held by the
	        system when the errcr cccurred.
	    **
	        Indicates that the prcgram dces nct ccrrespcnd tc the
	        parameters specified in the jcb ccntrcl statenents.

Comments	IHI messages are not included in this publicaticn. They are dccumented in the publicaticn IBM Systen/360 Cperating Systen: ALGOL Prcgrammer's Guide, GC33-4000. If ycur installaticn uses ALGOL frequently, you may prefer tc have the IHI nessages in this publication; the index tab cn this page is prcvided sc that ycu can remcve the IHI messages from the Frcgranner's Guide and insert them here. For rcuting and descriptor ccdes cf IHI messages, see Table 25 in Part V of this publication: "Rcuting and Descriptcr Ccdes."

Associated Publications	IBM System/360 Cperating Systen:
	    ALGOL Language, GC28-6615
	    ALGOL Prcgrammer's Guide, GC33-4000

Component Name	IHJ
Program Producing Message	Checkpoint/restart.
Audience and Where Produced	For operator: console.

Message Format	xx IHJnnns text
	
	xx
	    Message reply identification (absent, if operator reply not required).
	nnn
	    Message serial number.
	s
	    Type code:
	
	    A Action; operator must perform a specific action.
	    I Information; no operator action is required.
	text
	    Message text.

Comments	None.
Problem Determination	Refer to the fold-out in part VI of this publication for problem determination instructions.

IHJ000I CHKPT jjj [(ddn)] NOT TAKEN (xx)

Explanation: During execution of a CHKPT macro instruction, an error occurred before the checkpoint routine wrote any part of a checkpoint entry.

In the message text, jjj is the jobname, ddn is the data definition name of the checkpoint data set (which is omitted if xx is 01), and xx explains why the checkpoint entry was not written:

xx	Explanation
01	A checkpoint parameter list error was encountered. (Return code - 08.)
02	An uncorrectable input/output error occurred or a DD statement error was encountered while opening the data control block (DCB) for the checkpoint data set. Possibly, a DD statement was missing. (Return code - 0C.)
03	Insufficient space was available for a work area. (Return code - 08.)
04	The checkpoint work area extended too low in main storage; too few bytes were below the work area to write a valid record on the checkpoint device. (Return code - 08.)
05	The checkpoint data set key length was not equal to zero. (Return code - 08.)
06	The checkpoint data set record format was not U. (Return code - 08.)
07	The data control block (DCB) for the checkpoint data set was opened for other than basic sequential access method (BSAM) or basic partitioned access method (BPAM) processing.

    (Return code - 08.)

08	The time interval specified in the STIMER macro instruction had not elapsed. (Return code - 08.)
09	The CHKPT macro instruction was issued in an exit routine other than the end of volume exit routine. (Return code - 08.)
10	A graphic data control block (DCB) has been detected but is not supported in checkpoint restart. (Return code - 08).
11	The current task was a subtask. (Return code - 08.)
12	The current task had subtasks. (Return code - 08.)
14	A reply to a WTOR macro instruction was not received. (Return code - 08.)
15	An incorrect checkpoint identification length or format was encountered. (Return code - 08.)
16	The checkpoint data set device type was not magnetic tape or direct access. (Return code - 08.)
18	The checkpoint data set block size was less than 600 bytes, the minimum acceptable size. (Return code - 08.)
19	Either MACRF=W was not specified for the checkpoint data control block (DCB), or the data control block was opened by the user's program, but was not opened for output. (Return code - 08.)
20	The step was using main storage outside of its requested region. (Return code - 08.)
21	LABEL=AL or LABEL=AUL was coded in the DD statement for the checkpoint data set. These values for the LABEL

parameter must not be used in a
checkpoint data set DD statement.
(Return code - 08.)

25   An uncorrectable input/output error
     occurred while reading a job control
     table (JCT). (Return code - 0C.)

27   Secondary allocation occurred while
     writing the checkpoint data set on a
     direct access volume, or end of
     volume occurred twice while writing
     the checkpoint data set on tape.
     (Return code - 08.)

29   The OPTCD subparameter of the DCB
     parameter was coded incorrectly. The
     value coded is not acceptable for a
     checkpoint data set. (Return code -
     08.)

30   An uncorrectable input/output error
     occurred while quiescing pending
     input/output requests. (Return code -
     0C.)

31   A conflict was found between a data
     extent block (DEB) and a data control
     block (DCB) such that pending I/O
     requests could not be quiesced.
     Specifically, the DEB was constructed
     for an ISAM data set but the DCB
     DSORG did not specify 'IS', or the
     DCB DSORG specified 'IS' but the DEB
     was not constructed for an ISAM data
     set.

32   An indexed sequential data set (ISAM)
     was open and the disposition is share.
     (Return code - 08.)

System Action: A checkpoint entry was not
written. A restart was not requested, but
any previous request for a restart remains
in effect.

If MOD is not the disposition of the
checkpoint data set and if this is the
first issuance of the CHKPT macro
instruction after the data control block
for the data set was opened, then all
checkpoint entries in the data set are
lost. (The data control block may have
been opened by the programmer or as a
result of this checkpoint request.)
However, if xx is 01, no entries are lost.

Programmer Response: If xx was 25 or 30,
resubmit the job.

If xx was other than 25 or 30, probable
user error.

If xx is 01, 02, 05, 06, 07, 15, 16, 18,
19, 21, or 29, correct the indicated error
and resubmit the job.

If xx is 03 or 04, use a larger main
storage area. Then resubmit the job.

If xx is 08, cancel the time interval
before issuing the CHKPT macro
instruction, and then restore the
interval. Then resubmit the job.

If xx is 09, make sure that the CHKPT macro
instruction is not issued in an exit
routine other than the end of volume exit
routine. Then resubmit the job.

If xx is 11 or 12, make sure that the CHKPT
macro instruction is not issued when multiple
tasks (created by the ATTACH macro
instruction) exist. Then resubmit the job.

If xx is 14, issue a WAIT macro
instruction after the WTOR macro
instruction, but before the CHKPT macro
instruction. Then resubmit the job.

If xx is 20, make the step ineligible to
roll out other steps and use a REGION
parameter requesting a larger main storage
area or change the step so that it does not
issue a CHKPT macro instruction when it
could cause rollout. Then resubmit the job.

If xx is 31, probable user error. Make
sure that the DCB was not overlaid or its
main storage released prior to taking the
checkpoint, then resubmit the job.

If xx is 32, be sure that a close is issued
for all indexed sequential data sets with
disposition of share before issuing the
CHKPT macro. Then resubmit the job.

Operator Response: If xx is 25 or 30, and
if the programmer indicated that the job
was to be canceled if it did not take
checkpoints correctly, cancel the job;
otherwise, none. (The job may execute
successfully and not require restart.) If
the error persists, specify a different
location for the SYS1.SYSJOBQE data set
when the system is restarted.

Problem Determination: Table I, items 1,
3, 13, 29.

IHJ001I jjj (ddn,utn,ser) INVLD checkid (xx)

     Explanation: During execution of a CHKPT
     macro instruction, an error occurred while
     the checkpoint routine was writing a
     checkpoint entry.

     In the message text, jjj is the jobname,
     ddn is the data definition name of the
     checkpoint data set, utn is the unit name,
     ser is the serial number of the volume
     containing the data set, checkid is the
     checkpoint identification, and xx explains
     why the checkpoint was invalid:

     xx   Explanation

     17   Execution of a STOW macro instruction
          was unsuccessful; there was no space
          in the checkpoint data set directory.
          (Return code - 08.)

     22   An uncorrectable input/output error
          occurred while reading system control
          blocks from the SYS1.SYSJOBQE data
          set. (Return code - 0C.)

     23   An uncorrectable input/output error
          occurred while writing the checkpoint
          data set. (Return code - 0C.)

     26   Execution of a STOW macro instruction
          was unsuccessful; a permanent
          input/output error occurred. (Return
          code - 0C.)

     27   End-of-volume occurred while writing
          the checkpoint data set on a direct
          access volume and secondary
          allocation was requested and
          allocated.

     28   End-of-volume occurred while writing
          the checkpoint entry on a tape.

System Action: A partial invalid
checkpoint entry was written. A restart
was not requested, but any previous
request for a restart remains in effect.

Programmer Response: If checkpoint
identifications specified by the
programmer are being used in a sequential
data set, then a checkpoint identification
different from checkid in the message text
must be specified for the next entry in
order to make the next entry retrievable
in a restart.

If xx is 17 or 27, correct the checkpoint
data set directory, and resubmit the job.

If xx is 22, 23, or 26 resubmit the job.

If xx is 22, and if the programmer
indicated that the job was to be canceled
if it did not take checkpoints correctly,
cancel the job; otherwise, none. If the
error persists, specify a different
location for the SYS1.SYSJOBQE data set
when the system is started again.

If xx is 23, and if the programmer
indicated that the job was to be canceled
if it did not take checkpoints correctly,
cancel the job; otherwise, none. If the
job is canceled or terminates abnormally,
and a rerun is attempted, then (1) if a
nonspecific volume was requested for the
checkpoint data set, mount a different
volume during the rerun than was used
originally, or (2) vary offline the device
originally containing the checkpoint data
set.

If xx is 27, and if the programmer
indicated that the job was to be canceled
if it did not take checkpoints correctly,
cancel the job; otherwise, none. If the
job is canceled or terminates abnormally,
attempt a rerun only if the volume
containing the checkpoint data set was
requested as a nonspecific volume. During
the rerun, mount a volume (tape or direct
access) containing more available space
than was contained on the volume used
originally.

If xx is 28, reissue the CHKPT macro to
get the entry written on the next volume.
It is advisable to specify a different
check id for the entry.

Problem Determination: Table I, items 1,
3, 13, 29.

IHJ002I jjj (ddn,utn,ser) ERROR checkid

Explanation: During execution of a CHKPT
macro instruction, an uncorrectable
input/output error occurred while the
checkpoint routine was writing a job
control table (JCT) after it had written a
checkpoint entry.

In the message text, jjj is the jobname,
ddn is the data definition name of the
checkpoint data set, utn is the unit name,
ser is the serial number of the volume

containing the data set, and checkid is
the checkpoint identification.

System Action: A valid checkpoint entry
that can be used to perform a deferred
restart was written. A restart was not
requested, but any previous request for a
restart remains in effect.

Programmer Response: As desired, resubmit
the job as is or request that a restart be
performed at the indicated checkpoint.

Operator Response: The programmer
indicated that the job was to be canceled
if this message was issued, cancel the
job; otherwise, none. (The job may
execute successfully and not require
restart.) If the error persists, specify
a different location for the SYS1.SYSJOBQE
data set when the system is started again.

Problem Determination: Table I, items 1,
3, 13, 29.

IHJ004I jjj (ddn,utn,ser) CHKPT checkid

Explanation: A CHKPT macro instruction
was executed successfully; no errors
occurred.

In the message text, jjj is the jobname,
ddn is the data definition name of the
checkpoint data set, utn is the unit name,
ser is the serial number of the volume
containing the data set, and checkid is
the checkpoint identification.

System Action: A valid checkpoint entry
was written. A restart was requested.

Programmer Response: If a deferred
restart is to be performed:
• Code the checkpoint identification
  (checkid in the message text) in the
  RESTART parameter of the JOB statement.
• If multiple checkpoint data sets were
  used, use ddn in the message text to
  determine the name of the data set
  containing the desired checkpoint entry.
  Code the data set name in the DSNAME
  parameter of the SYSCHK DD statement.
• If the checkpoint data set is
  multivolume, indicate on the SYSCHK DD
  statement that the volume containing the
  checkpoint data set is the first (or
  only) volume containing the data set.
  That is, code the serial number (ser in
  the message text) in the VOLUME=SER
  parameter or, if the data set is to be
  retrieved using the catalog, code the
  sequence number of the volume in the
  volume sequence subparameter of the
  VOLUME parameter.

Then resubmit the job.

IHJ005I jjj (ddn,utn,ser) ENQS checkid

Explanation: A CHKPT macro instruction
was executed successfully. Although no
errors occurred, the user's program was
enqueued upon resources. (The ENQ macro
instruction was issued by either the

problem program, the BDAM READ macro
instruction with exclusive control, the
RESERVE macro instruction, or the BDAM
WRITE macro instruction with
variable-length (V) or undefined (U)
record format.) Note that the enqueues
will not be re-established if restart
occurs.

In the message text, jjj is the jobname,
ddn is the data definition name of the
checkpoint data set, utn is the unit name,
ser is the serial number of the volume
containing the data set, and checkid is
the checkpoint identification.

System Action: A valid checkpoint entry
was written. A restart was requested.

Programmer Response: Make sure that the
program re-establishes the enqueues upon
restart.

IHJ006I jjj RESTARTING AT
$$\begin{cases} wwwwww \ xxxxxx \\ yyyyyy \ zzzzzz \\ wwwwww \ xxxxxx \ yyyyyy \ zzzzzz \end{cases}$$

Explanation: During execution of a
checkpoint restart for job jjj, the main
storage indicated in the message was
requested. In the message text, wwwwww is
the lowest address and xxxxxx is the
highest address of hierarchy 0 (processor
storage), and yyyyyy is the lowest address
and zzzzzz is the highest address of
hierarchy 1 (IBM 2361 core storage).

System Action: If the required areas are
currently unavailable, restart is delayed
until the areas are available.

Operator Response: In systems with MVT,
use the DISPLAY A command to determine if
the required areas are occupied by system
tasks or by other job step tasks.

If the area is occupied by a system task,
either allow the system task to continue
and terminate (if a reader), stop the
system task (if a reader or writer).

If the area is occupied by another job
step task, either allow the job step task
to continue and terminate, cancel the job
step task.

IHJ007I RESTART NOT SUCCESSFUL FOR jjj (xx,ddd)

Explanation: During execution of a
checkpoint restart for job jjj, an error
occurred.

In the message text, xx is the code used
to identify why the restart was not
successful and, for tape errors, ddd
identifies the unit address.

xx	Explanation
24	An uncorrectable input/output error occurred while reading a job file control block (JFCB).
28	An uncorrectable input/output error occurred in the user's nonstandard label (NSI) routine.
31	A system failure occurred in the reader/interpreter.
32	A system failure occurred during reinterpretation.
33	The checkpoint data set is partitioned and the specified entry could not be found.
34	A DD statement was missing for the restarted step.
35	A checkpoint entry record of undetermined type was encountered.
36	An uncorrectable input/output error occurred while reading or writing a system control block on the SYS1.SYSJOBQE data set. This error will also occur if MSGLEVEL=1 is not specified on the restart JOB card of a deferred restart or in the original JOB card for an automatic restart.
37	A specified checkpoint entry could not be found.
38	An uncorrectable input/output error occurred while reading the checkpoint data set.
40	An uncorrectable input/output error occurred while reading standard volume labels.
41	A wrong-length record was read from the checkpoint data set.
44	Insufficient devices were available for restart.
48	An uncorrectable input/output error occurred while reading a volume label on a direct access device.
52	A module, which was located in the link pack area and was being used by job jjj when the checkpoint was taken, is either not in that area now or is in a different location in that area.
54	ANSI label used for SYSIN/SYSOUT tape.
60	Data set repositioning errors occurred on tape.
64	Record repositioning errors occurred on tape.
72	An uncorrectable input/output error occurred while reading a data set control block (DSCB). This message is also issued if a data set was scratched or deleted.
73	While processing a direct access data set, a discrepancy was found between the DSCB address saved at checkpoint time, and the DSCB address found at restart time. Probably the data set was scratched and re-allocated between checkpoint and restart. (Not applicable to SYSIN or SYSOUT data sets).
76	A direct access data set (other than the system input data set) being processed for input did not occupy the same extent as it did originally; that is, discrepancies were found in comparing the space allocations described in the data extent block (DEB) and the data set control block (DSCB).
79	DUMMY was specified for an open data set and either the data set was not being processed by the basic or queued sequential access methods or the checkpoint at which restart was to occur was established in an end of volume exit routine for the data set.
82	The TCAM control program was not active at restart.
83	The QNAME= parameter's DCB is not the name of a process entry in the terminal table.
84	A QNAME= parameter's process entry is being used by another user.

85   Core storage is not available in the
     Message Control Program to build
     necessary control blocks.
92   An error occurred during basic
     partitioned access method (BPAM)
     processing. For example, an error
     was detected after the convert
     routine or after reading the
     directory blocks.
96   An error occurred during use of the
     STOW macro instruction to delete a
     member from the directory.

System Action: Restart for job jjj is
terminated.

Programmer Response: If xx is 33, 34, 35,
37, 44, 52, 76, or 79, probable user
error.

If xx is 33 or 37, make sure that the
checkpoint identification subparameter of
the RESTART parameter of the JOB statement
specifies a checkpoint entry on the volume
specified by the SYSCHK DD statement.
Then resubmit the job.

If xx is 34, supply the missing DD
statement. Then resubmit the job.

If xx is 35, make sure that the program
does not write in the checkpoint data set.
Then resubmit the job.

If xx is 38, 60, 64, or 96, either restart
at an earlier checkpoint or repeat the
original execution, using a different
volume. Then resubmit the job.

If xx is 41, either the checkpoint from
which restart is being attempted was
incomplete or invalid when it was taken,
or the checkpoint has been overwritten
with records not belonging to it. Check
the checkpoint messsage output from the
original execution. If the checkpoint
being used was incomplete or invalid,
restart from a different checkpoint. If
the checkpoint was good, make sure the
program does not write into the checkpoint
data set. Resubmit the job.

If xx is 44, ensure that the UNIT
parameter of the DD statement accurately
reflects the device requirements for the
data set. Then resubmit the job.

If xx is 52, make sure that the IPI
parameters are the same parameters that
were in use when the checkpoint was taken.

If xx is 54, make sure that the type
specified for SYSIN/SYSOUT has IBM
standard labels. ANSI labels are not
permitted for SYSIN/SYSOUT.

If xx is 72, ensure that no data set has
been scratched or deleted.

If xx is 73, ensure that no data set has
been scratched or deleted.

If xx is 76, make sure that no input data
set (other than the system input data set)
has been expanded, or rewritten, on its
original volume. Then resubmit the job.

If xx is 79, make sure that DUMMY is
specified only for data sets being
processed by the queued or basic
sequential access methods. Also, make
sure that restart is not to occur at a
checkpoint that was established in an end
of volume exit routine for a data set that
has been made dummy.

If xx is 24, 36, or 92, and if the restart
was deferred, the restart may be attempted
again. If the error persists, specify a
different location for the SYS1.SYSJOBQE
data set when the system is started again.

If xx is 28, 40, 48, or 72, and if the
restart was deferred, the restart may be
attempted again. If a preceding
input/output error message for the
restarted job identified the device in
error, vary offline the device before
attempting the restart again.

If xx is 31 or 32, resubmit the job.

If xx is 38, and if the restart was
deferred, the restart may be attempted
again. However, vary offline the device
containing the checkpoint data set before
attempting the restart again.

If xx is 82 or 85 make sure that the TCAM
control program region is active and is
large enough to add control blocks.
Resubmit the job.

If xx is 83 or 84 make the necessary
corrections to the QNAME= parameter and
resubmit the job.

Problem Determination: Table I, items 1,
3, 13, 29.

IHJ008I jjj RESTARTED

Explanation: A checkpoint restart for
job jjj has completed successfully.

System Action: Processing of job jjj
continues.

Operator Response: None.

Remote Job Entry and Conversational Remote Job Entry Messages (IHK)

Component Name	IHK
Program Producing Message	Remote job entry and conversational remote job entry.
Audience and Where Produced	For central operator: console. For remote operator and programmer: terminal (CRJE only); SYSOUT (RJE).

Message Format	IHKnnnI text (on terminal in both RJE and CRJE)
	IHKnnnS text ssssssss (in RJE, on terminal and SYSOUT)
	IHKnnn text (in CRJE, on terminal)
	
	nnn
	    Message serial number.
	text
	    Message text.
	s
	    Type code:
	
	    A Action; operator must perform a specific action.
	    I Information; no operator action is required.
	ssssssss
	    Command or statement sequence number.

Comments	RJE messages sent to the remote work stations are not included in this publication. They are documented in the publication _IBM System/360 Operating System: Remote Job Entry_, GC30-2006. CRJE messages sent to terminals are not included in this publication. They are documented in the publication _IBM System/360 Operating System: Conversational Remote Job Entry Terminal User's Guide_, GC30-2014.

Associated Publications	_IBM System/360 Operating System:_
	    Remote Job Entry, GC30-2006
	    Conversational Remote Job Entry
	      System Programmer's Guide, GC30-2016
	    Conversational Remote Job Entry
	      Terminal User's Guide, GC30-2014.

Problem Determination	Refer to the fold-out in part VI of this publication for problem determination instructions.

Remote Job Entry Messages Sent to the Central Operator

IHK000I RJSTART ACCEPTED termid unitname

    Explanation: A work station (termid) has logically attached itself to the central system and is using the communications line (unitname).

    System Action: Central resources are made available to the work station.

    Operator Response: None.

IHK001I
$$\left\{ \begin{array}{l} \text{uuu kkk} \left\{ \begin{array}{l} \text{OFF} \\ \text{OFF termid} \\ \text{ON} \quad \text{termid unitname} \end{array} \right\} \\ \text{NO USERS IN DIRECTORY} \end{array} \right\}$$

    Explanation: This is the response to a SHOW USERS or SHOW USERS, userid command:

    where

    uuu
        is the assigned userid.
    kkk
        is the associated protection key.
    OFF
        indicates the user is currently logged off.
    ON
        indicates the user is currently logged on.
    termid
        is the work station where the user was last or is currently logged on.
    unitname
        is the communication line currently being used by the work station.

    NO USERS IN DIRECTORY
        indicates there are no entries for users in the User Directory.

    System Action: Reporting continues until the request has been honored.

    Operator Response: None.

IHK003I RJEND ACCEPTED termid

    Explanation: The work station (termid) has logically detached itself from the central system.

    System Action: The work station is logically detached from the central system.

    Operator Response: None.

IHK004I NO JOB(S) IN SYSTEM [jobname]

    Explanation: A display of remotely submitted jobs resident in the central system has been requested. No remotely submitted jobs are in the central system, or a CENOUT or SHOW command for job (jobname) was issued and it was not found in the RJE system.

System Action: None.

Operator Response: None.

IHK005I JOB(S) NOT COMPLETE jobname userid

    Explanation: A CENOUT command for a job (jobname) was issued and the job was not complete.

    System Action: The request is ignored.

    Operator Response: Resubmit the command when the job completes.

IHK007I JOB DELETED jobname

    Explanation: Either a job (jobname) submitted at the central system has placed output in the RJE SYSOUT class, the central operator deleted a user with jobs in the system, or the operator started RJE with FORM specified in the START command after warmstarting OS.

    System Action: The job and its output are deleted.

    Operator Response: The operator should tell the programmer who submitted the job not to use the RJE SYSOUT class if the job deleted was a job submitted at the central installation.

IHK011I MSG PENDING STARTUP
$$\left\{ \begin{array}{l} \text{NONE} \\ \text{termid} \\ \text{termid NONE} \end{array} \right\}$$

    Explanation: The operator has requested either a display of messages waiting for a work station startup or a transmission of a message to an inactive work station. If a display was requested, the requested messages are displayed. NONE indicates that no messages are pending. Termid NONE indicates that there are no messages waiting for a specified terminal.

    System Action: If a display has been requested, reporting continues until all the pending messages requested are displayed. If message transmission has been requested, the message is held until the work station initiates startup procedures, unless the central operator deletes the message.

    Operator Response: None.

IHK012I MSG QUEUED FOR DELIVERY
$$\left\{ \begin{array}{l} \text{userid} \\ \text{termid} \\ \text{TERMINALS} \end{array} \right\}$$

    Explanation: The message specified in the MSG command is awaiting delivery either to the specified user (userid), to a specified work station (termid), or to all active work stations (TERMINALS).

    System Action: The message is transmitted as soon as the work station will accept it.

    Operator Response: None.

IHK013I MSG IGNORED $\begin{Bmatrix} \text{userid} \\ \text{termid} \\ \text{DISK ERROR} \end{Bmatrix}$

    Explanation: The request for message
    transmission cannot be serviced because:

    userid - The message is directed to a user
        who is not logged on.
    termid - The central system has no space
        to keep a pending message.
    DISK ERROR - The message could not be held
        on the message pending data set for
        the terminal.

    System Action: The request is ignored.

    Operator Response: If immediate action is
    required, the operator may use the
    telephone. Pending messages for inactive
    work stations can be displayed and, if
    necessary, deleted to make room.

IHK014I MAX JOBS EXCEEDED jobname

    Explanation: The number of job entries
    currently maintained by the central system
    is the maximum specified by the
    installation. The job entry (jobname)
    cannot be accepted.

    System Action: The job is refused and a
    message is returned to the remote user
    submitting it.

    Operator Response: If the condition
    persists, the central system must be
    reassembled to support more remote jobs.
    The operator may alleviate the condition
    by submitting the CENOUT command. This
    command causes remotely submitted job
    output to be written at the central
    installation. If this is done, the user
    who submitted the job should be notified.

IHK016I RJE CLOSED DOWN

    Explanation: The central RJE system has
    completed closedown procedures.

    System Action: RJE operation is
    terminated until the next startup. All
    active work stations are notified of the
    central closedown and are logically
    detached from the system.

    Operator Response: None.

IHK019I JOB WAITING DELIVERY jobname

    Explanation: A CENOUT command was issued
    for a job (jobname) which has immediate
    output or has already been queued for
    delivery to the terminal.

    System Action: The command is ignored.

    Operator Response: None.

IHK025I START RJE REJECTED

    Explanation: A START RJE is invalid at
    this time. No STOP RJE has been processed
    since the last START RJE.

System Action: The START RJE is not
processed.

Operator Response: If the start of
another RJE procedure is desired, the
active RJE task must be stopped. Then the
START command referencing another RJE
procedure may be submitted and processed.

IHK026I CENOUT jobname (class,...,class)

Explanation: A request to have the output
of the remotely submitted job (jobname)
written at the central installation has
been accepted. The job output is placed
in the listed SYSOUT classes.

System Action: The job output is removed
from the RJE SYSOUT class and placed in
the indicated SYSOUT classes.

Operator Response: The operator starts
output writers for these classes when the
output is desired.

IHK027I $\begin{Bmatrix} \text{termid} \begin{Bmatrix} \text{I} \\ \text{A unitname} \\ \text{P unitname uuu} \end{Bmatrix} \\ \text{NO ACTIVE WORK STATIONS} \end{Bmatrix}$

Explanation: This is the response to a
SHOW TERMS, SHOW TERMS, termid, or SHOW
ACTIVE command:

where

termid
    is the RJE work station identifier.
I
    indicates the work station is in the
    inactive state. This never appears
    in response to SHOW ACTIVE.
A
    indicates the work station is in the
    active state.
P
    indicates the work station is in the
    processing state.
unitname
    is the communication line being used
    by the work station.
uuu
    is the userid of the user currently
    logged on the work station.
NO ACTIVE WORK STATIONS
    is displayed in response to a SHOW
    ACTIVE request when all work stations
    are in the inactive state.

IHK028I $\begin{Bmatrix} \text{jobname uuu} \begin{Bmatrix} \text{aaa} \\ \text{N/A} \end{Bmatrix} \begin{Bmatrix} \text{COMP} \\ \text{INCP} \end{Bmatrix} \begin{Bmatrix} \text{I} \\ \text{D nnn} \end{Bmatrix} \\ \text{NO DEFERRED OUTPUT uuu} \end{Bmatrix}$

Explanation: This is a response to a SHOW
JOBS, SHOW JOBS, jobname, SHOW DEFER, or
SHOW DEFER,userid where:

jobname
    is the name of the job.
uuu
    is the source userid.
aaa
    is the alternate userid.

N/A
indicates there is no alternate
specified for the output.
COMP
indicates job has completed
execution.
INCP
indicates job has not completed
execution.
I
indicates job output is immediate.
This never appears in response to the
SHOW DEFER commands.
D
indicates job output is deferred.
nnn
is the number of normal central
closedowns occurring since the job
was received.
NO DEFERRED OUTPUT uuu
is displayed in response to a SHOW
DEFER request when no deferred output
is available.

System Action: Reporting continues until
all of the deferred job output addressed
by the request is displayed.

Operator Response: None.

IHK030I DELETED FROM USER DIRECTORY userid key

Explanation: The request to delete the
indicated userid-key pair from the user
directory has been serviced. Deletion of
this pair leaves space for another
userid-key assignment.

System Action: All jobs submitted by this
user are deleted.

Operator Response: None.

IHK031I ADDED TO USER DIRECTORY userid key

Explanation: A request to add the
userid-key pair to the user directory has
been serviced. The user assigned this
userid-key can now gain access to the
system.

System Action: The userid-key is placed
in the user directory.

Operator Response: None.

IHK032I USER DIRECTORY FULL userid key

Explanation: A request to add the
userid-key pair to the user directory
cannot be serviced. The user directory
already contains the maximum number of RJE
users.

System Action: The request is ignored.

Operator Response: The operator might
make space available by deleting a
userid-key pair no longer being used. If
this is not feasible, he may have the
central RJE system reassembled to support
more users.

IHK033I MSGS DELETED FOR WORK STATION termid

Explanation: A request to delete the
messages waiting for work station (termid)
startup has been serviced.

System Action: The pending messages are
deleted from the central system.

Operator Response: None.

IHK034I MSG CANNOT BE ADDED {BRDCST / DELAYED} termid

Explanation: (BRDCST) A request to add or
insert a message into the broadcast
message data set could not be serviced.
Either the data set was full, or if the
message was to be inserted, there were no
higher numbered inactive slots available.

(DELAYED) The messages which follow this
header could not be added to the delayed
message data set when an RJEND statement
was processed for work station (termid)
because the data set was full or because a
disk error was detected. This occurs when
the RJEND is submitted from the work
station or simulated because of an error
condition.

System Action: (BRDCST) The request is
ignored.

(DELAYED) All messages which could not be
added to the data set are printed on the
central printer-keyboard.

Operator Response: (BRDCST) If the
message was to be inserted, there may be
inactive slots above the slot specified.
If there are no inactive slots, no message
can be added until one slot is made
inactive.

(DELAYED) Inform the work station after
its next RJSTART or telephone the work
station (termid) and give its operator
this information.

IHK035I INVALID SLOT NUMBER BRDCST

Explanation: A slot number not within the
range of 0-99 was specified on the BRDCST
command.

System Action: The command is ignored.

Operator Response: Probable user error.
Correct the slot number and resubmit the
command.

Problem Determination: Table I, items 2,
29.

IHK036I BRDCST {NONE / nn message}

Explanation: A display of the current
broadcast messages has been requested.
The slot number (nn) is followed by the
message text contained in the slot. Only
active slots are displayed. NONE
indicates that the data set is empty.

System Action: Reporting continues until the contents of all active slots are displayed.

Operator Response: None.

IHK037I INFORM INACTIVE WORK STATION jobname userid termid {N}
{O}

Explanation: The job (jobname) submitted by the user (userid) at the work station (termid) has completed. Either a notify message (N) or immediate job output (O) is directed to this inactive work station connected via a switched line to the central system.

System Action: The message or output is held at the central system until the work station (termid) submits an RJSTART command or the user (userid) logs on at another work station.

Operator Response: The operator may telephone the work station (termid) and give its operator this information.

IHK038I INVALID LINENAME SHOW

Explanation: A request to display error information for a particular line or line group specifies an invalid linename.

System Action: The request is ignored.

Operator Response: Probable user error. Supply the correct line name and resubmit the command.

Problem Determination: Table I, items 2, 17b, 29.

IHK040I INVALID USERID operation

Explanation: The command (operation) specifies a userid which is not contained in the user directory, or if the command requests addition of a userid to the user directory, the userid is already in the directory.

System Action: The command is ignored.

Operator Response: Probable user error. Correct the userid and resubmit the command.

Problem Determination: Table I, items 11, 17b, 29.

IHK041I INVALID PROTECTION KEY userid

Explanation: A request to delete a userid-key pair in the user directory cannot be serviced. The key specified in the command does not agree with the key contained in the user directory.

System Action: The command is ignored.

Operator Repsonse: Probable user error. Supply the correct key and resubmit the command.

Problem Determination: Table I, items 2, 11, 17b, 29.

IHK042I INVALID TERMID operation

Explanation: The command (operation) specified a termid not assigned to a work station in the RJE system.

System Action: The command is rejected.

Operator Response: Probable user error. Correct the termid and resubmit the command.

Problem Determination: Table I, items 2, 17b, 29.

IHK047I REQD PARAMETER MISSING operation

Explanation: A required parameter in the operand field is missing or invalid in the statement (operation).

System Action: The command is rejected.

Operator Response: Probable user error. Examine the statement error. Correct the parameter and resubmit the command.

Problem Determination: Table I, items 2, 29.

IHK048I ILLEGAL DELIMITER operation

Explanation: A parameter in the operand field of the command (operation) is not delimited by a comma, or, if it is the last parameter, a blank.

System Action: The command is rejected.

Operator Response: Probable user error. Correct the command.

Problem Determination: Table I, items 2, 29.

IHK049I ILLEGAL CONTINUATION operation

Explanation: The command (operation) has continuation indicated with a non blank character in column 71. Commands may not be continued.

System Action: The command is rejected.

Operator Response: Probable user error. Correct the command.

Problem Determination: Table I, items 2, 29.

IHK050I UNDEFINED KEYWORD operation

Explanation: An undefined keyword is included in the command (operation).

System Action: The command is ignored.

Operator Response: Probable user error. Correct the error.

Problem Determination: Table I, items 2, 29.

IHK

IHK051I MULTIPLE USE OF KEYWORD operation

> **Explanation:** A keyword is repeated in the command (operation).
>
> **System Action:** The commans is ignored.
>
> **Operator Response:** Probable user error. Correct the error.
>
> **Problem Determination:** Table I, items 2, 29.

IHK055I INCORRECT TEXT LENGTH operation

> **Explanation:** The text specified in the command (operation) either exceeds the allowable length or has a length of zero. Message text must be from 1 to 40 characters.
>
> **System Action:** The command is ignored.
>
> **Operator Response:** Probable user error. Correct the error.
>
> **Problem Determination:** Table I, items 2, 29.

IHK060I ABNORMAL CENTRAL CLOSEDOWN

> **Explanation:** Either a data set for SYSIN data was not allocated in the started RJE procedure, or the device on which it was allocated was not direct access. This message is also displayed by RJE either at closedown if the OS job scheduler returns with an error or if an RJE subtask abends. In these cases, this message will be preceded by the OS job scheduler message or by the RJE SUBTASK ABENDED message.
>
> **System Action:** RJE operation is terminated.
>
> **Operator Response:** Check the procedure referred to by the START command and ensure the proper SYSIN allocation; or try starting another RJE procedure. If this message is associated with an OS job scheduler error message, key the action to the OS job scheduler error. If this message is associated with the RJE SUBTASK ABENDED message, restart RJE.

IHK061I OUT OF SPACE ⎰SYSIN jobname ⎱
              ⎨SYS1.SYSJOBQE ⎬
              ⎱EMITTER WORKAREA⎰

> **Explanation:** An out of space (overload condition) exists at the central station system. All direct access storage space that is allocated for the resource SYSIN or SYS1.SYSJOBQE is in use. If EMITTER WORKAREA is specified, the emitter could not get the output work area required because main storage was not available when requested.
>
> **System Action:** The user submitting the input is informed of the condition. Until space becomes available, all input requiring the depleted resource is rejected.

When EMITTER WORKAREA is specified, no output to the terminal can occur until the storage is available. An EOT is sent. The central system waits for more input from remote work stations. When the EOT is received following the input, the Emitter again tries to obtain main storage for its workarea. No jobs are lost, but they are delayed in being returned to remote work station until sufficient main storage is available.

> **Operator Response:** If the overload condition persists, the operator may request that more space be allocated to the resource.

IHK062I SYSIN LIMIT EXCEEDED jobname

> **Explanation:** The job (jobname) demands a SYSIN data set exceeding that specified in the procedure refered to when the central system was started.
>
> **System Action:** The job is rejected, and a message is returned to the user submitting the job.
>
> **Operator Response:** If the job must be processed, the operator, when the central system is restarted, should reference a procedure allowing larger SYSIN data sets.

IHK063I DISK ERROR
⎧ WRITING TABLE ENTRY   ⎫ (1)
⎪ ROLLIN TABLES RJE ABORTED   ⎪ (2)
⎪ ERDCST DIRECTORY   ⎪ (3)
⎪ ERDCST MSG   ⎪ (4)
⎪ DELAYED MSG DIRECTORY   ⎪ (5)
⎪ DELAYED MSG   ⎪ (6)
⎪ JED [jobname/PURGE SYSTEM]   ⎪ (7)
⎨ Q MGR RJE ABORTED   ⎬ (8)
⎪ Q MGR (jobname)   ⎪ (9)
⎪ (volume serial jobname ddname)   ⎪ (10)
⎪ IN CLOSEDOWN   ⎪ (11)
⎪ addr,dev,ddname,cp,err,   ⎪
⎪   trkaddr,accmeth   ⎪ (12)
⎪ INITIALIZATION UNABLE TO OPEN   ⎪
⎪   ddname   ⎪ (13)
⎪ INITIALIZATION I/O ERROR ON   ⎪
⎩   ddname   ⎭ (14)

> **Explanation:** An uncorrectable input/output failure has occurred while the program was attempting to write to or read from disk. One of the messages above indicates to the central operator (and the user) where the error occurred.

(1) An entry in the main storage copy of an RJE control table could not be written to disk.

> **System Action:** Processing continues using the version of the tables in main storage. No subsequent messages are sent.
>
> **Operator Response:** The operator should inform the users of the problem. It is recommended that the work stations not submit any more jobs and retrieve all delayed jobs. The operator should STOP RJE and reinitialize the tables before the START RJE. Any jobs remaining in the system after the STOP RJE are lost.

(2) Either an error occurred reading the RJE
control tables into main storage, or all
the required data sets were not allocated
in the RJE procedure referenced by the
START command.

System Action: RJE operation is
terminated.

Operator Response: Have the procedure
referenced in the START command checked to
insure that the required RJE data sets
were allocated. If the procedure is
correct, move the disk pack on which the
RJE tables reside to another drive and
attempt to start RJE again. If the error
persists, execute the RJE initialization
program (IHKINTAB). The current status of
the RJE system will be lost.

Problem Determination: Table I, items 18,
30.

(3,4) An error occurred while writing to or
reading from the BRDCST directory or data
set.

System Action: No further broadcast
processing is done on the command (BRDCST,
BRDCSTR, RJSTART, SHOW) that detected the
error. Other processing continues
normally.

Operator Response: The central operator
should enter SHOW MSGS, then STOP RJE.
Before the next START RJE, the
broadcast-message data sets should be
reinitialized (IHKCDBMI). All old
messages are lost.

(5,6) An error occurred while writing to or
reading from the delayed message directory
or data set.

System Action: No further processing is
done on the command (SHOW MSGS, MSG, MSGR)
that triggered the error. If the error
was incurred while processing RJSTART, all
processing continues except the reading of
delayed messages. If the error occurred
during processing of RJEND, the messages
are written to the central console, and
processing continues.

Operator Response: The central operator
should SHOW BRDCST, then STOP RJE. Before
the next START RJE, the broadcast-message
data sets should be reinitialized
(IHKCDBMI). All old messages are lost.

(7) An error occurred while writing to or
reading from the JED table on disk. The
job (jobname) is lost in the event of a
read error. Write errors are indicated by
no jobname.

PURGE SYSTEM indicates no recovery could
be made from a write error.

System Action: On a read error, the job
is lost and the submitter is notified. On
a write error, recovery is attempted; the
submitter is notified only if no recovery
could be made. PURGE SYSTEM indicates no
recovery could be made.

Operator Response: In the event of a read
error, the operator may scratch these data
sets associated with the jobname indicated
in the message after RJE has closed down.
Otherwise, they will be deleted at the
next CS warmstart. If the system could
not recover from a write error, the
operator should inform the work stations
that all output should be requested. He
should stop RJE and reinitialize the RJE
control tables before starting RJE.

(8) The CS queue manager routine has
encountered a permanent I/O error on
SYS1.SYSJOBQE.

System Action: RJE operation is
terminated.

Operator Response: To attempt recovery
without losing jobs in the system, reload
the system without reformatting the
queues. If this is unsuccessful, reload
the system and reformat the queues.

Problem Determination: Table I, items 8a,
29.

(9) The CS queue manager has encountered a
permanent I/O error on SYS1.SYSJOBQE on a
READ or WRITE request of the RJE input or
SYSOUT queues.

System Action: One or more of the
following may occur:

(a) An EOT is sent to the work station
aborting input or ending the current
output transmission with the work
station if the error occurred during
normal communication with the work
station.
(b) The job identified by jobname is
canceled in CS and deleted in RJE. In
addition, JECL statements following
the deleted job and preceding the next
job entry are lost if the error
occurred while reading the job entry
from the RJE input queue.
(c) If the error occurred while reading
the output from the RJE SYSOUT queue,
the remaining output of the job is
lost.

RJE processing continues.

Operator Response: Continue operation
unless the disk error persists. Reformat
queues at the next IPL.

Problem Determination: Table I, items 8a,
29.

(10) A disk error occurred while writing SYSIN
data or reading SYSOUT data.

System Action: If the error occurred on
SYSIN data, an EOT is sent to the remote
terminal and an attempt is made to send
the disk error message. The job is
deleted. If the error occurred on SYSOUT
data, no further output from the data set
is transmitted, and the terminal receives
this message. Processing continues with
the remainder of the job.

Operator Response: If the error persists, STOP RJE. The error may be corrected by changing the disk pack or drive.

(11) During RJE closedown procedures, an ECB is not removed from the OS queue manager.

System Action: The closedown procedure continues.

Operator Response: Before the next START RJE reload OS without reformatting the queues.

(12) An error occurred while accessing the RJE tables. The following information is provided:

addr
    device address
dev
    device type
ddname
    name on DD card for RJE table being accessed
op
    type of operation being attempted
err
    error description
trkaddr
    actual track address (7 byte hex address in the form of bbcchhr)

    where:

bb
    represents the bin number
cc
    represents the cylinder number
hh
    represents the head number
r
    represents the record number

accmeth
    access method being used.

(13) The DCB associated with the ddname displayed could not be opened.

System Action: The initialization program is terminated.

Operator Response: Probable user error. If this is the first time that the initialization program has been run, check to be sure that the SPACE and DISP parameters on the DD statement are correct.

Problem Determination: Table I, items 2, 17b, 29.

(14) An uncorrectable I/O error occurred while performing a write operation to the data set associated with the ddname displayed.

System Action: The initialization program is terminated.

Operator Response: Probable hardware error. Move the disk pack containing the initialization program to another drive and retry the write operation.

Problem Determination: Table I, items 18, 30.

IHK064I LINE xxx NOT OPERATIONAL

Explanation: The control unit for this line is non-operational.

System Action: The line is not serviced during this period of RJE activity. The error is ignored and communication proceeds with work stations over existing, operational communication lines. An attempt is made to service the line the next time an RJE procedure which references the line is started.

Operator Response: Before calling IBM for hardware support, check to see if the control unit is operational.

IHK065I UNABLE TO OPEN DDNAME=xxxxxxxx

Explanation: The DDNAME for the line specified in the RJE assembly cannot be found in the RJE procedure.

System Action: The line is not serviced for this and all subsequent RJE startups which reference this RJE procedure. The error is ignored and communication with the work stations proceeds over existing, operational communication lines.

Operator Response: Notify system programmer of error in the referenced procedure.

IHK066I termid NOW RESPONDING TO POLLING

Explanation: The identified work station (termid) attached via a multidrop line has resumed to respond to polling.

System Action: None.

Operator Response: None.

IHK067I termid NOT RESPONDING TO POLLING

Explanation: The identified work station (termid) attached via a multidrop line has failed to respond to polling.

System Action: None.

Operator Response: Have the programmer responsible for the RJE assembly insure that the power is on at the remote terminal and that the polling characters were correctly specified for the work station.

Problem Determination: Table I, items 2, 17b, 29.

IHK068I RJE SUBTASK ABENDED

Explanation: An RJE subtask has terminated abnormally.

System Action: RJE operation is terminated.

Operator Response: Restart RJE operation.

IHK069I LINE xxx DEFINED INCORRECTLY

    Explanation: The LCB line type does not agree with the UCB line type for line xxx.

    System Action: RJE operation is terminated.

    Operator Response: Notify system programmer of error in line type definition. He can redefine the line type via the RJELINE macro sc that it agrees with the line's type definition in the UCB, or he may redefine the line type in the UCB to agree with that specified in the RJELINE macro.

IHK070I SYSOUT VOLUME NOT FOUND ser jjj ddn

    Explanation: The output data set identified by volume serial number ser, jobname jjj, and ddname ddn cannot be sent to a user because the volume on which the data set resides is not mounted.

    System Action: Processing of the job continues, although the unavailable output is not sent to the user.

    Operator Response: None.

Conversational Remote Job Entry Messages Sent to the Central Operator

IHK200I LOGOFF userid

    Explanation: The session of the terminal user identified by the userid has terminated. This message is informational and is issued only in response to a SHOW SESS command.

    System Action: None.

    Operator Response: None.

IHK201I ACTIVE CRJE USER userid lineaddress time

    Explanation: The terminal user identified by the userid is currently logged on the CRJE system. This message is informational and is issued in response to a SHOW USERS, a SHOW ACTIVE, cr a USERID D=(userid,password) command. Time is the total time in minutes that the specified user has been active on the line identified by the lineaddress displayed. The lineaddress and time will not be displayed for the USERID request since a CRJE user can not be deleted while he is active in the system.

    System Action: None.

    Operator Response: None.

IHK202I USERID INVALID/NOT FOUND (SHOW) userid
                         (MSG)
                         (USERID)

    Explanation: Either an invalid CRJE userid (1-7 character alphameric user identifier) was specified in the command that is displayed, a new userid containing more than 7 characters or not beginning with an alphabetic character was specified in the USERID command, or a nonexistent userid was specified in any of the commands displayed except the USERID ADD command.

    System Action: The command is rejected.

    Operator Response: No response is required, but the operator may correct the userid and reenter the command if he wishes.

IHK203I START OF CRJE MESSAGES

    Explanation: A list of all delayed messages that are waiting to be sent to the user identified by the userid displayed in the first seven bytes of each message has been requested. This message appears only once at the beginning of the listing of delayed messages, whether for a given, or for all, valid CRJE terminal users. This message is informational and is issued in reply to a SHOW MSGS command.

    System Action: The requested messages are sent to the specified user, before the next command is entered, if he is currently logged on the system or, after the log on acknowledgment message, if he is not currently logged on, when he next logs on the system. The terminal user message codes begin with the characters IHK3xx or IHK4xx. When the IHK213I END OF CRJE MESSAGES message appears at the central installation, all delayed messages have been listed for the user specified in the SHOW MSGS command or for all the valid CRJE users if no userid has been specified in the SHOW command.

    Operator Response: None.

IHK204I USERID PREVIOUSLY ASSIGNED userid

    Explanation: The 1-7 character alphameric userid specified in the USERID command to be added to the list of qualified CRJE users has already been assigned to another user in the CRJE system

    System Action: The command is rejected.

    Operator Response: No action is required, but the operator may select a new userid and reenter the command if he wishes.

IHK205I INVALID PASSWORD password

    Explanation: The password specified on the USERID command is invalid because it either contains more than 8 alphameric characters, it begins with a numeric character, or it does not match the one specified on a USERID DELETE command.

    System Action: The command is rejected.

    Operand Response: No action is required, but the operator may correct the password and reenter the command if he wishes.

IHK206I TEXT MUST BE 1 TO 40 CHARACTERS LONG
{BRDCST} chars
{MSG }

> Explanation: The length of the message
> text portion of a MSG cr a BRDCST command
> (MSG or BRDCST displayed) either equals
> zero or exceeds 40 characters (including
> blanks). If the text exceeds 40
> characters, the first ten characters of
> the message that was tcc lcng are
> displayed in the positicn specified as
> chars. If the text was blank, nothing
> appears in the chars pcsiticn.
>
> System Action: The command is rejected.
>
> Operator Response: No acticn is required,
> but if the message text exceeds 40
> characters, the operatcr may compress the
> message text into 40 characters and
> reenter the command, cr divide the text
> into twc messages and enter a command for
> each message.

IHK207I DELETED FROM USER LIST-userid

> Explanaticn: The terminal user identified
> by the userid displayed has been removed
> from the list of valid CRJE users in
> response tc a USERID command.
>
> System Action: CRJE nc lcnger recognizes
> the userid as that cf a valid user.
>
> Operator Response: None.

IHK208I ADDED TO USER LIST-userid

> Explanation: The terminal user identified
> by the userid displayed has been added to
> the list of valid CRJE users in response
> to a USERID command and may ncw log on the
> CRJE system.
>
> System Action: CRJE ncw reccgnizes the
> userid as that of a valid user.
>
> Operator Response: None.

IHK209I MSG NOT SAVED BRDCST chars

> Explanation: The maximum number of
> broadcast messages allocated tc a data set
> by the installation has been exceeded, and
> the message text specified in the BRDCST
> command has not been saved fcr the
> terminal user identified by the userid.
> The first ten characters of the message
> text are contained in the pcsition
> represented by chars.
>
> System Action: None.
>
> Operator Response: None.

IHK210I LINE ADDRESS INVALID/NOT FOUND lineaddress

> Explanation: A SHOW LERB cr a MODIFY
> command has been entered fcr the line
> identified by the lineaddress. The
> lineaddress either has not been defined in
> a CRJELINE assembly macro instruction or
> the DD statement defining the line has
> been cmitted frcm the CRJE prccedure.
>
> System Action: The command that specified
> the lineaddress is rejected.
>
> Operator Response: Nc acticn is required,
> If the cperatcr wishes, he can check the
> lineaddress cn the ccmmand, ccrrect the
> errcr (if, indeed, there is an errcr), and
> reenter the ccmmand. If there is no error
> in the lineaddress specified, nctify the
> system prcgrammer respcnsible fcr
> maintaining the system to define the
> referenced line in the CRJE system
> prccedure.

IHK211I JCB NCT IN SYSTEM jcbname

> Explanaticn: A CENOUT or a SHOW JOBS,
> jcbname ccmmand has been entered fcr the
> jcb, specified by the jobname, cf which
> there is nc reccrd in the CRJE system.
>
> System Action: The ccmmand is rejected.
>
> Cperatcr Respcnse: Nc acticn is required,
> but the operatcr may ccrrect the jcbname
> and reenter the ccmmand if he wishes.

IHK212I LCGCN userid

> Explanaticn: The user identified by the
> userid displayed has just lcgged on the
> CRJE system. This message is
> infcrmaticnal and is issued only in reply
> tc a SHCW SESS ccmmand.
>
> System Action: Ncne.
>
> Cperatcr Respcnse: Ncne.

IHK213I END CF CRJE MESSAGES

> Explanaticn: The listing cf all delayed
> messages that were requested has been
> ccmpleted. This message is infcrmational
> and is issued crly in reply tc a SHOW MSGS
> ccmmand.
>
> System Action: Ncne.
>
> Cperatcr Respcnse: Ncne.

IHK214I CENCUT jcbname

> Explanaticn: A CENOUT command has been
> issued requestirg that the cutput of the
> remctely submitted jcb identified by the
> jcbname displayed be sent tc the central
> installaticn. The jcb output is removed
> frcm the CRJE SYSOUT class and placed on
> the SYSCUT queue designated in the CENOUT
> ccmmand.
>
> System Action: Ncne.
>
> Cperatcr Respcnse: Nc acticn is required,
> but if immediate jcb cutput is desired,
> the cperatcr may start an OS writer on the
> prcper SYSOUT class and device.

IHK215I START CRJE REJECTED

> Explanation: A START CRJE command has been entered while CRJE was running.
>
> System Action: The START command is rejected.
>
> Operator Response: None.

IHK216I DISK ERROR (ACTIVE AREA) (START   )
                   (CRJE.SYSLIB) ((dsname))

> Explanation: An irrecoverable I/O error has occurred. If START is displayed with either ACTIVE AREA or CRJE.SYSLIB, the I/O error occurred during the reading of a file while CRJE was initiating start-up procedures. If a dsname is displayed in parentheses, the error occurred while CRJE was attempting to save the global file identified by dsname. If dsname is displayed with CRJE.SYSLIB during ABNO start-up, the CRJE start-up procedures are terminated.
>
> System Action: If START or dsname with CRJE.SYSLIB is displayed, CRJE start-up procedures are terminated. If dsname is displayed, the data set may be lost or damaged, not saved.
>
> Operator Response: If START or dsname with CRJE.SYSLIB is displayed and the IHK223I CRJE NOW ACTIVE message is not received, do one of the following:
> 1. Restart the CRJE system using the same parameter on the START command as was used for the previous startup.
> 2. Reallocate CRJE.SYSLIB and restart CRJE using the ABNO parameter on the START command.
>
> If dsname is displayed, the data set in the CRJE system library is either lost or damaged. Before restarting CRJE, scratch, reallocate, and reinitialize the system library by executing IHKINT.
>
> Problem Determination: Table I, items 9, 11, 29

IHK217I CRJE BROADCAST MESSAGES START

> Explanation: A listing of the CRJE broadcast messages follows this message. The broadcast message format is BRD nnnn, where nnnn is the number of the message. This message is informational and is issued only in reply to a SHOW BRDCST command.
>
> System Action: None.
>
> Operator Response: None.

IHK218I CRJE BROADCAST MESSAGES END

> Explanation: The listing of CRJE broadcast messages is complete.
>
> System Action: None.

Operator Response: None.

IHK219I OUT OF MAIN STORAGE [START]

> Explanation: If START is displayed, the CRJE startup procedure was unable to allocate needed main storage space. Otherwise, a terminal user has issued a command that required the allocation of additional main storage space, and the needed space was not available.
>
> System Action: If START is displayed, CRJE startup procedures are terminated. Otherwise, the terminal command being processed is rejected.
>
> Operator Response: No action is required, but if this message appears frequently, the operator may wish to notify the installation system programmer to increase the size of the CRJE region requirement.

IHK220I nnn LINE NOT OPERATIONAL

> Explanation: The teleprocessing line identified by nnn (the line number) is not operational and can no longer be serviced.
>
> System Action: None.
>
> Operator Response: No action is required, but the operator may enter a MODIFY command to activate the line if he wishes.
>
> Problem Determination: Table I, items 11, 29.
>
> Note: This message may be sent after a MODIFY command has been issued; after receiving this message, IHK243I LINE BEING ACTIVATED may be sent to the central operator. This problem may occur because the module containing message IHK220I is resident, whereas the module containing message IHK243I is not. Therefore, when this sequence occurs, wait for message IHK243I and continue processing.

IHK221I LOGONS SUPPRESSED

> Explanation: A USERID command has been issued requesting that no additional CRJE terminal users be allowed to start their sessions.
>
> System Action: No LOGON commands are accepted from terminal users attempting to start their sessions.
>
> Operator Response: None.

IHK222I ABNORMAL CRJE CLOSEDOWN

> Explanation: An irrecoverable error has occurred that requires the termination of CRJE.
>
> System Action: CRJE operation is terminated.

IHK

Operator Response: No action is required, but you may restart CRJE operation (specifying the ABNO parameter on the START command) if message IHK223I CRJE NOW ACTIVE has not been received.

Problem Determination: Table I, items 9, 11, 29.

IHK223I CRJE NOW ACTIVE

Explanation: CRJE system start-up procedures are complete, and both remote terminal and central operator commands may now be entered.

System Action: None.

Operator Response: None.

IHK225I CRJE BROADCAST MESSAGE(S) DELETED [nnnn]

Explanation: A BRDCST nnn or BRDCST DELETE command has been issued requesting the deletion of all, or one specific, broadcast message(s) from the CRJE system library (CRJE.SYSLIB). The message identifier (nnnn) is displayed only for a single broadcast message that has been deleted as the result of a specific BRDCST nnnn command.

System Action: The message(s) are removed from the BRDCST global file and from the BRDCST member of the CRJE system library.

Operator Response: None.

IHK226I OPERAND MISSING/INVALID command operand

Explanation: Either the designated required operand is invalid or was not specified when the displayed central command was entered. If a required operand was not specified on the command that was entered, blanks are displayed as the operand in the message.

System Action: The command is rejected.

Operator Response: No action is required, but the operator may wish to correct the command and reenter it.

IHK227I NO JOBS IN SYSTEM

Explanation: A SHOW JOBS command has been issued requesting job information and there have been no jobs submitted into the CRJE system.

System Action: None.

Operator Response: None.

IHK228I UNABLE TO OPEN {ACTIVE} [RLN=xxxx]
                      {ddname}

Explanation: The execution of the OPEN for either the line described by the DD statement in the start procedure for CRJE with the displayed ddname (ddname) or for the CRJE active area (ACTIVE) was

unsuccessful. Either the DD statement was missing from the CRJE procedure or it was incorrectly specified. If RLN=xxxx is displayed, the line in the line group identified by the ddname displayed has the relative line number xxxx and is the line that was not opened successfully at CRJE start-up time. If RLN=xxxx is not displayed for a line in a line group, none of the lines in the line group is open.

System Action: If the OPEN was unsuccessful for a line, the line is left unopened and CRJE processing continues. If RLN=xxxx is displayed, the line with relative line number xxxx is left unopened. Other lines in the line group remain unaffected. If the OPEN was unsuccessful for the active area, CRJE start-up procedures are terminated.

Operator Response: Notify the system programmer for corrective action.

Problem Determination: Table I, items 9, 11, 29.

IHK229I LOGONS RESUMED

Explanation: A USERID RESUME command has been issued to allow terminal users to begin their CRJE sessions.

System Action: The system prepares for the terminal user sessions that are being started.

Operator Response: None.

IHK230I CRJE CLOSED DOWN

Explanation: A STOP CRJE command has been entered and the CRJE program has completed normal closedown procedures.

System Action: None.

Operator Response: None.

IHK231I JOB NOT COMPLETE jobname [userid]

Explanation: A CENOUT jobname or a SHOW JOBS command has been entered for a job, identified by the displayed jobname, which has not completed its processing. If a userid is displayed, the message resulted from a SHOW JOBS command with the userid identifying the user who submitted the job. If the job terminated, then it had no output for the CRJE SYSOUT class.

System Action: The command is rejected.

Operator Response: No action is required, but the operator may wait until the job processing is complete and reenter the CENOUT command if he wishes.

IHK232I NO CRJE BROADCAST MESSAGES

Explanation: A SHOW command has been entered requesting a listing of CRJE

broadcast messages, but there are no current broadcast messages.

System Action: None.

Operator Response: None.

IHK233I NO CRJE DELAYED MESSAGES [userid]

Explanation: There are no delayed messages for the terminal user identified by the displayed userid. If the userid is not displayed, there are no delayed messages in the CRJE system. This message results from a SHOW command that requests a listing of the CRJE messages to be sent to a specific user (userid is displayed) or a listing of all CRJE messages.

System Action: None.

Operator Response: None.

IHK234I ACTIVE AREA NOT ON SUPPORTED DEVICE

Explanation: The CRJE active area has not been allocated on a 2311, 2314, 2319, or 3330 direct access storage device, and CRJE cannot be started.

System Action: CRJE system start-up procedures are terminated.

Operator Response: Notify the system programmer responsible for maintaining the system that the active area must be allocated on a supported direct access storage device before CRJE can be started.

IHK235I DD CARD NOT IN PROCEDURE ddname

Explanation: The CRJE procedure does not contain the necessary DD statement identified by ddname.

System Action: The terminal user request is rejected.

Operator Response: Notify the programmer responsible for maintaining the system to add the DD statement indicated in the message to the CRJE procedure.

IHK236I MAXIMUM NO. OF CRJE USER MESSAGES REACHED

Explanation: The maximum number of messages to be kept by CRJE (specified by the installation in the assembly of the CRJE system) has been reached, and no more messages can be added to the CRJE message data set, USRMSGS.

System Action: None.

Operator Response: The operator may issue a SHOW MSGS command to list the messages for a user not currently logged on the system and then a MSG command to delete the messages in order to make available more space in the message data set.

IHK237I MAXIMUM BRDCST IDENTIFIER EXCEEDED - LAST=nnnn

Explanation: A BRDCST 'text' command has been issued requesting that a broadcast message be added to the CRJE system library. The identifier for the new message (which resulted from adding 10 to the number of the highest existing message nnnn) exceeds 9999, which is the maximum allowable number of broadcast messages that may reside in the system library.

System Action: The central command is rejected.

Operator Response: The operator may issue a BRDCST nnnn, 'text' command for the broadcast message to be added to the CRJE system library, specifying the number of the message (nnnn) so that nnnn is larger than the last existing message number and less than or equal to 9999.

IHK238I SPECIFIC SHOW SESS MAXIMUM EXCEEDED-userid

Explanation: The maximum allowable number of SHOW SESS commands for a given user (3) has been exceeded as a result of a SHOW SESS command that has been submitted for the terminal user identified by the userid displayed. This situation occurs only when multiple console support (MCS) is present in the system.

System Action: The SHOW SESS command is rejected.

Operator Response: If the operator needs the session information, he can enter a SHOW SESS command that has no userid specified.

IHK239I SHOW SESS NOT IN EFFECT [userid]

Explanation: A SHOW SESSREL command has been issued for a SHOW SESS command request that has never been submitted. If the userid is displayed, the SHOW SESSREL command was issued for a specific terminal user.

System Action: None.

Operator Response: None.

IHK240I ACTIVE AREA OUT OF SPACE

Explanation: A terminal user or central operator has issued a command that required the allocation of additional space in the active area, and the needed space was not available. Entering the USERID S command will prevent any more users from logging on and should allow some space in the active area to be made available to current users.

System Action: The terminal or central command being processed is rejected.

Operator Response: Issue a USERID SUPPRESS command to prevent any more users from logging on and allow time for some additional active area space to be freed

IHK

before resuming session initiation. If
this message recurs, notify the programmer
responsible for maintaining the system to
check the IHK306 I/O ERROR ON LIB DURING
ACTIVE AREA RECOVERY message. If terminal
users have been overloading the active
area, increase its size and reallocate it.
Otherwise, the physical size limit of the
active area (4,000 lines) has been reached
and no more space can be allocated.

IHK241I LIBRARY I/O ERROR ddname CRJE.LIB.userid

Explanation: An I/O error has occurred in
a CRJE user library during the session of
the user identified by the userid
displayed or during the session of another
user who is making access to the library
specified in this message, and access to
the library can not be made during the
remainder of this session. The ddname
displayed is the name on the DD statement
that defines the specified CRJE user
library.

System Action: No further access is made
to the library during this CRJE session.

Operator Response: Notify the programmer
responsible for maintaining the system to
check that the DD statement defining the
specified user library is correct and is
in the CRJE procedure.

Problem Determination: Mount the disk
pack containing the user library on
another disk drive and scratch and
reallocate the user library. If that
fails, use either the IBCDASDI or IEHDASDR
utility program to reinitialize the disk
pack and reallocate the user library.

IHK242I ACTIVE AREA I/O ERROR - ABNORMAL CRJE
CLOSEDOWN

Explanation: An irrecoverable I/O error
has occurred in the CRJE active area.

System Action: The CRJE system closes
down.

Operator Response: Notify the system
programmer responsible for maintaining the
system to correct the error. If this

Problem Determination: Mount the disk
pack containing the active area on another
disk drive and scratch and reallocate the
active area. If that fails, use either
the IBCDASDI or IEHDASDR utility program
to reinitialize the disk pack and
reallocate the active area.

IHK243I LINE BEING ACTIVATED lineaddress

Explanation: The teleprocessing line
identified by the line address displayed
is being activated in reply to a MODIFY
command.

System Action: None.

Operator Response: None.

IHK244I LINE DEACTIVATED lineaddress

Explanation: The teleprocessing line
identified by the line address displayed
has been deactivated in reply to a MODIFY
command.

System Action: None.

Operator Response: None.

IHK245I {NO } ACTIVE CRJE USERS
        {nnn}

Explanation: A listing of the number of
all terminal users currently logged on the
system has been requested as a result of a
SHOW ACTIVE command or an MSG command has
been issued for all active users and there
are none. If nnn is displayed, nnn
specifies the number of valid CRJE users
currently active in the system. NO is
displayed when there are no CRJE users
currently logged on the system.

System Action: None.

Operator Response: None.

IHK246I QUEUE MANAGER DISK ERROR [jobname]

Explanation: The OS queue manager has
encountered an I/O error during the
processing of a CRJE central command. The
job output requested by the command may be
lost.

System Action: None.

Operator Response: No action is required,
but the operator may notify the system
programmer responsible for maintaining the
system to correct the error. If this
error recurs, restart CRJE operation
(coldstart), specifying the NORM and FORM
parameters on the START command.

IHK247I NO CRJE USERS

Explanation: A listing of all valid
potential terminal users of the CRJE
system has been requested by a SHOW USERS
command and no users have been assigned
userids.

System Action: None.

Operator Response: Issue USERID commands
to define the valid users of CRJE.

IHK248I INACTIVE CRJE USER userid

Explanation: A listing of valid potential
CRJE terminal users has been requested by
a SHOW USERS, userid or by a SHOW USERS
command, or an MSG command has been issued
for a specific userid. If the user
identified by the userid is inactive, the
Q operand must be specified in the MSG
command. If the Q is omitted, this
message results. A separate message
appears for each valid user in the system
specifying each one by the userid that is
displayed.

System Action: None.

Operator Response: None.

IHK249I SHOW SESS IN EFFECT [userid]

Explanation: Notification as CRJE users log on and log off the system has been requested by a central operator. This message is informational and is issued in reply to a SHOW SESS command. This message is also issued in response to a SHOW SESS or SHOW SESSREL request for a specific userid when a general SHOW SESS command is already in effect (no userid will be displayed). The userid is displayed only in reply to a SHOW SESS, userid command that has been submitted when a general SHOW SESS command is not already in effect.

System Action: None.

Operator Response: None.

IHK250I SHOW SESS RELEASED [userid]

Explanation: No notification will be given as CRJE users log on and off the system. This message is informational and is issued only in reply to a SHOW SESSREL or a SHOW SESSREL,userid (userid is displayed) command.

System Action: None.

Operator Response: None.

IHK251I LINE NOT ACTIVE lineaddress

Explanation: A MODIFY command has been issued to request that a line, which is not currently active, be deactivated.

System Action: None.

Operator Response: None.

IHK252I USER LIST FULL [userid]

Explanation: The terminal user identified by the userid displayed cannot be added to the list of valid CRJE users because the number of already authorized users equals the maximum number established at CRJE assembly time. If there is no userid displayed, the message indicates to the central installation that the number of valid CRJE users, specified in the CRJETABL macro instruction at CRJE assembly time, has been exceeded during the initiation of start-up procedures for the CRJE system.

System Action: If a userid is displayed, there is no system action. If there is no userid displayed, the CRJE system start-up procedures are terminated and CRJE closes down.

Operator Response: If a userid is displayed, there is no operator response. If a userid is not displayed, notify the system programmer responsible for

maintaining the CRJE system to increase the number of CRJE users authorized to use the system (in the CRJETABL macro) and then to reassemble the system.

IHK253I JOB WAITING DELIVERY jobname

Explanation: The output for the job identified by the jobname displayed has been requested by the terminal user who submitted the job. This message is informational and results from a CENOUT command request.

System Action: None.

Operator Response: None.

IHK254I ILLEGAL DELIMITER command operand

Explanation: A required delimiter (comma, parenthesis, quotation mark or an equal sign) has been omitted from the command displayed.

System Action: The command is rejected.

Operator Response: No action is required, but the operator may correct the command and reenter it if he wishes.

IHK255I MESSAGES DELETED FOR userid

Explanation: All delayed messages that were to have been sent to the CRJE user identified by the userid displayed have been deleted in reply to a MSG command.

System Action: None.

Operator Response: None.

IHK256I MSG QUEUED FOR DELIVERY userid

Explanation: The operator message that is to be sent to the CRJE user identified by the userid displayed has been placed on the delivery queue preparatory to being sent to the user. This message is informational and is issued in response to a MSG command.

System Action: None.

Operator Response: None.

IHK257I JOB COMPLETE jobname userid

Explanation: A SHOW command has been issued to request the status of the job, identified by the jobname and userid displayed, which is complete. The userid identifies the terminal user that submitted the job.

System Action: None.

Operator Response: None.

IHK258I MODIFY BEING PROCESSED lineaddress

Explanation: A MODIFY command issued for the line identified by the lineaddress displayed is still being processed. Another MODIFY command for that line

cannot be processed until the current
command has been processed completely.

System Action: The second MODIFY command
is ignored.

Operator Response: No action is required,
but the operator may wait a few minutes
and then reenter the command if he wishes.

IHK259I INVALID BRDCST IDENTIFIER operand

Explanation: An invalid broadcast message
number has been specified by a BRDCST
command. The maximum allowable CRJE
broadcast message identifier value is
9999.

System Action: The command is rejected.

Operator Response: No action is required,
but the operator may correct the command
and reenter it, if he wishes.

IHK260I CRJE,aaa,bb,cccccccc,dddddd,
eeeeeeeeeeeeeee,ffffffffffffff,
gggggg,hhh

Explanation: This message is followed by
another message further describing the
situation that has occurred. This message
contains I/O error information as follows:

aaa	is the unit address
bb	is the device type
cccccccc	is the ddname of the data set in which the error occurred
dddddd	is the operation attempted
eeeeeeeeeeeeeee	is the error description
ffffffffffffff	is the relative track and record address in hexadecimal format
gggggg	is the access method
hhh	is the partition for CRJE operation.

System Action: Refer to the message(s)
that follows this for the system action.

Operation Response: Refer to the
message(s) that follows this for the
correct operator response.

IHK261I ACTIVE AREA CONTAINS MULTIPLE EXTENTS

Explanation: A secondary space allocation
that is not contiguous with the primary
active area allocation has been assigned
for the active area. CRJE system start-up
procedures cannot be initiated.

System Action: CRJE start-up procedures
are terminated.

Operator Response: Notify the system
programmer responsible for maintaining the
system to reallocate the active area.

IHK263I REQUIRED PARAMETER MISSING {START} {EXEC}

Explanation: If START is displayed, a
required operand has been omitted from the
START command issued to start CRJE
operation. If EXEC is displayed, a
required operand has been omitted from the
EXEC statement in the CRJE procedure.

System Action: CRJE start-up procedures
are terminated.

Operator Response: If START is displayed,
correct the START command and reenter it.
If EXEC is displayed, notify the system
programmer responsible for maintaining the
system to redefine the procedure.

IHK265I LINE ALREADY ACTIVE lineaddress

Explanation: A MODIFY command has been
issued requesting that a
telecommunications line that is already
active be activated.

System Action: None.

Operator Response: None.

IHK267I MAXIMUM NO. OF CRJE BROADCAST MESSAGES
REACHED

Explanation: The maximum number of
broadcast messages to be retained by CRJE,
specified by the installation in the
assembly of the CRJE system, has been
reached, and no more messages can be added
to the broadcast message data set, BRDCST.

System Action: None.

Operator Response: The operator may issue
a SHOW BRDCST command to list the
broadcast messages and then issue a BRDCST
DELETE command to delete all messages, or
BRDCST nnnn to delete a specific message,
no longer needed, thereby making available
space for adding more messages.

IHK268I CRJE BRDCST MESSAGE ADDED nnnn

Explanation: A broadcast message
identified by the number nnnn has been
added to the broadcast message data set,
BRDCST, in the CRJE system library. This
message is informational and is issued in
reply to a BRDCST nnnn, 'text' command.

System Action: None.

Operator Response: None.

IHK269I CRJE BRDCST MESSAGE REPLACED nnnn

Explanation: A broadcast message
identified by the number nnnn has replaced
an existing message also numbered nnnn in
the broadcast message data set, BRDCST, in
the CRJE system library. This message is
informational and is issued in reply to a
BRDCSTnnnn, 'text' command.

System Action: None.

Operator Response: None.

IHK270I ACTIVE AREA I/O ERROR

Explanation: An irrecoverable I/O error
has occurred in the CRJE active area as a
result of a command request issued from
the central installation. However, the
CRJE system does not begin closedown
procedures and CRJE operation continues.

System Action: None.

Operator Response: None.

IHK272I JOB DELETED jobname

Explanation: Either of the following two
situations has occurred and the job
identified by the jobname displayed has
been deleted from CRJE.
1. A job, not a CRJE job, has been
   submitted from the central
   installation with the SYSOUT class for
   job output or system messages
   specified as the CRJE SYSOUT class.
2. A job, either from a remote terminal
   or from the central installation, with
   the same name as a job that has
   already completed processing has been
   submitted with output specified to be
   in the CRJE SYSOUT class.

System Action: The job is deleted from
the system when processing is complete.

Operator Response: None.

IHK273I OUT CF SPACE CRJE.SYSLIB (dsname)

Explanation: CRJE has not been able to
obtain the disk space needed to save a
data set, identified by the dsname
displayed, which is a member of the CRJE
system library (CRJE.SYSLIB). This
message may be displayed at CRJE system
close-down or start-up (ABNO specified on
the START command).

System Action: If this message appears at
system start-up time (ABNO specified on
START command), CRJE start-up procedures
will continue. Otherwise, CRJE closedown
procedures will be completed.

Operator Response: None.

Operator Response: Notify the programmer
responsible for maintaining the system to
increase the size of the CRJE system
library (CRJE.SYSLIB) and to reallocate
it. If this problem recurs, the system
library space requirement must be
increased again.

IHK274I CRJE SUBTASK ABEND xxx

Explanation: A CRJE subtask has abended,
with the completion code indicated by the
xxx displayed.

System Action: CRJE closes down.

Operator Response: Notify the programmer
responsible for maintaining the system to
correct the error indicated by the
completion code displayed.

Problem Determination: Table I, items 1,
5a, 29.

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IHL

Component Name	IHL
Program Producing Message	Generalized Trace Facility
Audience and Where Produced	For the programmer: in the system cutput listings. For the operator: on the system ccnsole.

Message Format	IHLnnns text (in listings)
	xx IHLnnns text Pnn (cn ccnsole)
	nnn
	    Message serial number.
	text.
	    Message text.
	xx
	    Message reply identificaticn (absent, if cperator reply nct required).
	s
	    Type code:
	    A Action; operator must perfcrm a specific acticn.
	    D Decision; operator must chccse an alternative.
	    E Eventual action; operatcr must prefcrm an acticn when he has time.
	    I Information; no operatcr action is required.
	    W Wait; processing stcpped until acticn is determined and performed.
	Pnn
	    Partition which issued the message (MFT cnly).

Comments	Ncne.
Problem Determination	Refer to the fold-out in part VI cf this publicaticn fcr references problem determination instructicns.

IHL001A INVALIC KEYWORD. RESPECIFY PARAMETERS CR REPLY U

Explanation: A keyword specified on the start command for the Generalized Trace Facility (GTF) is nct ccrrect.

System Action: GTF initialization will not continue until the cperatcr responds to this message.

Operator Response: Prcbable user error. Respecify all parameters, cr reply 'U' to request default values.

Problem Determinaticn: Table I, items 2, 3, 7a, 29.

IHL002A INVALIC DELIMETER. RESPECIFY PARAMETERS OR REPLY U

Explanation: The start command parameters for the Generalized Trace Facility (GTF) have been incorrectly punctuated.

System Action: GTF initialization will not continue until the cperatcr has responed to this message.

Cperatcr Respcrse: Prcbable user error. Respecify all parameters, cr reply 'U' to request default values.

Prcblem Determinaticn: Table I, items 2, 7a, 29.

IHL003A INVALIC OPERANC. RESPECIFY PARAMETERS OR REFLY U

Explanaticn: An cperand specified in the start ccmmand fcr the Generalized Trace Facility (GTF) has been inccrrectly specified.

System Action: GTF initializetion will nct ccntinue uritl the operatcr has respcnded to this message.

Cperatcr Respcrse: Prcbable user error. Respecify all parameters, cr reply 'U' to request default values.

Prcblem Determinaticn: Table I, items 2, 7a, 29.

IHL004A KEYWORD(S) REPEATED. RESPECIFY PARAMETERS OR REPLY U

    Explanation: A keyword has been repeated in the specification of the start command for the Generalized Trace Facility (GTF).

    System Action: GTF initialization will not continue until the operator has responded to this message.

    Operator Response: Probable user error. Respecify all parameters, or reply 'U' to request default values.

    Problem Determination: Table I, items 2, 7a, 29.

IHL005I NO TIMESTAMP -- TIMER NOT SUPPORTED

    Explanation: The timer is not supported on this system, thus the trace buffers for the Generalized Trace Facility will not contain a timestamp.

    System Action: GTF continues processing.

    Operator Response: None.

IHL006I GTF ACKNOWLEDGES STOP COMMAND

    Explanation: The operator has issued the STOP command for GTF.

    System Action: GTF is terminated.

IHL007I GTF TERMINATING ON ERROR CONDITION

    Explanation: The Generalized Trace Facility region monitor has detected an error condition and is terminating GTF.

    System Action: Restart GTF.

    Problem Determination: Table I, items 2, 3, 7a, 29. Restart GTF USING THE GTFSNP procedure, and save the dump that is produced upon termination of GTF.

IHL012I SYSPRINT DD STATEMENT NOT SUPPLIED

    Explanation: A DD statement was not provided for the SYSPRINT data set.

    System Action: GTF is terminated.

    Programmer Response: Probable user error. Ensure that a SYSPRINT DD statement is provided.

    Problem Determination: Table I, items 2, 3, 7a, 29.

IHL013I GTF ACTIVE FROM A PREVIOUS START COMMAND.

    Explanation: The Generalized Trace Facility (GTF) has previously been started.

    System Action: GTF is terminated. The GTF that was previously started remains active.

    Operator Response: Probable user error. To start GTF again, the active GTF must be stopped.

    Problem Determination: Table I, items 2, 3, 7a, 29.

IHL014I UNSUCCESSFUL OPEN SYSPRINT DATA SET

    Explanation: The SYSPRINT data set was not sucessfully opened.

    System Action: GTF is terminated.

    Programmer Response: Probable user error. Check the parameters on the SYSPRINT DD statement.

    Problem Determination: Table I, items 2, 3, 7a, 29.

IHL015I STAE REQUEST UNSUCCESSFUL

    Explanation: The STAE request for the Generalized Trace Facility was not performed.

    System Action: GTF is terminated.

    Operator Response: Probable user error. Ensure that the region/partition size is adequate for executing GTF.

    Problem Determination: Table I, items 2, 3, 7a, 29.

IHL016I GTF INITIALIZATION UNSUCCESSFUL

    Explanation: The initialization of the Generalized Trace Facility (GTF) was not successful. The exact cause of termination is given in a previous message.

    System Action: GTF is terminated.

    Operator Response: Take the action required by the message indicating the cause of termination.

    Problem Determination: If there is no preceding message, see Table I, items 2, 3, 7a, 29.

IHL021I IEFRDER DD STATEMENT NOT SUPPLIED

    Explanation: An IEFRDER DD statement was not included in the GTF procedure.

    System Action: GTF is terminated.

    Operator Response: Notify the system programmer or installation manager that this failure has occurred.

    Programmer Response: Probable user error. Include an IEFRDER DD statement in the GTF procedure using the IEBUPDTE utility.

    Problem Determination: Table I, items 2, 3, 7a, 29. Restart GTF using the GTFSNP procedure, and save the dump that is produced upon termination of GTF.

IHL022I OPEN FAILURE FOR TRACE DATA SET

> **Explanation:** The TRACE data set failed to open.
>
> **System Action:** GTF is terminated.
>
> **Programmer Response:** Probable user error. Ensure that the parameters cn the DD statement are correctly specified.
>
> **Problem Determination:** Table I, items 2, 3, 7a, 29. Restart GTF using the GTFSNP procedure, and save the dump that is produced upon termination cf GTF.

IHL023I INSUFFICIENT ALLOCATED BUFFER SIZE -- DEFAULT ASSIGNED

> **Explanation:** The buffer size specified in the GTF procedure is less than the default size. The default size will be used.
>
> **System Action:** GTF continues processing.
>
> **Programmer Response:** Probable user error. Increase the buffer size specified in the GTF procedure so that it is greater than, or equal to, the default size.
>
> **Problem Determination:** Table I, items 2, 3, 7a, 29.

IHL031I GTF INITIALIZATION COMPLETE

> **Explanation:** Initialization cf the Generalized Trace Facility has been successfully completed.
>
> **System Action:** GTF continues processing.

IHL034I WARNING -- INSUFFICIENT CORE FOR ABEND

> **Explanation:** The ccre storage required for an ABEND dump is nct available in the GTF region/partition.
>
> **System Action:** GTF continues processing. A dump will not be provided upon abnormal termination of the GTF procedure.

IHL040 NOT A LEGAL FORM OF THE MACRO. CHECK THE MF=

> **Explanation:** A parameter cther than I (for LIST format) or E (for EXECUTE format) is specified in the MF= keyword of the GTRACE macro instruction. L and E are the only valid parameters.
>
> **System Action:** The macro is not executed. Severity code = 8.
>
> **Programmer Response:** Probable user error. Correct the MF= keyword, specifying a valid parameter (L or E), and run the job again.
>
> **Problem Determination:** Table I, items 4, 19, 29.

IHL041 LNG= KEYWORD MISSING

> **Explanation:** The LNG= keyword is not specified in the GTRACE macro instruction. If the standard fcrm cf the GTRACE macro instruction is being used, the LNG= keyword must be specified with a valid parameter.
>
> **System Action:** The macro is partially expanded; expansion stops fcllowing detection cf the cmission. Severity code = 12.
>
> **Programmer Response:** Probable user error. Ccrrect the GTRACE macro instruction, specifying the LNG= keyword with a valid parameter. A valid parameter is any decimal integer in the range 1 to 256. Run the jcb again.
>
> **Problem Determination:** Table I, items 4, 19, 29.

IHL044 DATA= KEYWORD MISSING

> **Explanation:** The DATA= keyword is not specified in the GTRACE macro instruction. If the standard fcrm cf the GTRACE macro is being used, the DATA= keyword must be specified with a valid parameter.
>
> **System Action:** The macro is partially expanded; expansion stops fcllowing detection cf the cmission. Severity code = 12.
>
> **Programmer Response:** Probable user error. Ccrrect the GTRACE macro instruction, specifying the DATA= keyword with a valid parameter. Valid parameters are a register value within parentheses cr an A-type address ccnstant.
>
> **Problem Determination:** Table I, items 4, 19, 29.

IHL045 MF= (E, PARAMETER SPECIFICATION MISSING

> **Explanation:** In the GTRACE macro instruction, the parameter specification fcr the MF= keyword is incomplete. If the EXECUTE fcrm cf the GTRACE macro is being used, the address cf the parameter list must be included as part cf the MF= cperand.
>
> **System Action:** The macro is nct expanded. Severity ccde = 12.
>
> **Programmer Response:** Probable user error. Ccrrect the GTRACE macro instruction, specifying the address of the parameter list as part cf the MF= operand. If the address of the parameter list is in register 1, MF=(E,(1)) shculd be specified. Otherwise, specify the address cbserving the syntax rules governing address specificaticn for an RX-type instruction, cr specify one of the general registers 2-12, previcusly loaded with the address. Run the jck again.
>
> **Problem Determination:** Table I, items 4, 19, 29.

IHL

IHL048   ID= KEYWORD MISSING

    Explanation: The ID= keyword is not
specified in the GTRACE macro instruction.
The ID= keyword must be specified for
either form (standard or EXECUTE) of the
GTRACE macro.

    System Action: The macro is partially
expanded; expansion stops following
detection of the omission. Severity code
= 12.

    Programmer Response: Probable user error.
Correct the GTRACE macro instruction,
specifying the ID= keyword with the
appropriate parameter. Run the job again.

    Problem Determination: Table I, items 4,
19, 29.

IHL052   INSUFFICIENT KEYWORD PARAMETERS

    Explanation: The EID keyword is not
specified in the HOOK macro instruction.
This keyword must be included in the HOCK
macro.

    System Action: The macro is not expanded.
Severity code = 8.

    Programmer Response: Probable user error.
Correct the HOOK macro instruction,
specifying the EID= keyword with a valid
symbolic parameter. Run the job again.

    Problem Determination: Table I, items 4,
19, 29.

IHL053   INVALID TYPE= KEYWORD

    Explanation: An invalid parameter is
specified for the TYPE= keyword of the
HOOK macro instruction. A parameter other
than P, BP, T, or BT is specified.

    System Action: The macro is not expanded.
Severity code = 8.

    Programmer Response: Probable user error.
Correct the TYPE= keyword, specifying a
valid parameter. Run the job again.

    Problem Determination: Table I, items 4,
19, 29.

IHL100A SPECIFY TRACE OPTIONS

    Explanation: The trace options for the
Generalized Trace Facility (GTF) are to be
entered in response to this message.

    System Action: GTF initialization will
not continue until the operator has
responded to this message.

    Operator Response: Enter REPLY
xx,'TRACE=option,option,...,option' for
the desired trace options.

IHL101A SPECIFY TRACE EVENT
    KEYWORDS -- keyword,...,keyword

    Explanation: The event keywords for the
Generalized Trace Facility (GTF) which

correspond to the trace options specified
in response to message IHL100A are to be
entered in response to this message. Only
those event keywords appearing in the
message text (keyword,...,keyword) may be
specified in the response. The keyword(s)
and their corresponding trace options (as
specified in the reply to message IHL100A)
are as follows:
- keyword IO= for option IOP
- keyword SIO= for option SIOP
- Keyword SVC= for option SVCP
- keyword PI= for option PIP
- keywords IO= ,PI= ,SVC= for option
  SYSP.

    System Action: GTF initialization will
not continue until the operator has
responded to this message.

    Operator Response: Enter REPLY
id,'keyword=(value,...,value),keyword=(val
ue,...value),...' for those keywords
allowed.

IHL102A CONTINUE TRACE DEFINITION OR REPLY END

    Explanation: Event keywords for the
Generalized Trace Facility (GTF) are to be
entered in response to this message to
continue trace definition. END may be
entered to terminate definition.

    System Action: GTF initialization will
not continue until the operator has
responded to this message.

    Operator Response: Enter REPLY.
id,'keyword=(value,...,value),keyword=(val
ue,...,value),...' for those keywords
allowed.

IHL103I TRACE OPTIONS
    SELECTED -- value,value,...,value

    Explanation: The trace options specified
for the Generalized Trace Facility (GTF)
are noted by value,...,value. The
value(s) correspond to those options
specified in the response to message
IHL100A or in the control statements
provided by the SYS1.PARMLIB data set. If
additional trace definitions were
requested, the values also indicate those
keywords and values provided by the
SYS1.PARMLIB data set or in response to
messages IHL101A and IHL102A.

    System Action: GTF initialization
continues.

    Operator Response: If the values do not
indicate the desired trace options, the
options may be respecified in the response
to message IHL125A.

IHL104A TRACE= KEYWORD NOT SPECIFIED

    Explanation: The TRACE= keyword was not
specified in the response to message
IHL100A or in the control statements
provided by the SYS1.PARMLIB data set.

    System Action: The control statement is
not accepted.

Operator Response: Probable user error.
If control statements are being supplied
by way of the master console, enter the
response again.

Programmer Response: If control
statements are being provided by the
SYS1.PARMLIB data set, correct the
statement in error and rerun the job.

Problem Determination: Table I, items 2,
3, 29.

IHL105A SYNTAX ERROR.   IMPROPER DELIMITER

Explanation: The response to message
IHL100A, IHL101A, IHL102A, or the control
statement provided by the SYS1.PARMLIB
data set is incorrectly punctuated.

System Action: The control statement is
not accepted.

Operator Response: Probable user error.
If the control statements are being
entered by way of the system console,
enter the response again.

Programmer Response: If control
statements are being provided by the
SYS1.PARMLIB data set, correct the
statement in error and rerun the job.

Problem Determination: Table I, items 2,
3, 29.

IHL106A NO OPTIONS SPECIFIED

Explanation: In the response to message
IHL100A or in the control statement
provided by the SYS1.PARMLIB data set, the
TRACE= keyword is either followed by a
blank, which preceeds the options, or is
not followed by options.

System Action: The control statement is
not accepted.

Operator Response: Probable user error.
If control statements are being supplied
by way of the system console, enter the
response again.

Programmer Response: If control
statements are being provided by the
SYS1.PARMLIB data set, correct the
statement in error and rerun the job.

Problem Determination: Table I, items 2,
3, 29.

IHL107A SYNTAX ERROR. MISSING COMMA

Explanation: In response to message
IHL100A, IHL101A, or IHL102A, or in the
control statements provided by the
SYS1.PARMLIB data set, a comma that should
appear is missing.

System Action: The control statement is
not accepted.

Operator Response: Probable user error.
If control statements are being supplied
by way of the system console, enter the
response again.

Programmer Response: If control
statements are being provided by the
SYS1.PARMLIB data set, correct the
statement in error and rerun the job.

Problem Determination: Table I, items 2,
3, 29.

IHL108A INVALID OPTION SPECIFIED -- opt

Explanation: In the response to message
IHL100A or in the control statements
provided by the SYS1.PARMLIB data set, an
invalid Generalized Trace Facility (GTF)
option was specified. The opt denotes the
invalid specification.

System Action: The control statement is
not accepted.

Operator Response: Probable user error.
If control statements are being supplied
by way of the system console, enter the
response again.

Programmer Response: If control
statements are being provided by the
SYS1.PARMLIB data set, correct the
statement in error and rerun the job.

Problem Determination: Table I, items 2,
3, 29.

IHL109A INVALID DEVICE SPECIFIED -- cuu

Explanation: In the response to message
IHL101A or IHL102A or in the control
statements provided by the SYS1.PARMLIB
data set, a device address was specified
in the IO=, SIO=, or IO=SIO= parameter
that was not included in the system at
system generation.

System Action: The control statement is
not accepted. All options on the line in
error are disregarded and must be
respecified.

Operator Response: Probable user error.
If control statements are being supplied
by way of the system console, reenter the
corrected line.

Programmer Response: If control
statements are being provided by the
SYS1.PARMLIB data set, correct the
statement in error and rerun the job.

Problem Determination: Table I, items 2,
3, 11, 29.

IHL110A INVALID EVENT KEYWORD SPECIFIED

Explanation: A keyword was incorrectly
specified in the response to message
IHL101A, IHL102A, or in the control
statements provided by the SYS1.PARMLIB
data set.

IHL

System Action: The response is not
accepted. All options cn the line in
error are disregarded and must be
respecified.

Operator Response: Probable user error.
If control statements are being supplied
by way of the system ccnsole, reenter the
corrected line.

Programmer Response: If control
statements are being prcvided by the
SYS1.PARMLIB data set, correct the
statement in error and rerun the job.

Problem Determination: Table I, items 2,
3, 29.

IHL111A UNBALANCED PARENTHESIS IN KEYWORD keywd

Explanation: A parenthesis is missing for
the keyword keywd in the response to
message IHL101A or IHL102A cr in the
control statements provided by the
SYS1.PARMLIB data set.

System Action: The response is not
accepted. All options cn the line in
error are disregarded and must be
respecified.

Operator Response: Probable user error.
If control statements are being supplied
by way of the system console, reenter the
corrected line.

Programmer Response: If control
statements are being prcvided by the
SYS1.PARMLIB data set, correct the
statement in error and rerun the job.

Problem Determinaticn: Table I, items 2,
3, 29.

IHL112A UNALLOWABLE KEYWORD FOR THE PROMPTING
SEQUENCE -- keywd

Explanation: In response tc message
IHL101A or IHL102A cr in the control
statements provided by the SYS1.PARMLIB
data set a keyword, keywd in the message
text, was used that was nct specified in
the TRACE= options when starting the
Generalized Trace Facility (GTF).

System Action: The response is not
accepted. All options cn the line in
error are disregarded and must be
respecified.

Operator Response: Probable user error.
If control statements are being supplied
by way of the system ccnsole, enter the
response again using only thcse keywords
noted in message IHL101A.

Programmer Response: If control
statements are being prcvided by the
SYS1.PARMLIB data set, correct the
statement in error and rerun the job.

Problem Determinaticn: Table I, items 2,
3, 29.

IHL113A LMT ERRCR. EXCEEDEC 50 CEVICES FOR IO=

Explanaticn: In the respcnse tc message
IHL101A or IHL102A cr in the ccntrcl
statement prcvided by the SYS1.PARMLIB
data set, ncre than 50 device addresses
were specified fcr the IO= keywcrd.

System Acticn: The respcnse is nct
accepted. All cpticns cn the line in
errcr are disregarded and must be
respecified.

Cperatcr Respcrse: Prcbable user error.
If ccntrol statements are being entered by
way cf the system ccnscle, reenter the
ccrrected line.

Prcgrammer Respcnse: If ccntrol
statements are being prcvided by the
SYS1.PARMLIB data set, correct the
statement in errcr and rerun the jcb.

Prcblem Determiraticn: Table I, items 2,
3, 29.

IHL114A LMT ERRCR. EXCEEDEC 50 CEVICES FOR SIO=

Explanaticn: In respcnse tc message
IHL101A, IHL102A, cr in the ccntrcl
statements beirg prcvided by the
SYS1.PARMLIB data set, more then 50 device
addresses were specified fcr the SIO=
keywcrd.

System Action: The response is not
accepted. All cpticns on the line in
errcr are disregarded and must be
respecified.

Cperatcr Respcrse: Prcbable user error.
If ccntrcl statements are being entered by
way cf the system ccnscle, reenter the
ccrrected line.

Prcgrammer Respcrse: If ccntrcl
statements are being prcvided by the
SYS1.PARMLIB data set, correct the
statement in errcr and rerun the jcb.

Prcblem Determiraticn: Table I, items 2,
3, 29.

IHL115A INVALIC INTERRUPT COLE SPECIFIED

Explanaticn: In the respcnse tc message
IHL101A or IHL102A cr in the ccntrcl
statements beirg prcvided by the system
ccnscle, an irvalid interrupticn code was
specified for the PI= keywcrd.

System Action: The response is not
accepted. All cpticns on the line in
errcr are disregarded and must be
respecified.

Cperatcr Respcrse: Prcbable user error.
If ccntrol statements are being entered by
way cf the system ccnscle, reenter the
ccrrected line.

Prcgrammer Respcnse: If ccntrol
statements are being prcvided by the
SYS1.PARMLIB data set, correct the
statement in errcr and rerun the jcb.

IHL116A INVALID SVC NUMBER SPECIFIED

Explanation: In the response to message IHL101A or IHL102A or in the control statements provided by the SYS1.PARMLIB data set, an SVC number greater than 255 was specified in the SVC= keyword.

System Action: The response is not accepted. All options on the line in error are disregarded and must be respecified.

Operator Response: Probable user error. If control statements are being entered by way of the system console, reenter the corrected line.

Programmer Response: If control statements are being provided by the SYS1.PARMLIB data set, correct the statement in error and rerun the job.

Problem Determination: Table I, items 2, 3, 29.

IHL117A LMT ERROR. EXCEEDED 50 SVC NUMBERS

Explanation: In the response to message IHL101A or IHL102A or in the control statements being provided by the SYS1.PARMLIB data set, more than 50 SVC numbers were specified for the SVC= keyword.

System Action: The response is not accepted. All options on the line in error are disregarded and must be respecified.

Operator Response: Probable user error. If control statements are being entered by way of the system console, reenter the corrected line.

Programmer Response: If control statements are being provided by the SYS1.PARMLIB data set, correct the statement in error and rerun the job.

Problem Determination: Table I, items 2, 29.

IHL118I ERROR IN IHLTxxxx. yyy DISABLED. TIME=hh.mm.ss

Explanation: An error has occurred in the Generalized Trace Facility (GTF) module IHLTxxxx. As a result, function yyy will no longer be traced or filtered.

System Action: If GTF is not in DEBUG mode, it remains active and all specified events, except yyy, will continue to be traced. If the module name is IHLTFIL, the filtering of event yyy has been disabled and all events of that type will be traced. If GTF is in DEBUG mode, it will be immediately terminated.

Operator Response: None.

Problem Determination: Table I, items 2, 3, 13, 16, 29. Stop GTF. Start the GTFSNP procedure, EXT mode, DEBUG=YES, and specifying the same trace options specified for GTF. Execute the IMDPRDMP service aid, specifying the EDIT verb. The trace data set is the input to the IMDPRDMP service aid.

IHL120I INVALID SYSTEM FOR GTF -- INITIALIZATION TERMINATED

Explanation: An attempt was made to start GTF on a system other than MFT, MVT or MVT Multiprocessing.

System Action: GTF initialization is terminated.

Operator Response: Probable system error.

Problem Determination: Table I, items 2, 11, 29.

IHL121I SYS1.PARMLIB INPUT INDICATED

Explanation: The user has indicated that the trace options for the Generalized Trace Facility (GTF) are to be provided by a member of the SYS1.PARMLIB data set.

System Action: GTF will receive trace options from the SYS1.PARMLIB

Operator Response: None.

IHL122I MEMBER NOT SPECIFIED. PARMLIB IGNORED

Explanation: A member was not found on the SYS1.PARMLIB DD statement.

System Action: The SYS1.PARMLIB data set will not be used to supply trace options to the Generalized Trace Facility. Trace options will be supplied through the master console.

Programmer Response: Probable user error. Include a valid member name in the SYS1.PARMLIB DD statement.

Problem Determination: Table I, items 2, 3, 29.

IHL123I MEMBER ddn NOT FOUND. PARMLIB IGNORED

Explanation: The member name on the SYS1.PARMLIB DD statement, ddn, was not found in the SYS1.PARMLIB data set.

System Action: The SYS1.PARMLIB data set will not be used to supply trace options to the Generalized Trace Facility. Trace options will be supplied only through the master console.

Programmer Response: Probable user error. Include a valid member name on the SYS1.PARMLIB DD statement.

Problem Determination: Table I, items 2, 3, 25c, 29.

IHL

IHL124I GTF PARMLIB INPUT ERROR

    Explanation: An error has been found in
the trace option parameters specified by
the SYS1.PARMLIB data set.

    System Action: The trace options
specified on the SYS1.PARMLIB data set
will be disregarded. Trace options will
be requested from the master console.

    Programmer Response: Probable user error.
A message indicating the exact error is in
the job stream list.

    Problem Determination: Table I, items 2,
3, 26c, 29.

IHL125A RESPECIFY TRACE OPTIONS OR REPLY U

    Explanation: Trace options for the
Generalized Trace Facility (GTF) may be
respecified at this point or a reply of U
may be entered to continue initialization.

    System Action: GTF initialization will
not continue until the operator has
responded to this message.

    Operator Response: If message IHI103I
does not indicate the trace options you
desire, respecify the desired options,
beginning with TRACE=. To continue
initialization, reply U.

IHL126A ILLEGAL SPECIFICATION OF TRACE OPTIONS

    Explanation: No trace options other than
TRC, PCI and/or SSM have been specified.

    System Action: The trace options
specified have not been accepted.

    Operator Response: Probable user error.
Reenter the trace options qualifying the
options previously specified.

    Problem Determination: Table I, items 2,
3, 29.

IHL127I GTF PARMLIB I/O ERROR text

    Explanation: GTF detected an input/output
error while reading the SYS1.PARMLIB data
set. The text of the message describes
the error: device address, I/O operation,
error condition, and access method used.

    System Action: The trace options
specified in the SYS1.PARMLIB data set are
disregarded. Trace options must be be
supplied through the master console.

    Operator Response: Enter the trace
options from the master console.

    Problem Determination: Table I, items 29.
Have a listing of the SYS1.PARMLIB data
set available.

IHL128I GTF MODULE mod NOT FOUND

    Explanation: The GTF module, mod, was not
found.

    System Action: GTF is terminated.

    Operator Response: Restart GTF.

    Problem Determination: Table I, items 2,
13, 25c (SYS1.LINKLIB), 29.

IHL129I BLDL I/O ERROR LOADING GTF MODULE name

    Explanation: An I/O error occurred during
a BLDL for module (name).

    System Action: GTF is terminated.

    Operator Response: Restart GTF.

    Problem Determination: Table I, items 2,
13, 25c (SYS1.LINKLIB), 29.

IHL130I INSUFFICIENT CORE FOR TRACE INITIALIZATION

    Explanation: There is insufficient main
storage space for GTF to continue
initialization.

    System Action: GTF is terminated.

    Operator Response: Probable user error.
Increase the region/partition size and
restart GTF.

    Problem Determination: Table I, items 2,
3, 7a, 29.

IHL131I GTF PARMLIB ERROR DURING OPEN -- ccc

    Explanation: An error occurred while
attempting to open the SYS1.PARMLIB data
set. The completion code is given by cc.

    System Action: Trace options will not be
supplied to GTF by the SYS1.PARMLIB data
set. All options must be specified from
the master console.

    Programmer Response: Follow the
directions for the completion code - ccc.

IIx

Component name	IIx
Program Producing Message	Emulatcr Programs
Audience and Where Produced	Fcr prcgrammer: SYSFRINT and SYSEMOUT data sets. Fcr cperator: console.

Message Format	IIxrnnS text (fcr cperatcr and prcgrammer)
	id IIxnnns text (fcr cperator)
	
	x
	    N - IBM 709/7090/7094/7094 II Eumlatcr Prcgram cn Systen/360
	      Model 85.
	   O - IBM 7074 Emulator Prcgram cn Systen/370 Mcdel 165.
	   P - IBM 7080 Emulator Prcgram cn Systen/370 Mcdel 165.
	   Q - IBM 1401/1440/1460 Emulatcr Prcgram cn System/370 Mcdels
	      135, 1458 and 155.
	   R - IBM 1410/7010 Emulatcr Prcgram cn Systen/370 Mcdels 145 and
	      155.
	   T - IBM 709/7090/7094/7094 II Emulatcr Prcgram cn Systen/370
	      Model 165.
	   U - IBM 7074 Emulatcr Prcgram cn Systen/370 Mcdel 155.
	   V - IBM DCS Emulator Program cn Systen/370 Mcdels 135, 145, and
	      155.
	nnn
	   Message Serial Numter:
	   000 to 299 Emulator Prcgram
	   300 to 399 Tape Formatting Prcgrams
	   400 to 499 Disk Formatting Prcgram (where applicatle)
	   500 to 599 Emulater System Writer Routire (where applicatle)
	   600 to 899 Reserved
	   900 to 999 Available fcr User-written Rcutines
	id
	   Message reply identificaticn
	    (absent, if operator reply nct required)
	s
	   Type Code:
	   A Action; operator must perfcrm a specific action.
	   D Qecision; operator must chccse an alternative.
	   E Eventual action; operatcr must perfcrm acticn when he has
	     time.
	   I Information; no operatcr action is required.
	   W Wait; processing stopped until acticn is determined an
	     performed.
	text
	   Message text.

Comments	The messages produced by the varicus emulatcr prcgrams are nct included in this publicaticn, but can be fcund in the publicaticns listed below. The index tab IIx is prcvided sc that emulatcr messages can be inserted in this publicaticr and fcund easily.
Associated Publications	Emulating the IBM 7094 on IBM Mcdels 85 and 165 Using OS/360, GC27-6951; Emulating the IBM 7074 on the IPM Systen/370 Mcdels 165 Using OS/360, GC27-6948; Emulating the IBM 7080 on the IEM Systen/370 Mcdel 165 Using OS/360, GC27-6952; Emulating the IBM 1401, 1440, and 1460 cn the IBM Systen/370 Models 135, 145, and 155 Using CS/360, GC27-6945; Emulating the IBM 1410 and 7010 on the IBM Systen/370 Mcdels 145 and 155 Using CS/360, GC27-6946. Emulating DCS on IBM Systen/370 Using OS/360, GC26-3777.

Component Name	IKA
Program Producing Message	Graphic Job Processor and Satellite Graphic Jcb Prccesscr.
Audience and Where Produced	Fcr prcgrammer: SYSPRINT data set. Fcr cperator: console.

Message Format	IKAnnnI text
	
	nnn
	    Message serial number.
	text
	    Message text.

Comments	The PRINTED RECCRD option on the LCG ON frame must be selected in order to insure the reception cf all messages.

Associated Publications	IBM System/360 Cperating System:
	    User's Guide for Job Control Frcm the IBM 2250 Lisplay Unit, GC27-6933
	IBM System/360 Cperating System and 1130 Disk Mcnitcr System:
	    User's Guide for Job Control Frcm an IBM 2250 Lisplay Unit Attached to an IBM 1130 System, GC27-6938

Problem Determination	Refer to the fold-out in part VI cf this publicaticn fcr prcblem determination instructions.

IKA

IKA001I utn - GWRITE REG 15 = dd

> **Explanation:** The Display Output routine (IKADOR) or Internal Error rcutine (IKAIERR) (both members of SYS1INOIKIIB) detected an error during execution of a GWRITE macro instructicn tc write data into the 2250 buffer. In the message text, utn is the 2250 unit cn which the error occurred. Register 15 ccntains a decimal code indicating the error condition. Possible ccdes are:
>
> | Code | Meaning |
> |---|---|
> | 04 | The limits of the buffer assignment are violated, or the buffer address is invalid. |
> | 08 | The byte count, as computed from the output area ccntrcl blcck (OACB), is negative, or the length is incorrectly specified. |
>
> This message appears on the 1052 and in the printed output.
>
> **System Action:** The graphic jcb prccessor associated with the partiticn cr region in which the error was detected is terminated, and then restarted.
>
> **Operator Reponse:** Probable user error. Inform the 2250 user on utn tc log on again and redefine the job. Inform the programmer of the error.
>
> **Problem Determination:** Table I, items 2, 4, 25c, 29.

> **2250 Prcgrammer Respcnse:** Cause initial attenticn, lcg cn again, and redefine the jcb. Ccnsult ycur prcgrammer.

IKA002I utn - GCNTRL ALM, REG 15 = dd

> **Explanaticn:** The Lisplay Output rcutine (IKALCR) detected an error during executicn cf a GCNTRL macrc instructicn to scund the audible alarm. In the message text, utn is the 2250 unit cn which the errcr cccurred. Register 15 ccntains a decimal ccde indicating the errcr ccnditicn. Pcssible ccdes are:
>
> | Ccde | Meaning |
> |---|---|
> | 04 | The limits cf the buffer assignment are viclated, cr the buffer address is invalid. |
> | 12 | In a GCNTRL macrc instruction, the device asscciated with the "dck2 address" cperand is nct attached to the same display control unit as the device asscciated with the "dck address" cperand. |
>
> This message appears cn the 1052 and in the printed cutput.
>
> **System Action:** The graphic jck prccessor asscciated with the partition cr region in which the errcr was detected is terminated, and then restarted.
>
> **Cperator Respcnse:** Prcbable user error. Infcrm the 2250 user cn utn tc log on again and redefine the job. Inform the prcgrammer of the errcr.

2250 Programmer Response: Cause initial attention, log on again, and redefine the job. Consult your programmer.

IKA003I utn - GCNTRL STR, REG 15 = dd

Explanation: The Display Output routine (IKADOR) detected an error during execution of a GCNTRL macro instruction to start 2250 buffer regeneration. In the message text, utn is the 2250 unit on which the error occurred. Register 15 contains a decimal code indicating the error condition. Possible codes are:

Code	Meaning
04	The limits of the buffer assignment are violated, or the buffer address is invalid.
12	In a GCNTRL macro instruction, the device associated with the "dcb2 address" operand is nct attached to the same display control unit as the device associated with the "dcb address" operand.

This message appears on the 1052 and in the printed output.

System Action: The graphic job processor associated with the partition or region in which the error was detected is terminated, and then restarted.

Operator Response: Probable user error. Inform the 2250 user on utn to log on again and redefine the job. Inform the programmer of the error.

2250 Programmer Response: Cause initial attention, log on again, and redefine the job. Consult your programmer.

IKA004I utn - GCNTRL RMV, REG 15 = dd

Explanation: The Display Output routine (IKADOR) detected an error during execution of a GCNTRL macro instruction to remove a cursor from the 2250 buffer. In the message text, utn is the 2250 unit on which the error occurred. Register 15 contains a decimal code indicating the error condition. Possible codes are:

Code	Meaning
04	The limits of the buffer assignment are violated, or the buffer address is invalid.
12	In a GCNTRL macro instruction, the device associated with the "dcb2 address" operand is nct attached to the same display control unit as the device associated with the "dcb address" operand.

This message appears on the 1052 and in the printed output.

System Action: The graphic job processor associated with the partition or region in which the error was detected is terminated, and then restarted.

Operator Response: Probable user error. Inform the 2250 user on utn to log on again and redefine the job. Inform the programmer of the error.

2250 Programmer Response: Cause initial attention, log on again, and redefine the job. Consult your programmer.

IKA005I utn - GREAD CUR, REG 15 = dd

Explanation: The Display Output routine (IKADOR) or Display Input routine (IKADIR) detected an error during execution of a GREAD macro instruction to insert a cursor into the 2250 buffer. In the message text, utn is the 2250 unit on which the error occurred. Register 15 contains a decimal code indicating the error condition. Possible codes are:

Code	Meaning
04	The limits of the buffer assignment are violated, or the buffer address is invalid.
08	The byte count, as computed from the output area control block (OACB), is negative, or the length is incorrectly specified.

This message appears on the 1052 and in the printed output.

System Action: The graphic job processor associated with the partition or region in which the error was detected is terminated, and then restarted.

Operator Response: Probable user error. Inform the 2250 user on utn to log on again and redefine the job. Inform the programmer of the error.

2250 Programmer Response: Cause initial attention, log on again, and redefine the job. Consult your programmer.

IKA006I utn - BUF SEG OVFL

Explanation: The Display Output routine (IKADOR) or Internal Error routine (IKAIERR) made a request to place more orders and data in the 2250 buffer than there is space available for the receipt of orders and data. In the message text, utn is the 2250 unit on which the error occurred. This message appears on the 1052 and in the printed output.

System Action: The graphic job processor associated with the partition or region in which the error was detected is terminated, and then restarted.

Operator Response: Inform the 2250 user on utn to log on again and redefine the job. Inform the programmer cf the error.

Programmer Response: Probable user error. Insure that there is enough buffer space to support the particular user. Lack of buffer space could be caused by recent installaticn modificaticns cr by excessive user manipulation of a GJP frame.

Problem Determinaticn: Table I, items 2, 4, 25c, 29.

2250 Programmer Response: Cause initial attention, log on again, and redefine the job. Consult your programmer.

IKA007I utn - OF UNKNOWN ORIGIN

Explanaticn: The Enter Data Processor (IKAPENTO) detected an errcr cf unknown origin. In the message text, utn is the unit name of the 2250 unit cr 1130/2250 subsystem on which the errcr cccurred. This message appears cn the 1052 and in the printed output.

System Action: The graphic jcb processor or satellite graphic jcb prccessor associated with the partiticn cr region in which the error was detected is terminated, and then restarted.

Operator Response: Prcbable user error. Inform the user on unit or subsystem utn to log cn again and redefine the job. Inform the programmer of the error.

Problem Determinaticn: Table I, items 2, 4, 25c, 29.

2250 or 1130/2250 Programmer Response: Cause initial attention, lcg cn again, and redefine the job. Consult ycur programmer.

IKA008I utn - CST ENTRY NOT ON FULLWORD BOUNDARY

Explanation: The Display Generation and Manipulaticn routine (IKADGM) found an entry in the Command Selecticn Table that is not a multiple of fcur bytes. Since each entry in the table must begin on a fullword boundary, each entry must be a multiple of four bytes. In the message text, utn is the 2250 unit cn which the error occurred. This message appears on the 1052 and in the printed cutput.

System Action: The graphic jcb processor associated with the partiticn or region in which the error was detected is terminated, and then restarted.

Operator Response: Infcrm the 2250 user on utn to log on again and redefine the job. Inform the prcgrammer cf the error.

Programmer Response: Probable user error. Examine the Command Selecticn Table (IKATCSR0) for recent installation modificaticns.

Problem Determinaticn: Table I, items 2, 4, 25c, 29.

2250 Prcgrammer Response: Cause initial attenticn, lcg cn again, and redefine the jcb. Ccnsult ycur programmer.

IKA009I CST ENTRY OVERLAP TO NEXT LINE

Explanaticn: When it is expanded, an entry from the Ccmmand Selecticn Table wculd cverlap tc the next line cn the 2250 screen. The Cisplay Generaticn and Manipulaticn rcutine (IKADGM) detected this error. This message appears cnly in the printed cutput.

System Acticn: The entry is ignored and prccessing resumes with the next entry.

Prcgrammer Respcnse: Prctable user error. Examine the Ccmmand Selecticn Table (IKATCSR0) fcr recent installation mcdificaticns. If the prcblem recurs, do mcdificaticns.

Prcblem Determinaticn: Table I, items 2, 4, 25c, 29.

2250 Prcgrammer Respcnse: Ccnsult your prcgrammer.

IKA010I CST ENTRY TOO SHORT

Explanaticn: An entry in the Ccmmand Selecticn Table is tcc shcrt. Each entry must be at least 15 bytes lcng. The Display Generaticn and Manipulaticn rcutine (IKADGM) detected this errcr. This message appears cnly in the printed cutput.

System Acticn: The errcnecus entry and all entries that fcllcw it are igncred, images asscciated with graphic crders and data generated by preceding entries are displayed, and ccntrcl is returned to the caller.

Prcgrammer Respcnse: Prctable user error. Examine the Ccmmand Selecticn Table (IKATCSR0) fcr recent installation mcdificaticns.

Prcblem Determinaticn: Table I, items 2, 4, 25c, 29.

2250 Prcgrammer Respcnse: Ccnsult your prcgrammer.

IKA011I utn - lmd - OCTxxxxx ERR

Explanaticn: An entry in the Overall Ccntrcl Table is inccrrect. In the message text, CCTxxxxx is the field name cf the inccrrect entry, lmd is the module name cf the rcutine that detected the error, and utn is the unit name of the 2250 unit cr 1130/2250 subsystem cn which the errcr cccurred. This message appears cn the 1052 and in the printed cutput.

System Acticn: The graphic jcb prccessor cr satellite graphic jcb prccessor associated with the partiticn cr region in

which the error was detected is
terminated, and then restarted.

Operator Response: Inform the user on
unit or subsystem utn to log on again and
redefine the job. Inform the programmer
of the error.

Programmer Response: Probable user error.
Examine the Overall Control Table for
recent installation modifications. Also,
examine any routine, especially the
Initialization routine (IKAINIT for GJP or
IKDINIT for SGJP), that refers to the
table.

Problem Determination: Table I, items 2,
4, 25c, 29.

2250 or 1130/2250 Programmer Response:
Cause initial attention, log on again, and
redefine the job. Consult your
programmer.

IKA012I PSTENTRY LNG ZERO

Explanation: The Extract routine (IKAEXT)
found that the PSTENTRY field of a
Parameter Selection Table contains a value
of zero. This message appears only in the
printed output.

System Action: The erroneous entry and
all entries that follow it are ignored.

Programmer Response: Check for recent
installation modifications to the
Parameter Selection Table (IKATxxx0) which
corresponds to the operation most recently
selected.

Problem Determination: Table I, items 2,
4, 25c, 29.

2250 Programmer Response: Consult your
programmer.

IKA013I prm BAD KEY

Explanation: An unrecognizable keyword
has been entered in a START GFX command.
In the message text, prm is the invalid
keyword entered by the operator. The
error was detected by the Classname Set-Up
routine (IKASD081). This message appears
only on the 1052.

System Action: The command is ignored.

Operator Response: Probable user error.
Reenter the command correctly.

IKA014I NO CCT UNIT

Explanation: The Specify Job Step
Processor (IKAPSPE0) found no 2250 unit
address or 1130/2250 subsystem address in
the Console Control Table (CCT). This
message appears only in the printed
output.

System Action: No Data Definition (DD)
statement is generated for the 2250 unit
or 1130/2250 subsystem.

Programmer Response: Probable user error.
Examine the Overall Control Table and the
Console Control Table for recent
installation modifications.

Problem Determination: Table I, items 2,
4, 25c, 29.

2250 or 1130/2250 Programmer Response:
Consult your programmer.

IKA015I NO CCTSOUT FIELD

Explanation: The Specify Job Step
Processor (IKAPSPE0) found no system
output class in the Console Control Table.
This message appears only in the printed
output.

System Action: A default system output
class of A is used and processing
continues.

Programmer Response: Probable user error.
Examine the Overall Control Table and the
Console Control Table for recent
installation modifications. Also, examine
any routine, especially the Initialization
routine (IKAINIT for GJP or IKDINIT for
SGJP), that refers to the Console Control
Table. The operator can assign a system
output class by issuing a STOP GFX command
followed by a START GFX command in which
the system output class is specified.

Problem Determination: Table I, items 2,
4, 25c, 29.

2250 or 1130/2250 Programmer Response:
Consult your programmer.

IKA016I PSTINMAP.LT.3

Explanation: The Extract routine (IKAEXT)
found that the input location field
(PSTINMAP) of a Parameter Selection Table
contains a value smaller than three. This
message appears only in the printed
output.

System Action: No input is accepted for
this entry and processing resumes with the
next entry.

Programmer Response: Probable user error.
Check for recent installation
modifications to the Parameter Selection
Table (IKATxxx0) which corresponds to the
operation most recently selected.

Problem Determination: Table I, items 2,
4, 25c, 29.

2250 Programmer Response: Consult your
programmer.

IKA017I PSTINMAP.GT.351

Explanation: The Extract routine (IKAEXT)
found that the input location field
(PSTINMAP) of a Parameter Selection Table
contains a value greater than 351. This
message appears only in the printed
output.

System Action: No input is accepted for this entry and processing resumes with the next entry.

Programmer Response: Probable user error. Check for recent installation modifications to the Parameter Selection Table (IKATxxx0) which corresponds to the operation most recently selected.

Problem Determination: Table I, items 2, 4, 25c, 29.

2250 Programmer Response: Consult your programmer.

IKA0181 PSTINMAP + PSTINPLEN.GT.351

Explanation: The sum of the contents of the input location field (PSTINMAP) and the contents of the input length field (PSTINPLEN) of a Parameter Selection Table entry is greater than 351. The Extract routine (IKAEXT) detected this error. This message appears only in the printed output.

System Action: No input is accepted for this entry and processing resumes with the next entry.

Programmer Response: Probable user error. Check for recent installation modifications to the Parameter Selection Table (IKATxxx0) which corresponds to the operation most recently selected.

Problem Determination: Table I, items 2, 4, 25c, 29.

2250 Programmer Response: Consult your programmer.

IKA0191 DMSG INPUT NOT ON FULLWORD BOUND

Explanation: The input to the Display Message routine (IKADMSG for GJP or IKDMSG for SGJP) is not on a fullword boundary. This message appears only in the printed output.

System Action: The input is ignored and control is returned to the caller.

Programmer Response: Probable user error. Examine the most recently selected operation processor for recent installation modifications.

Problem Determination: Table I, items 2, 4, 25c, 29.

2250 or 1130/2250 Programmer Response: Consult your programmer.

IKA0201 PSTPSTAT INVALID ENTRY IGNORED

Explanation: The Display Generation and Manipulation routine found that the status byte (PSTPSTAT field) of an entry in a Parameter Selection Table contains an invalid bit pattern. This message appears only in the printed output.

System Action: The entry is ignored and processing resumes with the next entry.

Programmer Response: Probable user error. Check for recent installation modifications to the Parameter Selection Table (IKATxxx0) which corresponds to the operation most recently selected.

Problem Determination: Table I, items 2, 4, 25c, 29.

2250 Programmer Response: Consult your programmer.

IKA0211 NO INTENSIFICATION

Explanation: The Display Message routine (IKADMSG) found a request to intensify an entry that had previously been removed from the 2250 screen. This message appears only in the printed output.

System Action: The request is ignored and control is returned to the caller.

Programmer Response: Probable user error. Examine the most recently selected operation processor for recent installation modifications. Also, examine the Parameter Selection Table (IKATxxx0) which corresponds to that processor.

Problem Determination: Table I, items 2, 4, 25c, 29.

2250 Programmer Response: Consult your programmer.

IKA0221 INVALID INPUT BITS

Explanation: The Display Message routine (IKADMSG) found that the input parameter list contained invalid bit codes. This message appears only in the printed output.

System Action: The input is ignored and control is returned to the caller.

Programmer Response: Probable user error. Obtain a main storage dump and check for recent installation modifications.

Problem Determination: Table I, items 2, 4, 25c, 29.

2250 Programmer Response: Consult your programmer.

IKA0231 lmd - IKAACCTG - UNKNOWN RETURN CODE

Explanation: The user's accounting routine passed an unrecognizable return code. In the message text, lmd is the module name of the routine that detected the error. This message appears only in the printed output.

System Action: The return code is ignored and processing resumes.

Programmer Response: Probable user error. Examine the structure of the installation accounting routine.

Problem Determination: Table I, items 2, 4, 25c, 29.

2250 or 1130/2250 Programmer Response: Consult your programmer.

IKA024I utn - EXTRACT RECORD, UNKNOWN KEY

Explanation: An extract record contained an unrecognizable processor key. (An extract record is data in the CCTPWKA field of the Console Control Table.) The Recall Processor (IKAPRECO for GJP or IKDPRECO for SGJP) found the record with the unknown key. In the message text, utn is the unit name of the 2250 unit or 1130/2250 subsystem on which the error occurred. This message appears on the 1052 and in the printed output.

System Action: The graphic job processor or satellite graphic job processor associated with the partition or region in which the error was detected is terminated, and then restarted.

Operator Response: Inform the user on unit or subsystem utn to log on again and redefine the job. Inform the programmer of the error.

Programmer Response: Probable user error. Look for an operation processor added by the installation and examine existing processors for recent installation modifications.

Problem Determination: Table I, items 2, 4, 25c, 29.

2250 or 1130/2250 Programmer Response: Cause initial attention, log on again, and redefine the job. Consult your programmer.

IKA025I PST LINE OR COL TOO HIGH

Explanation: The PST LINE or PST COL field in a Parameter Selection Table contains an invalid grid line specification. The field specifies a raster unit position that is too high for displaying the designated Parameter Selection Table entry. This error was detected by the Display Generation and Manipulation routine (IKADGM). This message appears only in the printed output.

System Action: The entry is ignored and processing resumes with the next entry.

Programmer Response: Probable user error. Check for recent installation modifications to the Parameter Selection Table (IKATxxx0) which corresponds to the operation most recently selected.

Problem Determination: Table I, items 2, 4, 25c, 29.

2250 Programmer Response: Consult your programmer.

IKA026I MSG LINE EXCEEDED

Explanation: The Display Message routine (IKADMSG for GJP or IKDMSG for SGJP) found a message that is too large to display in the message area of the screen. This message appears only in the printed output.

System Action: The message is truncated and processing continues.

Programmer Response: Probable user error. Examine the most recently selected operation processor for recent installation modifications.

Problem Determination: Table I, items 2, 4, 25c, 29.

2250 or 1130/2250 Programmer Response: Consult your programmer.

IKA027I PSTTEXT BLANK

Explanation: The Display Generation and Manipulation routine (IKADGM) found a Parameter Selection Table entry containing all blanks. This message appears only in the printed output.

System Action: The entry is ignored and processing resumes with the next entry.

Programmer Response: Probable user error. Check for recent installation modifications to the Parameter Selection Table (IKATxxx0) which corresponds to the operation most recently selected.

Problem Determination: Table I, items 2, 4, 25c, 29.

2250 Programmer Response: Consult your programmer.

IKA028I NO PST ENTRY FOR REQUESTED INTENSIFICATION

Explanation: The Display Generation and Manipulation routine (IKADGM) found a request to intensify graphic orders and data that were not represented by a Parameter Selection Table entry. This message appears only in the printed output.

System Action: The request is ignored and control is returned to the caller.

Programmer Response: Probable user error. Examine the most recently selected operation processor for recent installation modifications.

Problem Determination: Table I, items 2, 4, 25c, 29.

2250 Programmer Response: Consult your programmer.

IKA029I utn - lrd - BAD POST CODE

Explanation: An invalid post code was placed in the processor event control block. (The processor event control block

is the CCTPECB field of the Console
Control Table.) The bad post code was
placed in the block by the Display
Attention routine (IKADAT) for GJP or by
the Input Output routine (IKDIOR) for
SGJP. In the message text, lmd is the
module name of the routine that detected
the error and utn is the unit name of the
2250 unit or 1130/2250 subsystem on which
the error occurred. This message appears
on the 1052 and in the printed output.

System Action: The graphic job processor
or satellite graphic job processor
associated with the partition or region in
which the condition was detected is
terminated, and then restarted.

Operator Response: Inform the user on
unit or subsystem utn to log on again and
redefine the job. Inform the programmer
of the error.

Programmer Response: Probable user error.
Examine the Display Attention routine
(IKADAT) for GJP or the Input Output
routine (IKDIOR) for SGJP for recent
installation modifications.

Problem Determination: Table I, items 2,
4, 25c, 29.

2250 or 1130/2250 Programmer Response:
Cause initial attention, log on again, and
redefine the job. Consult your
programmer.

IKA030I NO SPACE FOR PST ENTRY

Explanation: The Display Generation and
Manipulation routine (IKADGM) does not
have enough space on the 2250 screen to
display a Parameter Selection Table entry.
This message appears only in the printed
output.

System Action: The entry is ignored and
processing resumes with the next entry.

Programmer Response: Probable user error.
Check for recent installation
modifications to the Parameter Selection
Table (IKATxxx0) which corresponds to the
operation most recently selected.

Problem Determination: Table I, items 2,
4, 25c, 29.

2250 Programmer Response: Consult your
programmer.

IKA031I PST LINE IN KEY AREA

Explanation: The Display Generation and
Manipulation routine (IKADGM) found a
Parameter Selection Table entry that has
the logical line in the area normally
occupied by the END and CANCEL boxes.
This message appears only in the printed
output.

System Action: The entry is ignored and
processing resumes with the next entry.

Programmer Response: Probable user error.
Check for recent installation
modifications to the Parameter Selection
Table (IKATxxx0) which corresponds to the
operation most recently selected.

Problem Determination: Table I, items 2,
4, 25c, 29.

2250 Programmer Response: Consult your
programmer.

IKA032I utn PSTENTRY LNG INVALID

Explanation: The Display Generation and
Manipulation routine (IKADGM) found a
Parameter Selection Table entry of
incorrect length. In the message text,
utn is the 2250 unit on which the error
occurred. This message appears on the
1052 and in the printed output.

System Action: The graphic job processor
associated with the partition or region in
which the condition was detected is
terminated, and then restarted.

Operator Response: Inform the 2250 user
on utn to log on again and redefine the
job. Inform the programmer of the error.

Programmer Response: Probable user error.
Check for recent installation
modifications to the Parameter Selection
Table (IKATxxx0) which corresponds to the
operation most recently selected.

Problem Determination: Table I, items 2,
4, 25c, 29.

2250 Programmer Response: Cause initial
attention, log on again, and redefine the
job. Consult your programmer.

IKA033I PSTTEXT OVERFLOW

Explanation: The Display Generation and
Manipulation routine (IKADGM) found that
the text of a Parameter Selection Table
entry is too long to display on one line
of the 2250 screen. This message appears
only in the printed output.

System Action: Orders are generated to
display only the amount of text necessary
to fill one of the lines on the 2250
screen, the request to display the
remaining text is ignored, and processing
resumes with the next entry.

Programmer Response: Probable user error.
Check for recent installation
modifications to the Parameter Selection
Table (IKATxxx0) which corresponds to the
operation most recently selected.

Problem Determination: Table I, items 2,
4, 25c, 29.

2250 Programmer Response: Consult your
programmer.

IKA034I PSTINPLEN ERR

    Explanation: The Display Generation and
Manipulation routine (IKADGM) found that
the PSTINPLEN field in the Parameter
Selection Table contains an invalid input
length for its associated entry. The
field contains either a zero for an entry
that requires input or a value less than
two for a multiple choice entry. Each
multiple-choice entry should have an input
length of at least two. This message
appears only in the printed output.

    System Action: In the first case, only
the text portion of the entry will appear
on the screen. In the second case, the
entry is ignored and processing resumes
with the next entry.

    Programmer Response: Probable user error.
Check for recent installation
modifications to the Parameter Selection
Table (IKATxxx0) which corresponds to the
operation most recently selected.

    Problem Determination: Table I, items 2,
4, 25c, 29.

    2250 Programmer Response: Consult your
programmer.

IKA035I utn - lmd - CCTCCR VIOLATION

    Explanation: The CCTCCR field in the
Console Control Table contains an
unrecognizable keyword. The keyword does
not match any of the keywords in the
Command Selection Table, indicating that a
request has been made for a processor
routine that the graphic job processor or
satellite graphic job processor does not
recognize. In the message text, lmd is
the module name of the routine that
detected the error and utn is the unit
name of the 2250 unit or 1130/2250
subsystem on which the error occurred.
This message appears on the 1052 and in
the printed output.

    System Action: The graphic job processor
or satellite graphic job processor
associated with the partition or region
where the error was detected is
terminated, and then restarted.

    Operator Response: Inform the user on
unit or subsystem utn to log on again and
redefine the job. Inform the programmer
of the error.

    Programmer Response: Probable user error.
Examine any operation processor recently
added by the installation. Examine
existing operation processors and the
Command Selection Table (IKATCST0) for GJP
or the 1130 PCNTL routine for SGJP for
recent installation modifications.
Determine whether a routine added or
modified by the installation has destroyed
information in the Console Control Table.

    Problem Determination: Table I, items 2,
4, 25c, 29.

    2250 or 1130/2250 Programmer Response:
Cause initial attention, log on again, and
redefine the job. Consult your
programmer.

IKA036I IKAxxxxx - INPUT MAP ERR

    Explanation: A request has been made to
intensify a Parameter Selection Table
entry. However, the input map of the
parameter list passed to the GENINT
subroutine in the Display Message routine
(IKADMSG) does not match the contents of
the input map field (PSTINMAP) for any
entry. In the message text, IKAxxxxx is
the name of the routine that detected the
error. This message appears only in the
printed output.

    System Action: The intensification
request is ignored and control is returned
to the caller.

    Programmer Response: Probable user error.
Check for recent installation
modifications to the Parameter Selection
Table (IKATxxx0) which corresponds to the
operation most recently selected.
Determine whether an operation processor
was recently added or modified by the
installation.

    Problem Determination: Table I, items 2,
4, 25c, 29.

    2250 Programmer Response: Consult your
programmer.

IKA037I utn LOG ON

    Explanation: The user has completed a LOG
ON frame, thus beginning a session at the
2250 unit or 1130/2250 subsystem indicated
in the message text by utn. This message
does not indicate an error, but is
additional information to help the
operator control the multiprogramming
environment. This message appears only on
the 1052.

    Operator Response: None.

IKA038I SGSYS INVAL, MVT ASSUMED

    Explanation: The JCL Generator (IKAJCL)
found as invalid value in the SGSYS field
in the System Generation Data module
(IKASGD). This field indicates whether
the MVT or MFT option of the operating
system is being used. This message
appears only on the printed output.

    System Action: The graphic job processor
or satellite graphic job processor assumes
that it is being used with the MVT option
of the operating system.

    Programmer Response: Probable user error.
Check the system generation output to
ensure that the IKASGD module has the
correct information. This condition could
be caused by an installation routine
destroying information in the Console
Control Table or the Overall Control
Table.

Problem Determination: Table I, items 2, 4, 25c, 29.

2250 or 1130/2250 Programmer Response: Consult your programmer.

IKA039I PROCESSOR INPUT ERROR

Explanation: The JCL Generator (IKAJCI) found invalid input. This message appears only in the printed output.

System Action: The input is ignored and processing resumes.

Programmer Response: Probable user error. Examine the most recently selected operation processor and the Display Attention routine (IKADAT) for GJP or the 1130 PCNTL routine for SGJP for recent installation modifications.

Problem Determination: Table I, items 2, 4, 25c, 29.

2250 or 1130/2250 Programmer Response: Consult your programmer.

IKA040I prm PARM LNG INVALID

Explanation: In a START GFX command, a subparameter of keyword parameter prm is invalid. The parameter is longer than permitted. The error was detected by the Classname Set-Up routine (IKASD081). This message appears only on the 1052.

System Action: The command is ignored.

Operator Response: Probable user error. Reenter the command correctly.

IKA041I MAKE prm (ALPHA
              {NUMERIC}
              (A THRU O)

Explanation: In a START GFX command, a subparameter of keyword parameter prm is invalid. According to the message text, the parameter is either: (1) not alphabetic when it should be, (2) not numeric when it should be, or (3) does not consist of a letter A thru O. The error was detected by the Classname Set-Up routine (IKASD081). This message appears only on the 1052.

System Action: The command is ignored.

Operator Response: Probable user error. Reenter the command correctly.

IKA042I prm INVALID

Explanation: In a START GFX command, a subparameter of keyword parameter prm is invalid. The error was detected by the Classname Set-Up routine (IKASD081). This message appears only on the 1052.

System Action: The command is ignored.

Operator Response: Reenter the command correctly.

IKA043I DONT USE MODIFY

Explanation: The Command Processing routine (IKASD083) has encountered a MODIFY GFX command. This command is not supported by the Graphics Interface Task. This message appears only on the 1052.

System Action: The command is ignored.

Operator Response: None.

IKA044I I/O ERR, GFX

Explanation: The Graphics Interface Task (GFX) has detected a severe Queue Manager input/output error which has caused GFX to be terminated. No job can be defined using the graphic job processor until GFX is restarted. This message appears only on the 1052.

System Action: The user's foreground jobs are allowed to complete processing. However, the users on 2250 units or 1130/2250 subsystems will receive no notification when processing is completed and no system messages will be displayed.

Operator Response: None. However, be prepared for subsequent related messages which will require action.

Programmer Response: The GFX message class parameter in the START GFX command can be respecified to assign GFX messages to a different queue.

Problem Determination: Table I, items 2, 4, 25c, 29.

IKA045E INFORM USER ON utn

Explanation: This message adds related information to message IKA044I. It does not indicate an error, but provides information to help the operator control the multiprogramming environment. In the message text, utn is the unit name of the 2250 unit or 1130/2250 subsystem affected. This message appears only on the 1052.

Operator Response: Use the telephone or some other method to inform the user that:
• A severe input/output error has occurred and the graphic job processor or satellite graphic job processor is no longer available.
• His problem program will be completed, but he will receive no notification of completion.
• No new job may be defined via the graphic job processor or satellite graphic job processor until GFX is restarted.

Restart GFX and inform the user on unit or subsystem utn that he may initiate a new session at the 2250 unit or 1130/2250 subsystem.

2250 or 1130/2250 Programmer Response: Cause initial attention, log on again, and redefine the job.

IKA046I START GFX IGNORED

> Explanation: The Graphic Interface Task
> was processing when a START GFX command
> was entered. The condition was detected
> by the GFX Initialization routine
> (IKASD080). This message appears only on
> the 1052.
>
> System Action: The command is ignored.
>
> Operator Response: None.

IKA047I jjj - SYSOUT FOR Y DELETED

> Explanation: An output queue entry
> (consisting of either a system message
> block, a data set block, or both) for a
> job that was not started via the graphic
> job processor or satellite graphic job
> processor at this session used the same
> output class assigned to the Graphic
> Interface Task (GFX). An I/O error
> occurred when GFX attempted to enqueue
> this output on sysout class Y. In the
> message text, jjj is the name of the job
> whose output was deleted. This message
> appears only on the 1052.
>
> System Action: The sysout is deleted and
> no hard copy output is available.
>
> Operator Response: Follow shop practice
> to ensure that non-graphic jobs do not use
> the GFX output class.
>
> Programmer Response: Design and set up
> the system to support shop practice for
> output classes, or instruct the operator
> to issue a STOP GFX command and restart
> GFX specifying a different queue for GFX
> messages.
>
> Problem Determination: Table I, items 2,
> 4, 25c, 29.
>
> 2250 or 1130/2250 Programmer Response:
> Follow programmer instructions concerning
> printed output.

IKA048I jjj SYSOUT ON Y

> Explanation: An output queue entry
> (consisting of either a system message
> block, a data set block, or both) for a
> job that was not started via the graphic
> job processor or satellite graphic job
> processor at this session used the same
> system output class previously assigned to
> the Graphics Interface Task (GFX). In the
> message text, jjj is the name of the job
> containing the improper system output
> class. This message appears only on the
> 1052.
>
> System Action: The output queue entry is
> enqueued for print output class Y.
>
> Operator Response: Follow shop practice
> to ensure that non-graphic jobs do not use
> the GFX output class.
>
> Programmer Response: Design and set up
> system to support shop practice for output
> classes.

Problem Determination: Table I, items 2,
29.

IKA049I DEQ ERR, CODE=hh

> Explanation: The Main Logic routine
> (IKASD082) encountered an unrecognizable
> code that was passed to it by the QUEUE
> Manager Dequeue routine after that routine
> attempted to dequeue a system output job.
> The code is shown in the message. This
> message appears only on the 1052.
>
> System Action: Processing continues with
> the next job.
>
> Operator Response: If the situation
> recurs, consult the programmer.
>
> Programmer Response: Examine the Main
> Logic routine (IKASD082) and the Enque in
> Print Class routine (IKASDENQ) for recent
> installation modifications or Operating
> System/360 changes.
>
> Problem Determination: Table I, items 2,
> 25c, 29.

IKA050I utn LOG OFF

> Explanation: The user has completed a LOG
> OFF frame, thus ending his session at the
> 2250 unit or 1130/2250 subsystem indicated
> in the message by utn. This message does
> not indicate an error, but is additional
> information to help the operator control
> the multiprogramming environment. This
> message appears only on the 1052.
>
> Operator Response: None.

IKA051E GFX READY

> Explanation: This message notifies the
> operator that processing of the START GFX
> command has been completed and that the
> Graphics Interface Task is now
> functioning. This message does not
> indicate an error, but is additional
> information to help the operator control
> the multiprogramming environment. This
> message appears only on the 1052.
>
> Operator Response: Enter one or more VARY
> ONGFX commands to enable 2250(s) for
> graphic job processor operations or
> 1130/2250 subsystem(s) for satellite
> graphic job processor operations. If no
> VARY ONGFX command is issued, no user will
> be able to perform graphic job processor
> or satellite graphic job processor
> operations.

IKA052I utn - lmd - BAD RETURN CODE

> Explanation: An unrecognizable return
> code was encountered. The module lmd
> received the return code from a subroutine
> to which it had given control. In the
> message text, utn is the unit name of the
> 2250 unit or 1130/2250 subsystem on which
> the error occurred. This message appears
> only in the printed output.

System Action: The graphic job processor or satellite graphic job processor associated with the partition or region in which the error was detected is terminated, and then restarted.

Programmer Response: Probable user error. Examine the routine which detected the error for recent installation

Problem Determination: Table I, items 2, 4, 25c, 29.

2250 or 1130/2250 Programmer Response: Cause initial attention, log on again, and redefine the job. Consult your programmer.

IKA053I MAKE MSGF UNIQUE

Explanation: After a START GFX command, the message class (MSGF=) assigned to GJP foreground jobs was found to be equal to the message class (PRT=) assigned to the print output class. The error was detected by the Classname Set-Up routine (IKASD081). This message appears only on the console issuing the command.

System Action: The command is ignored.

Operator Response: Reenter the command, making sure that message class MSGF is not equal to message class PRT.

IKA054I GFX STOPPED

Explanation: The Graphic Interface Task (GFX) has been terminated as a result of a STOP GFX command or a serious internal error. This is not an error message, but is additional information to help the operator control the multiprogramming environment. This message appears only on the 1052.

Operator Response: GFX may be restarted, if desired, by following standard starting procedure. Until GFX is restarted, users on the 2250 units or 1130/2250 subsystems cannot define jobs via the graphic job processor or satellite graphic job processor.

IKA055I utn UNSUCCESSFUL SPAR dd

Explanation: An attempt to specify the attention routine for the graphic job processor using the SPAR macro instruction was unsuccessful. In the message text, utn is the 2250 unit on which the error occurred and dd is a decimal code indicating the error. Possible codes are:

Code	Meaning
04	The graphic attention control block (GACB) does not contain the address of a graphic data control block (DCB).
08	The GACB was specified by a previous SPAR macro instruction.
12	Parameter list is less than two full words.
20	(MVT only) The SPAR macro instruction was issued by a task

other than the one that opened the DCB, or one of its subtasks.

This message appears only on the 1052.

System Action: The graphic job processor associated with the partition or region in which the error was detected is terminated, and control is returned to the operating system.

Operator Response: Inform the 2250 user that GJP has terminated and that he should begin a new session. Inform the programmer of the error.

Programmer Response: Probable user error. Examine the GACB and the graphic DCB for recent installation modifications.

Problem Determination: Table I, items 2, 4, 25c, 29.

2250 Programmer Response: Cause initial attention, log on again, and redefine the job.

IKA056I utn OPEN ddn DCB UNSUCCESSFUL

Explanation: An attempt to open a data control block (DCB) was unsuccessful. In the message text, ddn is the ddname and utn is the unit name of the 2250 unit or 1130/2250 subsystem on which the error occurred. This message appears only on the 1052.

System Action: The graphic job processor or satellite graphic job processor associated with the partition or region in which the error was detected is terminated, and control is returned to the operating system.

Operator Response: Inform the user on unit or subsystem utn that GJP or SGJP has terminated and that he should begin a new session. Inform the programmer of the error.

Programmer Response: Probable user error. Examine the GJP cataloged procedure or the specified DCB for recent installation modifications.

Problem Determination: Table I, items 2, 4, 25c, 29.

2250 or 1130/2250 Programmer Response: Cause initial attention, log on again, and redefine the job.

IKA057I utn INSUFF BUFFER

Explanation: There is insufficient buffer space available to support the graphic job processor. In the message text, utn is the 2250 unit on which the error occurred. This message appears only on the 1052.

System Action: The graphic job processor associated with the partition or region in which the error was detected is terminated, and control is returned to the operating system.

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Operator Response: Request cther 2250
users to release buffer space. Inform the
2250 user tc begin a new sessicn.

Programmer Response: Probable user error.

Problem Determinaticn: Table I, items 2,
4, 25c, 29.

2250 Programmer Response: Cause initial
attention, log on again, and redefine the
job.

IKA058I utn ASGNBFR ERR dd

Explanation: The buffer space requested
could not be assigned tc the graphic jot
processor. In the message text, utn is
the 2250 unit on which the errcr occurred
and dd is a decimal code indicating the
error condition. Pcssible ccdes are:

Code Meaning
04   Number of sections requested exceeds
      number presently available.
08   Contiguous secticns nct available to
      satisfy request.
12   Invalid or uncpened data control
      block (DCB).
24   Invalid 'byte count address'
      operand.

This message appears cnly cn the 1052.

System Action: The graphic jcb processor
associated with the particicn cr region in
which the error was detected is
terminated, and control is returned to the
operating system.

Operator Response: For codes 04 and 08,
request other users to release buffer
space. For all codes, infcrm the 2250
user that GJP has terminated and that he
should begin a new session.

Programmer Response: Probable user error.
Examine the Initialization rcutine
(IKAINIT) for recent installation
modifications

Problem Determinaticn: Table I, items 2,
4, 25c, 29.

2250 Programmer Respcnse: Cause initial
attention, log on again, and redefine the
job.

IKA059I utn INVALIC UNIT ADDRESS IN CIB

Explanation: An invalid 2250 unit or
1130/2250 subsystem address was specified.
The START GFP utn command cr START SGJP
utn command does not have a valid unit or
subsystem address, and GJP cr SGJP has
been started without cne. In the message
text, utn is the unit name cf the 2250
unit or 1130/2250 subsystem that could not
be started. This message appears only on
the 1052.

System Action: The graphic jcb processor
or satellite graphic jcb prccessor
associated with the particicn cr region in
which the error was detected is

terminated, ard ccntrcl is returned to the
cperating system.

Cperatcr Respcrse: Infcrm the prcgrammer
cf the errcr.

Prcgrammer Respcrse: Probable user error.
Examine the Overall Ccntrcl Table and
rcutines referencirg it fcr recent
installaticn ncdificaticns. Also examine
the catalcged prccedure used tc start GJP

Prcblem Determiraticn: Table I, items 2,
4, 25c, 29.

IKA060I lmd GETMAIN UNSUCCESSFUL

Explanaticn: Main stcrage space requested
by a GJP cr SGJP rcutine via a GETMAIN
macrc instructicn was nct allccated. In
the message text, lmd is the ncdule name
cf the rcutine which detected the error.
This message appears cnly cn the 1052.

System Acticn: The graphic jcb prccessor
cr satellite graphic jcb prccesscr
asscciated with the particicn cr region in
which the errcr was detected is
terminated, ard ccntrcl is returned to the
cperating system.

Cperatcr Respcrse: Inform the user cn
unit cr subsystem utn that GJP cr SGJP has
terminated and that he shculd begin a new
sessicn. Allccate ncre space tc the
particicn in which the errcr cccurred. If
the errcr recurs, infcrm prcgrammer.

Prcgrammer Respcrse: Prcbable user error.
Examine the Initialization rcutine
(IKAINIT fcr GJP cr IKCINIT fcr SGJP) for
recent installaticn ncdificaticns.

Prcblem Determiraticn: Table I, items 2,
4, 25c, 29.

2250 cr 1130/2250 Prcgrammer Respcnse:
Cause initial attenticn, lcg cn again, and
redefine the jcb.

IKA061I utn ENC OF CATA CN dsn

Explanaticn: An end cf data ccndition was
fcund cn the data set dsn. The
Initializaticn rcutine (IKAINIT fcr GJP or
IKCINIT fcr SGJP) detected the ccndition.
In the message text, utn is the unit name
cf the 2250 unit cr 1130/2250 subsystem on
which the errcr cccurred. This message
appears cnly cn the 1052.

System Acticn: The graphic jcb prccessor
cr satellite graphic jcb prccesscr
asscciated with the particicn cr region in
which the errcr was detected is
terminated, ard ccntrcl is returned to the
cperating system.

Cperatcr Respcrse: Infcrm the user cn
unit cr subsystem utn that GJP cr SGJP has
terminated and that he shculd begin a new
sessicn. If the errcr recurs, infcrm the
prcgrammer.

Programmer Response: Probable user error.
Examine the Initialization routine
(IKAINIT for GJP or IKDINIT for SGJP) for
recent installation modifications.

Problem Determination: Table I, items 2,
4, 25c, 29.

2250 or 1130/2250 Programmer Response:
Cause initial attention, log on again, and
redefine the job.

IKA062I utn I/O ERR READING dsn

Explanation: An input/output error
occurred while reading from data set dsn.
In the message text, utn is the unit name
of the 2250 unit or 1130/2250 subsystem on
which the error occurred. This message
appears only on the 1052.

System Action: The graphic job processor
or satellite graphic job processor
associated with the partition or region in
which the error was detected is
terminated, and control is returned to the
operating system.

Operator Response: Inform the user on
unit or subsystem utn that GJP or SGJP has
terminated and that he should begin a new
session. If the error recurs, inform the
programmer.

Programmer Response: Probable user error.
Examine the Initialization routine
(IKAINIT for GJP or IKDINIT for SGJP) for
recent installation modifications.
problem recurs, do the following before

Problem Determination: Table I, items 2,
4, 25c, 29.

2250 or 1130/2250 Programmer Response:
Cause initial attention, log on again, and
redefine the job.

IKA063I utn - NO JOBCLASS Y, $\begin{Bmatrix} I \\ R \\ S \end{Bmatrix}$

Explanation: There are no partitions
defined for jobclass Y. As a result, the
graphic job processor, the satellite
graphic job processor, or the initial
processor for SGJP cannot be started. In
the message text, utn is the unit name of
the 2250 unit or 1130/2250 subsystem for
which the error occurred. The letter I
indicates that the error occurred on the
initial attempt to start GJP or SGJP; R
indicates that the error occurred on an
attempt to restart GJP or SGJP after
execution of the user's problem program; S
indicates that the error occurred on an
attempt to start the initial processor for
SGJP. The restart (R) error is the result
of improper redefinition of partitions by
the operator, as is the start (S) error
(except after a VARY ONGFX command).

System Action: When no jobclass was
defined for Y, the system ignores the
initial (I) request to start GJP or SGJP,
assumes log off for a request (R) to

restart GJP or SGJP, and assumes a VARY
OFFGFX command for a request (S) to start
the initial processor for SGJP. The user
receives no printed record of his job if
GJP or SGJP cannot be restarted.

GJP can be started by an attention from
the 2250 unit. SGJP can be started from
the 1130/2250 subsystem, provided the
proper initialization has taken place.
Starting the initial processor for SGJP
requires that a VARY ONGFX command be
issued again for the 1130/2250 subsystem.

Operator Response: Specify partitions for
the GJP or SGJP jobclass Y. This can be
done either by using the DEFINE command or
by using a STOP GFX command and a START
GFX command specifying an existing
jobclass for GJP or SGJP.

Notify the user on unit or subsystem utn
that the error occurred and that he should
attempt to start GJP or SGJP by causing an
initial attention. If R appeared in the
message text, inform the user that the
result of his job is unavailable and that
he should redefine the job.

Problem Determination: Table I, items 2,
29.

2250 or 1130/2250 Programmer Response:
Respond as directed by the operator.

IKA064I utn - PARTITION SIZE TOO SMALL FOR Y, $\begin{Bmatrix} I \\ R \\ S \end{Bmatrix}$

Explanation: The partitions defined for
jobclass Y are too small to accommodate
GJP, SGJP, or the initial processor for
SGJP. In the message text, utn is the
unit name of the 2250 unit or 1130/2250
subsystem for which the error occurred.
The letter I indicates that the error
occurred on the initial attempt to start
GJP or SGJP; R indicates that the error
occurred on an attempt to restart GJP or
SGJP after execution of the user's
problem program; S indicates that the error
occurred on an attempt to start the
initial processor for SGJP. The restart
(R) error is the result of improper
redefinition of partitions by the
operator, as is the start (S) error
(except after a VARY ONGFX command).

System Action: When the partitions for Y
are too small, the system ignores the
initial (I) request to start GJP or SGJP,
assumes log off for a request (R) to
restart GJP or SGJP, and assumes a VARY
OFFGFX command for a request (S) to start
the initial processor for SGJP. The user
receives no printed record of his job if
GJP or SGJP cannot be restarted.

GJP can be started by an attention from
the 2250 unit. SGJP can be started from
the 1130/2250 subsystem, provided the
proper initialization has taken place.
Starting the initial processor for SGJP

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S requires that a VARY ONGFX command be issued again for the 1130/2250 subsystem.

Operator Response: Specify larger partitions for the GJP cr SGJP jobclass Y. This can be done either by using the DEFINE command or by using a STOP GFX command and a START GFX command specifying an existing jobclass fcr GJP or SGJP.

Notify the user on unit or subsystem utn that the error occurred and that he should attempt to start GJP or SGJP by causing an initial attention. If R appeared in the message text, inform the user that the result of his job is unavailable and that he should redefine the job.

Problem Determination: Table I, items 2, 29.

2250 or 1130/2250 Programmer Response: Respond as directed by the cperator.

IKA065I utn - PARTITIONS FOR Y BUSY $\begin{Bmatrix} I \\ R \\ S \end{Bmatrix}$

Explanation: The partitions defined for jobclass Y are busy. These partitions were assigned via jcbclass Y fcr use by the graphic job processcr, satellite graphic job processcr, cr initial processor for SGJP. Either ncn-GJP or non-SGJP programs are executing there or the partitions are not arranged for efficient use. In the message text, utn is the unit name of the 2250 unit or 1130/2250 subsystem for which the error occurred. The letter I indicates that the error occurred on the initial attempt to start GJP or SGJP; R indicates that the error occurred on an attempt to restart GJP or SGJP after execution cf the user's problem program; S indicates that the error occurred on an attempt to start the initial processor for SGJP. The restart (R) error is the result of improper redefinition of partitions by the operator, as is the start (S) error (except after a VARY ONGFX ccmmand).

System Action: When the partitions for Y are busy, the system ignores the initial (I) request to start GJP or SGJP, assumes log off for a request (R) to restart GJF or SGJP, and assumes a VARY OFFGFX command for a request (S) to start the initial processor for SGJP. The user receives no printed record of his jcb if GJP or SGJF cannot be restarted.

GJP can be started by an attention from the 2250 unit. SGJP can be started from the 1130/2250 subsystem, prcvided the proper initializaticn has taken place. Starting the initial prccesscr for SGJF requires that a VARY ONGFX ccmmand be issued again for the 1130/2250 subsystem.

Operator Response: Assign individual partitions or check for multiple jobclasses. For efficient use of GJP or SGJP, each 2250 unit or 1130/2250 subsystem (active fcr GJP or SGJP) should

have its cwn partiticn. If each does not have its cwn partiticn, use the DEFINE ccmmand tc specify a partiticn for each 2250 unit cr 1130/2250 subsystem nct already assigned a partiticn. If each has its cwn partiticn, inspect the jobclass fcr the GJP or SGJP partiticns to determine whether multiple jobclasses are assigned tc these partiticns. If multiple jcbclasses are assigned, either use the DEFINE command tc specify partiticns for the GJP or SGJP jcbclass cnly cr ensure that the jcbstream dces nct ccntain jots that use the GJP cr SGJP jcbclass (or cther jcbclasses asscciated with the GJP cr SGJP partiticns) while GJP or SGJP is running. Notify the user cn unit or subsystem utn that GJP or SGJP was not started and that he shculd attempt to start GJP cr SGJP using the standard prccedure.

Prcblem Determination: Table I, items 2, 29.

2250 cr 1130/2250 Prcgrammer Response: Respcnd as directed by the cperator.

IKA066I utn QUEUED ON Pnn

Explanaticn: An attempt tc restart GJP or SGJP in a partiticn defined fcr GJP or SGJP jcbclass Y has been made, but all partiticns assigned tc GJP cr SGJP are busy. Either ncr-GJP cr ncn-SGJP programs are executing in the partiticns or the partiticns are nct prcperly set up for efficient use. In the message text, utn is the unitname cf the 2250 unit or 1130/2250 subsystem fcr which GJP or SGJP cannot be restarted and Pnn indicates the partiticn cn which it is being queued.

System Action: The request is queued on a partiticn assigned fcr GJP or SGJP use. When that partiticn is free, GJP or SGJP will be restarted.

Cperatcr Respcrse: Fcr efficient use of GJF cr SGJP, each 2250 unit or 1130/2250 subsystem (active fcr GJP cr SGJP) should have its cwn partiticn. If each does not have its cwn partiticn, use the DEFINE ccmmand tc specify a partiticn for each 2250 unit cr 1130/2250 subsystem nct already assigned a partiticn.

If each has its cwn partiticn, inspect the jcbclass fcr the GJP cr SGJP partiticns to determine whether multiple jcb classes are assigned tc these partiticns. If multiple jcbclasses are assigned, use the DEFINE ccmmand tc specify partiticns fcr the GJP cr SGJP jcbclass cnly, cr ensure that the jcbstream does nct ccntain jots that use the GJP cr SGJP jcbclass cr cther jcbclasses asscciated with the GJP or SGJP partiticn while GJP is running.

Nctify the user cn unit cr subsystem utn that GJP cr SGJP will be restarted when a partiticn beccmes free.

2250 cr 1130/2250 Prcgrammer Response: Respcnd as directed by the cperator.

IKA067I utn - NO PARTITION OF SCHEDULER SIZE FOR
Y, {I}
     {R}

Explanation: No problem program
partitions are available large enough to
contain the scheduler. As a result, GJP
or SGJP cannot be started.

In the message text, utn is the unit name
of the 2250 unit or 1130/2250 subsystem
for which the error occurred. The letter
I indicates that the error occurred on the
initial attempt to start GJP or SGJP; R
indicates that the error occurred on an
attempt to restart GJP or SGJP after
execution of the user's problem program.

System Action: The system ignores an
initial (I) request to start GJP or SGJP,
and assumes log off for a request (R) to
restart GJP or SGJP. The user receives no
printed record of his job if GJP or SGJP
cannot be restarted.

Operator Response: Specify problem
program partitions of scheduler size for
GJP or SGJP job class Y by using the
DEFINE command. Notify the user on unit
or subsystem utn that the error occurred
and that he should restart GJP or SGJP.
If R appeared in the message text, inform
the user that the results of his job are
unavailable and that he should redefine
his job.

Problem Determination: Table I, items 2,
29.

2250 or 1130/2250 Programmer Response:
Respond as directed by the operator.

IKA068I utn - I/O ERROR - xxxx

Explanation: One of the following error
conditions occurred:
• If xxxx is GWRITE, the Display Output
  routine (IKADOR) or Internal Error
  routine (IKAIERR) detected an error
  during execution of a GWRITE macro
  instruction to write data into the 2250
  buffer.
• If xxxx is GCNTRL ALM, the Display
  Output routine (IKADOR) detected an
  error during execution of a GCNTRL macro
  instruction to sound the audible alarm.
• If xxxx is GCNTRL STR, the Display
  Output routine (IKADOR) detected an
  error during execution of a GCNTRL macro
  instruction to start 2250 buffer
  regeneration.
• If xxxx is GCNTRL RMV, the Display
  Output routine (IKADOR) detected an
  error during execution of a GCNTRL macro
  instruction to remove a cursor from the
  2250 buffer.
• If xxxx is GREAD CUR, the Display Output
  routine (IKADOR) or Display Input
  routine (IKADIR) detected an error
  during execution of a GREAD macro
  instruction to insert a cursor into the
  2250 buffer.

In the message text, utn is the 2250 unit
on which the error occurred. This message
appears on the 1052 and in the printed
output.

System Action: The graphic job processor
associated with the partition or region in
which the error occurred is terminated,
and then restarted.

Operator Response: Inform the 2250 user
on utn to log on again and redefine the
job. If the error recurs, inform the
programmer.

Programmer Response: This message should
have been preceded by an input/output
error message for utn.

Problem Determination: Table I, items 2,
4, 25c, 29.

2250 Programmer Response: Cause initial
attention, log on again, and redefine the
job. Consult your programmer.

IKA070I utn - GWRITE SYSOUT REG 15 = dd

Explanation: The Sysout Display routine
(IKAPDIS0) detected an error during
execution of a GWRITE macro instruction to
write data into the 2250 buffer. In the
message text, utn is the 2250 unit on
which the error occurred. Register 15
contains a decimal code indicating the
error condition. Possible codes are:

Code	Meaning
04	The limits of the buffer assignment are violated, or the buffer address is invalid.
08	The byte count, as computed from the output area control block (OACB), is incorrectly specified.

This message appears only in the printed
output.

System Action: The SYSOUT display is
ended, but the graphic job processor
attempts to continue.

Programmer Response: Probable user error.
Check for recent installation
modifications to the Sysout Display
routine (IKAPDIS0).

Problem Determination: Table I, items 2,
4, 25c, 29.

2250 Programmer Response: The user may
wish to rerun his jobs, using either the
PRINT or PUNCH option rather than the
DISPLAY option.

IKA071I utn - GREAD SYSOUT REG 15 = dd

Explanation: The Sysout Display routine
(IKAPDIS0) detected an error during
execution of a GREAD macro instruction to
read data from the 2250 buffer. In the
message text, utn is the 2250 unit on
which the error occurred. Register 15
contains a decimal code indicating the
error condition. Possible codes are:

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Code   Meaning
04   The limits of the buffer assignment
       are violated, or the buffer address
       is invalid.
08   The byte count, as computed from
       the output area control block
       (OACB), is incorrectly specified.

This message appears only in the printed
output.

System Action: The SYSOUT display is
ended, but the graphic job processor
attempts to continue.

Programmer Response: Probable user error.
Check for recent installation
modifications to the Sysout Display
routine (IKAPDISO). If the problem
recurs, do the following before calling

Problem Determination: Table I, items 2,
4, 25c, 29.

2250 Programmer Response: The user may
wish to rerun his jobs, using either the
PRINT or PUNCH option rather than the
DISPLAY option.

IKA072I utn - GCNTRL STR SYSOUT REG 15 = dd

Explanation: The Sysout Display routine
(IKAPDISO) detected an error during
execution of the GCNTRL macro instruction
to start 2250 buffer regeneration. In the
message text, utn is the 2250 unit on
which the error occurred. Register 15
contains a decimal code indicating the
error condition. Possible codes are:

Code   Meaning
04   The limits of the buffer assignment
       are violated, or the buffer address
       is invalid.
12   In the GCNTRL macro instruction,
       the device associated with the
       "dcb2 address" operand is not
       attached to the same display
       control unit as the device
       associated with the "dcb address"
       operand.

This message appears only in the printed
output.

System Action: The SYSOUT display is
ended, but the graphic job processor
attempts to continue.

Programmer Response: Probable user error.
Check for recent installation
modifications to the Sysout Display
routine (IKAPDISO).

Problem Determination: Table I, items 2,
4, 25c, 29.

2250 Programmer Response: The user may
wish to rerun his jobs, using either the
PRINT or PUNCH option rather than the
DISPLAY option.

IKA073I utn - GCNTRL INS SYSOUT REG 15 = dd

Explanation: The Sysout Display routine
(IKAPDISO) detected an error during
execution of the GCNTRL macro instruction
to insert the cursor in the 2250 buffer.
In the message text, utn is the 2250 unit
on which the error occurred. Register 15
contains a decimal code indicating the
error condition. Possible codes are:

Code   Meaning
04   The limits of the buffer assignment
       are violated, or the buffer address
       is invalid.
12   In the GCNTRL macro instruction,
       the device associated with the
       "dcb2 address" operand is not
       attached to the same display
       control unit as the device
       associated with the "dcb address"
       operand.

This message appears only in the printed
output.

System Action: The SYSOUT display is
ended, but the graphic job processor
attempts to continue.

Programmer Response: Probable user error.
Check for recent installation
modifications to the Sysout Display
routine (IKAPDISO).

Problem Determination: Table I, items 2,
4, 25c, 29.

2250 Programmer Response: The user may
wish to rerun his jobs, using either the
PRINT or PUNCH option rather than the
DISPLAY option.

IKA074I utn - UNSUCCESSFUL OPEN FOR SYSOUT ddn

Explanation: An attempt by the Sysout
Display routine (IKAPDISO) to open a data
control block (DCB) to display a SYSOUT
data set was unsuccessful. In the message
text, ddn is the name of the DD card and
utn is the 2250 on which the error
occurred. This message appears only in
the printed output.

System Action: The SYSOUT display is
ended, but the graphic job processor
attempts to continue.

Programmer Response: Probable user error.
Check for recent installation
modifications to the Sysout Display
routine (IKAPDISO).

Problem Determination: Table I, items 2,
4, 25c, 29.

2250 Programmer Response: The user may
wish to rerun his jobs, using either the
PRINT or PUNCH option rather than the
DISPLAY option.

IKA075I utn UNSUCCESSFUL ENQ FOR SYSOUT ddn

> **Explanation:** An attempt by the Sysout Display routine (IKAPDISO) to enqueue a SYSOUT data set was unsuccessful. In the message text, ddn is the name of the DD card, and utn is the 2250 unit on which the error occurred. This message appears only in the printed output.
>
> **System Action:** The SYSOUT display is ended, but the graphic job processor will continue.
>
> **Programmer Response:** Probable user error. Check for recent installation modification to the Sysout Display routine (IKAPDISO).
>
> **Problem Determination:** Table I, items 2, 4, 25c, 29.
>
> **2250 Programmer Response:** The user may wish to rerun his jobs, using either the PRINT or PUNCH option rather than the DISPLAY option.

IKA076I utn UNSUCCESSFUL DEL FOR SYSOUT ddn

> **Explanation:** The Sysout Display routine (IKAPDISO) made an unsuccessful attempt to delete a SYSOUT data set. In the message text, ddn is the name of the DD card, and utn is the 2250 unit on which the error occurred. This message appears only in the printed output.
>
> **System Action:** The SYSOUT display is ended, but the graphic job processor will continue.
>
> **Programmer Response:** Probable user error. Check for recent installation modifications to the Sysout Display routine (IKAPDISO).

> **Problem Determination:** Table I, items 2, 4, 25c, 29.
>
> **2250 Programmer Response:** The user may wish to rerun his jobs, using either the PRINT or PUNCH option rather than the DISPLAY option.

IKA999I utn lmd ddd

> **Explanation:** The Internal Error Routine (IKAIERR) was entered by the module lmd with message number ddd, in decimal. This message number could not be located in the Internal Error message module (IKAMERRO). In the message text, utn is the unit name of the 2250 unit or 1130/2250 subsystem on which the error occurred. This message appears on the 1052 and in the printed output.
>
> **System Action:** The graphic job processor or satellite graphic job processor associated with the partition or region in which the error was detected is terminated and then restarted.
>
> **Operator Response:** Inform the user on unit or subsystem utn to log on again and redefine the job. Inform the programmer of the error.
>
> **Programmer Response:** Examine the module lmd and the Internal Error Message module (IKAMERRO) for recent installation modifications.
>
> **Problem Determination:** Table I, items 2, 4, 25c, 29.
>
> **2250 or 1130/2250 Programmer Response:** Cause initial attention, log on again, and redefine the job. Consult your programmer.

IKA

Component Name	IKD
Program Producing Message	Satellite Graphic Job Processor.
Audience and Where Produced	For programmer: 1130/2250 subsystem or SYSPRINT data set. For operator: console.

Message Format	IKDnnnI text
	
	nnn
	    Message serial number.
	text
	    Message text.

Comments	The PRINTED RECCRD option on the LOG ON frame must be selected in order to insure the reception cf all messages.
Associated Publications	IBM System/360 Cperating System and 1130 Disk Mcnitcr System: User's Guide for Job Control From an IBM 2250 Cisplay Unit Attached to an IBM 1130 System, GC27-6938
Problem Determination	Refer to the fold-out in part VI of this publication for problem determiantion instructions.

IKD001D utn - INITIALIZATION FAILURE

Explanation: Communication was not established with SGJP in the 1130/2250 subsystem. The failure resulted from either mismatched passwords or transmission-line errors. If SGJP had control, this condition was indicated by a return code from the data transmission subroutine that performs initialization (GTNIT). In the message text, utn is the unit name of the 1130/2250 subsystem on which the error occurred. This message appears on the 1052; if SGJP had control, it also appears in the printed output.

System Action: The initial processor or SGJP waits for a response from the operator.

Operator Response: Enter either an R to retry the operation or a C to cancel SGJP or the initial processor. If the SGJP is to be canceled, first ensure that it is in operation in subsystem utn. If the initial processor is canceled, a VARY ONGFX command for the unit must be issued to restart the initial processor.

Programmer Response: Examine the initial processor or satellite graphic job processor routines for recent installation modifications.

Problem Determination: Table I, items 2, 4, 25c, 29.

IKD002D utn - LINE ERROR

Explanation: An input/output error occurred, and standard error recovery

procedures were unsuccessful. If SGJP had control, this condition was indicated by a return code from the data transmission subroutine that tests read and write requests (GTCIT). In the message text, utn is the unit name of the 1130/2250 subsystem on which the error occurred. This message appears on the 1052; if SGJP had control, it also appears in the printed output.

System Action: The initial processor or SGJP waits for a response from the operator.

Operator Response: Enter either an R to retry the operation or a C to cancel SGJP or the initial processor. (This message is preceded by an input/output error message which, in certain cases, requests operator intervention.) If the initial processor is canceled, a VARY CNGFX command for the unit must be issued to restart the initial processor.

Programmer Response: Examine the initial processor or satellite graphic job processor routines for recent installation modifications.

Problem Determination: Table I, items 2, 4, 25c, 29.

IKD003D utn - SYNCHRONIZATION ERROR

Explanation: The requested operation was not completed. This error occurred either because both the System/360 and the 1130/2250 subsystem were in read mode, or because the 1130/2250 subsystem terminated communication. The condition was

indicated by a return code from the data
transmission subroutine that tests read
and write requests (GTCLT). In the
message text, utn is the unitname of the
1130/2250 subsystem on which the error
occurred. This message appears on the
1052 and in the printed output.

System Action: SGJP waits for a response
from the operator.

Operator Response: Enter either an R to
retry the operation or a C to cancel SGJP.

Programmer Response: Probable user error.
Examine the satellite graphic job
processor routines for recent installation
modifications.

Problem Determination: Table I, items 2,
4, 25c, 29.

IKD004I utn - CANCELED BY OPERATOR

Explanation: In response to message
IKD001D, IKD002D, or IKD003D, the operator
entered a C to cancel SGJP. In the
message text, utn is the unit name of the
1130/2250 subsystem for which SGJP was
canceled. This message appears only in
the printed output.

System Action: SGJP is terminated for
subsystem utn.

Programmer Response: None, if the
operator canceled SGJP in response to a
preceding message. Otherwise, examine the
satellite graphic job processor routines
for recent installation modifications.

IKD005I utn - DCB NOT OPENED

Explanation: An attempt to open the data
control block (DCB) for the 1130/2250
subsystem used by the initial processor
for SGJP was unsuccessful. In the message
text, utn is the unit name of the
1130/2250 subsystem. This message appears
only on the 1052.

System Action: The initial processor for
SGJP is terminated.

Operator Response: None. However, in
order to start the initial processor
again, a VARY ONGFX command must be issued
for the unit.

Programmer Response: Probable user error.
Examine the initial processor for SGJP
(IKDINPRO) and the cataloged procedure
SGJPutn for recent installation
modifications.

Problem Determination: Table I, items 2,
4, 25c, 29.

Component Name	IKF
Program Producing Message	American national standard COBOL compiler.
Audience and Where Produced	For programmer: compiler listing in SYSPRINT data set. For operator: console.
Message Format	yyy IKFnnnnI-x sentence1. sentence2. (in SYSPRINT) xx IKFnnns text (cn console) yyy 　　Card number of statement where error was detected. nnnn 　　Message serial number. x 　　Severity code indicating effect of error cn execution of 　　American National Standard COBOL program being compiled: 　　W Warning message; successful execution is probable. 　　C Conditional message; the compiler made a corrective 　　　 assumption; compilation was continued to permit debugging; 　　　 execution may fail. 　　E Error message; serious error was found; the compiler did not 　　　 make a corrective assumption; the erroneous statement was 　　　 omitted from the compilation; execution should not be 　　　 attempted. 　　D Disastrous error message; compilation was terminated; 　　　 execution would produce unpredictable results. sentence1. 　　Message text describing the error. sentence2. 　　Message text describing the compiler action as a result of the 　　error. Sentence2 is not present in messages with 3nnn serial 　　numbers; 3nnn messages appear with other messages that describe 　　compiler action. xx 　　Message reply identification (absent, if operator reply not 　　required). s 　　Type code: 　　A Action; operator must perform a specific action. 　　D Decision; operator must choose an alternative. 　　I Information; no operator action is required. text 　　Message text.
Comments	IKF messages are not included in this publication. They are documented in the publication IBM System/360 Operating System: American National Standard COBOL Programmer's Guide, GC28-6399. If your installation uses American National Standard COBOL frequently, you may prefer to have the IKF messages in this publication; the index tab on this page is provided so that you can remove the IKF messages from the Programmer's Guide and insert them here. For routing and descriptor codes of IKF messages, see Table 31 in Part V of this publication: "Routing and Descriptor Codes."
Associated Publications	IBM System/360 Operating System: 　　American National Standard COBOL Programmer's Guide, GC28-6399

IKF

Time Sharing Option (TSO) Messages (IKJ)

Component Name	IKJ
Program Producing Message	Time Sharing Cption
Audience and Where Produced	Fcr Prcgrammer: SYSCUT data set. For Operator: console.

Message Format	IKJnnnI text (on SYSCUT)
	xx IKJnnns text (on conscle)
	nnn
	    Message serial number.
	text
	    Message text.
	xx
	    Message reply identificaticn (absent, if cperatcr reply not required).
	s
	    Type code:
	    A Action; the operator must perfcrm a specific acticn.
	    D Decision; operator must chccse an alternative.
	    E Eventual action; operatcr must perfcrm a specific action when he has time.
	    I Information; no operator acticn required.

Comments	TSO messages directed to the terminal user are self-dccumenting and are therefore not included in this section; thcse that require installation action in correcting an error ccnditicn, hcwever, are listed at the end of this secticn.
Problem Determination	Refer to the fold-out in part VI cf this publicaticn fcr prcblem determination instructions.

IKJ000I cm userid

Explanation: The ccmmand verb and operand identified by cm were entered from a TSC terminal by a user identified by userid.

System Action: The command, cm, is processed.

Operator Response: None.

IKJ001C START ERROR - REPLY 'MEMBER NAME', 'U' CR 'CANCEL'

Explanation: Either the member name specified in the START command or default member IKJPRM00 could be fcund in SYS1.PARMLIB.

System Action: The system waits for the operator tc respond.

Operator Response: Probable user error. Do one of the following:
• Enter REPLY xx,'member name' making sure that the correct member name is specified.
• Enter REPLY xx,'U' tc indicate that default member IKJPRM00 shculd be used.
• Enter REPLY xx,'CANCEL' tc terminate the START TS job step.

Problem Determination: Table I, items 2, 4, 29. Execute the IEHLIST utility

program with the LISTPCS parameter to cbtain a list cf all SYS1.PARMLIB members.

IKJ002D START ERROR - REPLY 'LIST', 'U', OR 'CANCEL'

Explanaticn: The LIST parameter of the START ccmmand (the seccnd pcsitional keywcrd within the parentheses) is specified inccrrectly.

System Acticn: The system waits for the cperatcr tc respcnd.

Cperatcr Respcrse: Prcbable user error. Dc cne cf the fcllcwing:
• Enter REPLY xx,'LIST' tc cbtain a list cf the parameter area.
• Enter REPLY xx,'U' tc indicate the default value, NC LIST.
• Enter REPLY xx,'CANCEL' tc terminate the START TS jcb step.

Prcblem Determiraticn: Table I, items 2, 4, 29.

IKJ003D START ERROR - REPLY 'FORM', 'FORM=ALL', 'U', CR 'CANCEL'

Explanaticn: The FCRM parameter of the START ccmmand (the third pcsiticnal keywcrd within the parentheses) is specified inccrrectly.

IKJ

IKJ Messages - TSO 535

System Action: The system waits for the
operator to respond.

Operator Response: Probable user error.
Do one of the following:
• Enter REPLY xx,'FORM' to format a
  specific swap data set.
• Enter REPLY xx,'FORM=ALL' to format all
  the swap data sets.
• Enter REPLY xx,'U' to indicate the
  default value, NO FORM.
• Enter REPLY xx,'CANCEL' to terminate the
  START TS job step.

Problem Determination: Table I, items 2,
4, 29.

IKJ004I START REJECTED - OPEN FAILED FOR
SYS.PARMLIB

Explanation: An I/O error prevented the
opening of the SYS1.PARMLIB data set.

System Action: The START TS job step is
terminated.

Operator Response: Reenter the START
command.

Problem Determination: Table I, items 2,
4, 29.

IKJ005I MEMBER OF SYS1.PARMLIB NOT FOUND

Explanation: Neither the member name
specified in the START command nor default
member IKJPRM00 could be found in
SYS1.PARMLIB.

System Action: The system waits until the
operator responds to message IKJ001D which
follows this message.

Operator Response: None.

IKJ006I START REJECTED - I/O ERROR READING
SYS1.PARMLIB

Explanation: An I/O error occurred when
an attempt was made to read a member of
SYS1.PARMLIB.

System Action: The START TS job step is
terminated.

Operator Response: Reenter the START TS
command. If the problem recurs, restore
the disk pack containing the SYS1.PARMLIB
data set onto another pack and issue the
START TS command again.

Problem Determination: Table I, items 2,
4, 29.

IKJ007I START REJECTED - TIME SHARING IS IN
PROGRESS

Explanation: A START TS command was
entered when the time sharing option was
already active. Only one START command is
accepted for the time sharing option at a
time.

System Action: The second START TS
command will be rejected.

IKJ008I BLDL FAILED FOR MODULE mcd FOR TSO LINK
PACK AREA

Explanation: A BLDL macro instruction
module mcd in the Time Sharing Link Pack
Area list failed.

System Action: Module mcd is ignored.
The START TS job step continues.

Operator Response: Probable user error.
Report the problem to the installation's
systems programmer.

Programmer Response: Execute the IEHLIST
utility program, specifying the LISTPDS
option, to ensure that there is a copy of
module mod in SYS1.LINKLIB. If the module
is in SYS1.LINKLIB, instruct the operator
to reenter the START TS command.

Problem Determination: Table I, items 2,
4, 13, 29. Execute the IEBPTPCH utility
program to list the member of SYS1.PARMLIB
which was specified in the START TS
command.

IKJ009I START REJECTED - BLDL FAILED FOR A TSO
MODULE

Explanation: A BLDL macro instruction
which was issued for all TSO modules
failed for one of the modules.

System Action: The START TS job step is
terminated.

Operator Response: Probable user error.
Report the problem to the installation's
systems programmer.

Programmer Response: Execute the IEHLIST
utility program, specifying the LISTPDS
option, to ensure that there are copies of
all the TSO modules for which the BLDL
macro instruction was issued in
SYS1.LINKLIB. If the required modules are
in SYS1.LINKLIB, instruct the operator to
reenter the START TS command.

Problem Determination: Table I, items 2,
4, 13, 29. Execute the IEBPTPCH utility
program to list the member of SYS1.PARMLIB
which was specified in the START TS
command.

IKJ010I START REJECTED - BLDL FAILED FOR A TSO
DRIVER MODULE, mcd

Explanation: A BLDL macro instruction
which was invoked for the TSO driver
modules, failed for module mcd.

System Action: The START TS job step is
terminated.

Operator Response: Probable user error.
Report the problem to the installation's
systems programmer.

Programmer Response: Execute the IEHLIST
utility program, specifying the LISTPDS
option, to ensure that module mcd is in
SYS1.LINKLIB. If the module is in

SYS1.LINKLIB, instruct the operator to reenter the START TS command.

Problem Determination: Table I, items 2, 4, 29. Execute the IEBPTPCH utility program to list the member of SYS1.PARMLIB which was specified in the START TS command.

IKJ011I START REJECTED - MODULE, mod, COULD NOT INITIALIZE

Explanation: Module mod was not able to compute the amount of main storage it needed for initialization.

System Action: The START TS job step is terminated.

Operator Response: If no messages have been issued by module mod indicating failure to compare the amount of main storage needed for initialization, see the Problem Determination section below.

Problem Determination: Table I, items 2, 4, 29.

IKJ012I DRIVER=(PARAMETER DOES NOT HAVE A RIGHT PARENTHESIS

Explanation: A right parenthesis was omitted from the DRIVER= parameter of the START TS command.

System Action: Message IKJ067I is issued to indicate that the keyword (DRIVER) will be ignored. Execution of the START TS job step continues.

Operator Response: None required. To prevent the problem from recurring, place a right parenthesis after the DRIVER= parameter when the START TS command is reentered.

IKJ013I {LPA= } PARAMETER IS NOT ALLOWED ON THE {DUMP=}

START COMMAND

Explanation: LPA= and DUMP= parameters are not valid in the START TS command.

System Action: Message IKJ067I is issued to indicate that the keyword (LPA or DUMP) will be ignored. Execution of the START TS job step continues.

Operator Response: None required.

IKJ014I START REJECTED - I/O ERROR SEARCHING

Explanation: An I/O error occurred while the directory of SYS1.LINKLIB was being searched. As a result, the TSO modules cannot be loaded into main storage.

System Action: The START TS job step is terminated.

Operator Response: Reenter the START TS command.

Problem Determination: Table I, items 2, 4, 29.

IKJ015I THE TIME SHARING SYSTEM CANNOT BE INITIALIZED

Explanation: A return code of 8 was received by the Time Sharing Control (TSC) task from either the SWAP, Terminal Input/Output Control (TIOC), Driver or TSO Dump initialization routines. The routine sending the return code could not complete initialization.

System Action: The START TS job step is terminated.

Operator Response: If no messages dealing with this problem have been issued by the module which could not complete initialization.

Problem Determination: Table I, items 2, 4, 29.

IKJ016I REGNMAX=nn - REGIONS STARTING=xx

Explanation: In the message text, nn is the maximum number of regions specified for this START TS command. The operator has started xx of these regions at this time.

System Action: The system continues executing the START TS command.

Operator Response: None required. If more regions are to be started the MODIFY command can be entered when TSO initialization is completed.

IKJ017I SMF NOT ACTIVE, SMF PARAMETER IGNORED

Explanation: SMF foreground options cannot be set because SMF is not active.

System Action: The system will continue executing the START TS command, or the MODIFY TS command, but the SMF parameters in SYS1.PARMLIB on the command are ignored.

Operator Response: None.

IKJ018I SMF CPI BIT IS SET - SMF PARAMETER IGNORED

Explanation: The operator intervention bit (CPI) is set to 1. Values assigned to SMF at system generation time may not be overridden by the operator in the START TS command or the MODIFY TS command.

System Action: The keyword (SMF) will be ignored. Execution of the START TS or MODIFY TS command continues.

Operator Response: None required.

IKJ019I TSC IS INITIALIZED

Explanation: The time sharing system initialization is complete. The system will now accept MODIFY and STOP commands, or LOGONS.

IKJ

System Action: The Time Sharing System waits until a MODIFY or STOP command or a LOGON is issued.

Operator Response: None.

IKJ021I START REJECTED - INVALID CORE REQUEST FCR TSC REGION

Explanation: The main storage size computed for the TSC region cr specified by the installation is larger than the dynamic main storage allocated for the machine.

System Action: That START TSO command is rejected.

Operator Response: Probable user error. Reenter the Start TSO ccmmand.

Problem Ceterminaticn: Table I, items 2, 11, 29.

IKJ024D TSO STOP IN PROGRESS, REPLY 'U', OR 'FSTOP'

Explanation: The operator has entered a STOP command and normal STOP processing is in progress.

System Action: The TSO subsystem continues normal STOP processing until a reply is received.

Operator Response: If the TSO subsystem appears to be terminating ncrmally, a reply is not necessary. Reply 'U' if you wish TSO to continue normal STOP processing and would like message repeated as a reminder. After ccnsulting your installaticn's system programmer, reply 'FSTOP' if TSO appears to be unable to terminate normally. This will cause Out-of-Core-ABEND to be initiated for each user still active. When all regions have been terminated, the Time Sharing Control task will terminate. Ncte: This method of abnormally terminating users may leave data sets open and some data sets allocated.

Problem Determination: Table I, items 2, 7ab, 11, 29. Execute the IEBPTPCH utility to obtain a list of the SYS1.PARMLIB member specified in the START TSO command. Execute the IMDPRDMP service aid program with the TSO option tc produce a SWAP dump.

IKJ025I TSO UNAELE TO TERMINATE DUE TO REGICN FAILURE

Explanation: During STOP prccessing, the Time Sharing Control task encountered one or more regions that had failed. (Message IKJ055I will have been issued at the time the region failed.)

System Action: The TSO subsystem will terminate all active regions, but will be unable to terminate the entire subsystem.

Cperatcr Respcrse: Ncne.

Prcblem Ceterminaticn: Table I, items 2, 7ab, 11, 29. Execute the IEBPTPCH utility prcgram with the LISTPCS cpticn to obtain a list cf all the members cf SYS1.PARMLIB. Execute the IMCPRDMP service aid program with the TSO ccrtrcl statement tc produce a swap dump.

IKJ026I HCL ANC REGSIZE SPECIFIED FOR SAME REGICN=n

Explanaticn: A MOCIFY command was entered specifying bcth the HOLC and REGSIZE opticns fcr the same regicn number "n".

System Action: Nc acticn is taken to mcdify any regicn. Message IKJ027D is issued.

Cperatcr Respcrse: Ncne.

IKJ027D REFLY 'HOLC', 'REGSIZE', 'U', OR 'CANCEL'

Explanaticn: A MOCIFY command was entered specifying bcth the HOLC and REGSIZE opticns fcr the same regicn.

System Acticn: Nc acticn is taken to mcdify any regicn until after the reply is received.

Cperatcr Respcrse: Reply HOLD if you want the HCLC functicr tc be prccessed for this regicn. Reply REGSIZE if ycu want the REGSIZE functicn tc be prccessed for this regicn. Reply U if ycu want bcth keywords tc be igncred fcr this regicn. Reply CANCEL if you want the whcle MODIFY ccmmand tc be cancelled.

IKJ030I ddname,xxxxx,yyyyy SWAP CATA SET FORMAT

Explanaticn: The SWAP data set related to ddname has been fcrmatted. In the message text, xxxxx is the tctal number of SWAP allccaticn units available cn the data set, and yyyyy is the total number of SWAP allccation units fcrmatted withcut error.

System Action: Prccessing continues.

Cperatcr Respcrse: Ncne.

IKJ031I SWAP CATA SET(S) ARE FULL

Explanaticn: All the space on the SWAP data set(s) has been allccated to TSO users. There are either tcc few SWAP data sets, cr the SWAP data sets which exist are nct large encugh fcr the current load of TSC users.

System Acticn: Prccessing continues.

Cperatcr Respcrse: Prcbable user error. Nc acticn is required, but ycu may reduce the number cf lcgged cn TSO users to relieve the cverlcad, cr STOP TS and START TS with mcre cr larger SWAP data sets.

Prcblem Ceterminaticn: Table I, items 2, 29.

IKJ032I ERROR SWAPPING IN USER, TJID=nnnn

    Explanation: An I/O error has occurred
    swapping in TSO user nnnn.

    System Action: This user is disconnected
    from the system. Other users in this
    region can continue to process and other
    users can be logged on specifying this
    region.

    Operator Response: None.

IKJ033I ddname SWAP DATA SET OPEN FAILED

    Explanation: An OPEN macro instruction
    for the SWAP data set related to ddname
    has failed or the swap data set allocation
    was invalid.

    System Action: The START TS job step is
    terminated.

    Operator Response: Reenter the START TS
    command. If the message recurs, check for
    proper swap data set allocation. If the
    allocation is correct, report the problem
    to the installation's system programmer.

    Programmer Response: None.

    Problem Determination: Table I, items 2,
    4, 7ab, 29.

IKJ034D FORMAT ddname SWAP DATA SET, REPLY 'YES'
OR 'NO'

    Explanation: The operator has entered the
    FORM parameter in the START TS command.
    The SWAP data set related to ddname is now
    formatted. The operator has the option of
    reformatting this SWAP data set.

    System Action: The system waits for the
    operator to respond.

    Operator Response: Enter one of the
    following:
    • Enter REPLY xx,'YES' to indicate that
      the SWAP data set is to be formatted.
    • Enter REPLY xx,'NO' to indicate that the
      SWAP data set is not to be formatted.

IKJ035I ddd INVALID SWAP DEVICE, ddname

    Explanation: A SWAP data set related to
    ddname was allocated to device ddd which
    is not supported by TSO SWAP. TSO SWAP
    supports only the 2311 Disk Storage Drive,
    the 2314 Direct Access Storage Facility,
    and the 2301 and 2303 Drum Storage
    Devices.

    System Action: The START TS job step is
    terminated.

    Operator Response: Probable user error.
    Report this message to the installation's
    system programmer.

    Programmer Response: Ensure that the job
    control statements used in this START of
    TSO specify the correct UNIT parameter for
    the SWAP data sets.

    Problem Determination: Table I, items 2,
    4, 29.

IKJ036I SWAP DATA SET STRUCTURE INVALID

    Explanation: The structure of serial
    and/or parallel SWAP data sets is invalid.

    System Action: The START TS job step is
    terminated.

    Operator Response: Probable user error.
    Report this message to the installation's
    systems programmer.

    Programmer Response: Ensure that the job
    control statements for the SWAP data sets
    used in the START of TSO are correct.
    Possible errors are:
    • A missing DD card for the SWAP data
      sets.
    • Missing serial levels.
    • Multiple parallel levels.
    • SWAP data sets at a parallel level do
      not have the same device type specified.

    Problem Determination: Table I, items 2,
    4, 29.

IKJ037I I/O ERROR WHILE SWAPPING OUT TJID=xxxx

    Explanation: A permanent I/O error was
    encountered while attempting to swap out
    the user whose TJID is "xxxx".

    System Action: The system will mark the
    failing unit of the swap data set as
    unavailable and will attempt to swap the
    user out to a different part of the data
    set.

    Operator Response: None. The next time
    TSC is started, the FORM=ALL option should
    be specified on the START command or the
    problem may recur.

    Problem Determination: Table I, items 2,
    4, 29.

IKJ040D RESPECIFY 'BACKGROUND=nn' OR 'CANCEL'

    Explanation: The BACKGROUND=nn Driver
    keyword was specified incorrectly in the
    MODIFY TS command issued at the operator's
    console for the IBM-supplied Driver. In
    the message text nn is the percentage of
    available TSO time guaranteed for
    processing background jobs. Message
    IKJ041I precedes this message.

    System Action: The system waits for the
    operator to respond.

    Operator Response: Probable user error.
    Enter one of the following:
    • Enter REPLY xx,'BACKGROUND=nn' to
      specify the percentage of available TSO
      time which will be guaranteed for
      processing background jobs.
    • Enter REPLY xx,'CANCEL' to nullify the
      incorrect MODIFY TS command.

    Problem Determination: Table I, items 2,
    29.

IKJ

IKJ041I BACKGROUND PERCENTAGE INVALID

    Explanation: The BACKGROUND=nn Driver
    keyword was specified incorrectly in the
    MODIFY TS command issued by the operator
    for the IBM-supplied TSO Driver.

    System Action: The system issues message
    IKJ040D.

    Operator Response: Probable user error.
    Reply to message IKJ040D.

    Problem Determination: Table I, items 2.
    29.

IKJ043D RQEL PARM NOT SUPPLIED FOR REGION nn
        SPECIFY OR CANCEL

    Explanation: The keyword
    SUBQUEUES(nn)=xxx for region number nn was
    not specified for the IBM-supplied TSO
    Driver. Each TSO region must have the
    number of Region Queue Elements (RQEIs)
    (from 1-15) specified. If this
    information is not in SYS1.PARMLIB, the
    driver initialization routine requests the
    information from the operator.

    System Action: The system waits for the
    operator to respond.

    Operator Response: Probable user error.
    Enter one of the following:
    • Enter REPLY xx,'subqueues(nn)=x' where n
      is the region number and x is the number
      of RQELs for region n.
    • Enter REPLY xx,'CANCEL' to terminate the
      START TS job step.

    Problem Determination: Table I, items 2,
    29.

IKJ050I UNABLE TO START TS REGION nn - PROTECTION
        KEY UNAVAILABLE

    Explanation: Time sharing region nn could
    not be started because all protection keys
    were assigned.

    System Action: Time sharing region nn is
    not started.

    Operator Response: To make a protection
    key available stop an initiator or allow
    an initiator to terminate. Then reenter
    the START or MODIFY TS command.

IKJ051I TIME SHARING REGION nn HAS TERMINATED

    Explanation: The time sharing region
    numbered nn has terminated.

    System Action: Processing continues.

    Operator Response: None. The MODIFY TS
    command can be used to restart time
    sharing region nn unless the region has
    terminated as the result of a STOP TSO
    command.

IKJ052I TIME SHARING REGION nn HAS STARTED

    Explanation: The time sharing region
    numbered nn has started.

System Action: Processing continues.

Operator Response: None.

IKJ053I INSUFFICIENT MAIN STORAGE AVAILABLE FOR TS
        REGION nn

    Explanation: At the time the request to
    start time sharing region nn was received,
    there was not enough unallocated main
    storage to satisfy the request. Message
    IKJ054D will follow this message.

    System Action: The system issues message
    IKJ054D.

    Operator Response: Reply to message
    IKJ054D.

IKJ054D REPLY 'RETRY' OR 'CANCEL'

    Explanation: There was not enough
    contiguous unallocated main storage to
    satisfy a user's request for a time
    sharing region. Message IKJ053I, which
    precedes this message, indicates which
    region could not be started.

    System Action: The system waits for the
    operator to respond.

    Operator Response: Do one of the
    following:
    • Enter REPLY xx,'RETRY' if, after
      entering a DISPLAY ACTIVE command, it
      appears that there is enough contiguous
      unallocated main storage for a region of
      the size requested.
    • Enter REPLY xx,'CANCEL' if there is not
      enough contiguous unallocated main
      storage to satisfy the time sharing
      region request. Wait for an initiator
      or job to terminate. Then enter a
      DISPLAY ACTIVE command to determine the
      amount of contiguous unallocated main
      storage, before trying to restart the
      region.

    Problem Determination: Table I, items 2,
    4, 29. Enter DISPLAY ACTIVE.

IKJ055I TIME SHARING REGION xx HAS FAILED-TSO
        CANNOT BE TERMINATED

    Explanation: Time sharing region xx has
    terminated itself as a result of an
    unrecoverable error. Users of the region
    have been terminated and notified, if the
    failure did not preclude notification.

    System Action: The region control task
    (RCT) TCB for the region that failed is
    set permanently nondispatchable. The
    region can be recovered only by repeating
    IPL procedures.

    A message is transmitted to each terminal
    assigned to the region to notify users
    that the region has failed. All users are
    removed from the region.

    All user terminals are disconnected from
    TSC, and the region enters a permanent
    wait condition.

In a multiregion TSO subsystem, other regions may continue to operate normally. MODIFY and STOP/MODIFY commands may be entered for the remaining active regions. However, the STOP TSO command will not terminate TSO since the RCT for the region that failed cannot be stopped and the TSC (time sharing control task) will not terminate until all RCTs have terminated. IPL procedures must be repeated before TSC may be started again.

Operator Response: The system should be allowed to quiesce in an orderly manner.

Problem Determination: Table I, items 2, 7a, 29. Make sure that a TSO Dump DD statement was included for failing start TSO procedures. Execute the IMDPRDMP service aid, specifying TSO options. The input to IMDPRDMP is the dump tape from TSO Dump. Save the formatted output.

IKJ060I START REJECTED - UNABLE TO ESTABLISH A STAE ENVIRONMENT

Explanation: The START command for the Time Sharing Option is rejected because a nonzero code was returned after a STAE macro instruction was issued to establish STAE exit protection during TSO initialization.

System Action: The START TSO processing is terminated.

Operator Response: Reenter the START command for TSO.

Problem Determination: Table I, items 1, 2, 4, 7a, 29.

IKJ061I THIS KEYWORD IS INVALID - cccccccc=nnnn

Explanation: Keyword cccccccc is not one of the acceptble time sharing time keywords. The keyword and its value nnnn are ignored.

System Action: The system issues message IKJ067I indicating that keyword cccccccc and its value nnnn will be ignored. If the MODIFY keyword is specified in the message text, the system will issue message IKJ081I.

Operator Response: Probable user error. No operator response is required. If a valid MODIFY keyword was misspelled, the MODIFY command for the correctly spelled keyword can be entered without having to reenter a START TS command. If keyword cccccccc is not included in the SYS1.PARMLIB member specified in the START TS command, request the installation's systems programmer to update the SYS1.PARMLIB member to include the keyword. Then reenter the START TS command.

IKJ062I TSC REGION nn NO LONGER AVAILABLE FOR LOGONS

Explanation: A user was unable to log on to the time sharing system because an input/output error occurred when the LOGON image for TSO user region nn was being swapped in, or because the time sharing region control task was unable to restore the LOGON image.

System Action: The TSO user currently logging on to TSC is disconnected. The TSC users currently running in region nn are allowed to run to normal completion.

Operator Response: When the current users of the region have completed, you may enter MODIFY commands to stop the region; then restart the region to give new users access to it.

IKJ063I THIS KEYWORD IS MISSING - cccccccc

Explanation: Keyword cccccccc is missing from the SYS1.PARMLIB member specified in the START TS command, or from the START TS command.

System Action: The system will issue message IKJ066D.

Operator Response: Probable user error. No operator response is required. Message IKJ066D, which will follow this message, provides the operator with the opportunity of supplying a value for the missing keyword. To avoid this problem in the future either ask the installation's system programmer to include the keyword in the SYS1.PARMLIB member specified in the START TS command, or enter the keyword in the START TS command.

Problem Determination: Table I, items 2, 29.

IKJ064I THE VALUE OF THIS KEYWORD IS INVALID - cccccccc=nnnn

Explanation: Either the value nnnn of keyword cccccccc is not within required limits or there is an error in its syntax. In some cases, the correct value will be requested by message IKJ065D or IKJ066D, which will follow this message. In all other cases, message IKJ067I will follow, indicating that keyword cccccccc and its value nnnn will be ignored.

System Action: Message IKJ066D or IKJ067I will be issued by the system. If the If the MODIFY TS command was issued from a TSC terminal in the operator mode, the MODIFY command is rejected and message IKJ081I is issued.

Operator Response: Probable user error. No operator response is required. Response to the message which follows this message (IKJ066D, IKJ067I, or IKJ081I).

Problem Determination: Table I, items 2, 29.

IKJ

IKJ066D REPLY 'keyword=value', ['U'] OR 'CANCEL''

Explanation: This message may follow
message IKJ061I (which indicates that a
keyword is invalid), message IKJ063I
(which indicates that a keyword is
missing), or message IKJ064I (which
indicates that the value of a keyword is
invalid).

System Action: The system waits for the
operator to respond.

Operator Response: Do one of the
following:
• Enter REPLY xx,'keyword=value' if the
  value attached to the missing keyword or
  the value of the incorrectly specified
  keyword is known.
• If U appears in the message text:
    1. If the message is for a START
       command, enter REPLY xx,'U' if the
       last value previously specified
       (either on the START command or in
       the PARMLIB) is to be used.
    2. If the message is for a command
       other than START, enter REPLY
       xx,'U' if this value and all
       previously specified values of the
       keyword are to be ignored.
• Enter REPLY xx,'CANCEL' to terminate the
  START TS job step.

IKJ067I THE ABOVE KEYWORD AND ITS VALUE WILL BE
IGNORED

Explanation: This message may follow
message IKJ061I or message IKJ064I, each
of which indicates that a keyword is
invalid. The START TS job step continues
but the keyword is ignored.

System Action: The system continues
executing the START TS job step.

Operator Response: Probable user error.
No operator response is required. Report
this message to the programmer responsible
for the installation.

Programmer Response: To make the ignored
keyword valid, do one of the following:
• Update the SYS1.PARMLIB member specified
  in the START TS command to include the
  keyword.
• Ask the operator to reenter the START TS
  command and include the keyword.
• If the keyword is acceptable in the
  MODIFY TS command, it is possible to
  include this keyword in the MODIFY TS
  command without reissuing a START TS
  command.

IKJ068I SMF DSA BIT IS SET - OPT=2 MUST BE USED.

Explanation: SMF data set accounting bit
is set to 1; OPT=1 or OPT=OFF was
specified but is not valid; the system has
defaulted to OPT=2.

System Action: Processing continues.

Operator Response: None.

IKJ072I cccccccc=nnnn EXCEEDS MAXIMUM OF max

Explanation: Value nnnn or keyword
cccccccc exceeds a stated or implied
maximum, max, in a MODIFY TS command.

System Action: If the MODIFY TS command
was entered from an operator console,
message IKJ066D is issued. If the MODIFY
TS command was entered from a TSO terminal
in the operator mode, the MODIFY command
is rejected and message IKJ081I is issued.

Operator Response: Probable user error.
Respond to message IKJ066D or IKJ081I.

Problem Determination: Table I, items 2,
29.

IKJ073I REGION nn NOT ACTIVE, REGSIZE/HOLD IGNORED

Explanation: A MODIFY TS command
attempted to STOP the TSO user region nn,
which was not currently active.

System Action: The system continues
normal processing. No modification is
made to region nn.

Operator Response: Probable user error.
Respond to message IKJ066D or IKJ081I.

Problem Determination: Table I, items 2,
29.

IKJ074I nn DOES NOT EXIST, REGSIZE INVALID

Explanation: A MODIFY TS command has
attempted to STOP and/or START a TSO user
region (nn) that was not defined at START
TS time.

System Action: If the MODIFY TS command
was entered from an operator console,
message IKJ066D is issued. If the MODIFY
TS command was entered from a TSO terminal
in the operator mode, the MODIFY command
is rejected and message IKJ081I is issued.

Operator Response: Probable user error.
Respond to message IKJ066D or IKJ081I.

Problem Determination: Table I, items 2,
29.

IKJ075I TSO/SMF OPTIONS CANNOT EXCEED aaaaa bbbbb

Explanation: A MODIFY TS command has
specified options for TSO that exceed the
current SMF options for the background.
In the message text, aaaaa and bbbbb are
the current background options.

System Action: If the MODIFY TS command
was issued from an operator console,
message IKJ066D is issued. If the MODIFY
TSO command was issued from a TSO terminal
in the operator mode, the MODIFY command
is rejected and message IKJ081I is issued.

Operator Response: Probable user error.
Respond to message IKJ066D or IKJ081I.

Problem Determination: Table I, items 2,
29.

IKJ076I SUM OF REGSIZE AND LSQA EXCEEDS MAX -
16382

    Explanation: A MODIFY command was entered
with the REGSIZE parameter specifying a
region size and LSQA size that total over
16382K.

    System Action: The system issues message
IKJ066D.

    Operator Response: None. Reply to
subsequent message.

IKJ078I jjj sss TSO IS STOPPING

    Explanation: As a result of a STOP TS
command, step sss of TSO job jjj is in the
process of stopping.

    System Action: Processing continues until
the STOP has completed.

    Operator Response: None.

IKJ079I jjj sss TSO HAS BEEN MODIFIED

    Explanation: Step sss of TSO job jjj has
been modified.

    System Action: Processing continues.

    Operator Response: None.

IKJ080I TSO MODIFY CANCELLED BY OPERATOR

    Explanation: The operator's 'CANCEL'
reply to message IKJ066D is being
acknowledged.

    System Action: Processing continues.

    Operator Response: None.

IKJ081I TSO MODIFY REJECTED

    Explanation: An invalid MODIFY TS command
was entered from a TSO terminal in the
operator mode. One of the following
messages preceded this message: IKJ061I,
IKJ064I, IKJ072I, IKJ073I, IKJ074I,
IKJ075I, or IKJ083I.

    System Action: Processing continues.

    Operator Response: Probable user error.
A corrected MODIFY TS command may be
entered.

    Problem Determination: Table I, items 2,
29. Instruct the terminal user to retain
the terminal listing or record what is
currently displayed on the graphics
device.

IKJ082I SMF IS OPI=NO, TSO CANNOT MODIFY

    Explanation: The keyword SMF was used in
a MODIFY TS command. At system generation
time, it was specified that operator
intervention with SMF was not allowed.

    System Action: The system ignores the SMF
keyword.

    Operator Response: Probable user error.
Instruct the terminal user to retain the
terminal listing or record what is
currently displayed on the graphics
device.

    Problem Determination: Table I, items 2,
29.

IKJ085I TSC MODIFY/STOP SUBTASK TERMINATED

    Explanation: The TSO MODIFY/STOP subtask
has terminated, and TSO can no longer
accept operator MODIFY or STOP commands.
If this capability is needed, IPL
procedures must be repeated, and a new
START command entered.

    Operator Response: None

    Problem Determination: Table I, items 2,
7a, 11, 29. If a TSO dump has been taken,
execute the IMDPRDMP service aid program.
The input to IMDPRDMP is the TSO dump.
Save the formatted output.

IKJ086I REGION nn HAS FAILED, REGSIZE/HOLD IGNORED

    Explanation: A MODIFY or STOP command has
been entered for TSO region nn. This
region has previously failed and has been
set permanently nondispatchable. Message
IKJ055I should have been issued previously
for this message.

    System Action: The system continues
normal processing. No modification is
made to region nn.

    Operator Response: Probable user error.
Respond to message IKJ066D or IKJ081I.

    Problem Determination: Table I, items 2,
29.

IKJ090I TSC DUMP FUNCTION INOPERATIVE

    Explanation: The DD statement for the
dump data set was omitted from the
subsystem job control statement, or the
dump data set could not be opened.

    System Action: Processing continues, but
the DUMP function is inoperative.

    Operator Response: Probable user error.
Include the proper DD statement for the
dump data set and reenter the START TS
command. If the dump function is not
desired, the DD statement describing the
dump data set should not be included in
the job control statements, and the
message should be ignored.

    Problem Determination: Table I, items 5b,
29. Restart TSO and save the job control
statements.

IKJ

IKJ091I TSO DUMP DATA SET ON INVALID DEVICE

    Explanation: A DD statement for the dump
    data set specifies a device not supported
    by TSO DUMP (SVC DUMP). Valid devices are
    magnetic tape devices and direct access
    storage devices with the exception of the
    2321 data cell device.

    System Action: The system ignores the DD
    statement. SVC DUMP is inoperative.

    Operator Response: Probable user error.
    Correct the DD statement for the dump data
    set and restart the job. Make sure the
    UNIT parameter on the DD statement for the
    dump data set specifies a device support
    by TSO DUMP (SVC DUMP).

    Problem Determination: Table I, items 1,
    13, 29.

**IKJ092I TSO DUMP INCOMPLETE - UNABLE TO DUMP ALL
OF STORAGE**

    Explanation: The dump writing routine
    (SVC DUMP) returned a code indicating that
    only a partial dump could be taken.

    System Action: Processing continues.

    Operator Response: Execute the IMDPRDMP
    service aid to print the dump data set.

    Problem Determination: Table I, items 13,
    29. Save the job control language
    refering to the dump data set.

**IKJ093I TSO MAIN STORAGE DUMP COMPLETE [SWAP UNITS
RESERVED]**

    Explanation: A complete dump of main
    storage has been taken to the dump data
    set. When swap units are reserved, 'SWAP
    UNITS RESERVED' will appear in the
    message.

    System Action: Processing continues.

    Operator Response: If the dump data set
    is on a direct access storage device,
    execute the IMDPRDMP service aid
    immediately so that more dumps can be
    taken if necessary. If the dump data set
    is on tape and the tape is not full, more
    dumps can be taken before IMDPRDMP is
    executed.

IKJ094I TSO DUMP OF MAIN STORAGE BYPASSED

    Explanation: The SVC DUMP routine could
    not take a dump due to a permanent
    input/output error or an invalid parameter
    list, or because a dump is currently being
    taken.

    System Action: The system bypasses the
    dumping of main storage.

    Problem Determination: If a DD statement
    describing the dump data set has been
    included in the job control statements for
    the start of TSO, check Table I, items 2,
    29. Make sure that no previous message
    was issued indicating that the dump
    function is inactive. Save the job
    control statements referring to the dump
    data set.

IKJ095I ddd TSO UNIT, DUMP DATA SET FULL

    Explanation: When a dump was requested,
    the SVC DUMP routine found that the dump
    data set on device ddd was full. No dump
    was taken.

    System Action: The dump data set is
    closed.

    Operator Response: If the data set is on
    tape, mount a fresh tape. If the data set
    is on a direct access storage device,
    execute the IMDPRDMP service aid to print
    the dump data set.

IKJ401I START TCAM BEFORE TSO

    Explanation: This message is the result
    of a START TSO command being issued, but a
    TCAM procedure was not started before TSO
    was started.

    System Action: The TSO operations are
    terminated.

    Operator Response: Start a TCAM procedure
    that supports TSO; then start TSO. If
    there is no TCAM procedure in the system
    which supports TSO, report this message to
    the installation programmer.

    Problem Determination Aid: If this
    message appears when a TCAM procedure is
    started and ready, see Table I, items 26d,
    29.

IKJ402I TCAM PROCEDURE DOES NOT SUPPORT TSO

    Explanation: This message is a result of
    a START TSO command being uss issued, but
    the TCAM procedure that was started by the
    operator does not support TSO.

    System Action: TSO is not started, but
    whatever TCAM procedure was executing will
    continue to execute.

    Operator Response: To start TSO do the
    following:
    • Stop the currently executing TCAM
      procedure.
    • Start a TCAM procedure which supports
      TSO.
    • Start TSO.

    If there is no TCAM procedure in the
    system that supports TSO, report this
    message to the installation programmer.

Programmer Response: Make certain that
the system has a TCAM procedure that
supports TSO. Check the STARTMH macro in
your Message Control Program (MCP). It
must have the operand ENVIRON=TSO to
support TSO.

IKJ403I LINEGROUP FOR DD ddn NOT OPENED

Explanation: The IBM supplied TSO-TCAM
Message Control Program was unable to open
the data control block (DCB) for the line
group data set that specified ddn as its
DDNAME.

System Action: Execution of the Message
Control Program continues with the
telecommunications line defined in this
line group unavailable for use.

Operator Response: Check the Job Control
Language used to execute the Message
Control Program to be sure that no desired
DD statements were missing.

IKJ500I BRDR OPEN ERROR code

Explanation: An error occurred while an
input data set was being opened for the
background reader. In the message text,
code is the error code returned by the
OPEN macro instruction.

System Action: The input entry is deleted
from the BRDR queue, and the background
reader terminates.

Operator Response: Enter the DISPLAY
command to list the jobs currently in the
BRDR queue. Then start the background
reader task again.

Problem Determination: Table I, items 2,
29.

IKJ501I BRDR INVALID INPUT

Explanation: The background reader found
invalid records in an input data set.

System Action: The entry is deleted from
the input queue, and the background reader
continues processing. (If the error
occurs after processing of a job has been
started, the job is terminated and a
message is issued to inform the programmer
of the failure.)

Operator Response: Issue the DISPLAY
command to the list the jobs in the
SYS1.SYSJOBQE data set. Then start the
Background Reader and issue the Display
command again, to give a 'before and
after' listing.

Problem Determination: Table I, items 2,
7a, 29.

IKJ502I BRDR SYNAD synad

Explanation: An asynchronous error
occurred while an input data set was being
processed for the background reader. In
the message text, synad represents the
error analysis data supplied by the
SYNADAF macro instruction.

System Action: The entry is deleted from
the input queue, and the background reader
continues processing. If the error caused
termination of a job, a message is issued
to inform the programmer of the failure.

Operator Response: Probable hardware
error. Issue the DISPLAY command to list
the jobs in the SYS1.SYSJOBQE data set.
Then start the Background Reader and issue
the DISPLAY command again, to give a
'before and after' listing.

Problem Determination: Table I, items 2,
8a, 29.

IKJ503I BRDR REQUIRED DD MISSING FROM PROC

Explanation: A required DD statement is
not present in the procedure used to start
the background reader.

System Action: The background reader
terminates.

Operator Response: Probable user error.
The background reader procedure should be
corrected and the task started again.

Problem Determination: Table I, items 2,
26d, 29.

IKJ504I BRDR R/I ERROR code

Explanation: An error occurred in the
reader/interpreter subroutine of the
background reader. In the message text,
code is the return code describing the
error.

System Action: The background reader
terminates.

Operator Response: Enter the DISPLAY
command to list the jobs currently in the
BRDR queue. Then start the background
reader task again. Issue the DISPLAY
command to list the jobs in the
SYS1.SYSJOBQE data set. Then start the
Background Reader and issue the DISPLAY
command again, to give a 'before and
after' listing.

Problem Determination: Table I, items 2,
8a, 29.

IKJ505I BRDR PARAMETER MISSING

Explanation: The parameter field is
missing from the procedure used to start
the background reader.

System Action: The background reader
terminates.

IKJ

Operator Response: Probable user error. Correct the background reader procedure and start the task again. Issue the DISPLAY command to list the jobs in the SYS1.SYSJOBQE data set. Then start the Background Reader and issue the DISPLAY command again to give a 'before and after' listing.

Problem Determination: Table I, items 2, 8a, 26d, 29.

IKJ506I BRDR MISSING VOL volser FOR JOB jjj

Explanation: The background reader was unable to find a volume serial containing the input data set for job jjj.

System Action: The input entry is put back on the queue, and the background reader terminates.

Operator Response: Probable user error. Make sure that the volume volser is mounted properly. Then start the background reader again. Issue the DISPLAY command to list the jobs in the SYS1.SYSJOBQE data set. Then start the Background Reader and issue the DISPLAY command again, to give a 'before and after' listing.

Problem Determination: Table I, items 2, 8a, 29.

IKJ507I BRDR INCONSISTENT VOLSER/DEVICE volser devtype

Explanation: The background reader found that a volume serial was given for an incorrect device type.

System Action: The input entry is deleted, and the background reader terminates.

Operator Response: Probable user error. Make sure that devices of different types also have different volume serial numbers. Then start the background reader again. Issue the DISPLAY command to list the jobs in the SYS1.SYSJOBQE data set. Then start the Background Reader and issue and the DISPLAY command again, to give a 'before and after' listing.

Problem Determination: Table I, items 2, 8a, 29.

IKJ508I BRDR DATA SET NOT FOUND ON VOL volser FOR JOB jjj

Explanation: The background reader was unable to find an input data set for job jjj the volume with serial number volser. This error may arise if ther is more than one volume with the same volume serial number being used in the installation. The output data set from the TSO SUBMIT command may, as a result of duplicate serial numbers, be on a different volume than the one being used at the time the background reader is processing. The error may also arise if the data set or the volume VTOC have been scratched.

System Action: The input entry is deleted. The background reader continues processing.

Operator Response: Probable user error. If the error is caused by duplicate volume serial numbers, stop the background reader and mount the correct volume.

Problem Determination: Table I, items 25a, 29.

IKJ509I BRDR QUEUE READ ERROR

Explanation: The background reader encountered an error while reading from the job queue.

System Action: The background reader terminates.

Operator Response: The background reader task may be started again if there have been no other messages indicating errors in the system job queue.

Problem Determination: Table I, items 2, 8a, 29.

IKJ510I BRDR QUEUE DELETE ERROR

Explanation: The background reader encountered an error while deleting an entry in the job queue.

System Action: The background reader terminates.

Operator Response: The background reader task may be started again if there have been no other messages indicating errors in the system job queue.

Problem Determination: Table I, items 2, 8a, 29.

IKJ511I BRDR QUEUE DEQUEUE ERROR

Explanation: The background reader encountered an error while dequeuing an entry from the job queue.

System Action: The background reader terminates.

Operator Response: The background reader task may be started again if there have been no other messages indicating errors in the system job queue.

Problem Determination: Table I, items 2, 8a, 29.

IKJ512I BRDR QUEUE ENQUEUE ERROR

Explanation: The background reader encountered an error while enqueuing an entry on the input queue.

System Action: The background reader terminates.

Operator Response: The background reader
task maybe started again if there have
been no other messages indicating errors
in the system job queue.

Problem Determination: Table I, items 2,
8a, 29.

IKJ513I BRDR JOB jjj WAS CANCELLED

Explanation: The background reader did
not interpret job jjj because job jjj had
been previously cancelled while on the
input queue.

System Action: The entry is deleted. The
background reader continues processing.

Operator Response: None.

IKJ514I BRDR INVALID VOLUME FOR JOB jjj

Explanation: The background reader found
that job jjj resided on an invalid volume.

System Action: The entry is deleted. The
background reader continues processing.

Operator Response: None.

Problem Determination: Table I, items 2,
8a, 29.

IKJ520I SUBMIT QUEUE FULL

Explanation: The system jobqueue does not
contain sufficient space for a submitted
job.

System Action: Submit processing is
terminated in the foreground. There is no
background action.

Operator Response: The operator may wish
to take action to free jobqueue records
for use in the submit queue. He may do
one of the following:
• Enter the MODIFY TS command to increase
the maximum number of jobs that the
system may contain at one time.
• Start a background reader task.
• Stop background input readers.
• Start background initiators and writers.
• Increase the percentage of CPU time
available to background tasks.
• Decrease the number and sizes of
foreground regions to allow for more
tasks in the background.

IKJ549I TIME SHARING JOB jjj CANCELLED

Explanation: The job jjj was cancelled
from a foreground terminal by a user who
specified the cancel command processor.

System Action: Processing continues.

Operator Response: None.

IKJ570I SEND NOT SUPPORTED IN THIS SYSTEM

Explanation: A SEND command was issued;
however, the time sharing option was not
included in the system at system

generation time. Therefore, the SEND
command is not operative.

System Action: The SEND command is
rejected.

Operator Response: None.

IKJ571I INVALID USERID(s) userid, userid,...

Explanation: The userid(s) specified in
the SEND command is invalid for one of the
following reasons:
• The first character is not alphabetic or
national.
• The userid contains a character (other
than the first character) which is
invalid. The only characters that are
valid are alphabetic, numeric, or
national ($ # a) characters.
• The userid is not contained in the list
of valid userids in the Broadcast data
set.

System Action: The SEND command is
rejected.

Operator Response: Reenter the SEND
command specifying the correct userid. If
the error persists, check the validity of
the userid with the system manager.

Problem Determination: Table I, item 29.
If the userid is valid, execute the
IEBPTPCH utility program to obtain a
listing of the SYS1.BRODCAST data set.
The SYSUT1 DD statement should specify
DSNAME=SYS1.BRODCAST,DISP=OLD,DCB=(RECFM=F
,LRECL=130,BLKSIZE=130). Save the output
listing of the Broadcast data set.

IKJ572I USER(S) userid NOT LOGGED ON, MESSAGE
CANCELED

Explanation: In a SEND command which does
not include the LOGON parameter, a userid
was specified which is not currently
logged on the time sharing system. The
message specified in the SEND command is
not issued to the user with the userid
specified in the message text. The
message is issued to those users with
userids which are logged on.

System Action: The message specified in
the SEND command is issued to the users,
with userids specified in the SEND
command, who are currently logged on.

Operator Response: No response is
required. If a message is to be sent to
users with userids which are not logged
on, enter the SEND command and include the
LOGON parameter.

IKJ573I SEND SYNTAX ERROR. COMMAND REJECTED

Explanation: The SEND command is invalid
for one of the following reasons:
• The command contains embedded blanks.
• A delimiter is missing such as a comma
after the message text, an equal sign
after the keyword 'USER', or a
parenthesis around the userid list.

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- The command contains an unidentifiable keyword.
- Quotation marks around the message text are missing.
- The length of the message text is less than one character.

System Action: The SEND command is rejected.

Operator Response: Reenter the SEND command correctly.

IKJ574I NO SPACE IN BROADCAST DATA SET FOR
{MAIL   }
{NOTICES}

Explanation: The portion of the Broadcast data set needed to contain a SEND message record is full:
1. MAIL - The SEND command specifies 'USER' and 'LOGON', but no free space is available in the user mail section of the Broadcast data set to contain the SEND message.
2. NOTICES - The SEND command specifies 'LOGON' and does not specify 'USER', no free space is available in the Broadcast notice section to contain the SEND message.

System Action: The SEND message is sent to all specified users currently logged on however, the message is not saved in the Broadcast data set for those users not currently logged on.

Operator Response: Case 1 is a temporary situation. Space will be available in the mail section of the Broadcast data set as soon as a user for whom a message is intended enters a LOGON or LISTBC command. For case 2, it is necessary to free a Braodcast message number by issuing a SEND command with the 'DELETE' parameter specified.

IKJ575I DATA SET SYS1.BRODCAST NOT USABLE

Explanation: A SEND command was issued but the Broadcast data set could not be used for one of the following reasons:
1. The volume containing the SYS1.BRODCAST data set was not mounted.
2. An input/output error occurred during send processing of the SYS1.BRODCAST data set.

System Action: If 'USER' was specified in the SEND command, the message is issued to the specified users currently logged on to the time sharing system. Otherwise, processing in the Broadcast data set is terminated at the point the error is detected.

Operator Response: For case 1, make sure that the volume containing the SYS1.BRODCAST data set is mounted. For case 2, reenter the SEND command.

Problem Determination: Table I, items 25a, 29.

IKJ576I NO BROADCAST MESSAGE(S)

Explanation: One of the following occurred when a SEND command was issued:
- If the parameter msgno was specified, either there was no Broadcast notice message for the particular message number specified, or the message number specified exceeded the maximum value set at system generation time.
- If the 'LIST' parameter was specified (without msgno) there were no Broadcast notice messages in the Broadcast data set.

System Action: None.

Operator Response: None.

IKJ578I BROADCAST MSGNO=nn

Explanation: A SEND command has been issued with the 'LOGON' parameter specified. The SEND message text is entered in the Broadcast data set with the message number nn.

System Action: A message is entered in the Broadcast data set and is assigned message number nn.

Operator Response: None.

IKJ579I CANNOT EXECUTE SEND

Explanation: The SEND command handling routines are unable to perform their functions for one of the following reasons:
- There is an insufficient amount of core available.
- An internal error has occurred in one of the Send modules.

System Action: Send processing is terminated at the point the error is detected.

Operator Response: Reenter the SEND command.

Problem Determination: Table I, items 11, 29.

IKJ580I MESSAGE TRUNCATED TO 115 CHARACTERS

Explanation: A SEND command specified message text that was greater than the maximum of 115 characters allowed.

System Action: The message text is truncated to 115 characters.

Operator Response: None.

IKJ600I TSOLOGON (I/O) ERROR,DDNAME ddname,
     {OBTAIN}
     (OPEN)
  USER {userid } , PROC {procname}
    {UNKNOWN} {UNKNOWN }

  Explanaticn: TSO LOGON was unsuccessful
  in performing one of the indicated
  operations (I/O, OBTAIN, or OPEN). In the
  message text, ddname refers to the DD
  statement defining the data set being
  referenced when the errcr cccurred. The
  message text also includes the user
  identification (userid) of the user being
  serviced when the error occurred and the
  procedure name, procnarre, which the user
  had selected unless they are unknown to
  TSO LOGON at the time cf the error.

  System Action: The system disconnects the
  user from the TSO subsystem after
  transmitting message IKJ56452I to the
  user's terminal and invcking the TSO Dump
  facility to provide a dump fcr error
  analysis.

  Operator Response: Probable hardware
  error.

  Problem Determinaticn: Table I, items 2,
  4, 7a, 29. Make sure that a SYSTSDP DD
  statement was included in the time sharing
  procedure. Execute the IMDPRDMP service
  aid for the dump data set tc cbtain a
  formatted listing of the dump, and save
  the output.

IKJ601I TSOLOGON ABEND nnn, USER{userid },
           {UNKNOWN}
  PROC{procname}
    {UNKNOWN }

  Explanation: Conditions leading to an
  abnormal termination with ccde nnn have
  arisen in a TSO LOGON rcdule. In the
  message text, userid is the identification
  of the user being serviced by TSO IOGCN
  when the abnormal terminaticn cccurred,
  and procnare is the name of the procedure
  that the user requested. If the userid or
  procedure name are not known, UNKNOWN
  appears in the message text.

  System Action: The system terminates the
  TSO LOGON function in which the abnormal
  termination occurred after attempting to
  transmit message IKJ56452I tc the terminal
  on whose behalf TSO LOGON was operating.
  It then disconnects the terminal from the
  TSO subsystem after invcking the TSO Dump
  facility to provide a dump fcr error
  analysis.

  Operator Response: None.

  Problem Determinaticn: Table I, items 2,
  4, 7a, 29. Make sure that a SYSTSDP DD
  statement was included in the time sharing
  procedure. Execute the IMDPRDMP service
  aid for the dump data set tc obtain a
  formatted listing of the dump, and save
  the output.

IKJ602I INCCNSISTENT AUTHORIZATION DATA FOR userid

  Explanaticn: A data cr ccntrcl field
  within the User Attribute Data Set (UADS)
  fcr the user with the userid specified in
  the message is inccrrect. The
  authcrizaticn data cannct be used for
  LOGCN frocessing.

  System Action: The system cffers the
  terminal user the chcice cf logging on
  with a different userid, cr logging off.

  Cperatcr Respcrse: Fcr diagncstic
  purpcses it is desirable tc freeze the
  UADS data fcr 'userid' until the cause of
  the difficulty has been isclated.
  Hcwever, if rapid restcraticn of the
  authcrization data fcr 'userid' is
  necessary, it can be restcred by
  perfcrming the fcllcwing reccvery
  cperaticns:
  • Use the DELETE subccmmand cf the ACCOUNT
   ccmmand tc purge the damaged data for
   'userid' frcm the UADS.
  • Use the ADD subccmmand cf the ACCOUNT
   ccmmand to reenter valid authcrization
   data.

  Prcblem Determinaticn: Table I, items 29.
  Execute the IMASPZAP service aid tc obtain
  a dump fc the directcry blccks cf the UADS
  and all members cf UADS which ccntain
  'userid' as the first characters of the
  member name. Execute the LISTIDR function
  cf IMPLIST fcr SYS1.LINKLIB and
  SYS1.CMDLIB tc cbtain a list cf all
  members with a PTF cr local fix. Have a
  listing available cf any lccal programs or
  prccedures used tc access cr mcdify the
  UADS.

IKJ603I TSOLOGON TERMINATED. INSTALLATION EXIT
  {ABEND} nnn
  {ERRCR}

  Explanaitcn: A rcutine prcvided by the
  installaticns's systems prcgrammer to
  augment cr mcdify IBM's standard LOGON
  prccessing has failed. If the failure
  tcck the fcrm cf a system abncrmal
  terminaticn, the wcrd ABEND appears in the
  message text, and ccde nnn is the system
  ccmpleticn ccde. Ctherwise, the word
  ERRCR appears in the message text, and
  ccde nnn is the errcr ccde develcped by
  TSO LOGON upcn analysis of the parameters
  returned by an exit rcutine. These error
  ccdes and their meanings are as follows:

  Ccde Explanaticn

  004 The address cf the ccntrcl switch
    buffer passed tc the Pre-Prompt Exit
    was altered during exit execution.
  008 The ccntrcl switches buffer length
    passed tc the Pre-Prcmpt Exit was
    altered during exit execution.
  012 The length cf the ccntrol switches
    returned by the Pre-Prcmpt Exit was
    lcnger than the buffer or less than
    zerc.
  016 The address cf the ccmmand buffer
    passed tc the Pre-Prcmpt Exit was
    altered during exit execution.

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020 The command buffer length passed to the Pre-Prompt Exit was altered during exit execution.
024 The length of the command returned by the Pre-Prompt Exit was longer than the buffer or less than zero.
028 The address of the userid buffer passed to the Pre-Prompt Exit was altered during exit execution.
032 The userid buffer length passed to the Pre-Prompt Exit was altered during exit execution.
036 The length of the userid returned by the Pre-Prompt Exit was longer than the buffer or less than zero.
040 The Pre-Prompt Exit returned a zero length userid for LOGON processor use.
044 The Pre-Prompt Exit returned an unauthorized userid for LOGON processor use.
048 The address of the password buffer passed to the Pre-Prompt Exit was altered during exit execution.
052 The password buffer length passed to the Pre-Prompt Exit was altered during exit execution.
056 The length of the password returned by the Pre-Prompt Exit was longer than the buffer or less than zero.
060 The Pre-Prompt Exit returned an unauthorized password for LOGON PROCESSOR USE.
064 The address of the account buffer passed to the Pre-Prompt Exit was altered during exit execution.
068 The account buffer length passed to the Pre-Prompt Exit was altered during exit execution.
072 The length of the account returned by the Pre-Prompt Exit was longer than the buffer or less than zero.
076 The Pre-Prompt Exit returned an unauthorized account for LOGON processor use.
080 The address of the procedure name buffer passed to the Pre-Prompt Exit was altered during exit execution.
084 The procedure name buffer length passed to the Pre-Prompt Exit was altered during exit execution.
088 The length of the procedure name returned by the Pre-Prompt Exit was longer than the buffer or less than zero.
092 The Pre-Prompt Exit returned a zero length name for LOGON processor use.
096 The Pre-Prompt Exit returned an unauthorized procedure name for LOGON processor use.
100 The Pre-Prompt Exit returned a region size outside the bounds supported by TSO for LOGON processor use.
104 The Pre-Prompt Exit returned an unauthorized region size for LOGON processor use.
108 The address of the JCL buffer passed to the Pre-Prompt Exit was altered during exit execution.
112 The JCL buffer length passed to the Pre-Prompt Exit was altered during exit execution.
116 The length of the JCL returned by the Pre-Prompt Exit was longer than the buffer or less than zero.

120 The Pre-Prompt Exit returned less than two JCL card images for LOGON processor use.
124 The Pre-Prompt Exit returned a partial JCL card image for LOGON processor use.
128 The address of the PSCB accounting data buffer passed to the Pre-Prompt Exit was altered during exit execution.
132 The PSCB accounting data buffer length passed to the Pre-Prompt Exit was altered during exit execution.
136 The length of the PSCB accounting data returned by the Pre-Prompt Exit was longer than the buffer or less than zero.
140 The address of the First Attribute buffer passed to the Pre-Prompt Exit was altered during exit execution.
144 The First Attribute buffer length passed to the Pre-Prompt Exit was altered during exit execution.
148 The length of the First Attribute returned by the Pre-Prompt Exit was longer than the buffer or less than zero.
152 The address of the Second Attribute buffer passed to the Pre-Prompt Exit was altered during exit execution.
156 The Second Attribute buffer length passed to the Pre-Prompt Exit was altered during exit execution.
160 The length of the Second Attribute returned by the Pre-Prompt Exit was longer than the buffer or less than zero.
164 The address of the Generic Group buffer passed to the Pre-Prompt Exit was altered during exit execution.
168 The Generic Group buffer length passed to the Pre-Prompt Exit was altered during exit execution.
172 The length of the Generic Group returned by the Pre-Prompt Exit was longer than the buffer or less than zero.
176 The address of the UPT buffer passed to the Pre-Prompt Exit was altered during exit execution.
180 The UPT buffer length passed to the Pre-Prompt Exit was altered during exit execution.
184 The length of the UPT returned by the Pre-Prompt Exit was longer than the buffer or less than zero.
188 The address of the ECT buffer passed to the Pre-Prompt Exit was altered during exit execution.
192 The ECT buffer length passed to the Pre-Prompt Exit was altered during exit execution.
196 The length of the ECT returned by the Pre-Prompt Exit was longer than the buffer or less than zero.

System Action: The system transmits message IKJ56451I to the terminal of the user whose LOGON failed. It then disconnects the terminal from the TSO subsystem after invoking the TSO Dump facility to provide a dump for error analysis.

Operator Response: Report the problem to the installation's systems programmer.

Program Response: Probable user error. Verify that the exit module supplied by the installation complies with interface requirements.

Problem Determination: Table I, items 2, 4, 7a, 29. output. Make sure that a SYSTSCP DD statement was included in the time sharing procedure. Execute the IMDPRDMP service aid program for the dump data set to obtain a formatted listing of the dump, and save the output. Have a lsiting of the installation exit routine available.

IKJ6051 TSOLOGON TERMINATED. TOO MANY ATTEMPTS. USER {userid / UNKNOWN}

Explanation: TSO LOGON denied a user with the identification userid access to the TSO subsystem because the user exceeded the limit, specified at system generation time, of attempts to enter a valid set of LOGON operands.

System Action: The system transmits message IKJ56428I to the terminal of the user, and disconnects the terminal from the TSO subsystem.

Operator Response: None required. However, if this situation recurs frequently, inform your installation manager since some individual may be attempting to obtain unauthorized access to the TSO subsystem.

IKJ6061 TSOLOGON REJECTED. USERID, userid, IN USE

Explanation: TSO LOGON denied a LOGON request of a user for one of two reasons:
• Another user was currently logged on under the same userid.
• A member of the installation management staff was using the TSO ACCOUNT command to alter the authorization of the user to utilize the TSO subsystem.

System Action: The system transmits a message to the terminal of the user who was unable to log on.

Operator Response: None required. If your installation requires that each individual using the TSO subsystem have his own unique userid, then the userid of the individual involved may be in use by an unauthorized individual. If there is any reason to suspect that this is the case, make sure that the installation manager is informed of the incident.

IKJ6071 TSOLOGON REJECTED. nnnnK REGION NOT AVAILABLE. USER userid

Explanation: TSO LOGON denied the LOGON request of a user because the time sharing driver could not make a region of the indicate size available. In the message

test, userid is the identification number of the user whose LOGON request was denied, and nnnnK is the size of the region.

System Action: The system transmits message IKJ56426I to the terminal of the user whose LOGON request was denied.

Operating Response: None.

IKJ6081 TSOLOGON TERMINATED. {srname / macname} ERROR nnn.USER {userid / UNKNOWN} PROC {procname / UNKNOWN}

Explanation: The TSO service routine (srname) or the macro instruction (macname) returned the abnormal return code nnn, which indicates that a situation had arisen from which TSO LOGON could not recover. The userid of the user being serviced by TSO LOGON when the incident occurred and the name of the procedure requested appear in the message text.

System Action: The system transmits message IKJ56454I to the terminal for which TSO LOGON was operating. It then disconnects the terminal from the TSO subsystem.

Operator Response: None.

Problem Determination: Table I, items 2, 4, 7a, 29. Make sure that a SYSTSCP DD statement was included in the time sharing procedure. Execute the IMDPRDMP service aid for the dump data set to obtain a formatted listing of the dump, and save the output.

IKJ6091 TSOLOGON REQUIRED DDNAME, ddname, MISSING

Explanation: The DDNAME specified in the message text is required in the time sharing procedure. One message is issued for each DD statement missing. The following list of DDNAMEs is currently required:

SYSUADS - This ddname specified in the to the User Attribute Data Set unless the TSO LOGON Pre-Prompt Exit Routine provides all LOGON information and indicates that no UADS access is to be made. In the latter case this ddname must, nonetheless, be present although TSO LOGON will never reference the data set.

SYSLBC - This ddname is used for access to the Broadcast Data Set unless NOMAIL and NONOTICES are both indicated to TSO LOGON.

IEFPDSI - This ddname is used for access to the TSO procedure library unless the TSO LOGON Pre-Prompt Exit Routine provides a JCL input stream which specifies no catalogued procedure.

IEPDATA - This ddname specifies spooling
information for the Reader/Interpreter
and is used if the input stream
constructed by the TSO LOGON Pre-Prompt
Exit Routine contains in-line data (DD
* or DD DATA).

System Action: Continue scanning for any
other ddnames which are required in the
time sharing procedure but are missing.
When all required ddnames have been
checked, message IKJ610I is issued.

Operator Response: If possible, start
another Time Sharing procedure that
contains the required DD statements. If
no other procedure is available, inform
the installation programmer of this
message.

Programmer Response: Probable user error.
Correct the time sharing procedure by
supplying the required DD statements, and
update the SYS1.PROCLIB with the corrected
procedure.

Problem Determination: Table I, items 2,
4, 7a, 29.

IKJ610I TSOLOGON REGION NOT INITIALIZED

Explanation: A condition, separately
identified via a previously issued error
message, has arisen during TSO LOGON
region initialization processing that
precludes successful operation of the
region.

System Action: Terminate initialization
for the region.

Operator Response: None.

IKJ650D TSO NOT ACTIVE. TSTRACE WAITING.

Explanation: The trace writer task was
ready before a START TS command had been
entered.

System Action: The trace writer task
waits until TSO has been started or until
a STOP TSTRACE command has been entered.

Operator Response: Enter a START TS or
STOP TSTRACE command.

IKJ651I NO VALUE SPECIFIED FOR TRACE WRITER TRPARM

Explanation: TRPARM was neither included
in the TSTRACE procedure nor given a value
in the START TSTRACE command.

System Action: The trace writer task is
terminated.

Operator Response: Probable user error.
Reenter the START command for TSTRACE,
specifying a value for the TRPARM
parameter.

Problem Determination: Table I, items 2,
4, 29.

IKJ652I ZERO VALUE SPECIFIED FOR TRACE WRITER
TRPARM

Explanation: An invalid value of 0 was
specified for the TRPARM parameter of the
START TSTRACE command.

System Action: The trace writer task is
terminated.

Operator Response: Probable user error.
Reenter the START command for TSTRACE,
specifying a valid value for the TRPARM
parameter.

Problem Determination: Table I, items 2,
4, 29.

IKJ653I TRACE WRITER ALREADY ACTIVE.

Explanation: A start TSTRACE command was
issued, but a trace writer task was
already active. Only one trace writer
task may be active at any one time.

System Action: The second trace writer
task is not started.

Operator Response: None.

IKJ654D TSC STOPPED, TSTRACE WAITING.

Explanation: Time sharing operations have
terminated.

System Action: The trace writer task
waits until TSC has been restarted or
until a STOP TSTRACE command has been
entered.

Operator Response: Enter the STOP TSTRACE
or START TS command.

IKJ655I TRACE WRITER CANNOT ESTABLISH STAE
ENVIRONMENT

Explanation: The STAE service routine
returned a non-zero return code to the
trace writer task.

System Action: The trace writer task is
terminated.

Operator Response: Rerun the job during
which the failure occurred.

Problem Determination: Table I, items 7a,
29.

IKJ656I INSUFFICIENT SPACE AVAILABLE FOR TRACE
WRITER BUFFER

Explanation: The core available for the
trace writer buffers is less than 3 x
(BLKSIZE+36).

System Action: The trace writer task is
terminated.

Operator Response: Enter the DISPLAY
ACTIVE command to determine the amount of
core available for the trace writer.
Adjust the REGION and BLKSIZE parameters
accordingly. For detailed information on

region and buffer requirements, refer to IBM System/360 Operating System: Storage Estimates, GC28-6551.

IKJ657I NO DD STATEMENT FOR TRACE DATA SET

Explanation: There was no DD statement for the trace data set in the TSTRACE procedure, and the START TSTRACE command did not contain a device name parameter. Therefore, a DD statement could not be generated.

System Action: The trace writer task is terminated.

Operator Response: Probable user error. Reenter the START TSTRACE command, specifying a device name, or have the installation's systems programmer add the required DD statement to the TSTRACE procedure.

IKJ658I I/O ERROR ON TRACE DATA SET

Explanation: A input/output error occurred when the trace data set was being created.

Problem Determination: Table I, items 29.

System Action: The trace data set is closed and the trace writer task is terminated. Information from the SYNADAF analysis will supplement this message.

Operator Response: Probable hardware error. Retry the job with another device and/or tape volume.

Problem Determination: Table I, items 2, 29.

IKJ659I TRACE DATA SET BLKSIZE LESS THAN MINIMUM ALLOWED

Explanation: The BLKSIZE parameter for the trace data set specified less than the minimum of 128 bytes required by the trace writer.

System Action: The trace writer task is terminated.

Operator Response: Probable user error. Reenter the START TSTRACE command, specifying a larger value for the BLKSIZE parameter. If the error is in the TSTRACE procedure, report this message to the installation's systems programmer.

Problem Determination: Table I, items 29.

IKJ660I TRACE WRITER TRPARM VALUE EXCEEDS MAXIMUM ALLOWED

Explanation: The maximum value for TRPARM (the estimated rate at which entries will be transferred to allocated buffers) exceeds the limit of $2^{31}-1$ (2,147,483,647).

System Action: The trace writer task is terminated.

Operator Response: Probable user error. Reenter the START TSTRACE command, specifying a smaller value for the TRPARM parameter.

Problem Determination: Table I, items 2, 4, 29.

IKJ661I NON-NUMERIC CHARACTER IN TRACE WRITER TRPARM

Explanation: The value specified in the TRPARM parameter of the START TSTRACE command contained a non-numeric character.

System Action: The trace writer task is terminated.

Operator Response: Probable user error. Reenter the START command for TSTRACE, specifying a valid value for the TRPARM parameter.

Problem Determination: Table I, items 2, 4, 29.

IKJ662I TSTRACE TERMINATED

Explanation: The trace writer has terminated processing. If an error caused the termination, this message is preceed by an appropriate diagnostic message. This message is also issued in response to a STOP TSTRACE command.

Operator Response: None.

IKJ663I TSC ACTIVE, TSTRACE RECORDING

Explanation: TSC has started and the trace writer has begun processing.

System Action: Processing continues.

Operator Response: None.

IKJ680I INVALID PARAMETER IN PARM FIELD

Explanation: An option is specified in the PARM field of the EXEC statement invoking the trace processor which is not available, is misspelled, or has a missing equal sign (=).

System Action: The trace processor routine is terminated.

Programmer Response: Probable user error. Correct the error and execute the job step again.

Problem Determination: Table I, items 1, 2, 4, 29.

IKJ681I I/O ERROR DURING TRACE PROCESSOR PROGRAM

Explanation: A permanent input/output error has occurred during Trace Data Set processing.

System Action: The trace processor
routine is terminated. Information from
the SYNADAF analysis will supplement this
message.

Operator Response: Probable hardware
error. Execute the job step again with
another device and/or tape volume.

Problem Determination: Table I, items 1,
2, 4, 29.

IKJ682I UNABLE TO OPEN SYSPRINT DATA SET

Explanation: An attempt by the trace
processor routine to open the output data
set has failed because no SYSPRINT DD
statement was supplied.

SYSTEM Action: The trace processor
routine is terminated.

Programmer Response: Probable user error.
Supply a SYSPRINT DD statement and execute
the job step again.

Problem Determination: Table I, items 1,
2, 4, 29.

IKJ683I UNABLE TO OPEN TRACEDD DATA SET

Explanation: An attempt to open the input
data set has failed because no DD
statement for the TRACEDD data set was
supplied.

System Action: The trace processor
routine is terminated.

Programmer Response: Probable user error.
Supply a TRACEDD DD statement and execute
the job step again.

Problem Determination: Table I, items 1,
2, 4, 29.

IKJ684I INVALID INPUT DATA SET

Explanation: The first entry in the
TRACEDD data set is not a type 'A' entry.
The trace processor assumes that the data
set was not created by the trace writer.

System Action: The trace processor
routine is terminated.

Programmer Response: Probable user error.
Make sure that the input data set is a
TRACEDD data set.

Problem Determination: Table I, items 1,
4, 26b, 29.

IKJ685I TRACE PROCESSOR ENDED

Explanation: Trace processing of all
input data, according to the options
specified (or the default values) is
complete, or processing has ended because
of an error. If an error caused
processing to terminate, an appropriate
diagnostic message preceeded this message.

System Action: None.

Programmer Response: None.

IKJ686I INVALID CHARACTER(S) IN THE CODES
PARAMETER FIELD

Explanation: Embedded blank(s) or
delimiter(s) appear in the CODES parameter
field of the EXEC statement which invokes
the trace processor.

System Action: The trace processor
routine is terminated.

Programmer Response: Probable user error.
Correct the error and execute the job step
again.

Problem Determination: Table I, items 1,
2, 4, 29.

IKJ687I INVALID OPTION CODES PARAMETER

Explanation: An option other than S, T,
or D is specified in the trace processor.

System Action: The trace processor
routine is terminated.

Programmer Response: Probable user error.
Correct the error and execute the job step
again.

Problem Determination: Table I, items 1,
2, 4, 29.

IKJ688I INVALID CHARACTER(S) IN THE TJID PARAMETER
FIELD

Explanation: Embedded blank(s), invalid
delimiter(s), or nondecimal value(s)
appear in the TJID parameter field of the
EXEC statement which invokes the trace
processor.

System Action: The trace processor
routine is terminated.

Programmer Response: Probable user error.
Correct the error and execute the job step
again.

Problem Determination: Table I, items 1,
2, 4, 29.

IKJ689I TJID PARAMETER FIELD IS TOO LONG

Explanation: Either a hyphen is missing
or a decimal value greater than three
digits in length has been specified in the
TJID parameter field of the EXEC statement
which invokes the trace processor.

System Action: The trace processor
routine is terminated.

Programmer Response: Probable user error.
Correct the error and execute the job step
again.

Problem Determination: Table I, items 1,
2, 4, 29.

IKJ690I INVALID CHARACTER(S) IN THE CLOCK
PARAMETER FIELD

    Explanation: Embedded blank(s), invalid
delimiter(s), or non-decimal value(s)
appear in the CLOCK parameter field of the
EXEC statement which invokes the trace
processor.

    System Action: The trace processor
routine is terminated.

    Programmer Response: Probable user error.
Correct the error and execute the job step
again.

    Problem Determination: Table I, items 1,
2, 4, 29.

IKJ691I CLOCK PARAMETER FIELD IS TOO LONG

    Explanation: Either a hyphen is missing
or a decimal value greater than seven
digits in length has been specified in the
CLOCK parameter field of the EXEC
statement which invokes the trace
processor.

    System Action: The trace processor
routine is terminated.

    Programmer Response: Probable user error.
Correct the error and execute the job step
again.

    Problem Determination: Table I, items 1,
2, 4, 29.

IKJ692I TRACE DATA SET DOES NOT CONTAIN DATA IN
THE RANGE COMPUTED FROM PARM OPTIONS

    Explanation: In the EXEC statement which
invokes the trace processor, the TJID
option specifies an ID number or ID
numbers which do not exist in the input
data set, and/or the CLOCK option
specifies a time limit which is not within
the input data set active time range.

    System Action: The trace processor
routine is terminated.

    Programmer Response: Probable user error.
Correct the error and execute the job step
again.

    Problem Determination: Table I, items 1,
2, 29.

IKJ693I LOWER LIMIT IS MISSING IN THE CLOCK OR
TJID PARAMETER

    Explanation: An upper limit is given in
the TJID or CLOCK parameter in the EXEC
statement of the Trace Processor and an
expected lower limit is missing.

    System Action: The Trace Processor
Program is terminated.

    Programmer Response: Probable user error.
Specify a lower limit or limit or delete
the hyphen.

    Problem Determination: Table I, items 13,
23, 29.

IKJ694I EXPECTED UPPER LIMIT IS MISSING IN THE
CLOCK OR TJID PARAMETER

    Explanation: A lower limit is given in
the TJID or CLOCK parameter in the EXEC
statement of the Trace Processor and a
hyphen was found in the parameter
indicating an upper limit which is
missing.

    System Action: The Trace Processor
Program is terminated.

    Programmer Action: Probable User Error.
Specify an upper limit or delete the
hyphen.

    Problem Determination: Table I, items 13,
23, 29.

IKJ695I UNBALANCED PARENTHESES IN PARAMETER FIELD

    Explanation: A left parenthesis appears
in the PARM field in the EXEC statement of
the Trace Processor or a right parenthesis
appears outside the sub-parameter field.

    System Action: The Trace Processor
Program is terminated.

    Programmer Action: Probable User Error.
Correct the number of right and/or left
parentheses.

    Problem Determination: Table I, items 13,
23, 29.

IKJ

This section describes those TSO messages that are
generated for the terminal user but that require
designated installation personnel tc perform
certain diagnostic measures befcre calling IBM for
programming support. The messages are not listed
by message number, but are listed acccrding to
message text, in alphabetical order; the
additional messages associated with each initial
message are listed alphabetically under each
message. Those messages beginning with variable
data are listed after those in alphabetical order.
The KEY indicated at the left of the message
denotes the appropriate response fcr that message;
the responses are listed in numerical order
following the list of messages.

In the message texts, the variables are
designated by lower case letters--dsn denotes data
set name, cm denotes command, cmn denctes command
name, and subcmn denotes subcommand name.

KEY   MESSAGE

20   ABEND WHILE PROCESSING BROADCAST MESSAGES,
       LOGON PROCEEDING

20   ATTENTION IGNORED, SYSTEM ERROR,
       LOGON RESUMED

       BROADCAST DATA SET NOT ALLOCATED, DATA SET
       NOT ON VOLUME+
1   CATALOG INFORMATION INCORRECT

       BROADCAST DATA SET NOT ALLOCATED,
       SYSTEM ERROR+
2   CATALOG ERROR CODE 4
3   CATALOG ERROR CODE 14
4   CATALOG ERROR CODE 1C
20   DYNAMIC ALLOCATION ERROR CODE 004
20   DYNAMIC ALLOCATION ERROR CODE 008
5   DYNAMIC ALLOCATION ERROR CODE 104
5   DYNAMIC ALLOCATION ERROR CODE 108
5   DYNAMIC ALLOCATION ERROR CODE 10C
6   DYNAMIC ALLOCATION ERROR CODE 208
20   DYNAMIC ALLOCATION ERROR CODE 210
7   DYNAMIC ALLOCATION ERROR CODE 214
8   DYNAMIC ALLOCATION ERROR CODE 21C
20   DYNAMIC ALLOCATION ERROR CODE 268
20   DYNAMIC ALLOCATION ERROR CODE 308
20   DYNAMIC ALLOCATION ERROR CODE 30C
20   DYNAMIC ALLOCATION ERROR CODE 310
20   DYNAMIC ALLOCATION ERROR CODE 314
20   DYNAMIC ALLOCATION ERROR CODE 318
20   DYNAMIC ALLOCATION ERROR CODE 31C
20   DYNAMIC ALLOCATION ERROR CODE 320
20   DYNAMIC ALLOCATION ERROR CODE 324
20   DYNAMIC ALLOCATION ERROR CODE 328
20   DYNAMIC ALLOCATION ERROR CODE 338
20   DYNAMIC ALLOCATION ERROR CODE 33C
20   DYNAMIC ALLOCATION ERROR CODE 340
20   DYNAMIC ALLOCATION ERROR CODE 344
20   DYNAMIC ALLOCATION ERROR CODE 350
20   DYNAMIC ALLOCATION ERROR CODE 358

20   DYNAMIC ALLOCATION ERROR CODE 408
20   DYNAMIC ALLOCATION ERROR CODE 40C
20   DYNAMIC ALLOCATION ERROR CODE 410
20   DYNAMIC ALLOCATION ERROR CODE 414
20   DYNAMIC ALLOCATION ERROR CODE 418
20   DYNAMIC ALLOCATION ERROR CODE 420
20   DYNAMIC ALLOCATION ERROR CODE 424
20   DYNAMIC ALLOCATION ERROR CODE 504
9   DYNAMIC ALLOCATION ERROR CODE 4704
10   DYNAMIC ALLOCATION ERROR CODE 4708
16   DYNAMIC ALLOCATION ERROR CODE 470C
20   DYNAMIC ALLOCATION ERROR CODE 4710
20   DYNAMIC ALLOCATION ERROR CODE 4714
20   DYNAMIC ALLOCATION ERROR CODE 4718
20   DYNAMIC ALLOCATION ERROR CODE 4730
20   DYNAMIC ALLOCATION ERROR CODE 4734
13   DYNAMIC ALLOCATION ERROR CODE 4738

       BROADCAST DATA SET NOT USABLE+
22   CANNCT OPEN DATA SET
14   I/C SYNAD ERROR

       CAN NCT CCPY INTC DATA SET dsn+
14   I/C SYNAD ERROR synadinfc
16   STCW I/C ERROR

       COMMAND SYSTEM ERRCR+
16   BIDI I/C ERROR
20   DAIR ERRCR CODE xx
20   DEFAULT ERRCR CCDE xx
20   DEVTYPE FAILED xx FCR DDNAME ddn
20   GETLINE ERROR CCDE xx
10   OBTAIN ERROR CODE 8 FCR DATA SET dsn
12   OBTAIN ERROR CCDE 12 FOR DATA SET dsn
21   OBTAIN ERROR CCDE 12 FOR FORMAT 4 DSCB
6   CUTPUT QUEUE ERRCR
20   PARSE ERROR CODE xx
20   PUTGET ERRCR CCDE xx
20   PUTLINE ERROR CCDE xx
20   SCAN ERRCR CODE xx
20   STACK ERROR CODE xx
20   SVC 98 RETURN CCDE xx
20   TICT SEARCH FAILED FCR DDNAME ddn

       COMPLETE VCLUME LIST NOT AVAILABLE+
6   JFCE EXTENSION NCT AVAILABLE
2   LCCATE ERROR CCDE 4
4   LCCATE ERROR CCDE 24

       CONTROL STATEMENT DATA SET NOT USABLE+
20   ERRCR IN CONCATENATING, {INPUT / LIBRARY} {DATA SETS}
14   I/C SYNAD ERROR
22   CPEN ERRCR

       DATA SET ATTRIBUTES NCT AVAILABLE+
10   OBTAIN ERROR CODE 8
21   CBTAIN ERROR CCDE 12

       DATA SET dsn DELETED BUT NAME STILL
       CATALCGED+
2   CATALCG ERROR CCDE 4

3	CATALOG ERROR CODE 16
4	CATALOG ERROR CODE 1C

DATA SET dsn NOT ALLOCATED+
8	INVALID UNIT IN USER ATTRIBUTE DATA SET

DATA SET dsn NOT ALLOCATED, DATA SET NOT CN
VOLUME+
	CATALOG INFORMATION INCORRECT

DATA SET dsn NOT ALLOCATED, SYSTEM OR
INSTALLATION ERROR+
3	CATALOG ERROR CODE 14
4	CATALOG ERROR CODE 1C
4	CATALOG I/O ERROR
20	ERROR IN CONCATENATING {INPUT} {LIBRARY} DATA SETS
9	DADSM ERROR CODE 4704
10	DADSM ERROR CODE 4708
16	DADSM ERROR CODE 470C
20	DADSM ERROR CODE 4710
20	DADSM ERROR CODE 4718
20	DADSM ERROR CODE 4730
12	DADSM ERROR CODE 4734
20	DYNAMIC ALLOCATION ERROR CODE 004
20	DYNAMIC ALLOCATION ERROR CODE 008
5	DYNAMIC ALLOCATION ERROR CODE 104
5	DYNAMIC ALLOCATION ERROR CODE 108
5	DYNAMIC ALLOCATION ERROR CODE 10C
6	DYNAMIC ALLOCATION ERROR CODE 208
20	DYNAMIC ALLOCATION ERROR CODE 268
20	DYNAMIC ALLOCATION ERROR CODE 304
20	DYNAMIC ALLOCATION ERROR CODE 308
20	DYNAMIC ALLOCATION ERROR CODE 30C
20	DYNAMIC ALLOCATION ERROR CODE 310
20	DYNAMIC ALLOCATION ERROR CODE 314
20	DYNAMIC ALLOCATION ERROR CODE 318
20	DYNAMIC ALLOCATION ERROR CODE 31C
20	DYNAMIC ALLOCATION ERROR CODE 320
20	DYNAMIC ALLOCATION ERROR CODE 324
20	DYNAMIC ALLOCATION ERROR CODE 328
20	DYNAMIC ALLOCATION ERROR CODE 338
20	DYNAMIC ALLOCATION ERROR CODE 33C
20	DYNAMIC ALLOCATION ERROR CODE 340
20	DYNAMIC ALLOCATION ERROR CODE 344
20	DYNAMIC ALLOCATION ERROR CODE 350
20	DYNAMIC ALLOCATION ERROR CODE 358
20	DYNAMIC ALLOCATION ERROR CODE 408
20	DYNAMIC ALLOCATION ERROR CODE 40C
20	DYNAMIC ALLOCATION ERROR CODE 410
20	DYNAMIC ALLOCATION ERROR CODE 414
20	DYNAMIC ALLOCATION ERROR CODE 418
20	DYNAMIC ALLOCATION ERROR CODE 420
20	DYNAMIC ALLOCATION ERROR CODE 424
17	DYNAMIC ALLOCATION ERROR CODE 504

DATA SET dsn NOT USABLE+
15	ABEND CODE xxx
16	BLDL ERROR CODE xxx
16	BLDL FAILED, PERMANENT I/O ERROR IN DIRECTORY
16	BLDL I/O ERROR
22	CANNOT OPEN DATA SET
14	I/O SYNAD ERROR synadinfo

10	OBTAIN ERROR CODE 8
21	OBTAIN ERROR CODE 12
15	OPEN ERROR CODE xxxx
20	XDAP WRITE FAILED IN TEN TRIES

DATA SET RENAMED BUT dsn STILL CATALOGED+
2	CATALOG ERROR CODE 4
3	CATALOG ERROR CODE 16
4	CATALOG ERROR CODE 1C

DIRECTORY INFORMATION NOT AVAILABLE+
16	I/O ERROR DURING BLDL

ERROR WRITING DATA SET dsn, MEMBER AND ALL
MEMBERS FOLLOWING NOT COPIED+
14	I/O SYNAD ERROR synadinfo

FILE SYSPROC NOT USABLE+
22	CANNOT OPEN DATA SET
16	FIND ERROR
14	I/O SYNAD ERROR synadinfo

HELP DATA SET NOT USABLE+
22	CANNOT OPEN DATA SET
16	FIND I/O ERROR
14	I/O SYNAD ERROR synadinfo

HISTORY NOT AVAILABLE+
11	DATA SET NOT ON LINE
21	I/O ERROR DURING OBTAIN, CODE 12
2	LOCATE ERROR CODE 4
4	LOCATE ERROR CODE 24

INPUT DATA SET dsn NOT USABLE+
15	INPUT OPEN ERROR CODE xxx
14	I/O SYNAD ERROR synadinfo

INPUT DIRECTORY ERROR,
CANNOT COPY DATA SET dsn+
14	I/O SYNAD ERROR synadinfo

6	JOB QUEUE I/O ERROR

LABEL INFORMATION NOT AVAILABLE+
10	OBTAIN ERROR CODE 8
21	OBTAIN ERROR CODE 12

20	LOGON FAILED

20	LOGON TERMINATED, rtn ERROR xxx

20	LOGON TERMINATED, SYSTEM ERROR

{MEMBERS} {HISTORY AND MEMBERS} {HISTORY} NOT AVAILABLE+
11	DATA SET NOT ON VOLUME
21	I/O ERROR DURING OBTAIN, CODE 12

MEMBER mem CANNOT BE COPIED+
14	I/O SYNAD ERROR synadinfo

MEMBERS NOT AVAILABLE+
16	DIRECTORY STRUCTURE ERROR

16	I/O SYNAD ERROR DURING DIRECTORY SEARCH synadinfo
24	NO SPACE IN DIRECTORY FOR ALIAS
10	NOT ENOUGH DIRECT ACCESS SPACE TO CONTAIN ALL RECORDS+
15	SYSTEM ABEND CODE cde

OUTPUT DATA SET FOR JOB jjj NOT USABLE+

10	NOT ENOUGH DIRECT ACCESS SPACE
15	OPEN ERROR CODE xxx
14	SYNAD ERROR synadinfo

PRINT DATA SET NOT USABLE+

22	CANNOT OPEN DATA SET
20	PERMANENT I/O ERROR

SYMBOL ADDRESS NOT AVAILABLE, SYSTEM ERROR+

22	CANNOT OPEN DATA SET, DDNAME ddn
20	I/O SYNAD ERROR synadinfo

SYSTEM ERROR+

20	DATA SET dsn NOT UNALLOCATED, DYNAMIC ALLOCATION ERROR CODE xx
20	DATA SET dsn NOT UNALLOCATED, CATALOG ERROR CODE xx
	UTILITY DATA SET

19	SYSTEM FAILED, ALL USER TERMINATED
19	SYSTEM FAILURE, PLEASE LOGON AGAIN

UNABLE TO CATALOG dsn+

2	CATALOG ERROR CODE 4
3	CATALOG ERROR CODE 16
4	CATALOG ERROR CODE 1C

UNABLE TO COMPLETE UPDATE OF OUTPUT DIRECTORY+

16	{INPUT DIRECTORY / UTILITY DATA SET} ENTRY xxxx INCONSISTENCIES FOUND

UNABLE TO DELETE DATA SET dsn+

11	SCRATCH ERROR CODE 4
17	SCRATCH ERROR CODE 6
16	STOW ERROR CODE 16

UNABLE TO LIST CATALOG+

4	I/O ERROR DURING LOCATE CODE 24
2	LOCATE ERROR CODE 4

UNABLE TO LOAD PROGRAM+

16	BLDL ERROR CODE xx
22	OPEN ERROR CODE

UNABLE TO MODIFY PROTECTION FLAGS OF DATA SET dsn+

21	I/O ERROR WHILE UPDATING SECURITY FLAGS

UNABLE TO PROTECT DATA SET dsn+

23	I/O ERROR IN PASSWORD DATA SET

UNABLE TO QUALIFY dsn+

20	DEFAULT ERROR CODE xx

2	LOCATE ERROR CODE 4
4	LOCATE ERROR CODE 24

UNABLE TO RENAME DATA SET dsn+

16	BLDL ERROR CODE xx
2	CATALOG ERROR CODE 4
3	CATALOG ERROR CODE 16
4	CATALOG ERROR CODE 1C
10	RENAME ERROR CODE 4
10	RENAME ERROR CODE 8
16	STOW ERROR CODE xx

USER ATTRIBUTE DATA SET NOT USABLE+

16	BACKSPACE ERROR 4
16	BLDL I/O ERROR
22	CANNOT OPEN DATA SET
14	I/O SYNAD ERROR synadinfo
16	STOW I/O ERROR

{UTILITY DATA SET / DATA SET dsn} CANNOT BE RESOLVED, SYSTEM ERROR+

3	CATALOG ERROR CODE 14
4	CATALOG ERROR CODE 1C
20	DAIR ERROR CODE xx
20	DEFAULT ERROR CODE xx
2	LOCATE ERROR CODE 1
4	LOCATE ERROR CODE 24

{cmn / subcmn} ENDED DUE TO AN ERROR

19	COMPLETION CODE IS cde
19	INSUFFICIENT STORAGE
19	LINK TO SUBCOMMAND FAILED
19	SYSTEM ABEND CODE IS cde
19	SYSTEM CODE cde
19	SYSTEM CODE cde ATTACH FAILURE
19	SYSTEM CODE cde GETMAIN FAILURE
19	SYSTEM CODE cde INSUFFICIENT STORAGE
19	SYSTEM CODE cde LINK FAILURE
19	SYSTEM CODE cde PERMANENT ERROR DURING BLDL
19	USER ABEND CODE IS cde

func NOT AVAILABLE FOR language+

20	PROGRAM NO LONGER USABLE

subcm FAILED+

	ABEND CODE SYSTEM = cde
	ABEND CODE SYSTEM = cde IC = adr
20	ATTACH FAILED
20	GETMAIN ERROR CODE xxx
	INSTR IMAGE = image
20	LINK TO DAIR FAILED
20	LINK TO DEFAULT FAILED
20	LINK TO PARSE FAILED
20	LINK TO SCAN FAILED
20	LINK TO SYM FAILED
20	LOAD FAILED
20	OPEN FAILED
20	XCTL FAILED

subcm FAILED, COMMAND SYSTEM ERROR+

20	DAIR ERROR CODE xx
20	GETLINE ERROR CODE xx
20	PARSE ERROR CODE xx

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20	PUTGET ERROR CODE xx
20	PUTLINE ERROR CODE xx

userid LOGGED OFF TSO AT hh:
ON month day, year+

20	ALLOCATION UNSUCCESSFUL
5	I/O ERROR ON JOB QUEUE
20	JOBLIB DATA SET COULD NOT BE OPENED
6	NOT ENOUGH JOB QUEUE SPACE TO EXECUTE LOGON
21	OBTAIN ERROR
20	STEPLIB DATA SET COULD NOT BE OPENED
20	SYSTEM ERROR

Problem Determination:

KEY Explanation

1. If the data set was deleted by a utility program that was also supposed to update the catalog, but the catalog was not updated, see Table I, items 2, 7ac (command library), 25ac, 29. Instruct the terminal user to retain the terminal listing or record what is currently displayed on the graphics device.

2. If the necessary control volume is mounted and the error recurs, see Table I, items 2, 7ac (command library), 25ac, 29. Instruct the terminal user to retain the terminal listing or record what is currently displayed on the graphics device.

3. If sufficient space exists on all the control volumes, see Table I, items 2, 7ac (command library), 25ac, 29. Instruct the terminal user to retain the terminal listing or record what is currently displayed on the graphics device. Execute the IEHDASDR system utility program, specifying the DUMP statement, to obtain a printed copy of the SYSCATLG data set, and save the resulting output.

4. See Table I, items 2, 7ac (command library), 25ac, 29. Instruct the terminal user to retain the terminal listing or record what is currently displayed on the graphics device. Execute the IEHDASDR system utility program, specifying the DUMP statement, to obtain a printed copy of the SYSCATLG data set, and save the resulting output.

5. See Table I, item 2, 7ac (command library), 25ac, 29. Instruct the terminal user to retain the terminal listing or record what is currently displayed on the graphics device. Execute the IEHDASDR system utility program, specifying the DUMP statement, to obtain a printed copy of the SYS1.SYSJOBQE data set, and save the resulting output.

6. If sufficient space exists in the SYS1.SYSJOBQE data set, see Table I, items 2, 7ac (command library), 11, 29. Instruct the terminal user to retain the terminal listing or record

what is currently displayed on the graphics device.

7. If the devices of the type indicated in the user attribute data set for use by this user are actually online, see Table I, items 2, 7ac (command library), 11, 29. Instruct the terminal user to retain the terminal listing or record what is currently displayed on the graphics device. Have the person in the installation authorized to use the ACCOUNT command issue the command with the LIST subcommand to list the attributes of the user having trouble.

8. If the devices of the type indicated in the user attribute data set for use by this user were actually included in the system at system generation time, see Table I, items 2, 7ac (command library), 16ab, 29. Instruct the terminal user to retain the terminal listing or record what is currently displayed on the graphics device. Have the person in the installation authorized to use the ACCOUNT command issue the command with the LIST subcommand to list the attributes of the user having trouble.

9. If the new data set being created by the user does not have the same name as an uncataloged data set, see table I, items 2, 7ac (command library), 25ac, 29. Instruct the terminal user to retain the terminal listing or record what is currently displayed on the graphics device.

10. If the space exists in the volume table of contents of all online volumes, see Table I, items 2, 7ac (command library), 25ac, 29. Instruct the terminal user to retain the terminal listing or record what is currently displayed on the graphics device.

11. See Table I, items 2, 7ac (command library), 25ac, 29. Instruct the terminal user to retain the terminal listing or record what is currently displayed on the graphics device.

12. If there are no DOS volumes online, see Table I, items 2, 7ac (command library), 25ac, 29. Instruct the terminal user to retain the terminal listing or record what is currently displayed on the graphics device.

13. If the directory space requested is not larger than the first extent, see Table I, items 2, 7ac (command library), 29. Instruct the terminal user to retain the terminal listing or record what is currently displayed on the graphics device.

14. See Table I, items 2, 7ac (command library), 25ac, 29. Instruct the terminal user to retain the terminal

listing or record what is currently displayed on the graphics device. Execute the IEHDASDR system utility program, specifying the DUMP statement, to obtain a printed copy of the SYSCATLG data set, and save the resulting output.

15. See Table I, items 2, 29. Instruct the terminal user to retain the terminal listing or record what is currently displayed on the graphics device. Consult the codes section of this publication for the associated error code, and respond as indicated for that code; however, do not obtain a storage dump and do not specify MSGLEVEL=(1,1) in the JOB statement, even if so requested.

16. See Table I, items 2, 7ac (command library), 25ac, 29. Instruct the terminal user to retain the terminal listing or record what is currently displayed on the graphics device. Execute the IEHDASDR system utility program, specifying the DUMP statement, to obtain a printed copy of the directory of the data set. Save the resulting output.

17. If the required volume is mounted, see Table I, items 2, 7ac (command library), 11, 25ac, 29. Instruct the terminal user to retain the terminal listing or record what is currently displayed on the graphics device. Make sure that a SYSTSDP DD statement is included in the Start procedure for TSO. Execute the IMDPRDMP service aid program to print the TSC dump data set and the SWAP data sets. Save the resulting output. Inform the user that if a command was being processed, the user should:

    1) Use the ALLOCATE command to allocate a SYSOUT data set with the FILE name of SYSUDUMP.
    2) Repeat the error situation.
    3) Strike the RETURN key after receiving the message 'cm ENDED DUE TO ERROR+'.
    4) Use the FREE command to free the FILE name SYSUDUMP.
    5) Retain the terminal listing or record what is currently displayed on the graphics device.
    6) Retain the SYSOUT listing containing the dump output.

18. See Table I, items 11, 29.

19. Inform the user that if a subcommand was being processed, any further information must be obtained from the user. Use the ALLOCATE command to allocate a SYSOUT data set with the FILE name of SYSUDUMP; repeat the error situation; strike the RETURN key after receiving message 'xxxxxx ENDED DUE TO ERROR+'; use the FREE command to free the FILE name SYSUDUMP. Instruct the terminal user to retain the terminal listing or record what is currently displayed on the graphics device.

20. See Table I, items 2, 7ac (command library), 29. Instruct the terminal user to retain the terminal listing or record what is currently displayed on the graphics device.

21. See Table I, items 2, 7ac (command library), 29. Instruct the terminal user to retain the terminal listing or record what is currently displayed on the graphics device and execute the IEHDASDR system utility program to obtain a list of the volume table of contents (VTOC) of the associated volume.

22. If the file is already allocated, see Table I, items 1, 7abc (command library), 29. Instruct the terminal to retain the terminal listing or record what is currently displayed on the graphics device. If the file is not allocated and the user is currently logged on, use the ALLOCATE command to allocate the data set.

23. See Table I, items 2, 7abc (command library), 29. Instruct the terminal user to retain the terminal listing or record what is currently displayed on the graphics device and execute the IEHDASDR system utility program to obtain a printed copy of the master password data set.

24. If sufficient space exists in the directory, see Table I, items 2, 7abc (command library), 25c, 29. Instruct the terminal user to retain the terminal listing or record what is currently displayed on the graphics device.

```
r---------------------------------T----------------------------------------------------------------------------1
| Component Name                  | IKM                                                                        |
|---------------------------------+----------------------------------------------------------------------------|
| Program Producing Message       | PL/I Syntax Checker                                                         |
|---------------------------------+----------------------------------------------------------------------------|
| Audience and Where Produced     | For remote operator and programmer:  terminal                              |
|---------------------------------+----------------------------------------------------------------------------|
| Message Format                  | IKMnnn 1111111 text                                                        |
|                                 |                                                                            |
|                                 | nnn                                                                        |
|                                 |         Message serial number.                                             |
|                                 |                                                                            |
|                                 | 11111111                                                                   |
|                                 |         Data set line number of the line in which the error was           |
|                                 |         detected.  Leading zeroes and blanks are suppressed.              |
|                                 |                                                                            |
|                                 | text                                                                       |
|                                 |         Message text.                                                      |
|---------------------------------+----------------------------------------------------------------------------|
| Comments                        | Central operator may request that messages appear on his console.          |
|---------------------------------+----------------------------------------------------------------------------|
| Associated Publications         | IBM System/360 Operating System:                                           |
|                                 | Conversational Remote Job Entry                                            |
|                                 | Terminal User's Guide, GC30-2014                                          |
|---------------------------------+----------------------------------------------------------------------------|
| Problem Determination           | Refer to the fold-out in part VI of this publication for problem          |
|                                 | determination instructions.                                                |
L---------------------------------^----------------------------------------------------------------------------J
```

IKM001 11111111 UNMATCHED STRING QUOTES IN THIS STATEMENT

Explanation: The quotation mark at the end of a character or bit string is missing. No more checking of the statement is performed.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM002 11111111 UNMATCHED COMMENT BRACKETS IN THIS STATEMENT

Explanation: The character pair */ marking the end of a comment is missing. No more checking of the statement is performed.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM003 11111111 STATEMENT NOT RECOGNIZED

Explanation: A statement (including prefixes) does not start with an identifier, semicolon, decimal integer, or left parenthesis; or, a statement (excluding prefixes) starts with a nonkeyword identifier but does not contain an equal sign or does not have an equal number of left and right parentheses on the left of the equal sign.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM004 11111111 LABEL MISSING FROM xxx STATEMENT

Explanation: The label that should prefix an ENTRY, PROCEDURE, or FORMAT statement is missing.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM005 11111111 PREFIX NOT PERMITTED BEFORE xxx

Explanation: A condition prefix to an ELSE clause, or an ENTRY or DECLARE statement, is not permitted.

IKM

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it.

Problem Determination: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM006 11111111 CHECK/NOCHECK PREFIX NOT
PERMITTED BEFORE THIS STMNT

Explanation: The prefixes CHECK and
NOCHECK may precede only a PROC or BEGIN
statement.

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it.

Problem Determination: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM007 11111111 PREFIX OPTION FOLLOWS LABEL

Explanation: A condition prefix follows a
label prefix. This is not permitted under
the rules of PL/I. A condition prefix
must always precede any label prefix.

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it.

Problem Determination: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM008 11111111 ILLEGAL STATEMENT FOLLOWS xxx

Explanation: xxx = ON: An on-unit
consisting of an IF, ON, DO, RETURN,
PROCEDURE, DECLARE, END, or FORMAT
statement, or an ELSE clause, is not
permitted.

xxx = IF or ELSE: A unit-1 or unit-2
branch of an IF statement consisting of an
ON, DO, PROCEDURE, ENTRY, DECLARE, END, or
FORMAT statement, or an ELSE clause, is
not permitted. The illegal statement is
not checked further.

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it.

Problem Determination: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM009 11111111 INVALID LABEL BEGNG xxx

Explanation: A label is not an
(conditionally subscripted) identifier.

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker

Problem Determination: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM010 11111111 INVALID PREFIX OPTION xxx

Explanation: A condition prefix contains
an invalid condition name. The checking
continues after the next colon.

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it.

Problem Determination: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM011 11111111 LABEL NOT PERMITTED BEFORE xxx

Explanation:
xxx = ON: the on-unit in an ON-statement
        may not have a label prefix.

xxx = ELSE: a label to an ELSE-clause
        must not precede the word ELSE.

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it. 13, 23

Problem Determination: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM012 11111111 INCOMPLETE IF STATEMENT, THEN NOT
FOUND WHEN EXPECTED

Explanation: In an IF statement, the
keyword THEN, or the entire THEN clause,
is missing. The checking of the statement
is terminated.

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it.

Problem Determination: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM013 11111111 ERROR IN xxx STATEMENT BEGNG yyy

Explanation:
xxx = ALLOCATE, FREE, DECLARE, OPEN, CALL,
      DO, GET, or PUT statements. An
      invalid symbol may be contained in
      one of these statements.

xxx = BEGIN. The BEGIN statement is
      incorrectly written (may have the
      option ORDER or REORDER in PL/I
      Version 5).

xxx = THIS. Error in an unclassified
      statement. Checking of the
      statement is terminated.

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM014 11111111 INVALID CHAR xxx PRECEDING yyy

Explanation: The character is not a PL/I character. Checking of this statement is terminated.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM015 11111111 INVALID CHAR IN BIT STRING BEGNG xxx

Explanation: A bit string contains a character other than 0 or 1.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM016 11111111 xxx MISSING AFTER yyy

Explanation: A delimiter (comma, colon, or right parenthesis) or an identifier is missing.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM017 11111111 MISSING EQUAL SIGN IN DO SPECIFICATION

Explanation: A Type 3 DO statement or repetitive specification must have the following general form: DO variable = expression [...]; . This error terminates the checking of the DO specification.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM018 11111111 SURPLUS COMMA AFTER xxx

Explanation: A comma should not separate the options in a GET, PUT, or DECLARE (ENVIRONMENT) statement.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM019 11111111 A LETTER IMMEDIATELY FOLLOWS CONSTANT BEGNG xxx

Explanation: A constant may only be followed by one of the following: any of several special characters, e.g., a blank or semicolon; an arithmetic operator, a comparison operator, or a bit-string operator. This could not be internally translated so no further checking of the statement is performed.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM020 11111111 INVALID PREFIX OPERATOR xxx PRECEDING yyy

Explanation: An expression begins with an operator other than ¬, +, - or (or an operand other than an identifier, a string, or a constant.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM021 11111111 CONSTANT BEGNG xxx IS TOO LONG

Explanation: A binary fixed point or integer constant has more than 31 digits, or a decimal fixed point or integer constant has more than 15 digits.

A binary floating point constant has more than 53 digits in the mantissa part, or a decimal floating point constant has more than 16 digits in the mantissa part.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM022 11111111 CONSTANT BEGNG xxx EXCEEDS MAXIMUM VALUE

Explanation: A floating point constant exceeds the value 7.205,759,403,792,793E75, which is the highest value allowed.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/1 statement as part of a valid PL/I program.

IKM023 11111111 SOLITARY DECIMAL POINT FOUND IN OPERAND POSITION

Explanation: A period appears invalidly in an expression in an operand position.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM024 11111111 EXPONENT MISSING IN CONSTANT BEGNG xxx

Explanation: The letter E in a floating point constant is followed by some character other than a digit, a plus or minus sign, or a decimal point.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PI/I statement as part of a valid PL/I program.

IKM025 11111111 EXPONENT TOO LONG IN CONSTANT BEGNG xxx

Explanation: A binary floating point constant has more than 3 digits in the exponent part, or a decimal floating point constant has more than 2 digits in the exponent part.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM026 11111111 DECIMAL POINT IN EXPONENT OF CONSTANT BEGNG xxx

Explanation: The exponent in a floating point constant contains a decimal point.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM027 11111111 CONSTANT BEGNG xxx HAS TOO MANY DECIMAL POINTS

Explanation: A fixed point constant or the mantissa part of a floating point constant contains more than one radix point. Sterling constants are not checked.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM028 11111111 CONFLICTING xxx OPTION

Explanation: The option named conflicts with a previously specified option.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM029 11111111 xxx OPTION REQUIRED

Explanation: The option named must be specified.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM030 11111111 INVALID OPTION BEGNG xx

Explanation: The option named is not a valid option keyword.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM031 11111111 EXPRESSION MISSING AFTER xxx

Explanation: An expression to the right of an equal sign or IF is missing. Checking of the statement is terminated.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/1 statement as part of a valid PL/I program.

IKM032 11111111 INVALID ARGUMENT SPECIFIED FCR
        xxx

        Explanation: The attribute cr option
        named has invalid argument cr argument
        list.

        Programmer Response: Probable user error.
        Correct any errors in ycur PL/I source
        statement and let the syntax checker
        rescan it.

        Problem Determination: Table I, items 13,
        29. Compile your PL/I statement as part
        of a valid PL/I program.

IKM033 11111111 ARGUMENT MISSING AFTER xxx

        Explanation: The argument that must
        follow the attribute cr option named is
        missing, or the argument list is empty.

        Programmer Response: Probable user error.
        Correct any errors in ycur PL/I source
        statement and let the syntax checker
        rescan it.

        Problem Determination: Table I, items 13,
        29. Compile your PL/I statement as part
        of a valid PL/I program.

IKM034 11111111 MULTIPLE xxx yyy SPECIFIED

        Explanation: The attribute cr option
        named has been previously specified in
        this statement.

        Programmer Response: Probable user error.
        Correct any errors in ycur PL/I source
        statement and let the syntax checker
        rescan it.

        Problem Determination: Table I, items 13,
        29. Compile your PL/I statement as part
        of a valid PL/I program.

IKM035 11111111 NO FILE SPECIFIED IN OPEN/CICSE
        STATEMENT

        Explanation: The FILE cpticn in an CPEN
        or CLOSE statement is missing. No more
        checking of the statement is performed.

        Programmer Response: Probable user error.
        Correct any errors in ycur PL/I source
        statement and let the syntax checker
        rescan it.

        Problem Determination: Table I, items 13,
        29. Compile your PL/I statement as part
        of a valid PL/I program.

IKM036 11111111 ILLEGAL USE OR INCORRECT FORMAT
        OR REFER OPTION

        Explanation: The REFER opticn is used in
        an illegal context cr is specified in an
        invalid format.

        Programmer Response: Probable user error.
        Correct any errors in ycur PL/I source
        statement and let the syntax checker
        rescan it.

Problem Determination: Table I, items 13,
29. Compile ycur PL/I statement as part
cf a valid PL/I program.

IKM037 11111111 FILE CRGANIZATION MISSING FROM
        ENVIRCNMENT OPTION

        Explanaticn: The file crganization is not
        specified in the ENVIRONMENT cption.

        Programmer Response: Probable user error.
        Ccrrect any errcrs in your PL/I source
        statement and let the syntax checker
        rescan it.

        Problem Determinaticn: Table I, items 13,
        29. Compile ycur PL/I statement as part
        cf a valid PL/I program.

IKM038 11111111 CR OR DB IN FLOATING FIELD OF
        PICTURE BEGNG xxx

        Explanaticn: The CR cr DB symbcls must
        nct be specified fcr the expcnent of a
        flcating field in a PICTURE specification.

        Programmer Response: Probable user error.
        Ccrrect any errcrs in ycur PL/I source
        statement and let the syntax checker
        rescan it.

        Problem Determinaticn: Table I, items 13,
        29. Compile ycur PL/I statement as part
        cf a valid PL/I program.

IKM039 11111111 CONFLICTING xxx ATTRIBUTE

        Explanaticn: The attribute named
        ccnflicts with a previcusly specified
        attribute. Fcr DECLARE and ALLOCATE
        statements, checking gces cn fcr the next
        level-cne declare variable (i.e., if the
        ccnflicting attribute is inside a
        structure, nc mcre checking cf this
        structure is perfcrmed).

        Programmer Response: Probable user error.
        Ccrrect any errcrs in your PL/I source
        statement and let the syntax checker
        rescan it.

        Problem Determinaticn: Table I, items 13,
        29. Compile ycur PL/I statement as part
        cf a valid PL/I program.

IKM040 11111111 xxx ATTRIBUTE NOT PERMITTED IN
        THIS CONTEXT

        Explanaticn: An iSUB dummy variable
        appears cutside the ccntext cf a DEFINED
        attribute cf a DECLARE statement; or the
        LIKE attribute is specified in an invalid
        ccntext.

        Programmer Response: Probable user error.
        Ccrrect any errcrs in your PL/I source
        statement and let the syntax checker
        rescan it.

        Problem Determinaticn: Table I, items 13,
        29. Compile ycur PL/I statement as part
        cf a valid PL/I program.

IKM041 11111111 ERROR IN FORMAT LIST BEGNG xxx

Explanation: Either 1) a format item does
not start with an identifier cr a decimal
integer constant; 2) the identifier is not
a valid format item keyword, cr 3) the
FORMAT item has an invalid fcrmat.
Checking continues after the fcrmat list.

Programmer Response: Probable user error.
Correct any errors in ycur PL/I source
statement and let the syntax checker
rescan it.

Problem Determinaticn: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM042 11111111 xxx MUST HAVE ENTRY ATTRIBUTE

Explanation: The identifier named must be
declared with an ENTRY attribute.

Programmer Response: Probable user error.
Correct any errors in ycur PL/I source
statement and let the syntax checker
rescan it.

Problem Determinaticn: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM043 11111111 INVALID xxx ATTRIBUTE SPECIFIED
FOR yyy

Explanation: The attribute named is not a
valid attribute keyword.

Programmer Response: Probable user error.
Correct any errors in ycur PL/I source
statement and let the syntax checker
rescan it.

Problem Determinaticn: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM044 11111111 ILLEGAL BASE FOR DEFINED ITEM xxx

Explanation: The item named is defined on
an invalid base.

Programmer Response: Probable user error.
Correct any errors in ycur PL/I source
statement and let the syntax checker
rescan it.

Problem Determinaticn: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM045 11111111 ERROR IN INITIAL ATTRIBUTE LIST
BEGNG xxx

Explanation: The INITIAL attribute list
does not begin with a ccnstant, a string,
or a repetition factor; or a + or - sign
is not follcwed by a ccnstant.

Programmer Response: Probable user error.
Correct any errors in ycur PL/I source
statement and let the syntax checker
rescan it.

Problem Determinaticn: Table I, items 13,
29. Compile ycur PL/I statement as part
of a valid PL/I program.

IKM046 11111111 INVALID CHAR xxx IN PICTURE BEGNG
yyy

Explanaticn: The picture specification
identified ccntains cne or more invalid
characters.

Programmer Response: Probable user error.
Ccrrect any errcrs in your PL/I source
statement and let the syntax checker
rescan it.

Prcblem Determinaticn: Table I, items 13,
29. Ccmpile ycur PL/I statement as part
cf a valid PL/I program.

IKM047 11111111 ILLEGAL USE OF CHAR xxx IN
PICTURE BEGNG yyy

Explanaticn: The character identified is
valid but imprcperly used in a picture
specificaticn.

Programmer Respcnse: Probable user error.
Ccrrect any errcrs in your PL/I source
statement and let the syntax checker
rescan it.

Prcblem Determinaticn: Table I, items 13,
29. Ccmpile ycur PL/I statement as part
cf a valid PL/I program.

IKM048 11111111 EXPONENT FIELD MISSING IN PICTURE
BEGNG xxx

Explanaticn: In the picture specification
fcr a flcating pcint number, the exponent
field is missing.

Programmer Respcnse: Prcbable user error.
Ccrrect any errcrs in your PL/I source
statement and let the syntax checker
rescan it.

Prcblem Determinaticn: Table I, items 13,
29. Ccmpile ycur PL/I statement as part
cf a valid PL/I program.

IKM049 11111111 EXPONENT FIELD TOO LARGE IN
PICTURE BEGNG xxx

Explanaticn: In the picture specification
fcr a flcating pcint number, the exponent
field has tcc many decimal pcsitions.

Programmer Respcnse: Prcbable user error.
Ccrrect any errcrs in your PL/I source
statement and let the syntax checker
rescan it.

Prcblem Determinaticn: Table I, items 13,
29. Ccmpile ycur PL/I statement as part
cf a valid PL/I program.

IKM050 11111111 MORE THAN ONE SIGN CHAR IN
PICTURE BEGNG xxx

Explanaticn: The numeric picture
specificaticn identified ccntains more
than cne (not drifting) sign character.

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it.

Problem Determination: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM051 11111111 INVALID SCALING FACTOR IN PICTURE
BEGNG xxx

Explanation: In the picture specification
for a fixed point number, the scaling
factor is invalidly represented.

Programmer Response: Probable user error,
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it.

Problem Determination: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM052 11111111 INVALID USE OF SCALING FACTOR IN
PICTURE BEGNG xxx

Explanation: A scaling factor may occur
only in the picture specification for a
fixed-point number.

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it.

Problem Determination: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM053 11111111 NO SCALING FACTOR PARENTHESES IN
PICTURE BEGNG xxx

Explanation: The parentheses enclosing
the integer of a scaling factor in the
picture specification identified are
missing.

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it.

Problem Determination: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM054 11111111 INVALID REPETITION FACTOR IN
PICTURE BEGNG xxx

Explanation: The repetition factor in the
picture specification identified is not an
integer. A repetition factor in a picture
specification must be a non-zero integer
enclosed in parentheses.

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it.

Problem Determination: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM055 11111 MULTIPLE USE OF CHARACTER xxx IN
PICTURE BEGNG yyy

Explanation: The characters E, K, and V
may occur once only in a numeric picture
specification.

Programmer Response: Probable user error,
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it.

Problem Determination: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM056 111111 NO DIGIT POSITION BEFORE EXPONENT
IN PICTURE xxx

Explanation: A picture specification for
a floating point number makes no allowance
for the digits of a mantissa preceding the
delimiter E.

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it.

Problem Determination: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM057 11111111 PICTURE BEGNG xxx LONGER THAN 255
CHAR

Explanation: The picture specification
identified exceeds the maximum length of
255 characters.

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it.

Problem Determination: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM058 11111111 STERLING CHAR FOUND IN
NON-STERLING PICTURE xxx

Explanation: One of the characters 8, 7,
6, F, G, H, or M is found but the
character G did not start this picture
specification.

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it.

Problem Determination: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM059 11111111 ILLEGAL LEVEL NUMBER xxx

Explanation: A major structure name must
be declared with the level number 1.
Minor structures must be declared with
level numbers greater than 1. Level
numbers must be decimal integers.

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it.

Problem Determination: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM060   1111111 PRECISION EXCEEDS xxx FOR PICTURE
          BEGNG yyy

Explanation: The precision implied by the
picture specification for a fixed or
floating point number exceeds the maximum
default precision.

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it.

Problem Determination: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM061   11111111 ILLEGAL ASTERISK AS SUBSCRIPT IN
          DEFINING LIST

Explanation: An asterisk is not allowed
as a subscript in a defining list.

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it.

Problem Determination: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM062   11111111 ELEMENT xxx IS ILLEGALLY DEFINED
          WITH ISUB

Explanation: ISUB variables may not be
used to define a scaler variable on an
array base.

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it.

Problem Determination: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM063   11111111 ILLEGAL ISUB VALUE

Explanation: The value of an iSUB dummy
variable is outside the range 1-32.

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it.

Problem Determination: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM064   11111111 POSITION ATTRIBUTE ILLEGAL FOR
          DEFINED ITEM xxx

Explanation: A POSITION attribute may not
be specified for a data item defined by
ISUB variables on a base identifier.

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it.

Problem Determination: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM065   11111111 SUBSCRIPTED BASE ILLEGAL FOR
          DEFINED ITEM xxx

Explanation: The base identifier on which
a data item is defined may not be a
subscripted name.

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it.

Problem Determination: Table I, items 13
, 29. Compile your PL/I statement as part
of a valid PL/I program.

IKM066   11111111 FORMAT LIST MISSING

Explanation: The format in a GET, PUT, or
FORMAT statement is missing.

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it.

Problem Determination: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM067   1111111 FORMAT LIST CONTAINS NO DATA
          FORMAT ITEM

Explanation: The format list in a GET or
PUT statement must include a format item
for the data item being transmitted.

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it.

Problem Determination: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM068   11111111 FORMAT ITEM xxx PERMITTED WITH
          OUTPUT ONLY

Explanation: The format item named may
not be used in the format list of a GET
statement.

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it.

IKM069 11111111 FORMAT ITEM xxx IS INVALID

Explanation: The format item named uses invalid characters or is incorrectly written. Checking continues after the end of the format list.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM070 11111111 NESTING OF FORMAT LIST EXCEEDS 20

Explanation: A format list in this statement is nested to more than 20 levels.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM071 11111111 INVALID DATA ITEM BEGNG xxx

Explanation: The data item is not a valid identifier or is incorrectly written.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM072 11111111 NO DATA SPECIFICATION OR CONTROL OPTION FOUND

Explanation: The data list and format list for a GET or PUT statement are missing.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM073 11111111 ARRAY BOUND FOR xxx IS TOO LARGE

Explanation: The upper and/or lower bound of one or more dimensions of an array exceeds the maximum value.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM074 11111111 *BOUNDS ARE MIXED WITH NON* BOUNDS

Explanation: Variable array bounds (denoted by asterisks) may not be mixed with non-variable bounds in a DECLARE statement.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM075 1111111 LOWER BOUND GREATER THAN UPPER BOUND FOR xxx

Explanation: An array is declared with a lower bound greater than the upper bound or with a single upper bound equal to or less than zero.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM076 11111111 EXTERNAL NAME BEGNG xxx LONGER THAN SEVEN CHAR

Explanation: An external name may not exceed seven characters in length.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM077 11111111 IDENTIFIER BEGNG xxx IS TOO LONG

Explanation: An identifier has more than 31 characters.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM078 11111111 UNMATCHED PARENTHESES, xxx MISSING

Explanation: The left and right parentheses in the current statement are unbalanced; one or more left or right parentheses are missing. The statement is not checked further.

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it.

Problem Determination: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM079 11111111 LEFT PARENTHESIS REQUIRED AFTER
        xxx

Explanation: The option named must be
followed by one or more arguments enclosed
in parentheses.

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it.

Problem Determination: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM080 11111111 OPERAND MISSING BEFORE xxx

Explanation: An identifier or expression
preceding the item named is missing. This
error terminate checking of the expression
in question.

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it.

Problem Determination: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM081 11111111 INSUFFICIENT ARGUMENT SPECIFIED
        FOR xxx yyy

Explanation: The number of arguments
specified in the statement named is
insufficient.

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it.

Problem Determination: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM082 11111111 ON CONDITION INVALID OR MISSING

Explanation: An ON-condition is either
missing or invalidly specified. Checking
of the ON-statement is terminated.

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it.

Problem Determination: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM083 1111111 INVALID SET/IN CLAUSE SPECIFIED
        FOR xxx

Explanation: The clause following the SET
or IN option is invalid.

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it.

Problem Determination: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM084 11111111 VARIABLE IN LOCATE STATEMENT
        INVALID OR MISSING

Explanation: The LOCATE keyword is not
followed by an unscripted, unqualified
identifier.

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it. If a problem recurs, do the
rescan it.

Problem Determination: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM085 1111111 FACTORING NOT PERMITTED ON
        ALLOCATE STATEMENT

Explanation: An ALLOCATE statement
contains a list of two or more factored
variables.

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it.

Problem Determination: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM086 11111111 POINTER QUALIFIER AFTER POINTER
        QUALIFIER OR SUBSCRIPT

Explanation: A pointer in a pointer
qualifier may not be pointer qualified or
subscripted.

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it.

Problem Determination: Table I, items 13,
29. Compile your PL/I statement as part
of a valid PL/I program.

IKM087 11111111 OPERAND MISSING AFTER xxx

Explanation: An identifier or expression
following the item named is missing.
Checking is terminated.

Programmer Response: Probable user error.
Correct any errors in your PL/I source
statement and let the syntax checker
rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM088 11111111 NO DIGIT POSITION IN PICTURE BEGNG xxx

Explanation: A picture specification must contain at least one digit position.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM089 11111111 INVALID OPERATOR xxx

Explanation: The operator is not valid for use in an expression.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM090 11111111 IDENTIFIER MISSING AFTER xxx

Explanation: An operator is missing after the item named. This error terminates the checking of the expression in question.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM091 11111111 OPERATOR MISSING BEFORE xxx

Explanation: An operator is missing after the item named. This error terminates the checking of the expression in question.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM092 11111111 ILLEGAL LEFT PART OF ASSIGNMENT STATEMENT

Explanation: An invalid operand appears to the left of the assignment symbol. Checking of the statement is terminated.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM093 11111111 INVALID DO SPECIFICATION

Explanation: The keyword TO or BY is multiply used, or the DO specification contains an illegal symbol.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM094 11111111 xxx MISSING IN yyy STATEMENT

Explanation: For example, the keyword TO or the label in a GO TO statement is missing.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM095 11111111 SEMICOLON NOT FOUND WHEN EXPECTED

Explanation: The semicolon marking the end of a logically complete statement is missing, or no semicolon is found for the last statement of the input buffers.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM096 11111111 INVALID EVENT NAME BEGNG xxx

Explanation: In a WAIT or input/output statement, the event name specified for the EVENT option is invalid.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM097 11111111 BREAK CHAR INVALID AT BEGNG OF IDENTIFIER xxx

Explanation: The identifier may not begin with a break character.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

IKM

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM098 11111111 INVALID FORM OF INITIALIZATION FOR xxx

Explanation: The initialization specified in this statement does not comply with the rules of PL/I syntax.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM099 11111111 MORE THAN 3 LEVELS OF ENTRY NESTING

Explanation: The ENTRY attribute may not apply to more than three logical levels.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM100 11111111 INVALID REPETITION FACTOR IN INITIAL LIST

Explanation: The repetition factor, a decimal integer constant, must be enclosed in parentheses and must precede the value or character to which it relates.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM101 11111111 MORE THAN 63 TRUE LEVEL NUMBERS SPECIFIED FOR xxx

Explanation: A structure may have a maximum of 63 levels, including the major structure number 1.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

IKM102 11111111 MORE THAN 32 DIMENSIONS SPECIFIED FOR xxx

Explanation: An array may have a maximum of 32 dimensions.

Programmer Response: Probable user error. Correct any errors in your PL/I source statement and let the syntax checker rescan it.

Problem Determination: Table I, items 13, 29. Compile your PL/I statement as part of a valid PL/I program.

Component Name	IMx
Program Producing Message	Service Aids: IMAPTFLE, IMASPZAP, IMBLIST, IMBMDMAP, IMCJQDMP, IMCOSJQD, IMDPRDMP.
Audience and Where Produced	For Programmer: SYSPRINT data set. For Operator: console.

Message Format	IMxnnnI text (in SYSPRINT)
	
	id IMxnnns text (on console)
	
	id
	    Message reply identification (absent if operator reply not required).
	xnnn
	    Message serial number, which is coded to indicate the service aid program:
	
	    A000 - A004 IMAPTFLE
	    A100 - A11B IMASPZAP
	    B001 - B020 IMBMDMAP
	    B101 - B126 IMBLIST
	    C000 - C014 IMCJQDMP/IMCCSJQD
	    D000 - D005 IMDSADMP
	    D150 - D184 IMDPRDMP
	s
	    Type code:
	
	    A Action; operator must perform a specific action.
	    D Decision; operator must choose an alternative.
	    I Information; no operator action is required.
	text
	    Message text.

Comments	None.
Associated Publication	*IBM System/360 Operating System: Service Aids*, GC28-6719.
Problem Determination	Refer to the fold-out in part VI of this publication for problem determination instructions.

IMAPTFLE Messages

IMA000I THE FOLLOWING MODULE(S) DID NOT FIND A MATCH

    Explanation: The IMAPTFLE program could not find a match for the input module name on the Stage 1 output tape for SYSGEN, or a module name has been specified more than once (for example, two input statements contained the same module name).

    System Action: If IMAPTFLE could not find a match, all module names for which no JCL was produced will be listed following this message. If duplicate module names were encountered, IMAPTFLE will list the JCL for the module the first time it processes the name. All subsequent encounters with the same module name will cause IMAPTFLE to flag the name as an error. (Return code -- 4.)

    Programmer Response: Probable user error. If the module name was in error, correct the name and rerun the job. For duplicate names, no action is required.

    Problem Determination: Table I, items 2, 13, 29.

IMA001I INPUT MODULE TABLE HAS OVERFLOWED BREAK INPUT INTO TWO JOBS AND RERUN

    Explanation: The number of input module names has exceeded the limit of 150 allowed in the input module table.

    System Action: IMAPTFLE stops processing the input, and gives this message. (Return code -- 16.)

    Programmer Response: Probable user error. Break the input data into groups of no more than 150 module names per execution of IMAPTFLE, and execute the program as

IMx

many times as needed to create JCL for all the modules.

Problem Determination: Table I, items 2, 13, 29.

IMA002 DATA SET ASSOCIATED WITH THE //xxxx DD CARD CANNOT BE OPENED

Explanation: The DCB associated with DD statement xxxx cannot be opened. The data set cannot be read.

System Action: IMAPTFLE processing is terminated. (Return code -- 16.)

Programmer Response: Probable user error. Check for errors in the DD statements named in the message. Correct the errors and rerun the job with MSGLEVEL=(1,1) in the JOB statement.

Problem Determination: Table I, items 2, 13, 29.

IMA003I UNCORRECTABLE I/O ERROR OCCURRED
jobname,stepname,addr,typ,ddname, operation,error description

Explanation: An uncorrectable error was detected during the execution of an I/O operation.

System Action: IMAPTFLE terminates (return code -- 16) but gives the following diagnostic information in the message text:

jobname
 the job within which the I/O error was detected.
stepname
 the job step in which the error occurred.
addr
 the unit address of the device on which the error occurred.
typ
 the device type of the failing device.
ddname
 the name of the associated data set.
operation
 the type of I/O operation that was being performed at the time of the error.
error description
 the type of error that occurred.

Programmer Response: Resubmit the job with MSGLEVEL=(1,1) specified in the JCB statement.

Problem Determination: Table I, items 2, 13, 29.

IMA004I UNIDENTIFIED FORMAT ON SYSGEN STAGE 1 TAPE

Explanation: IMAPTFLE has determined that the Stage 1 Output tape was from a SYSGEN earlier than Release 19. The format of this level Stage 1 Output tape is not supported by IMAPTFLE.

System Action: IMAPTFLE processing is terminated. (Return code -- 16.)

Programmer Response: Probable user error. Verify that the:
• Stage 1 Output tape is from a Sysgen earlier than Release 19.
• System to be updated with the PTF is of a Release 19 level or later.

If both of these conditions are true, rerun the job using the correct Stage 1 Output tape. Make sure that MSGLEVEL=(1,1) is specified on the JOB statement.

Problem Determination: Table I, items 2, 13, 17a, 29.

IMA005I INVALID PARAMETER SPECIFIED ON EXEC STATEMENT

Explanation: An invalid parameter was specified in the PARM field of the EXEC statement.

System Action: IMAPTFLE processing is terminated. (Return code -- 16.)

Programmer Response: Probable user error. Check for an error in the PARM field of the EXEC statement. Correct any error and rerun the job with MSGLEVEL=(1,1) specified in the JOB statement.

Problem Determination: Table I, items 2, 13, 29.

IMA006I LOAD MODULE cccccccc NOT UPDATED WITH PTF - nn

Explanation: IMAPTFLE was unable to update load module cccccccc with the program temporary fix (PTF). If nn=01, the directory entry for load module cccccccc in the data set described by the SYSLMOD DD statement could not be located. If nn=02, the PTF was not successfully linkage edited into the module.

System Action: IMAPTFLE does not attempt to update load module cccccccc with the PTF. Processing continues. (Return code -- 16.)

Programmer Response: Probable user error. If nn=01, verify that the DSNAME parameter on the SYSLMOD DD statement identifies the data set that contains load module cccccccc, and that the STAGE 1 output tape from SYSGEN corresponds to the system that is currently running. Correct any errors and rerun the job with MSGLEVEL=(1,1) specified in the job statement.

Problem Determination: Table I, items 2, 13, 17a, 29. If nn=02, respond as indicated to the Linkage Editor messages (beginning with IEW) that accompany this message.

IMA0007I LOAD MODULE cccccccc UPDATED WITH PTF - NEW SSI IS nnnnnnnn

Explanation: Load module cccccccc has been successfully updated with the program temporary fix (PTF). The system status index (SSI) for the updated load module is nnnnnnnn.

System Action: IMAPTFLE processing continues. (Return code -- 16.)

Programmer Response: None.

IMA0008I THE PRECEDING STATEMENT IS INVALID

Explanation: While scanning input defined by the MODF DD statement, IMAPTFLE found a statement that was neither an IDENTIFY statement or an IMAPTFLE control statement. The control statement in error is printed above the message.

The statement probably has one of the following errors:

- The name on the module name control statement did not begin in column one.
- The word IDENTIFY was misspelled. The MODF input is out of order.
- Continuation of an IDENTIFY statement was expected but not received before the next module name.

System Action: IMAPTFLE terminates with a return code of 16.

Programmer Response: Probable user error. Correct the error and rerun the job.

Problem Determination: Table I, item 29. Have the MODF input and the PRINT output available.

IMA0009I IMAPTFLE TERMINATED; NO BLOCKSIZE ON THE PCHF DD STATEMENT

Explanation: The BLKSIZE parameter was missing from the PCHF DD statement which described a non-labeled tape.

System Action: IMAPTFLE terminated with a return code of 16.

Programmer Response: Probable user error. Include in the BLKSIZE parameter on the PCHF DD statement the blocksize of the records on the tape and rerun the job.

Problem Determination: Table I, items 1, 3, 15, 29.

IMA0010I IMAPTFLE TERMINATED, AN IDENTIFY STATEMENT IS MISSING

Explanation: During the application function, IMAPTFLE did not find an IDENTIFY statement following a PTF object module; an IDENTIFY statement must follow each PTF object module.

System Action: IMAPTFLE terminates with a return code of 16.

Programmer Response: Probable user error. Insert an IDENTIFY statement after each PTF object module and rerun the job.

Problem Determination: Table I, items 1, 15, 29. Have the MODF input available.

IMA0011I NUMBER OF IDENTIFY CARDS IN INPUT STREAM EXCEEDS 150

Explanation: The generate function of IMAPTFLE is being executed. There are more than 150 IDENTIFY statements and continuations.

System Action: IMAPTFLE terminates. (Return code -- 16.)

Programmer Response: Probable user error. Process the input with more than one step.

Problem Determination: Table I, items 1, 15, 29. Have the MODF input available.

IMA0012I OVERLAY STRUCTURE FOR MODULE mod EXCEEDS LIMIT

Explanation: The number of statements in the Stage 1 output required to define an overlay for module mod exceeds 185.

System Action: IMAPTFLE terminates. (Return code -- 16.)

Programmer Response: Probable user error. Do not use the Stage 1 output again with IMAPTFLE unless the step defining the module mod has been removed. (The step may be removed from the Stage 1 output using IEBEDIT.)

Problem Determination: Table I, items 17, 29.

IMA0013I THE FOLLOWING IS IDENTIFY INFORMATION FOR MODULE mod

Explanation: The IDENTIFY information to be included in the CSECT IDENTIFY records for module mod is listed following this message.

System Action: IMAPTFLE processing continues. (Return code -- 0.)

Programmer Response: None.

IMA0014I INSUFFICIENT MAIN STORAGE FOR PROCESSING, IMAPTFLE TERMINATED

Explanation: IMAPTFLE was unable to continue processing because the main storage required for necessary tables and buffers was not available in the IMAPTFLE region or partition.

System Action: IMAPTFLE processing terminates with a return code of 16.

Programmer Response: Increase the region or partition size available to IMAPTFLE as recommended in the publication IBM System/360 Operating System: Service Aids SRL, GC28-6719.

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Problem Determination: Table I, items 15, 29. Have the MODF input available.

IMA015I MODULE mod FOUND MATCH ON ASSEMBLY STEP ONLY

Explanation: While executing the generate function for a module (mod) assembled during system generation, IMAPTFLE found the module in the Stage 1 assembly step but not in the Stage 1 link-edit step (which should follow the assembly).

System Action: IMAPTFLE terminates the job and lists the JCL. (Return code -- 4.)

Programmer Response: Probable user error. It is possible that the SYSGEN Stage 1 output data set did not contain the link-edit step, or the link-edit step preceded the assembly step. If the link-edit step was properly included in the SYSGEN, rerun the IMAPTFLE job.

Problem Determination: Table I, items 1, 17a, 29. Have the MODF input available.

IMASPZAP Messages

IMA100I IMASPZAP PROCESSING COMPLETED

Explanation: This message occurs when IMASPZAP terminates normally. It should be noted, however, that normal termination can occur despite prior failure in the processing of control statements.

System Action: The job step terminates.

Programmer Response: Check the output on SYSPRINT to insure that all control statement operations completed successfully.

IMA101I SYSLIB I/O ERROR device, operation, error condition, access method

Explanation: An I/O error occurred when the data set defined in the SYSLIB DD statement was being accessed. The device address, the operation in process, the type of error, and the access method in use are provided in the error message.

System Action: The job step terminates.

Programmer Response: If VERIFY and REP control statements were part of the input stream for IMASPZAP, the user should dump either the record or control section being inspected and/or modified, and carefully check the printed output to insure that any modifications made were performed correctly. If all the modifications requested have not been performed, the user should reexecute IMASPZAP to make the necessary modifications.

Problem Determination: Table I, items 2, 13, 29.

IMA102I SYSLIB DD SPECIFICATION ERROR

Explanation: Either a SYSLIB DD statement was not included in the JCL, or the data set defined in the SYSLIB DD statement does not contain the member name or physical record defined in a control statement.

System Action: Subsequent VERIFY, REP, and SETSSI statements are ignored until a successful NAME or CCHHR operation is performed.

Programmer Response: Probable user error. Make sure that a SYSLIB DD statement was included in the JCL. If so, correct the member name or address in the erroneous control statement or correct the DSNAME in the SYSLIB DD statement, and resubmit the job. If the CONSOLE option is being utilized, the job need not be resubmitted; the corrected statement can be reentered in response to message IMA116A.

Problem Determination: Table I, items 2, 13, 29.

IMA103I CSECT ABSENT - ALL CSECTS FOLLOW

Explanation: A control section name defined in a control statement cannot be found in the member that was specified as containing it.

System Action: All control sections of the load module are dumped. Subsequent VERIFY or REP statements are ignored until a NAME or CCHHR statement is read.

Programmer Response: Probable user error. Correct the control section parameter in the erroneous control statement, and resubmit the job. If the CONSOLE option is being utilized, the job need not be resubmitted; the corrected statement can be reentered in response to message IMA116A.

Problem Determination: Table I, items 2, 13, 29.

IMA104I VERIFY REJECT - SET NO GO SWITCH

Explanation: The data contained in the VERIFY statement did not agree with the data at the specified location.

System Action: A dump of the text portion of the control section or the entire data record is printed on SYSPRINT. Processing continues, but all REP and SETSSI statements that follow the rejected VERIFY statement are ignored until another NAME or CCHHR statement is encountered. However, any VERIFY statements that are detected will be executed.

Programmer Response: Probable user error. Check the dump output and correct either the data or offset parameter (whichever was in error in the VERIFY statement), and resubmit the job.

Problem Determination: Table I, items 2, 13, 29.

IMA105I INVALIC CARD OR NO GO SWITCH SET

Explanation: This message occurs if an operation is not acceptable due to an invalid operation name cr if an error occurred on a previous operation.

System Action: If the error occurred previously, during the processing of a NAME or CCHHR statement, nc VERIFY or REP operations will be performed until a subsequent NAME, CCHHR, DUMP, DUMPT, ABSDUMP, or ABSDUMPT statement is processed successfully. If the error occurred in a previous VERIFY cr REP statement, only REP statements will be bypassed until a subsequent NAME or CCHHR statement is performed successfully.

Programmer Response: Probable user error. Correct the control statement found to be in error, and resubmit the job.

Problem Determination: Table I, items 2, 13, 29.

IMA106I PATCH OVERLAPS - CHECK DUMP

Explanation: One of the following conditions has occurred while a VERIFY or REP operation was being performed:

For a data record - the offset specified in the control statement is beyond the end of the record containing the data to be inspected or modified. (For example, OFFSET>KEYLEN+RECORD LENGTH.)

For a control section - the offset value plus the number of bytes of data specified in the control statement denotes a location that is beyond the limits of the control section. (For example: offset value + number of bytes of data > displacement of last byte of control section.)

System Action: IMASPZAP dumps the data in the control section or data record being modified or inspected, and continues processing subsequent control statements. However, any REP statements pertaining to the same NAME or CCHHR statement will be ignored.

Programmer Response: Probable user error. If a REP operation was being performed on a control section when the error occurred, check the offset and data parameters. If the offset is within the limits of the control section, but the number of bytes specified exceeds the end of the control section, the portion of data that fell within the control section will have been modified before the error was detected. Restore the data to its original form, correct the number of bytes specified in the REP statement, and perform the REP operation again. If the offset in the REP statement exceeded the limits of the

control section, then no modification of data will have been made. In this case, correct the offset specified in the REP statement and perform the REP operation again. If a VERIFY operation was being performed on a control section or data record, or if a REP operation was being performed on a data record at the time the error was detected, no modification will have been made. Correct the offset or number of bytes specified in the control statement (whichever was in error), and perform the operation again.

Problem Determination: Table I, items 2, 13, 29.

IMA107I DS AREA NOT INCLUDED IN TEXT

Explanation: A VERIFY or REP operation was attempted, and the base value specified in a BASE statement was greater than the offset value specified in a corresponding VERIFY cr REP statement.

System Action: IMASPZAP dumps the data in the control section being modified or inspected and continues processing. Any subsequent REP statements pertaining to the same NAME statement will be ignored.

Programmer Response: Probable user error. Correct either the value in the erroneous BASE statement cr the invalid offset value given in the VERIFY cr REP statement, and resubmit the job.

Problem Determination: Table I, items 2, 13, 29.

IMA108I SYSIN SPECIFICATION ERROR

Explanation: The SYSIN DD statement was nct defined in the execution JCL.

System Action: The job step terminates.

Programmer Response: Probable user error. Include the SYSIN DD statement in the JCL and resubmit the job.
Problem Determination: Table I, items 2, 13, 29.

IMA109I ERROR - ODD NUMBER DIGITS - IGNORED

Explanation: This message occurs if the patch data, verify data or data offset specified in a VERIFY cr REP control statement is nct represented as an even number of hexadecimal digits.

System Action: If the error results from an invalid VERIFY statement, any REP statements that fcllcw are ignored until a subsequent NAME, CCHHR, DUMP, DUMPT, ADSDUMP, cr ABSDUMPT command is entered. If the error is detected in a REP statement, only that particular statement is ignored.

Programmer Response: Probable user error. Make sure that an even number cf hexadecimal digits is specified in the offset and data parameters in the VERIFY cr REP statement, and resubmit the job.

Problem Determination: Table I, items 2, 13, 29.

IMA110I NO DIRECTORY SSI - SETSSI IGNORED

Explanation: A SETSSI statement has been entered for a member which does not contain SSI information in its directory entry.

System Action: No SSI information is stored; processing continues with the next control statement.

Programmer Response: To create the SSI in the directory entry for the member:
• If a member of a load module library, re-linkage edit the load module, including a SETSSI control statement.
• If a member of a macro or symbolic library, use the IEBUPDTE utility program, specifying SSI information in the ADD, REPL, CHANGE or REPRO control statement.

Problem Determination: Table I, items 2, 13, 29.

IMA111I PREVIOUS ERROR - SETSSI IGNORED

Explanation: Due to an error detected in a previous operation, the SETSSI operation cannot be performed.

System Action: The SETSSI operation is not performed, and IMASPZAP continues processing subsequent control statements.

Programmer Response: Probable user error. Correct the previously detected error, and rerun the job.

Problem Determination: Table I, items 2, 13, 29.

IMA112I MEMBER NOT FOUND - SETSSI IGNORED

Explanation: The member to which the SETSSI operation was directed could not be found in the directory of the data set specified by the SYSLIB DD statement.

System Action: Processing continues with any remaining control statement.

Programmer Response: Probable user error. Correct the member name in the NAME statement associated with the SETSSI command, or correct the data set name defined in the SYSLIB DD statement, and resubmit the job.

Problem Determination: Table I, items 2, 13, 29.

IMA113I COMPLETED DUMP REQUIREMENTS

Explanation: This message is written to the SYSPRINT device following the successful completion of a DUMP, DUMPT, ABSDUMP or ABSDUMPT operation.

System Action: IMASPZAP continues processing with any remaining sequential control statement.

Programmer Response: None.

IMA114I PERMISSION TO UPDATE VTOC DENIED

Explanation: When IMASPZAP requested permission to update the VTOC, the operator replied 'N'.

System Action: No modification to the VTOC will be performed. Processing continues with the next control statement, but any subsequent VERIFY or REP operations will be ignored.

Programmer Response: If you intend to modify the VTOC, instruct the operator to reply 'Y' when permission is requested by IMASPZAP. (See message IMA117D.)

IMA115I SYSIN I/O ERROR device, operation, error condition, access method

Explanation: An uncorrectable I/O error occurred when IMASPZAP was attempting to read a control statement from the SYSIN data set. The device address, the operation in process, the type of error, and the access method in use are provided in the error message.

System Action: Processing is terminated immediately. Control statements read from the SYSIN data set before the error was encountered will have been processed.

Programmer Response: Probable user error. If the error condition is a wrong length record, check the blocksize specified for the SYSIN data set to be sure that it is equal to the actual size of the records in the SYSIN data set. For other error conditions, check the SYSIN DD statement for correct specifications.

Problem Determination: Table I, items 2, 13, 29.

IMA116A ENTER IMASPZAP CONTROL STATEMENT OR END

Explanation: When the console option is being used, this message is written to the console device every time input is required.

System Action: Processing continues.

Operator Response: If the programmer wishes to continue processing, enter a valid control statement; if the programmer wishes to terminate the job, enter REPLY xx,'END'.

IMA117D REPLY Y or N TO UPDATE VTOC xxxxxx yyy zzzzzzzz

Explanation: IMASPZAP is being executed by the zzzzzzzz for the purpose of modifying or inspecting the VTOC on volume xxxxxx, device yyy. As a precautionary measure, the program requests permission for this operation.

System Action: The program suspends processing until the operator enters a response.

Operator Response: If the programmer
initiating this run is not authorized to
perform such an operation, enter REPLY
xx,'N'. As a result of this negative
response, IMASPZAP will issue message
IMA114I and all subsequent VERIFY and REP
statements will be ignored. The response
REPLY xx,'Y' will, however, allow IMASPZAP
to inspect and modify the VTOC.

IMA118I SYSPRINT DD NOT IN INPUT

Explanation: A SYSPRINT DD statement was
not included in the execution JCL
statements for this execution of IMASPZAP.

System Action: IMASPZAP terminates
immediately.

Programmer Response: Probable user error.
Define a SYSPRINT DD statement to be
included in the JCL, and rerun the job.

Problem Determination: Table I, items 2,
13, 29.

IMA119I NO IDR FOR MODULE name

Explanation: IMASPZAP found that the load
module (name) does not include CSECT
identification records (IDRs); it has not
been processed by a linkage editor
containing IDR support.

System Action: IMASPZAP continues with
normal processing.

Programmer Response: If IDR maintenance
data in the load module is desired,
reprocess the module with the linkage
editor that has IDR support, then return
the IMASPZAP job.

IMA120I membname NO IDR SPACE - RE-LINK

Explanation: A REP operation was to be
performed on the module indicated in the
message (mod) but IMASPZAP found that no
space is available in the IMASPZAP IDR for
maintenance information.

System Action: Any REP operation for the
module (mod) will not be performed.

Programmer Response: The indicated module
must be reprocessed by the linkage editor
so that the module will contain an
additional IMASPZAP IDR. In the event the
module has the noneditable attribute,
process IMASPZAP against the module using
the CCHR control statement to locate and
change this bit to editable prior to the
linkage editor run. Rerun the IMASPZAP job.

IMA121I CCHHR UPDATE BY jobname ON ser, cchhr,
dsname

Explanation: IMASPZAP has modified a data
set on a direct access device by use of
the CCHHR and REP statements. This
message is automatically given as security
audit information.

Variables in the message are as follows:

jobname   represents the name of the job
           which performed the CCHHR
           update.
ser   is replaced with the volume
           serial.
cchhr   is replaced with device record
           address of the record that was
           modified.
dsname   is replaced with the name of
           the modified data set.

If IMASPZAP input is from the system
console and both CCHHR and REP statements

have been processed, then this message
will appear immediately after the next
CCHHR, NAME, DUMP, ABSDUMP, END, or
invalid statement entered.

System Action: Normal processing continues.

Operator Response: Save the information
as recommended by your installation.

IMA123I SYSPRINT I/O ERROR ddd,op,err,acc-meth

Explanation: An I/O error occurred while
IMASPZAP was writing in the data set
defined by the SYSPRINT DD statement. The
device address (ddd), the operation (op),
the type error (err), and the access
method used (acc-meth) are provided in the
message text.

System Action: The job step is terminated.

Programmer Response: If the REP operation
was successful, rerun the job step after
insuring that the associated REP and
VERIFY control statements have been
removed.

Problem Determination: Table I, items 2,
13, 29.

IMA124I INVALID SYSLIB DCB BLOCKSIZE

Explanation: The SYSLIB DCB contained
zero in the DCBBLKSZ field after OPEN, or
a value less than the size of the block
just read.

System Action: IMASPZAP terminates.

Programmer Response: Probable user error.
Ensure that the SYSLIB DCB contains the
correct blocksize, or specify the
blocksize in the DCB parameter of the
SYSLIB DD statement.

Problem Determination: Table I, items 2,
4, 25b, 26b, 29.

IMA125I membname IDR COUNT = nn (MAX = mm)

Explanation: The IDR record(s) for the load
module just updated contain nn valid entries
and mm-nn empty entries.

System Action: None.

Programmer Response: If nn=mm, the module
must be re-linkedited before any further
updates. If mm=19 and $15 \leq nn \leq 19$, additional
IDR space (19 entries) can be created by
re-linkediting the load module (using INCLUDE).

IMA126I membname IDR(s) FILLED - RE-LINK

Explanation: Appears after IMA125I with
nn=mm.

System Action: None.

Programmer Response: If nn=mm, the module
must be re-linkedited before any further
updates. If mm=19 and $15 \leq nn \leq 19$, additional
IDR space (19 entries) can be created by
re-linkediting the load module (using INCLUDE).

IMBMDMAP Messages

IMB001I SYSPRINT DD STATEMENT MISSING

Explanation: IMBMDMAP was unable to open
the SYSPRINT data set.

System Action: Processing is terminated.

Programmer Response: Probable user error.
Define a SYSPRINT DD statement and rerun.

Problem Determination: Table I, items 2, 13, 29.

IMB002I SNAPDUMP DD STATEMENT MISSING

Explanation: The DEBUG option was specified in the JCL statements, but the SNAPDUMP data set could not be opened.

System Action: Processing continues, but the DEBUG parameter is ignored.

Programmer Response: Probable user error. Define a SNAPDUMP DD statement and rerun.

Problem Determination: Table I, items 2, 13, 29.

IMB003I - WARNING - xxxxxxxx CONTAINS NO RLD RECORDS

Explanation: Warning message; partitioned data set member xxxxxxxx contains no relocation dictionary records.

System Action: Processing continues.

Programmer Response: None.

IMB004I xxxxxxxx CONTAINS NO ESD RECORDS

Explanation: Partitioned data set member xxxxxxxx contains no external symbol dictionary entries. This may be a normal condition, e.g., if the member was linkage edited with an attribute of NE (NOT-EDITABLE).

System Action: Mapping of xxxxxxxx is not performed, but IMBMDMAP continues processing.

Programmer Response: Execute IMBMDMAP with a DEBUG request to obtain a dump of the subject module and partitioned data set directory to verify load module structure.

Problem Determination: Table I, items 2, 13, 29.

IMB005I I/O ERROR READING MEMBER xxxxxxxx

Explanation: An error occurred while partitioned data set member xxxxxxxx was being read.

System Action: Mapping of member xxxxxxxx is not performed, but IMBMDMAP continues processing.

Programmer Response: Rerun IMBMDMAP.

Problem Determination: Table I, items 2, 13, 29.

IMB006I MEMBER xxxxxxxx NOT FOUND - BLDL FAILED

Explanation: Partitioned data set member xxxxxxxx was not found during execution of the BLDL macro instruction.

System Action: Mapping of member xxxxxxxx is not performed, but IMBMDMAP continues processing.

Programmer Response: Probable user error. Check for proper specification of the DSNAME and member name. If they are accurately specified and the error recurs, use IMBMDMAP with the DEBUG parameter to obtain a dump of the partitioned data set directory.

Problem Determination: Table I, items 2, 13, 29.

IMB007I I/O ERROR READING PDS DIRECTORY - DURING BLDL

Explanation: Execution of the BLDL macro instruction could not be completed; an error occurred during reading of the partitioned data set directory of the member indicated in the heading at the top of the listing page.

System Action: Mapping of the specified member is not performed, but IMBMDMAP continues processing.

Programmer Response: Rerun IMBMDMAP.

Problem Determination: Table I, items 2, 13, 29.

IMB008I EXEC PARM CONTAINS INVALID CHARACTERS. MUST BE LINKPACK, BASIC, DEBUG, AND/OR 1 TO 6 CHARACTER HEX ADDRESS

Explanation: IMBMDMAP has encountered invalid characters in one of the EXEC parameters.

System Action: IMBMDMAP will execute, using parameters up to the invalid one.

Programmer Response: Probable user error. Correct the invalid parameter and resubmit the job.

Problem Determination: Table I, items 2, 13, 29.

IMB010I RESIDENT SVCS NOT MAPPED IN LINKPACK MAP - NUCLEUS IPLED DOES NOT MATCH SYS1.NUCLEUS (IEANUC01).

Explanation: The nucleus described in the DD statement provided for a link pack area map does not match the nucleus currently residing in main storage.

System Action: Processing continues.

Programmer Response: Probable user error. Define the correct nucleus in a DD statement and rerun.

Problem Determination: Table I, items 2, 13, 29.

IMB011I WARNING - NUCLEUS NOT SCATTER LOADABLE

Explanation: Warning message. IMBMDMAP has detected an error while processing the scatter records for the nucleus. The nucleus may be incorrectly loaded.

System Action: Processing continues.

Programmer Response: Rerun with the DEBUG option and check scatter records.

Problem Determination: Table I, items 2, 13, 29.

IME012I WARNING - IEAANIP0 IS NOT 1ST ENTRY IN ESD

Explanation: Warning message. One of the following conditions has been encountered by IMBMDMAP, while mapping the nucleus:
• IEAANIP0 was not the first control section to be given control at initial program load; or
• One of the first two control sections in the nucleus was not of the "SD" type.

System Action: Processing continues.

Programmer Response: Check the map of the nucleus in question to determine which condition has occurred; then correct the situation before trying again to load this nucleus.

Problem Determination: Table I, items 2, 13, 29.

IME013I *****NUMBER OF ALIASES EXCEEDED TABLE-ALIASES NOT PRINTED*****

Explanation: IMBMDMAP will print a maximum of sixteen aliases.

System Action: The first nine aliases will be printed; the rest will be ignored and processing continues.

Programmer Response: None.

IME014I SORT TABLE OVERFLOW-ENLARGE REGION/PARTITION SIZE-RERUN

Explanation: IMBMDMAP table capacities were exceeded because region or partition size was insufficient.

System Action: This specific mapping operation is terminated, and processing continues.

Programmer Response: Probable user error. Expand the region or partition size and rerun IMBMDMAP.

Problem Determination: Table I, items 2, 13, 29.

IMB015I CDE TABLE OVERFLOW-ENLARGE REGION/PARTITION SIZE-RERUN

Explanation: IMBMDMAP table capacities were exceeded because region or partition size was insufficient.

System Action: This specific mapping operation is terminated and processing continues.

Programmer Response: Probable user error. Expand the region or partition size and rerun IMBMDMAP.

Problem Determination: Table I, items 2, 13, 29.

IMB016I ESD RLD TABLE OVERFLOW-ENLARGE REGION/PARTITION SIZE-RERUN

Explanation: IMBMDMAP table capacities were exceeded because the region or partition size was insufficient.

System Action: This specific mapping operation is terminated and processing continues.

Programmer Response: Probable user error. Expand the region or partition size and rerun IMBMDMAP.

Problem Determination: Table I, items 2, 13, 29.

IMB017I SCATTER TABLE OVERFLOW-ENLARGE REGION/PARTITION SIZE-RERUN

Explanation: IMBMDMAP table capacities were exceeded because the region or partition size was insufficient.

System Action: This specific mapping operation is terminated and processing continues.

Programmer Response: Probable user error. Expand the region or partition size and rerun IMBMDMAP.

Problem Determination: Table I, items 2, 13, 29.

IMB018I TRANSLATE TABLE OVERFLOW - ENLARGE REGION/PARTITION SIZE - RERUN

Explanation: IMBMDMAP table capacities were exceeded because the region or partition size was insufficient.

System Action: This specific mapping operation is terminated and processing continues.

Programmer Response: Probable user error. Expand the region or partition size and rerun IMBMDMAP.

Problem Determination: Table I, items 2, 13, 29.

IMB019I IPL TABLE OVERFLOW - ENLARGE REGION/PARTITION SIZE - RERUN

Explanation: IMBMDMAP table capacities were exceeded because the region or partition size was insufficient.

System Action: This specific mapping operation is terminated and processing continues.

Programmer Response: Probable user error. Expand the region or partition size and rerun IMBMDMAP.

Problem Determination: Table I, items 2, 13, 29.

IMx

IMB020I xxxxxxxx DD STATEMENT DOES NOT DEFINE A
        PDS, DD IGNORED

    Explanation: IMBMDMAP performs its
    mapping function based upon the DD
    statements supplied by the user. Any DD
    statement which describes a load module in
    a partitioned data set will cause IMBMDMAP
    to produce a map of that load module. DD
    statements which do not define a
    partitioned data set will result in this
    message being produced.

    DD statements which do not define a member
    of a partitioned data set will result in
    the issuance of this message.

    System Action: Statement xxxxxxxx is
    ignored. Processing continues.

    Programmer Response: Examine the DD
    statement indicated in the message. If a
    map of the data set specified was not
    desired, the message should be considered
    for information only. If a map of the
    data set specified was desired, correct
    the DD statement indicated and resubmit
    the job.

    Problem Determination: Table I, items 2,
    13, 29.

IMBLIST Messages

IMB101I ESD CONTAINS INVALID DATA

    Explanation: The IMBLIST program
    encountered either an invalid ESD type or
    an incorrect ESDID.

    System Action: If the LISTOBJ function of
    IMBLIST is being used, the invalid control
    card is printed and processing continues.
    Otherwise, processing terminates. (Return
    code -- 8.)

    Programmer Response: Recompile the
    module(s) and rerun the job.

    Problem Determination: Table I, items 1,
    13, 29. If the problem occurred during
    execution of LISTOBJ, execute the LISTIDR
    function of IMBLIST to determine which
    compiler processed the module. If the
    problem occurred during execution of
    LISTLOAD, execute the LISTIDR function of
    IMBLIST to determine which linkage editor
    produced the load module.

IMB102I INVALID [LOAD/OBJECT] RECORD

    Explanation: IMBLIST detected an
    undefined record type in the load/object
    records. For object records, byte
    positions 2-4 do not contain any of the
    following types: ESD, SYM, TXT, RLD, or
    END. For load module records, the
    hexadecimal code in the first byte of the
    record is invalid or undefined.

    System Action: If the record in question
    is an object record, it will be printed
    and execution will continue. If the
    record in question is from a load module,

processing will terminate for the current
control statement and resume with the
next. (Return code -- 8.)

    Programmer Response: List the load module
    using the IEBPTPCH data utility specifying
    PRINT TOTCONV=XE to determine the nature
    of the faulty record. If it has been
    incorrectly modified, restore it to its
    correct format.

    Problem Determination: Table I, items 1,
    2, 13, 29. Execute the IMBLIST service
    aid program to obtain IDR listings for the
    module and for all programs which may have
    modified it.

IMB103I RLD POINTER INVALID

    Explanation: The IMBLIST program
    encountered an incorrect R or P pointer in
    the relocation dictionary (RLD).

    System Action: Processing terminates for
    this operation and continues with the next
    control statement. (Return code -- 8.)

    Programmer Response: Re-link edit the
    program and rerun the job.

    Problem Determination: Table I, items 1,
    2, 13, 29. Execute the LISTOBJ function
    of IMBLIST to determine which linkage
    editor or language translator produced the
    bad R or P pointer. Execute LISTIDR for
    IDR data, showing if IMASPZAP has been
    executed for the module, when and what
    translators were used, and other user
    supplied data.

IMB104I TABLE OVERFLOW, ENLARGE REGION/PARTITION
        SIZE AND RERUN

    Explanation: IMBLIST table capacities
    were exceeded because the region or
    partition size was insufficient.

    System Action: The operation is
    terminated; processing continues with the
    next control statement. (Return code --
    8.)

    Programmer Response: Enlarge the
    region/partition size, and rerun the job.

    Problem Determination: Table I, items 1,
    2, 13, 29. Execute the IEBPTPCH utility
    program specifying PRINT TOTCONV=XE to
    list the module being processed by
    IMBLIST.

IMB105I ddname DOES NOT DEFINE LOAD MODULE LIBRARY

    Explanation: The name specified by the
    DDN parameter or the IMBLIST control
    statement or by the default ddname on the
    SYSLIB DD statement is not the name of a
    load module library.

    System Action: Processing terminates for
    this operation and continues with the next
    control statement. (Return code -- 8.)

Programmer Response: Insure that the library referenced by the IMBLIST control statement or by the SYSLIB DD statement contains load modules, or change the control statements indicating the proper library type. Rerun the job.

IMB106I MODULE IS NOT EDITABLE, NO XREF PROVIDED

Explanation: When the associated module was link edited, the not editable attribute of the linkage editor was specified. The module, therefore, does not contain the CESD, and no XREF can be provided.

System Action: Processing terminates for this operation and continues with the next control statement. (Return code -- 4.)

Programmer Response: Recreate the load module from its associated object module. Do not specify the not editable attribute. Rerun the job.

Problem Determination: Table I, items 1, 2, 13, 29.

IMB107I I/O ERROR ON READ

Explanation: An uncorrectable input/output error was encountered while IMBLIST was reading input.

System Action: Processing terminates for this operation and continues with the next control statement. (Return code -- 8.)

Programmer Response: Be sure the data set is defined correctly in the control statement.

Problem Determination: Table I, items 1, 2, 13, 29.

IMB108I MEMBER NOT FOUND

Explanation: The member name or alias name specified by the MEMBER parameter on the IMBLIST control statement was not found in the indicated library.

System Action: Processing terminates for this operation and continues with the next control statement. (Return code -- 8.)

Programmer Response: List the directory of the referenced library using the LISTPDS function of the IEHLIST utility. Rerun the job.

Problem Determination: Table I, items 1, 2, 13, 29.

IMB109I I/O ERROR READING PDS DIRECTORY

Explanation: An uncorrectable I/O error occurred while IMBLIST was reading the directory of a partitioned data set.

System Action: Processing terminates for this operation and continues with the next control statement. (Return code -- 8.)

Programmer Response: None.

Problem Determination: Table I, items 1, 2, 13, 25ac, 29.

IMB110I DDNAME DOES NOT DEFINE OBJECT MODULE DATA SET

Explanation: The IMBLIST program attempted to process as an object module a data set or member defined by the DDN parameter or by the operands on the LISTOBJ control statement. However, the data set or member is not an object module.

System Action: Processing terminates for this operation and continues with the next control statement. (Return code -- 8.)

Programmer Response: Verify that the module to be processed is an object module. Rerun the job.

Problem Determination: Table I, items 1, 2, 13, 25ac, 29.

IMB111I ddname CANNOT BE OPENED

Explanation: The specified data set cannot be opened because the DD statement defining the data set may be missing.

System Action: Processing terminates if ddname is SYSIN or SYSOUT. Otherwise, processing continues with the next control statement. (Return code -- 12.)

Programmer Response: Verify the job control language for the specified data set, insuring that a DD statement defining it is including and is correct. Execute the LISTVTOC function of the IEHLIST utility to obtain a list of the volume table of contents of the volume containing the data set.

IMB112I LOAD MODULE DOES NOT CONTAIN CSECT IDENTIFICATION

Explanation: The load module specified on the LISTIDR control section does not contain any CSECT identification records.

System Action: No IDR listings are produced. Processing continues with the next operation. (Return code -- 4.)

Programmer Response: Re-link the load module using a linkage editor which contains IDR support, and rerun the job.

IMB113I IDR INFORMATION IS INCOMPLETE

Explanation: The last CSECT identification record found in this load module is not marked with an "end of IDR data" flag.

System Action: Processing continues. (Return code -- 8.)

Programmer Response: Verify that no IDR data has been lost. Re-link the module using a linkage editor which contains IDR support, and resubmit the job.

IMB114I THE CSECT NAME ASSOCIATED WITH AN IDR DATA ENTRY CANNOT BE FOUND

Explanation: The ESDID on an IDR data entry did not match any ID in the CESD of the load module being processed.

System Action: Processing of this operation is terminated. Processing continues with the next operation. (Return code -- 8.)

Programmer Response: Verify that the IDR data for this load module has not been altered. If it has been altered, correct it and resubmit the job.

Problem Determination: Table I, items 1, 2, 13, 29.

IMB115I BUFFER SPACE NOT AVAILABLE - INCREASE REGION OR PARTITION SIZE

Explanation: The IMBLIST buffer capacities were exceeded because the partition or region size was insufficient.

System Action: The operation is terminated; processing continues with the next control statement. (Return code -- 8.)

Programmer Response: Enlarge the partition or region size and rerun the job.

Problem Determination: Table I, items 1, 2, 13, 29. Execute the IEBPTPCH utility program specifying PRINT TOTCONV=XE to list the module being processed by IMBLIST.

IMB120I EXPECTED CONTINUATION CARD NOT FOUND

Explanation: The IMBLIST control statement indicated continuation (a comma was found after the last operand); however, it is not followed with proper continuation.

System Action: Processing is terminated. (Return code -- 12.)

Programmer Response: Check all IMBLIST control cards for valid continuation cards. Resubmit the job.

IMB121I INVALID CONTROL STATEMENT

Explanation: An IMBLIST control statement is invalid because it contains an invalid operation, an embedded blank, or an operation beginning before column 2.

System Action: Processing terminates for this operation and continues with the next control statement (Return code -- 8.)

Programmer Response: Check IMBLIST control statements for infractions of the IMBLIST control statement format. Rerun the job.

IMB122I INVALID OPERAND NEAR CARD COLUMN INDICATED BY ""$''

Explanation: An error has occurred in the IMBLIST control statement near the card column location indicated by the "$".

System Action: Processing terminates for this operation and continues with the next control statement. (Return code -- 8.)

Programmer Response: Check the IMBLIST control statements for infractions of the IMBLIST statement format.

IMB123I CLOSE QUOTE OR PAREN NOT FOUND, OR KEYWORD VALUE EXCEEDS COL 71

Explanation: Quotation mark or close parenthesis is missing on an IMBLIST control statement, or the value for a keyword runs past column 71.

System Action: Processing terminates.

Programmer Response: Check the IMBLIST control statements for unbalanced quotation marks and parenthesis, or for operands that run past column 71. Resubmit the job.

IMB124I NUMBER OF MEMBER NAMES EXCEEDS 32 NEAR COLUMN INDICATED BY ""$''

Explanation: The number of member names specified on an IMBLIST control statement exceeds the limit, 32. The card column where this error was first detected is flagged by a "$".

System Action: The excess is ignored and processing continues. (Return code -- 8.)

Programmer Response: Use two or more IMBLIST control statements to list the membernames.

IMB125I IMPROPER OPERAND NEAR COLUMN INDICATED BY "$"

Explanation: An incorrect or invalid operand has been detected in the IMBLIST control statement; its location is indicated by "$".

System Action: The operand is ignored. Processing continues. (Return code -- 8.)

Programmer Response: Check the validity of the IMBLIST control statements. Resubmit the job.

IMB126I IMPROPER OPTION NEAR COLUMN INDICATED BY "$"

Explanation: An option specified in the IMBLIST control statement is invalid. "$" indicates the relative card column location.

System Action: The default value was assumed; processing continues. (Return code -- 4.)

Programmer Response: Check the validity of the options specified on the IMBLIST control statement. Correct the errors and resubmit the job.

IMCJQDMP Messages

IMC000A ENTER O=XXXD,Q=YYY(,S) OR PRESS INTERRUPT KEY FOR O=00E,Q=191

Explanation: The program is requesting that a device identification command be entered through the console keyboard, or that default device assignment be specified by the absence of a console entry.

System Action: The program suspends processing until the operator enters a reply.

Operator Response: If input and output devices are to be specified, enter a device identification command. If the default assignments of address 00E for output and address 191 for input are satisfactory, depress the external interrupt key without making a console entry.

IMC001A SPECIFY SELECT PARAMETERS [OR END]

Explanation: For the System/360 Operating System version of the job queue dump program - IMCOSJQD - the dump options have not been provided in the SYSIN data set and must be obtained from the operator's console. A reply of "END will terminate job queue dump operation.

For the stand alone version of the job queue dump program - IMCJQDMP - the SELECT parameter has been indicated in a deice identification command and the program is requesting that the parameters for a selective job queue dump be entered through the console.

System Action: The system waits pending the operator's reply.

Operator Response: Enter the desired dump parameters.

IMC002A COMMAND ERROR [-ENTER QDUMP PARAMETERS]

Explanation: A syntax error was detected in a job queue dump command entered through the SYSIN data set or thorugh the operator's console.

System Action: If the commands are being entered through the SYSIN data set, message IMC002A is issued to an output device, and processing will continue only if there are more commands in the input stream.

If commands are being entered from the console, message IMC002A is issued to the console and the program waits pending the operator's reply.

Operator Response: Probable user error. If control statements are being entered from the console, reenter the command.

Programmer Response: Probable user error. If control statements are being supplied in the input stream, correct the options and resubmit the job. If control statements are being entered from the system console, insure that proper options are provided to the operator, and request that he rerun the job.

IMC003A QUEUE NOT FOUND ON SPECIFIED DEVICE-ENTER QDUMP PARAMETERS

Explanation: The format 1 data set control block (DSCB) for SYS1.SYSJOBQE was not found in the VTOC of the volume mounted on the device indicated in the device identification command entered through the console; or, if the default parameters were utilized, in the VTOC of the volume mounted on device 191.

System Action: The program suspends processing until the operator enters a reply.

Operator Response: Probable user error. Mount the correct volume on the desired device, if necessary. Enter a device identification command giving the current output and input addresses.

Problem Determination: Table I, items 2, 13, 29.

IMC004I QDUMP COMPLETED

Explanation: Processing of the QDUMP operation is now complete.

System Action: If commands are being provided by the SYSIN data set, the program issues message IMC004I to the SYSPRINT data set. If commands are being entered from the system console, message IMC004I is issued to the console and to the SYSPRINT data set.

Operator Response: None.

IMC005I SPECIFIED QUEUE IS EMPTY

Explanation: The program was requested to dump the logical tracks assigned to a specific work queue, or to search a particular queue for a given job name. Examination of the minor queue control record (QCR) associated with the queue reveals no records resident in the queue.

System Action: If dump commands are being entered in the SYSIN data set, the program dumps the corresponding minor QCR, message IMC005I is issued to the SYSPRINT data set, and processing will continue only if more options are included in the input stream.

If dump options are being entered from the console, the program dumps the corresponding minor QCR, issues message IMC005I to the console, and reissues message IMC001A.

Operator Response: Additional selective dump parameters may be entered or the operation may be terminated.

IMC006I THESE JOBS NOT FOUND
jobname1
jobname2, etc.

Explanation: The program found no logical tracks assigned to the listed job or jobs. The search was restricted to the specified queue control record (QCR) if the QCR= parameter was entered in combination with the JOBNAME= parameters and, if so, the associated QCR is dumped. If the QCR= parameter was omitted, all input work queues were searched, and all associated QCRs were dumped.

System Action: If commands are being entered from the SYSIN data set, message IMC006I is issued to the SYSPRINT data set and:
• Processing continues if more options are included in the SYSIN data set.
• The program terminates if no more commands are included in the SYSIN data set.

If dump options are being entered from the console, the program reissues message IMC001A.

Operator Response: Additional selective dump parameters may be entered or the operation may be terminated.

IMC007E K ddd, {SCRTCH}/JQDUMP
{ser}

Explanation: K indicates that the volume on tape drive ddd is to be demounted and saved.
• If the volume has standard labels the volume serial number replaces ser; otherwise SCRTCH appears in the message.
• JQDUMP is the data set name given to the data set created by IMCJQDMP if the volume has labels.

System Action: The program continues processing and will request a new volume if more data is to be written.

Operator Response: Demount the tape and save it for later processing.

IMC008A M ddd, {SCRTCH}/JQDUMP
{SLTAPE}

Explanation: M indicates that a tape is to be mounted on tape drive ddd.
• If SCRTCH appears in the message a non-labeled tape or a labeled tape that has labels which can be overwritten with data is to be mounted.
• If SLTAPE appears in the message a standard labeled tape is to be mounted.

JQDUMP is the name of the data set created by IMCJQDMP.

System Action: The program waits for the device ddd to be made ready.

Operator Response: Mount the requested tape and ready the drive.

IMC009A ENTER TODAY'S DATE IN THE FOLLOWING FORM YYDDD

Explanation: The program needs the current date to verify the expiration of dates on standard labeled tape. The date must be entered in the form yyddd with no blanks or special characters embedded. The date in the form yyddd has the following meaning:
yy - represents the last two digits of the current year.
ddd - represents the Julian form of the current day with leading zeros if the date is less than three digits.

System Action: The program waits for the operator's reply.

Operator Response: Enter the current date in the form requested.

IMC010I TAPE IS STANDARD LABELED, DSN=JQDUMP

Explanation: The tape just created has standard labels with the data set name JQDUMP.

System Action: Processing continues.

Operator Response: None.

IMC011D E ddd, volser, dsn

Explanation: E indicates that the program intended to write on the tape on drive ddd; however, the expiration date for the data set dsn or the volume volser has not occurred.

System Action: The program waits for the operator's reply.

Operator Response: Enter REPLY xx,'u' if the expiration date is to be ignored and the tape written on. Enter REPLY xx,'M' if the expiration date is to be honored and the tape not written on.

IMC012E TAPE PROTECTED FROM USE

Explanation: One of the following cases will cause this message to be given:
• The tape that was to be written on is security protected.
• The expiration date for the data set on the mounted tape has not occurred and the operator replied M to message IMC011D.

System Action: The program continues processing and will eventually request a new tape.

Operator Response: Wait for mount message IMC008A.

IMC013A adr, INT REQ

> **Explanation:** IMCJQDMP tried tc write on the device at unit address adr, but the device was nct ready.
>
> **System Action:** The prcgram waits until the device is ready for output operations.
>
> **Operator Response:** Ready the device. If the output is to tape, make sure that the tape reel has a file prctect ring. If the problem recurs, call IBM fcr programming support.

IMC014E TAPE HAS USASCII LABELS

> **Explanation:** The tape mounted for output has USASCII standard labels.
>
> **System Action:** IMCJQDMP will reject the tape and will request a new tape for its output.
>
> **Operator Response:** Wait fcr the mount message.

IMC015I SYS1.SYSJOBQE IS ON A SHARED DEVICE

> **Explanation:** IMCJQDMP attempted to read a record from SYS1.SYSJOBQE data set and found the status modifier and the busy bits of the CSW on, indicating that the device is being shared with ancther CPU. The read cperation was retried 256 times.
>
> **System Action:** Processing was terminated.
>
> **Operator Response:** Vary the device offline frcm the other CPU and move the volume to a ncn-shared device; then rerun IMCJQDMP.

IMC016I PERMANENT I/O ERROR ON ddname - [EXECUTICN TERMINATED]

> **Explanation:** An I/O error has occurred on the device assigned to the data set specified in the DD statement indicated by ddname, and a DCB SYNAD routine has been entered. Fcllowing the message, the contents of the SYNADAF buffer will be printed on the device defined by the SYSPRINT DD statement.
>
> In the case of an I/O errcr cn OSJQDIN (the job queue data set), the message can result frcm one of the follcwing:
> - An I/O error or wrong length record was encountered while reading the master queue control record.
> - IMCOSJQD found an invalid TTR in the queue being processed.
> - IMCOSJQD encountered an I/O error or wrong length record in the queue being processed and a full job queue dump was not requested.
> - A full job queue dump was requested, but IMCOSJQD encountered 20 I/O errors or 20 wrong length records in succession.
>
> If the errcr indicated is fcr ddname OSJQDIN, messages with further details on the error(s) can be found in the dump produced fcr ddname OSJQDOUT. Additional

infcrmaticn car be cbtained in _IBM System/360 Operating System: Service Aids System Reference Library,_ GC28-6719, under prcgram IMCOSJQD.

> **System Acticn:** IMCJQDMP execution is terminates unless the I/O errcr occurred cn the jcb queue data set being dumped. If the I/C errcr cccurred cn the queue data set being dumped cne cf the fcllowing will cccur:
> - If the cpticrs are being entered from the system ccrscle, message IMC001A will be issued tc allcw further dump cptions tc be entered.
> - If the dump cpticns are being entered frcm the input stream (SYSIN), IMCOSJQD will ccntinue prccessing with the next contrcl cpticr.
>
> **Prcgrammer Respcrse:** Check the indicated DD statement tc insure that the proper device is specified, and resubmit the jcb.
>
> **Prcblem Determinaticn:** Table I, items 2, 13, 29.

| IMC017I FILE ∫CSJQCIN ∫CANNOT BE OPENED
　　　　　　⟨CSJQCOUT⟩

> **Explanation:** The required input (jcb queue) and/cr cutput DD statements are missing cr unreccgnizable; therefore, the ccrrespcnding data ccntrol blcck(s) (DCB) carnct be cpered.
>
> **System Acticn:** IMCOSJQD execution is terminated.
>
> **Prcgrammer Respcrse:** Prcbable user error. Supply the ccrrect OSJQDIN and OSJQDOUT DD statements. Rerun the jcb.
>
> **Prcblem Determinaticn:** Table I, items 1, 2, 13, 29.

IMDSADMP Messages

IMD001A∫PTR ⟩ =
　　　⟨TAPE⟩

> **Explanation:** Message IMD001A is issued when the direct access dump prcgram is lcaded for executicn. It is a request to the cperatcr tc enter the cutput device address. This message is issued tc the ccnscle which was specified by the console parameter wher IMDSADMP was assembled.
>
> **System Action:** The ccnsole prcceed indicatcr is turned cn so that the cperatcr can erter the cutput device address.
>
> **Cperatcr Respcrse:** The operatcr should enter cne cf the fcllcwing respcnses to assign the cutput device address fcr the dump:
> - PTR= - Enter ppp where ppp is the printer device address tc which the cutput is tc be written.
> - TAPE= - Enter ttt where ttt is the tape device address tc which the cutput is to be written.

To assign the default device address,
depress the EOB (end of block) and the
ALTN CODING keys simultaneously. A
default device address was included for
IMDSADMP when the module was assembled.

IMD002I {CMD} ERR
       {LBL}

Explanation: An error has been discovered
in the device address entered in response
to message IMD001A, or the volume mounted
on the specified device was not acceptable
for IMDSADMP output.

System Action: Message IMD001A is
reissued and the correct device address
may be entered.

Operator Response: Probable user error.
The operator should do one of the
following:
• CMD ERR - Reenter the correct output
  device in response to message IMD001A.
• LBL ERR - Mount a nonlabeled tape on the
  desired tape device and enter that tape
  device address in response to message
  IMD001A.

Problem Determination: Table I, items 2,
28 (if msg IBI ERR), 29.

IMD003I CHAN ERR

Explanation: A permanent I/O error has
occurred during IMDSADMP execution.

System Action: Execution of the dump
program is terminated and a wait state is
entered.

Operator Response: Probable hardware
error. Record the contents of general
register 11, which contains the address of
the device on which the error occurred.
Execute IMDSADMP again.

Problem Determination: Table I, items 14,
30. Record and have available the
contents of general purpose register 11 at
the time the message is issued.

IMD004I EOR

Explanation: The end of reel condition
was detected while IMDSADMP was writing a
main storage dump to magnetic tape.
Volume switching is not supported by
IMDSADMP.

System Action: IMDSADMP terminates
execution, unloads the tape volume, and
enters a wait state.

Operator Response: Probable user error.
Mount a tape column that contains a full
2400-foot reel of tape and execute
IMDSADMP again, or use the high speed
option of IMDSADMP.

Problem Determination: Table I, items 2,
28, 29.

IMD005I DONE

Explanation: IMDSADMP main storage dump
is complete.

System Action: If output is to magnetic
tape, the output volume is unloaded.
IMDSADMP enters a wait state.

Operator Response: Load the IPL program
to restart the operating system.

IMDPRDMP Messages

IMD150I FILE {PRINTER} CANNOT BE OPENED
        {SYSUT1 }

Explanation: The required PRINTER or
SYSUT1 DD statement is missing or
unrecognizable; therefore, the
corresponding data control block cannot be
opened.

System Action: IMDPRDMP execution is
terminated.

Programmer Response: Probable user error.
Supply the correct PRINTER or SYSUT1 DD
statement. Execute the job step again,
making sure that MSGLEVEL=(1,1) is
specified in the JOB statement.

Problem Determination: Table I, items 2,
15, 29.

IMD151I INSUFFICIENT MAIN STORAGE - EXECUTION
TERMINATED

Explanation: The IMDPRDMP program has
been unable to acquire enough main storage
to establish an input buffer. The program
cannot process any input records.

System Action: IMDPRDMP execution is
terminated.

Programmer Response: Probable user error.
For MVT, the region in which the IMDPRDMP
program is attempting to execute is too
small to contain the required work areas.
The default value of the REGION
subparameter is not large enough. Include
a REGION=42K subparameter in either the
JOB or EXEC statement and resubmit the
job.

For MFT, the partition in which the
IMDPRDMP program resides is too small to
contain the required work areas. Assign
IMDPRDMP to a 38K partition and resubmit
the job.

Problem Determination: Table I, items 2,
13, 29.

IMD152I SYSUT1 IS DATA CELL - DEVICE NOT SUPPORTED

Explanation: The SYSUT1 data set is
assigned to a 2321 data cell. IMDPRDMP
does not support data cell access methods.

System Action: IMDPRDMP execution is
terminated.

Programmer Response: Probable user error. Change the UNIT= subparameter cf the SYSUT1 DD statement so that the data set is not allocated to a 2321 device, and resubmit the job.

Problem Determination: Table I, items 2, 13, 29.

IMD153I PERMANENT I/O ERROR ON ddname - EXECUTION TERMINATED

Explanation: An I/O error has occurred on the device assigned to the data set specified in the statement indicated by ddname, and the associated DCB SYNAD routine has been entered.

System Action: IMDPRDMP execution is terminated.

Programmer Response: Check the indicated DD statement to ensure that the proper device is specified, and resubmit the job.

Problem Determination: Table I, items 2, 13, 29.

IMD154D REPLY TITLE, 'SAME' OR 'END'

Explanation: This message appears on the console prior to the execution of each user control statement requesting that the operator specify a dump title to be applied to the dump listing. This message is issued if a 'T' has been included in the PARM= option of the EXEC statement.

System Action: IMDPRDMP enters a wait state pending the operator's reply.

Operator Response: Enter one of the following responses:
• If a new title is to be applied to each page of the IMDPRDMP output listing, enter REPLY xx,'ccccc...cc,' ccccc...cc being any character string cf up to 62 characters.
• If the previously specified title is to be used, enter REPLY xx,'SAME'.
• If execution of the IMDPRDMP program is to be terminated, enter REPLY xx,'END'.

IMD155D REPLY WITH GO, DESIRED FUNCTION, OR END

Explanation: All user control statements in the SYSIN data set have been processed without encountering an END control statement. This message, issued to the console, requests additional control statements.

If the SYSIN data set was omitted, this message is issued immediately upon beginning execution of the IMDPRDMP program. The program enters a conversational control mode in which control statements are entered from the console. This message is reissued after the processing on each set cf specified functions has been completed.

System Action: The IMDPRDMP program enters a wait state until the operator's response has been entered.

Operator Response: Any sequence of user control statements may be entered. If GO is entered, the set cf user control statements specified by a preceding ONGO statement will be used. If no ONGO has been specified, the ONGO default values will be used. A reply of END will cause the IMDPRDMP program to terminate execution.

IMD156I REPLY WITH STOP TO TERMINATE CURRENT FUNCTION

Explanation: This message allows the operator to stop the execution cf a function control statement at any time. This message is issued to the console only if 'S' included in the PARM= option list of the EXEC statement.

System Action: IMDPRDMP execution continues. This message remains outstanding until a STOP command is entered or until the program terminates.

Operator Response: If the user wishes to halt execution cf the active function control statement, he should enter REPLY xx,'STOP'. This will cause the IMDPRDMP program to stop processing the current function control statement and either read the next control card from the SYSIN data set or issue message IMD155D to request more control statements from the operator. If the user does not reply to this message, execution will proceed normally and at termination the outstanding reply will be deleted.

IMD157A MOUNT NEW DUMP TAPE

Explanation: IMDPRDMP has encountered a NEWDUMP or NEWTAPE control statement and has closed the current input dump data set. This message is issued to request that the new input dump volume be mounted.

System Action: If the SYSUT1 work data set is being used, the input data set is opened, OPEN mount message IEC101A is issued, and the work data set is loaded. If the SYSUT1 work data set is not being used, the dump data set is closed, message IMD157A is issued, and the next control statement is read. The OPEN mount message IEC101A is not issued, and the tape is not loaded, until the next control statement is read.

Operator Response: Respond as indicated to message IEC101A.

IMD158I I/O ERROR ON TAPE

{
ENTIRE TAPE WILL BE PRINTED
ONLY NUCLEUS AND SQA WILL BE PRINTED
SELECT OPTION TO RETRY
LINK PACK AREA MAP ABORTED
DCB TRACE ABORTED
}

Explanation: An I/O error occurred while IMDPRDMP was attempting to read a block either from the SYSUT1 data set or, if the tape is being processed directly without the use of the SYSUT1 data set, from a tape input data set.

IMx

System Action: IMDPRDMP program action is indicated by the second portion of the message, whose appearance depends on the value assigned to 'n' in the option list of the PARM= subparameter of the EXEC statement. If 'n' has not been coded, the entire tape will be printed as the default. The remainder of this control statement is ignored. All remaining control statements are syntax-checked, but none are executed until a valid NEWDUMP, NEWTAPE, or CVT control statement is encountered. The fourth and fifth submessages are issued only if IMDPRDMP was processing the portion of the dump listing indicated. Processing continues with the next function.

Programmer Response: None.

IMD159I IMDPRDMP PROGRAM CHECK
{ENTIRE TAPE WILL BE PRINTED }
{ONLY NUCLEUS AND SQA WILL BE PRINTED}
{SELECT OPTION TO RETRY }

Explanation: A program check occurred in IMDPRDMP when it attempted to use information contained on the input dump tape.

System Action: IMDPRDMP action is indicated by the second portion of the message. If one of the first three submessages was issued, the program action taken depends on the value assigned to 'n' in the option list of the PARM= subparameter of the EXEC statement. If 'n' is not coded, the entire input dump tape will be printed as the default. The remainder of this control statement is ignored. All remaining control statements are syntax-checked, but none are executed until a valid NEWDUMP, NEWTAPE, or CVT control statement is encountered.

Programmer Response: None.

IMD161I FORMAT ERROR
{ENTIRE TAPE WILL BE PRINTED }
{ONLY NUCLEUS AND SQA WILL BE PRINTED}
{SELECT OPTION TO RETRY }
{LINKPACK AREA MAP ABORTED }
{QCB TRACE ABORTED }

Explanation: IMDPRDMP attempted to format a system control block and found its format to be in error.

System Action: IMDPRDMP action is indicated by the second portion of the message. If one of the first three submessages was issued, action taken depends on the value assigned to 'n' in the option list of the PARM= subparameter of the EXEC statement. If 'n' is not coded, the entire input dump tape will be printed as the default. The remainder of the control statement is ignored. All remaining control statements are syntax-checked, but none are executed until a valid NEWDUMP, NEWTAPE, or CVT control statement is encountered. The fourth and fifth submessages are

issued only if IMDPRDMP was processing the portion of the dump listing indicated. Processing continues with the next function.

Programmer Response: None.

IMD162I JOB jobname {NOT FOUND }
{ROLLED OUT}

Explanation: The indicated job was specified in a PRINT JOBNAME=jobname user control statement. Either the job could not be found by processing main storage in the stand-alone dump, or it was determined that the area of storage that was occupied by the indicated job was rolled out before the dump was taken.

System Action: IMDPRDMP execution continues with the next user control statement.

Programmer Response: None.

IMD163I GO FUNCTIONS TO BE PERFORMED
[ongo operands]

Explanation: On execution of a GO control statement, this message lists the functions to be performed.

System Action: The indicated GO functions are performed. If the ONGO control statement has been previously issued by the user, the specified functions appear in this message. If no ONGO control statement was specified, the default functions Q, L, F, and P A are indicated and will be performed.

Programmer Response: None.

IMD164I TAPE IS PRE-FORMATTED DUMP REMAINING PARAMETERS IGNORED

Explanation: IMDPRDMP has determined that the input tape data set is not an IMDSADMP high-speed dump or an OS/360 core image dump. The input block size is less than 134 characters.

System Action: IMDPRDMP prints the contents of the input tape with no formatting. The current user control statement is ignored and the next control statement is obtained.

Programmer Response: Probable user error. If user control statements are being entered from the system console, the current tape volume should be demounted by entering the NEWDUMP or NEWTAPE control statement. Otherwise IMDPRDMP should be rerun using the correct dump tapes.

Problem Determination: Table I, items 2, 13, 29.

IMD165I ERROR ON PRECEDING CONTROL STATEMENT
error descriptor

Explanation: A syntax error was detected
during the scan of an IMDPRDMP control
statement. The error descriptor on the
second line identifies the error as one of
the following:
• VERB LENGTH GREATER THAN 8. A character
  string of length greater than 8 was
  found in the verb position.
• INVALID DELIMITER FOLLOWING VERB. The
  delimiter separating the statement verb
  and the keyword parameters is invalid
  for the verb specified.
• INVALID VERB. The verb of a control
  statement could not be recognized.
• KEYWORD LENGTH GREATER THAN 8. A
  keyword parameter was found to have
  length greater than 8 characters.
• INVALID DELIMITER FOLLOWING KEYWORD.
  The delimiter following a specified
  keyword is invalid.
• INVALID KEYWORD. A specified keyword
  parameter could not be recognized.
• OPERAND MISSING. The value of a keyword
  parameter was not specified.
• DELIMITER ERROR IN STORAGE OPERAND LIST.
  Parameters in the STORAGE keyword value
  list of the PRINT verb must be separated
  by commas. An invalid delimiter in this
  list was found during the scan.
• STORAGE ADDRESS GREATER THAN 6. A main
  storage address in the STORAGE operand
  list was specified with more than 6
  hexadecimal digits.
• STARTING OMITTED IN STORAGE OPERAND.
  Values in the operand of the STORAGE
  keyword must appear in pairs. An odd
  number of addresses was specified in
  this value list.
• UNBALANCED PARENTHESIS. Unbalanced
  parentheses were found in the value list
  of a keyword parameter.
• DELIMITER ERROR IN JOBNAME OPERAND LIST.
  Job names in the value list of the
  JOBNAME keyword must be separated by
  commas.
• NAME MISSING FROM JOBNAME OPERAND LIST.
  No job name was specified for the
  JOBNAME keyword parameter of the PRINT
  verb.
• TOO MANY JOBNAMES IN LIST. More than
  ten jobnames were specified in the value
  list of the JOBNAME keyword parameter of
  the PRINT verb.
• JOBNAME LENGTH GREATER THAN 8. A job
  name specified in the JOBNAME operand
  has length greater than eight
  characters.
• GO PARAMETER ENCOUNTER IN ONGO OPERAND.
  The go verb may not be specified as a
  verb in the ONGO list.
• INVALID CVT ADDRESS SPECIFIED. The
  value specified in the CVT verb is
  invalid. This value must be specified
  as a 1 to 6 digit hexadecimal address.
• If the control statement error cannot be
  diagnosed by the IMDPRDMP program, then
  the error descriptor is not issued with
  message IMD165I.
• SYNTAX ERROR IN OPERAND FIELD OF TSC
  VERB. The keyword parameters for the
  TSO control statement have not been
  correctly specified.

• NEWDUMP KEYWORD VALUE ERROR. A syntax
  error exists in the keyword parameters
  of the NEWDUMP control statement.
• NO INPUT DD CARD. The value of the
  DDNAME keyword of the NEWDUMP control
  statement specified a DD statement which
  has not been included with the job
  control statements used to execute the
  IMDPRDMP service aid program.
• FILE OPERATION CANNOT BE PERFORMED ON
  D/A INPUT. The FILESEQ keyword
  parameter was used in the NEWDUMP
  control statement, but the corresponding
  dump data set was allocated to a direct
  access device.
• NEWDUMP OPERATION CANNOT BE PERFORMED.
  The tape positioning to the OS/360 core
  image dump specified by the NEWDUMP
  control statement could not be
  accomplished by the IMDPRDMP service aid
  program. The specified dump was not
  found during the following positioning
  sequence:
  1. The FILESEQ keyword parameter was
     used on the NEWDUMP control
     statement and the input dump data
     set resides on a non-labeled
     magnetic tape volume. The volume
     did not contain the specified number
     of files.
  2. The DUMPSEQ keyword parameter was
     used in the NEWDUMP control
     statement, but the corresponding
     dump data set did not contain the
     specified number of dumps.

System Action: If user control statements
are being entered through the card reader,
the IMDPRDMP program will scan remaining
control statements for syntax errors. No
control statements will be executed until
a correct NEWDUMP or NEWTAPE control
statement is encountered. If user control
statements are being entered through the
system console, the IMDPRDMP program
issues message IMD155D to let the user
enter a new control statement.

Programmer Response: Probable user error.
If the control statements were entered via
the card reader, resubmit the job,
specifying the control statement in the
proper syntax. If entering the control
statements via the system console, reenter
the control statement in the proper
syntax.

Problem Determination: Table I, items 2,
13, 29.

IMD166I FORMAT ERROR DURING JOBNAME SEARCH

Explanation: IMDPRDMP encountered a
format error while attempting to locate
storage assigned to a specified job.

System Action: IMDPRDMP execution
continues and, if possible, the search is
continued.

Operator Response: None.

IMD168I DUMP DATA SET EMPTY - DD xxxxxxxx

    Explanation: The dump data set described
    by the DD statement xxxxxxxx does not
    contain an OS/360 core image dump or a
    preformatted dump.

    System Action: If the user control
    statements are being entered from the
    SYSIN data set, the IMDPRDMP program will
    scan the remaining control statements for
    syntax errors. No control statements will
    be executed until a correct NEWDUMP or
    NEWTAPE statement is encountered. If user
    control statements are being entered from
    the console, message IMD155D will be
    issued to allow the user to enter a new
    IMDPRDMP control statement.

    Operator Response: Probable user error.
    The current input data set can not be
    processed by IMDPRDMP. If additional
    dumps are to be processed by IMDPRDMP, the
    NEWDUMP or NEWTAPE control statements may
    be used to specify a different input data
    set. Otherwise, execution of IMDPRDMP may
    be terminated by replying 'END' to message
    IMD155D.

IMD170I END OF FILE ON SYSIN - CONTROL PASSED TO
    OPERATOR

    Explanation: All user control statements
    in the SYSIN data set have been processed
    without encountering an END control
    statement.

    System Action: IMDPRDMP issues message
    IMD155D to the system console.

    Programmer Response: None.

IMD171I INPUT STREAM FLUSHED FROM THIS POINT

    Explanation: A user control statement
    syntax error has been detected. This
    message notes the position in the SYSIN
    data set after which user control
    statements were ignored.

    System Action: All remaining user control
    statements in the SYSIN data set are
    scanned for syntax errors but none are
    executed until a valid NEWDUMP, NEWTAPE,
    or CVT verb is encountered. If an
    end-of-file condition is reached without
    encountering an END statement, message
    IMD155D is issued.

    Programmer Response: None.

IMD172I FUNCTION TERMINATED BY OPERATOR

    Explanation: STOP has been entered in
    reply to message IMD156I.

    System Action: IMDPRDMP ceases processing
    the current function statement and obtains
    the next user control statement.

    Programmer Response: None.

IMD173I SYSUT1 IS NOT DA - TAPE ROUTINE USED

    Explanation: The SYSUT1 data set was not
    assigned to a direct access device.

    System Action: IMDPRDMP attempts to load
    the IMDTREAD tape read module to be used
    as the Tape data set access routine.

    Programmer Response: If IMDTREAD is
    available and is loaded successfully, no
    action is necessary. If IMDTREAD cannot
    be loaded, assign the SYSUT1 data set to a
    suitable direct access device and execute
    IMDPRDMP again.

    Problem Determination: Table I, items 2,
    13, 29.

IMD174I {SYSUT1} LOADED
      {SYSUT2}

    Explanation: The work data set indicated
    in the message text has been loaded from
    the input data set.

    System Action: If the work data set is
    SYSUT1, module IMDDREAD will get the dump
    information from the SYSUT1 data set. If
    the work data set is SYSUT2, load mode has
    been successful and execution terminates.

    Programmer Response: None.

IMD175I NO TAPE DD CARD - SYSUT1 ASSUMED LOADED

    Explanation: The TAPE DD statement has
    been omitted and no alternate input ddname
    has been specified by the NEWDUMP control
    statement.

    System Action: IMDPRDMP assumes that the
    dump information has been previously
    loaded on the SYSUT1 data set and will
    attempt to process the dump information
    from there.
    Programmer Response: None.

IMD176I ddname DD NOT TAPE DEVICE - NO WORK FILE
    DD

    Explanation: The IMDPRDMP program has
    determined that the input data set does
    not reside on a tape device. The input
    data set is specified by the TAPE DD
    statement or by the DDNAME operand of the
    NEWDUMP control statement. When the input
    data set does not reside on a tape volume,
    one of the work files, SYSUT1 or SYSUT2,
    is required, but neither of these has been
    specified.

    System Action: IMDPRDMP execution is
    terminated.

    Programmer Response: Either change the
    input DD statement to allocate the data
    set to a tape device or supply a DD
    statement for one of the following work
    data sets:
    • SYSUT1 - This is a direct access work
      data set which is used temporarily to
      hold the main storage dump during
      IMDPRDMP processing.

- SYSUT2 - This may be any data set to which the dump is copied fcr later processing by IMDPRDMP.

Problem Determination: Table I, items 1, 2, 13, 29.

IMD177I THESE MODULES NOT FOUND
IMD177I module names
IMD177I module names
etc.

Explanation: IMDPRDMP attempted unsuccessfully to locate the named modules in SYS1.LINKLIB or in a private library by using the BLDL macrc instruction.

System Action: IMDPRDMP suppresses the function that required the use of the named modules, issues message IMD180I to indicate which function cannot be used, and continues processing with one of the following actions:
- If the module named in message IMD180I is required for execution cf a control statement, that ccntrcl statement is not executed, and IMDPRDMP prcceeds with the next control statement.
- If the TSO function cf IMDPRDMP is being used and the module named in message IMD180I is IMDPRSWP, TSO user information cannot be read from the TSO SWAP data set. Execution cf the TSO control statement continues but printing of swapped information is omitted.
- If the module is a user exit program for the EDIT function of IMDPRDMP, message IMD214I is issued to indicate that EDIT processing will be terminated. IMDPRDMP continues with the next ccntrol statement.
- If the module is a fcrmat appendage for the EDIT function of IMDPRDMP, message IMD215I is issued to indicate that trace records requiring this appendage will be printed in the hexadecimal dump format.

Operator Response: Note the mcdule names identified by message IMD177I and inform the system programmer that this message has been issued.

Programmer Response: If the mcdule named in message IMD177I has the fcrmat IMDUSRxx, xx being a hexadecimal number in the range 1-50, the module is a user format appendage for the EDIT function. Trace records requiring this mcdule are user trace records for which the hexadecimal dump may be desired. If the module name is not cf this fcrmat or if the user fcrmat appendage is desired, message IMD1772 indicates a probable user error. The required IMDPRDMP module must be link edited into the private library or the SYS1.LINKLIB data set.

Problem Determination: Table I, items 2, 29. Save a listing of the SYSPRINT data set produced by IMDPRDMP available.

IMD178I I/C ERRCR CN BLDL

Explanation: IMDPRDMP issued a BLDL macro instruction tc locate a required module. The BLDL macrc instruction encountered an input/output errcr.

System Action: IMDPRDMP suppresses the function that required use of the module, issues message IMD180I to indicate which function cannot be used, and continues processing with cne cf the following actions:
- If the mcdule named in message IMD180I is required fcr execution cf a control statement, that ccntrol statement is not executed and IMDPRDMP prcceeds with the next control statement.
- If the TSO function cf IMDPRDMP is being used and the mcdule named in message IMD180I is IMDPRSWP, TSO user information cannot be read frcm the TSO SWAP data set. Execution of the TSO control statement continues, but printing of swapped information is omitted.
- If the mcdule named in message IMD180I is a user exit program or a fcrmat appendage fcr the EDIT function cf IMDPRDMP, message IMD214I is issued to indicate that EDIT processing will be terminated. IMDPRDMP prcceeds with the next control statement.

Cperatcr Respcnse: Inform the system prcgrammer that this message has been issued.

Prcgrammer Respcrse: Verify that the IMDPRDMP mcdules have been link edited ccrrectly intc the private library or SYS1.LINKLIB data set. Resubmit the jot.

Prcblem Ceterminaticn: Table I, items 1, 4, 29.

IMD179I CANNCT LOAC PGM SEGMENT, INCR REG/PART nnnnK

Explanation: IMDPRDMP attempted tc load a mcdule, but sufficient main stcrage was nct available. The value nnnn gives the number cf K-bytes, by which the region shculd be increased tc prcvide storage for the required segment.

System Action: IMDPRDMP suppresses the function that required the use cf the segment, issues message IMD180I to indicate which function cannot be used, and ccntinues prccessing with cne cf the fcllcwing acticns:
- If the mcdule named in message IMD180I is required fcr execution cf a control statement, that ccntrcl statement is not executed, and IMDPRDMP prcceeds with the next ccntrcl statement.
- If the TSO functicn cf IMDPRDMP is being used and the mcdule named in message IMD180I is IMDPRSWP, TSO user infcrmation carnct be read frcm the TSO SWAP data set. Execution of the TSO ccntrcl statement ccntinues, but printing of swapped infcrmaticn is omitted.

- If the module named in message IMD180I is a user exit program for the EDIT function of IMDPRDMP, message IMD214I is issued to indicate that EDIT processing will be terminated. IMDPRDMP proceeds with the next control statement.
- If the module named in message IMD180I is a format appendage for the EDIT function of IMDPRDMP and GTF trace data is being edited from a dump data set, message IMD215I is issued to indicate that trace records requiring this module will be printed in hexadecimal dump format.
- If the module named in message IMD180I is a format appendage for the EDIT function of IMDPRDMP and an external trace data set is being processed, message IMD214I is issued to indicate that EDIT processing will be terminated. IMDPRDMP processing proceeds with the next control statement.

Operator Response: Report this message to the system programmer.

Probable Response: Probable user error. Increase the value of the REGION parameter on the JOB or EXEC statement used to execute IMDPRDMP, as indicated in the message text. Verify that a SYSPRINT DD statement has been included in the IMDPRDMP JCL. Resubmit the job.

Problem Determination: Table I, items 1, 2, 4, 29. Save a listing of the SYSPRINT data set produced by IMDPRDMP.

IMD180I mod FUNCTION INOPERATIVE

Explanation: The function of IMDPRDMP, mod in the message text, is inoperative. This module can be one of the following:
- Required for the execution of an IMDPRDMP control statement. In this case, the module name will have the format IMDPRxxx where xxx is one of:

    PAL - PRINT ALL function
    PCR - RPINT CURRENT function
    PDR - PRINT F03 function (DAR)
    FXT - FORMAT function
    PJB - PRINT JOBNAME= - print storage by specific jobname
    LPA - LINK PACK AREA map function
    SCN - EDIT GTF trace data (control card scan phase)
    XED - EDIT GTF trace data (processing phase)
    NUC - PRINT Nucleus and SQA
    PMS - PRINT STORAGE= - print by absolute storage address
    TSO - TSO subsystem formatting
- IMDPRSWP, the TSO SWAP data set routine.
- A system or subsystem format appendage routine for the EDIT function of IMDPRDMP. In this case, the module name has the format IMDSYSxx where xx is a hexadecimal number, or IMDUSRyy where yy is a hexadecimal number in the range 51-FF.
- A user format appendage for the EDIT function as indicated by module name IMDUSRxx where xx is a hexadecimal number in the range 1-50.

- A user exit program for the EDIT function of IMDPRDMP as specified by the EXIT parameter of the EDIT control statement.

System Action: The action taken by IMDPRDMP depends on the cause of the named function becoming inoperative. One of the messages IMD177I - IMD179I is issued prior to issuing message IMD180I to indicate both the reason for the function becoming inoperative and the resulting system action.

Operator Response: None.

Programmer Response: Follow the recommended programmer response indicated for messages IMD177I - IMD179I.

IMD181I DELETE ERROR - mod

Explanation: During execution of the EDIT function, IMDPRDMP attempted to acquire storage for the load of a program segment by deleting the loaded module - mod. It was found that module - mod had already been deleted.

System Action: EDIT execution is terminated; IMDPRDMP processing proceeds with the next control statement.

Operator Response: Report this message to the programmer.

Programmer Response: Probable user error. User exit programs and user format appendages for the EDIT function must not issue the DELETE macro instruction specifying modules of IMDPRDMP. Verify that this is not done. Resubmit the job including a SYSPRINT DD statement in the IMDPRDMP JCL.

Problem Determination: Table I, items 1, 2, 4, 29. Save a listing of the SYSPRINT data set produced by IMDPRDMP.

IMD182I SWAP DATA SET NOT ACCESSIBLE

Explanation: No DD statements have been provided to describe the TSO swap data set; therefore the TSO user regions and user control blocks cannot be printed.

System Action: IMDPRDMP continues processing the TSO control statement. The TSC system control blocks that have been specified in the TSC control statement are formatted and printed.

Programmer Response: Supply the necessary DD statements to describe the swap data set. Resubmit the job, making sure that MSGLEVEL=(1,1) is specified in the JOB statement.
Problem Determination: Table I, items 2, 13, 29.

IMD184I INPUT DATA SET INVALID

Explanation: IMDPRDMP has determined that the input data set is not an IMDSADMP high-speed dump or an OS/360 core image

dump. The input block size is greater than 133 characters; therefore, the tape cannot be printed.

System Action: If user control statements are being entered through the card reader, IMDPRDMP will scan remaining control statements for syntax errors. No control statements will be executed until a correct NEWDUMP or NEWTAPE control statement is encountered. If user control statements are being entered through the console, the IMDPRDMP program issues message IMD155D to let the user enter a new control statement.

Programmer Response: Probable user error. If control statements are being entered through the console, the current tape volume should be demounted by entering the NEWDUMP or NEWTAPE control statement. Otherwise, execute IMDPRDMP again, making sure that the correct dump tape is mounted.

Problem Determination: Table I, items 2, 13, 16, 29.

IMD187I INVALID EXEC CARD PARAMETER

Explanation: The IMDPRDMP program detected a syntax error in the value of the PARM= parameter on the EXEC JCL statement which invoked IMDPRDMP.

System Action: IMDPRDMP processing continues with the value assumed for this parameter in error.

Programmer Response: Probable user error. Correct the value of the PARM= parameter; make sure that MSGLEVEL=(1,1) is specified on the JOB statement and that a SYSPRINT DD statement has been included with the IMDPRDMP JCL. Re-submit the job.

Problem Determination: Table I, items 4, 29.

IMD188I PARALLEL AND SERIAL SWAP DD NOT PAIRED

Explanation: IMDPRSWP encountered a SYSWAPn1 DD statement without having encountered a SYSWAPn0 DD statement.

System Action: Information described by these DD statements will not be printed. Processing continues.

Programmer Response: Probable user error. Include the required SYSWAPn0 DD statement in the IMDPRSWP JCL. Rerun the job.

Problem Determination: Table I, items 1, 16, 29.

IMD189I INVALID CHARACTER IN LEVEL FIELD OF SWAP DD STATEMENT

Explanation: IMDPRSWP encountered a SYSWAPnm DD statement in which n is not a numeric value (0-9) or m is neither zero (0) nor one (1).

System Action: Information described by the DD statement in error will not be printed. Processing continues.

Programmer Response: Probable user error. Respecify the SYSWAPnm DD statement with a valid, numeric SWAP level. Rerun the job.

Problem Determination: Table I, items 1, 16, 29.

IMD199D CONTINUE DEFINITION

Explanation: Control statements for the EDIT function of IMDPRDMP are being entered from the system console. An EDIT control statement is to be continued. (This message may follow message IMD200I.)

System Action: The IMDPRDMP program enters a wait pending the operator's reply.

Operator Response: Enter the continuation for the current EDIT control statement.

IMD200I IMDPRDMP VERB RECEIVED - EDIT KEYWORD EXPECTED

Explanation: IMDPRDMP control statements are being entered from the system console. Message IMD199D or message IMD210D requested additional EDIT keywords; however, the reply began with an IMDPRDMP verb.

System Action: If IMDPRDMP control statements are being entered by way of the SYSIN data set, the IMDPRDMP program will scan for syntax errors, without executing the remaining statements. If the control statements are being entered from the system console, message IMD199D or message IMD210D is reissued to allow the user to enter the correct keywords.

Operator Response: Obtain the proper continuation or respecification format from the programmer, and enter the proper keywords in the reply to message IMD199D or message IMD210D.

Problem Determination: Table I, items 1, 2, 4, 29. Save the SYSPRINT data set for IMDPRDMP.

IMD201I INVALID KEYWORD BEGINNING WITH xxx

Explanation: While scanning a control statement, EDIT has encountered an invalid keyword. The first three characters of that keyword are indicated by xxx.

System Action: If control statements are being provided by the SYSIN data set, the function requested by the control statement in error will not be executed. Further action depends on the nature of the data set being processed:
1. If a dump data set is being processed, IMDPRDMP will syntax-check the remaining control statements for that dump without executing them.

2. If an external trace data set is being processed, IMDPRDMP will resume processing with the next control statement.

If user control statements are being entered from the primary system console, IMDPRDMP issues message IMD210D to allow the user to enter EDIT keywords.

Operator Response: None.

Programmer Response: Probable user error. If the control statements were entered by way of the SYSIN data set, resubmit the job using valid keywords and abbreviations. If entering the control statements by way of the system console, reenter EDIT keywords with correct syntax.

Problem Determination: Table I, items 2, 4, 29.

IMD202I INVALID PARENTHESES

Explanation: While scanning a control statement, EDIT encountered either unbalanced parentheses or parentheses around a keyword value(s) for which only one value may be specified.

System Action: If control statements are being provided by the SYSIN data set, the function requested by the control statement in error will not be executed. Further action depends on the nature of the data set being processed:
1. If a dump data set is being processed, IMDPRDMP will syntax-check the remaining control statements for that dump without executing them.
2. If an external trace data set is being processed, IMDPRDMP will resume processing with the next control statement.
If user control statements are being entered from the primary system console, IMDPRDMP issues message IMD210D to allow the user to enter EDIT keywords.

Operator Response: None.

Programmer Response: Probable user error. If the control statements were entered by way of the SYSIN data set, resubmit the job, making sure that all parentheses are paired and that no parentheses are used with the DDNAME and EXIT keywords. If entering the control statements by way of the system console, reenter the EDIT keywords correctly.

Problem Determination: Table I, items 2, 4, 29.

IMD203I INVALID PARM VALUE FOR KEYWORD keywd

Explanation: While scanning the keyword parameter - keywd, EDIT has encountered a value that contains other than valid alphameric values or that falls outside of the range of values allowed for that keyword.

System Action: If control statements are being provided by the SYSIN data set, the function requested by the control statement in error will not be executed. Further action depends on the nature of the data set being processed:
1. If a dump data set is being processed, IMDPRDMP will syntax-check the remaining control statements for that dump without executing them.
2. If an external trace data set is being processed, IMDPRDMP will resume processing with the next control statement.
If user control statements are being entered from the primary system console, IMDPRDMP issues message IMD210D to allow the user to enter EDIT keywords.

Operator Response: None.

Programmer Response: Probable user error. If the control statements were entered by way of the SYSIN data set, resubmit the job, making sure that alphabetic and numeric characters are used correctly, and that all parameters fall within the range of values allowed. If entering the control statements by way of the system console, reenter the EDIT keywords, making sure that all the errors mentioned above have been corrected.

Problem Determination: Table I, items 2, 4, 29.

IMD204I LENGTH OF PARM INVALID FOR KEYWORD keywd

Explanation: While scanning parameter values associated with keyword - keywd, EDIT has encountered a parameter value that exceeds the maximum length allowed for parameters of that keyword.

System Action: If control statements are being provided by the SYSIN data set, the function requested by the control statement in error will not be executed. Further action depends on the nature of the data set being processed:
1. If a dump data set is being processed, IMDPRDMP will syntax-check the remaining control statements for that dump without executing them.
2. If an external trace data set is being processed, IMDPRDMP will resume processing with the next control statement.

If user control statements are being entered from the primary system console, IMDPRDMP issues message IMD210D to allow the user to enter EDIT keywords.

Operator Response: None.

Programmer Response: Probable user error. If the control statements were entered by way of the SYSIN data set, resubmit the job, making sure that all parameter values conform to length requirements. If entering the control statements by way of the system console, reenter the EDIT keywords, making sure that the error mentioned above has been corrected.

Problem Determination: Table I, items 2, 4, 29.

IMD205I DUPLICATE KEYWORD-keywd

Explanation: While scanning a control statement, EDIT has encountered the EXIT or DDNAME keyword after it had already been specified with a different value.

System Action: If control statements are being provided by the SYSIN data set, the function requested by the control statement in error will not be executed. Further action depends on the nature of the data set being processed:
1. If a dump data set is being processed, IMDPRDMP will syntax-check the remaining control statements for that dump without executing them.
2. If an external trace data set is being processed, IMDPRDMP will resume processing with the next control statement.

If user control statements are being entered from the primary system console, IMDPRDMP issues message IMD210D to allow the user to enter EDIT keywords.

Operator Response: None.

Programmer Response: Probable user error. If the control statements were entered by way of the SYSIN data set, resubmit the job, making sure that the EXIT or DDNAME keyword is specified only once per EDIT control statement. If the control statements were entered from the system console, reenter the EDIT keywords, making sure that the error mentioned above has been corrected.

Problem Determination: Table I, items 2, 4, 29.

IMD206I EXCESSIVE NO. PARM VALUES FOR KEYWORD keywd

Explanation: While scanning multiple parameter values associated with keyword - keywd, EDIT has encountered a greater number of unique parameter values than is allowed for this keyword.

System Action: If control statements are being provided by the SYSIN data set, the function requested by the control statement in error will not be executed. Further action depends on the nature of the data set being processed:
1. If a dump data set is being processed, IMDPRDMP will syntax-check the remaining control statements for that dump without executing them.
2. If an external trace data set is being processed, IMDPRDMP will resume processing with the next control statement.

If user control statements are being entered from the primary system console, IMDPRDMP issues message IMD210D to allow the user to enter EDIT keywords.

Operator Response: None.

Programmer Response: Probable user error. If the control statements were entered from the SYSIN data, set, resubmit the job, making sure that the number of unique parameter values does not exceed the maximum number allowed for this keyword. If entering the control statements from the system console, reenter the EDIT keywords, making sure that the error mentioned above has been corrected.

Problem Determination: Table I, items 2, 4, 29.

IMD207I INVALID DELIMITER FOR KEYWORD keywd

Explanation: While scanning values for the keyword (keywd) EDIT has encountered either a delimiter in the place of a value or an unexpected type of delimiter.

System Action: If control statements are being provided by the SYSIN data set, the function requested by the control statement in error will not be executed. Further action depends on the nature of the data set being processed:
1. If a dump data set is being processed, IMDPRDMP will syntax-check the remaining control statements for that dump without executing them.
2. If an external trace data set is being processed, IMDPRDMP will resume processing with the next control statement.

If user control statements are being entered from the primary system console, IMDPRDMP issues message IMD210D to allow the user to enter EDIT keywords.

Operator Response: None.

Programmer Response: Probable user error. If the control statements were entered by way of the SYSIN data set, check all delimiters and resubmit the job. If entering the control statements from the system console, reenter the EDIT keywords with the proper delimiters.

Problem Determination: Table I, items 2, 4, 29.

IMD208I START VALUE EXCEEDS STOP VALUE IN STMTS ABCVE

Explanation: This message is issued when EDIT determines that, on the EDIT control statement, the START parameter value is larger than the STOP parameter value.

System Action: If control statements are being provided by the SYSIN data set, the function requested by the control statement in error will not be executed. Further action depends on the nature of the data set being processed:
1. If a dump data set is being processed, IMDPRDMP will syntax-check the remaining control statements for that dump without executing them.

2. If an external trace data set is being processed, IMDPRDMP will resume processing with the next control statement.
If user control statements are being entered from the primary system console, IMDPRDMP issues message IMD210D to allow the user to enter EDIT keywords.

Operator Response: None.

Programmer Response: Probable user error. If the control statements were entered by way of the SYSIN data set, resubmit the job, insuring that the STOP parameter value is greater than the START parameter value. If entering the control statements from the system console, reenter the EDIT keywords, making sure that the error mentioned above has been corrected.

Problem Determination: Table I, items 2, 4, 29.

IMD209I INVALID USR EID OR RANGE

Explanation: While scanning the parameter values associated with the USR keyword, EDIT has encountered one of the following conditions:
1. an unrecognizable symbolic EID.
2. an EID range in which the left (lower) value exceeds the right (upper) value.

System Action: If control statements are being provided by the SYSIN data set, the function requested by the control statement in error will not be executed. Further action depends on the nature of the data set being processed:
1. If a dump data set is being processed, IMDPRDMP will syntax-check the remaining control statements for that dump without executing them.
2. If an external trace data set is being processed, IMDPRDMP will resume processing with the next control statement.

If user control statements are being entered from the primary system console, IMDPRDMP issues message IMD210D to allow the user to enter EDIT keywords.

Operator Response: None.

Programmer Response: Probable user error. If the control statements were entered by way of the SYSIN data set, resubmit the job, making sure that any symbolic EIDs used are valid and that the right (upper) value in an EID range is equal to or greater than the left (lower) value. If entering the control statements by way of the system console, reenter the control statement, making sure that all of the errors mentioned above have been corrected.

Problem Determination: Table I, items 2, 4, 29.

IMD210D RESPECIFY EDIT KEYWORDS OR REPLY 'RUNEDIT'

Explanation: An EDIT control statement entered from the system console is in error. This message is issued to allow the operator to respecify the keywords contained in that statement or to select default processing.

Note: If the control statement has been divided into a string of continued lines, only the keywords for the line in error may be respecified. The keywords from the previous lines have already been accepted.

System Action: EDIT waits pending the operator's reply.

Operator Response: Do one of the following:
• Respecify the keywords and values from the statement in error including corrections to syntax violations as noted by messages IMD201I - IMD2109I.
• Reply RUNEDIT to cause EDIT execution to begin with the parameters selected on the previously accepted control statements. If no control statements have been accepted, the default options (EDIT SYS,USR=ALL) will be in effect.

IMD211I EDIT OPTIONS IN EFFECT-option list

Explanation: This message is issued to inform the user what keyword options have been accepted for EDIT's data reduction process. If more than one option has been accepted, they are separated by commas in the order specified below:

```
EXIT=exitname
DDNAME=ddname
START=(day,hh.mm.ss)
STOP=(day,hh.mm.ss)
JOBNAMES=(jjj₁,jjj₂,...jjj )
TCBS=(tcbaddr₁,tcbaddr₂,...tcbaddr )
```

either of the following:
```
        IO=SIO=parm
             or
        [SIO=parm] [,IO=parm]
    SVC=parm
    PI=parm
    USR=parm
    EXT
    DSP
```

In the options listed, parm may be either 'ALL', OR 'SEL', where 'ALL' indicates that all events within that event class will be edited, and 'SEL' indicates that only events selected by the user supplying the keyword parameter values for that event class will be edited.

System Action: EDIT processing continues with the above data reduction options in effect.

Operator Response: None.

Programmer Response: None.

IMD212I RCD ON PG nnnn. RET CODE retcde RCVD FR
MODULE mod

    Explanation: The record currently being
processed by EDIT has been dumped in
hexadecimal on page number nnn of the
output data set. Module mcd attempted to
format the record, but EDIT was unable to
process it because module mcd returned an
invalid return code (retcde).

    System Action: EDIT will display in
hexadecimal the record associated with the
error in hexadecimal.

    EDIT takes action based on the value of
the "ER" parameter, specified in the EXEC
statement of the IMDPRDMP JCL, as follows:

    0 -- If the error was in a format
        appendage module, as soon as EDIT
        recognizes that a subsequent record
        requires that module, processing will
        terminate for that record and EDIT
        will select another. If the error
        was in a user exit module, records
        will continue to be processed by the
        format appendages. Message IMD213I
        will then be issued by EDIT.
    1 -- If the error was in a format
        appendage module, all subsequent
        records requiring the same format
        module will be dumped in hexadecimal
        format. Message IMD215I will then be
        issued by EDIT. If the error was in
        a user exit module, formatting of
        records will continue. Message
        IMD213I will then be issued by EDIT.
    2,3 -- Processing of the current EDIT
        function will terminate. Message
        IMD214I is issued by EDIT, and
        processing will continue with the
        next control statement.
        If ER= is not specified on the EXEC
        statement a value of ER=2 will be
        assumed.

    Operator Response: Report this message to
the programmer.

    Programmer Response: Probable user error
if the module name is either of:

    1) IMDUSRxx where xx is a hexadecimal
       number in the range 01-50;
    2) A user exit name.

    Verify that the module sets a valid return
code, and, if necessary, correct it.

    Problem Determination: If the module name
is neither case (1) or (2), see Table I,
items 1, 2, 4, 29. Make sure that a
SYSPRINT DD statement is included in the
IMDPRDMP JCL. Save a listing of the
SYSPRINT data set, and the GTF input trace
data set or the dump data set being
processed.

IMD213I PROCESSING CONTINUES - BYPASSING MODULE
mod

    Explanation: This message is issued
following message IMD212I and message
IMD216I if the user has specified '0' as

the value of the ER parameter on the
IMDPRDMP EXEC statement. EDIT continues
processing, bypassing format appendage or
user exit module - mcd

    System Action: EDIT execution continues.
If the error noted in message IMD212I or
IMD216I occurred in a format appendage
module, further records requiring that
module will not be processed. If the
error noted in message IMD212I or IMD216I
occurred in a user exit module, processing
of records will continue without passing
control to the failing user exit.

    Operator Response: None.

    Programmer Response: None.

IMD214I CURRENT EDIT FUNCTION TERMINATED

    Explanation: This message is issued,
during EDIT execution, when one of the
following occurs:

    1) A user exit module could not be found
       or loaded for execution.
    2) A format appendage module, required
       for processing an external data set,
       existed in the correct library but
       could not be loaded for execution.
    3) During an attempt to load a user exit
       module or a format appendage module,
       an I/O error occurred during execution
       of a BLDL macro instruction.
    4) EDIT attempted to acquire main storage
       space for the load of a module needed
       to process the current input record by
       deleting a previously loaded user exit
       or format appendage module which is no
       longer is use. EDIT found, however,
       that the previously loaded format
       appendage or user exit module has
       already been deleted.
    5) The user has specified '2' or '3' as
       the value of the ER= parameter on the
       IMDPRDMP EXEC statement, and an error,
       identified by message IMD212I or
       IMD216I, has occurred in a format
       appendage or user exit module.

    System Action: The current EDIT function
is terminated. Processing continues with
the next control statement.

    Operator Response: None.

    Programmer Response: None.

IMD215I FURTHER RCDS REQUIRING mod WILL BE DUMPED
IN HEX

    Explanation: This message is issued
following message IMD212I and message
IMD216I when the user has specified '1' as
the value of the ER= parameter on the
IMDPRDMP EXEC statement. EDIT continues
processing, dumping in hexadecimal any
record that requires format appendage
module - mod for editing.

    System Action: EDIT continues processing,
having deleted format appendage module -
mod. Any subsequent records requiring mod
for editing will be dumped in hexadecimal.

Programmer Response: None.

IMD216I RCD AND OTHER INFO ON PG nnnn. PGM CHECK
IN MODULE mod

Explanation: A program check interrupt
has occurred during execution of the
format appendage or user exit module -
mod. The current input record will be
dumped in hexadecimal, along with
information pertaining to the program
check, on page nnnn of the IMDPRDMP data
set.

System Action: EDIT will display in
hexadecimal the record associated with the
error. EDIT continues execution based on
the value of the 'ER' parameter specified
on the EXEC statement.

EDIT takes action based on the value of
the 'ER' parameter, as follows:
0 -- If the error was in a format
     appendage module, as soon as EDIT
     recognizes that a subsequent record
     requires that module, processing will
     terminate for that record and EDIT
     will select another. If the error
     was in a user exit module. records
     will continue to be processed by the
     format appendages. Message IMD213I
     will then be issued by EDIT.
1 -- If the error was in a format
     appendage module, all subsequent
     records which require processing by
     the same format module will be dumped
     in hexadecimal format. Message
     IMD215I is then issued by EDIT. If
     the error was in a user exit module,
     the resultant action is the same as
     if 'ER=0' had been specified.
2 -- Processing of the current EDIT
     function will terminate. Message
     IMD214I is issued by EDIT.
     Processing continues with the next
     control statement.

     If ER= is not specified on the EXEC
     statement, a value of ER=2 is
     assumed.

Operator Response: Report this message to
the programmer.

Programmer Response: Probable user error
if the module name is either of:
1) IMDUSRxx where xx is a hexadecimal
    number in the range 01-50;
2) A user exit name.

Verify that the module in error has been
thoroughly tested, using the 'ER=3'
parameter value on the IMDPRDMP EXEC
statement and including a SYSABEND DD
statement in the IMDPRDMP JCL if a dump of
the module is desired.

Problem Determination: If the module name
is neither case (1) or case (2), see Table
I, items 1, 2, 4, 5a, 29. Insure that the
ER=3 parameter is specified on the
IMDPRDMP EXEC statement and that a
SYSPRINT DD statement is included in the

IMDPRDMP JCL. Save a listing of the
SYSPRINT data set, a copy of the related
dump, and a copy of the input trace data
set (or dump) being processed.

IMD217I NO SYS DATA, JOB OR TCB SELECTION NOT
ALLOWED

Explanation: The EDIT function of
IMDPRDMP is being used and the JOBNAME or
TCB keyword parameter was specified on the
EDIT control statement. The trace data
set being processed is in the SYSM format;
therefore, editing of trace records by
specified jobname or TCB address is not
possible.

System Action: If control statements are
being entered by way of the SYSIN data
set, EDIT processing is terminated and
IMDPRDMP execution continues with the next
user control statement. If control
statements are being entered by way of the
system console, message IMD218D will be
issued allowing the operator to decide if
EDIT processing is to continue.

Operator Response: Message IMD218D will
be issued following message IMD217I.
Enter desired response to message IMD218D.

Programmer Response: Probable user error.
If control statements are being entered by
way of the SYSIN data set, do not use the
JOBNAME or TCB address parameters of the
EDIT control statement. Make sure that a
SYSPRINT DD statement is included in the
IMDPRDMP JCL. Resubmit the job.

If control statements are being entered
from the system console, respond to
message IMD218D when it is issued.

Problem Determination: Table I, items 1,
4, 29. Save a listing of the SYSPRINT
data set produced by IMDPRDMP. Save the
GTF trace data set or the dump data set
being processed.

IMD218D REPLY 'C' TO EDIT W/O JOB/TCB SELECTION,
'S' TO TERMINATE

Explanation: IMDPRDMP control statements
are being entered from the system console.
The EDIT function of IMDPRDMP is being
used and the JOBNAME or TCB keyword
parameter was specified on the EDIT
control statement. Trace data being
processed is in the SYSM format;
therefore, editing by specific jobname or
TCB address is not possible. The operator
is asked to decide whether or not
processing is to continue without the
requested selective editing.

System Action: The IMDPRDMP program
enters a wait state pending the operator's
reply.

Operator Response: If EDIT processing is
to continue and all trace records are to
be edited, reply 'C'. If EDIT processing
is to stop, enter 'S', causing IMDPRDMP
execution to continue with the next user
control statement.

IMD219D EDIT DUMP - NO SELECT. REPLY DDNAME CR
        'O' TO TERMINATE

        Explanation: IMDPRDMP control statements
        are being entered by way of the system
        console and the EDIT function is being
        used. The user has specified selective
        editing without including a DDNAME
        parameter in the EDIT ccntrol statement,
        thus requesting selective editing of GTF
        trace buffers in a dump data set. This is
        not permitted by the EDIT function.

        System Action: The IMDPRDMP program
        enters a wait state until the response is
        entered.

        Operator Response: If an external trace
        data set is to be edited, enter the ddname
        of the DD card describing the data set.
        If an external trace data set is not to be
        edited, enter 'O' and then enter the
        corrected EDIT control statement is
        response tc message IMD155D.

IMD220I NO EDIT DD CARD - ddn

        Explanation: The EDIT funciton of
        IMDPRDMP is being used. The DD statement
        specified by the EDIT keyword parameter
        DDNAME has been omitted frcm the IMDPRDMP
        JCL. ddn is the name specified by this
        parameter.

        System Action: EDIT prccessing is
        terminated. IMDPRDMP execution continues
        with the next control statement.
        Operator Response: Repcrt this message to
        the programmer.

        Programmer Response: Probable user error.
        Supply the necessary DD statement, or
        correct the value of the DDNAME parameter
        to specify the correct ddname. Make sure
        that a SYSPRINT DD statement has been
        included in the IMDPRDMP JCL. Resubmit
        the job.

        Problem Determination: Table I, items 1,
        4, 29. Save a listing cf the SYSPRINT
        data set produced by IMDPRDMP.

IMD224I BLKSIZE=3500 ASSUMED, NOT SPECIFIED FCR
        DD - ddn

        Explanation: The EDIT functicn of
        IMDPRDMP is being used. Nc blocksize was
        specified for the data set described by
        the DD statement ddn. This data set
        resides on a non-labeled magnetic tape
        volume.

        System Action: EDIT prccessing continues
        with the blocksize 3500 assumed.

        Operator Response: None.

        Problem Determination: Table I, items 1,
        4, 29. Save a listing cf the SYSPRINT
        data set produced by IMDPRDMP.

IMD225I REG/PART nnnK TOO SMALL FOR EDIT BUFFERS

        Explanation: The EDIT functicn of
        IMDPRDMP is being used. The region in

which IMDPRDMP is executing is tcc small
tc ccntain the requested number of trace
data set buffers. The amount cf storage
required fcr these buffers is determined
by the prcduct cf the maximum blocksize in
the trace data set and the value of the
BUFNC subparameter cf the DD statement.
(If BUFNO is nct specified, the value 2 is
assumed).

System Action: EDIT prccessing is
terminated. IMDPRDMP executicn continues
with the next user control statement.

Cperatcr Respcrse: Repcrt this message to
the prcgrammer.

Prcgrammer Respcrse: Probable user error.
Either 1) increase the value cf the REGION
parameter cn the JCB cr EXEC statement by
the amcunt indicated by nnn, cr 2)
decrease the value cf the BUFNO parameter
sc that the amcurt cf main stcrage
required fcr trace buffers is less than
the value. Resubmit the jcb making sure
that the SYSPRINT DD statement is included
in the IMDPRDMP JCL.

Prcblem Determinaticn: Table I, items 1,
4, 29. Save a listing of the SYSPRINT
data set produced by IMDPRDMP.

IMD226I NC RECCRDS IN RECUESTED INTERVAL

        Explanaticn: EDIT did not find any
        reccrds in the requested interval for one
        cf the fcllowirg reascns:
        • The time interval specified by the
          START/STCP keywcrds are within the time
          interval covered by the trace data set,
          but GTF did rct generate any records
          durirg that time.
        • The entire trace data set was generated
          befcre the START time indicated by the
          EDIT control statement.

        System Acticn: EDIT prccessing is
        terminated. IMDPRDMP executicn ccntinues
        with the next user ccntrol statement.

        Cperatcr Respcrse: Ncne.

        Prcgrammer Acticr: Ncne.

IMD227I DATA SET CREATED AFTER STOP TIME

        Explanaticn: The EDIT functicn of
        IMDPRDMP is beirg used for an external
        trace data set. The user specified a
        STCP= value in his EDIT ccntrol statement
        that is earlier than the value cf any time
        stamp reccrd in the data set.

        System Acticn: Current EDIT prccessing is
        terminated and prccessing resumes with the
        next ccntrcl statement.

        Cperatcr Respcrse: Repcrt this message to
        the prcgrammer.

        Prcgrammer Respcrse: Probable user error.
        Make sure that the STOP= time is within
        the time-range cf this data set (this can
        be determined by executing IMDPRDMP EDIT
        with the same data set, specifying the SYS

and USR=ALL options, and examining the
block time stamps). Resubmit the job with
the correct STOP= value.

Problem Determination: Table I, items 4,
29. Save the trace data set and a listing
of the SYSPRINT data set produced by
IMDPRDMP.

IMD265I POSITIONS 73-80 OF PRECEDING CONTROL
STATEMENT WILL BE IGNORED

Explanation: The preceding control card
read by IMDPRDMP contained non-blank
characters in columns 73-80.

System Action: IMDPRDMP ignores data
found in columns 73-80 of a IMDPRDMP
control card.

Programmer Response: Probable user error.
If IMDPRDMP control statements were
entered via the card reader, resubmit the
job. If entering the control statements
via the system console, reenter the
control statement in the proper syntax.

Component Name	IPD
Program Producing Message	FORTRAN syntax checker.
Audience and Where Produced	For remote operator and programmer: terminal.

Message Format	IPDnnn xxxxxxxx yyyyyy text
	
	nnnn
	    Message serial number.
	
	xxxxxxxx
	    Data set line number of the line in which the error was detected.
	
	yyyyyy
	    Characters in error.
	
	text
	    Message text.

Comments	Central operator may request that messages appear on his console.

Associated Publications	IBM System/360 Operating System:
	   Conversational Remote Job Entry
	   Terminal User's Guide, GC30-2014

Problem Determination	Refer to the fold-out in part VI of this publication for problem determination instructions.

IPD000 SYSTEM OR SYNTAX CHECKER FAILURE

Explanation: While scanning the last statement, the syntax checker encountered a condition that should not occur. It may be a hardware, syntax checker, or operating system error.

Problem Determination: Table I, items 3, 29.

IPD002 UNRECOGNIZABLE STMNT OR MISSPELLED KEYWD

Explanation: The statement was not a recognizable FORTRAN statement type, or a keyword of six or fewer characters was misspelled. An assignment statement with errors to the left of the "=" is unrecognizable.

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the jcb or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD004 UNSIGNED INTEGER EXPECTED

Explanation: An invalid form, such as an integer constant preceded by a plus or minus sign, was encountered in the statement where (1) an unsigned integer is the only valid form, or (2) an unsigned integer or unsigned variable is the only valid form.

Programmer Response: Probable user error. Make the correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD006 EXPRESSION EXPECTED

Explanation: An expression is either missing or invalid in the statement where a valid one is expected. For example, each of these statements would receive this message:

1. A=
2. G (I,J) = C (I,)
3. X= Y+2.0*(**2+6.28)

The source characters in error in the message would be: none for statement 1; ")" for statement 2; "**2+6." for statement 3.

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD008 POSSIBLY TOO MANY SUBSCRIPTS PRECEDE

Explanation: A list of eight or more
(four or more in FORTRAN E) names within
parentheses has been found following a
symbolic name on the left side of the
equal sign in an assignment statement or
statement function definition. If the
statement is a statement function
definition, the message should be ignored.

Programmer Response: Probable user error.
Make correction as noted in the
explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3,
15, 22, 29.

IPD010 TOO MANY SUBSCRIPTS

Explanation: A list of eight or more
(four or more in FORTRAN E) expressions
within parentheses has been found
following a symbolic name in a place where
a subscripted variable reference would be
valid.

Programmer Response: Probable user error.
Make correction as noted in the
explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3,
15, 22, 29.

IPD012) EXPECTED

Explanation: Either a required
parenthesis was missing or there was no
right parenthesis to match a left
parenthesis.

Programmer Response: Probable user error.
Make correction as noted in the
explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3,
15, 22, 29.

IPD014 ARITH IF REQUIRES STATEMENT NUMBER LIST

Explanation: There was a missing or
invalid statement number in the list of
statement numbers after an arithmetic IF
statement. (FORTRAN G and H only)

Programmer Response: Probable user error.
Make correction as noted in the
explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3,
15, 22, 29.

IPD016 INVALID EXPRESSION IN IF STATEMENT

Explanation: The expression within
parentheses after the "IF" keyword of a
logical or arithmetic IF statement was not
recognizable as either a valid logical or
arithmetic expression. (FORTRAN G and H
only)

Programmer Response: Probable user error.
Make correction as noted in the
explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3,
15, 22, 29.

IPD018 UNRECOGNIZABLE STMNT AFTER LOGICAL IF

Explanation: The statement following the
"IF (logical expression)" was not a
recognizable FORTRAN statement type, or
there was something other than blanks
between the right parentheses at the end
of the logical expression and the start of
the statement. Some errors in arithmetic
IF statements will cause this message to
be issued. (FORTRAN G and H only)

Programmer Response: Probable user error.
Make correction as noted in the
explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3,
15, 22, 29.

IPD020 NON-ZERO INTEGER EXPECTED

Explanation: The indicated numeric
constant is zero, not an integer constant,
or both.

Programmer Response: Probable user error.
Make correction as noted in the
explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3,
15, 22, 29.

IPD022 ILLEGAL STATEMENT AFTER LOGICAL IF

Explanation: The statement following the
"IF (logical expression)" is not one of the
statement types permitted after a logical
IF. The statement cannot be a DO, another
logical IF, any non-executable statement,
nor any of the DEBUG statements. (FORTRAN
G and H only)

Programmer Response: Probable user error.
Make correction as noted in the
explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3,
15, 22, 29.

IPD026 DATA SET NUMBER EXPECTED

Explanation: An input/output statement
had neither an unsigned non-zero integer
nor a variable name in the correct
position for the data set reference
numbers.

Programmer Response: Probable user error.
Make correction as noted in the
explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3,
15, 22, 29.

IPD028 LENGTH SPECIFICATION INVALID

Explanation: In a type-statement, a
length specification was missing or was
incorrect for the type of statement
specified for the variable(s) or function.
(FORTRAN G and H only)

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD030   (EXPECTED

Explanation: A required left parenthesis is missing. This message is not issued for statements where parentheses are optional (assignment statements, for example), but is issued where a pair of parentheses is mandatory (as in FUNCTION, EQUIVALENCE, WRITE, etc.).

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD032   NAME EXPECTED

Explanation: A required name is missing or is preceded by characters that cannot begin a name. For example, all these statements will receive this message:

        FUNCTION (A,B,C)
        DIMENSION, X(20,30)
        DEFINE FILE 8(10,20,U,3X)

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD034   DUMMY ARGUMENT EXPECTED

Explanation: A SUBROUTINE or FUNCTION statement has an argument that is invalid - a constant or an expression, for example. (This also applies to the ENTRY statement in FORTRAN G and H)

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD036   ARRAY DIMENSIONS EXPECTED

Explanation: A DIMENSION statement gave either partial or no dimension information for one of its array names, or invalid characters were between the array name and the dimension information.

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD038   / EXPECTED

Explanation: The first name in a NAMELIST statement was not preceded by a slash, or a name or list of data preceded by a slash was not followed by a slash. (COMMON, SUBROUTINE, FUNCTION, ENTRY, NAMELIST, DATA, INTEGER, REAL, LOGICAL, and COMPLEX statements in FORTRAN G and H only)

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD040   INVALID DATA TYPE

Explanation: Either the type of a datum in a type-statement did not agree with the type declared by the statement, the datum was missing, or, in an Implicit statement, the type specification was invalid (e.g., IMPLICIT REEL (D)). (Hexadecimal and both types of literal data are allowed in all type statements.) (FORTRAN G and H only)

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD042   STATEMENT NUMBER EXPECTED

Explanation: A FORMAT statement was not numbered or a form other than a statement number was encountered after the "GO TO" in an unconditional GO TO statement. (In addition, in FORTRAN G and H, the invalid form could be in an ASSIGN or a CALL statement.)

Programmer Response: Probable user error. Make correction as noted in the

Problem Determination: Table I, items 3, 15, 22, 29.

IPD044   'TO' EXPECTED

Explanation: An ASSIGN statement did not have "TO" in the required place. (FORTRAN G and H only)

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD046   ARGUMENT EXPECTED

Explanation: A CALL statement has an invalid or missing argument in its argument list.

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

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Problem Determination: Table I, items 3, 15, 22, 29.

IPD048   DATA LIST EXPECTED

Explanation: A data statement contains no data list or the data list is separated from the variable list by invalid characters. (FORTRAN G and H only)

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD050   RELATIONAL OPERATOR EXPECTED

Explanation: In a logical expression, an arithmetic expression was not followed by a relational operator. (FORTRAN G and H only)

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD052   , EXPECTED

Explanation: In a statement with a relatively rigid form, such as EQUIVALENCE or DEFINE FILE, a comma was absent or preceded by invalid characters.

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.
0

Problem Determination: Table I, items 3, 15, 22, 29.

IPD054   OPERAND EXPECTED IN ARITH EXPRESSION

Explanation: An arithmetic operator was not followed by a valid arithmetics operand, or two operators occur together (as in A * -B).

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD056   OPERAND EXPECTED IN LOGICAL EXPRESSION

Explanation: A logical operator was not followed by a logical operand, or a logical operand was missing. An invalid logical operator, such as ".NOT..NCT.", also causes this message. (FORTRAN G and H only)

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD058   I/O LIST ITEM EXPECTED

Explanation: A variable name did not follow a comma in the list of a READ or WRITE statement (or in FORTRAN G and H, a PUNCH or PRINT statement).

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD060   ' EXPECTED

Explanation: A FIND statement did not contain an apostrophe to separate the data set reference number from the expression describing the record to be found. This message is issued only if the omission of the apostrophe leaves a valid data set reference number. For example, "FIND (10 100)" would not cause this message because 10100 is not a valid data set reference number.

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD062   INCORRECT PARAMETER - MUST BE E, L, OR U

Explanation: The data set control character in a DEFINE FILE statement was not an E, L or U.

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD064   DEBUG PARAMETER EXPECTED

Explanation: A valid parameter did not follow a comma after a valid parameter in a DEBUG statement. (FORTRAN G only)

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD066   SUBSCRIPT EXPECTED

Explanation: A subscript was missing, not in one of the valid forms, or separated from the preceding comma or left parenthesis by invalid characters. (FORTRAN E only)

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD068 TOO MANY LEVELS OF PARENTHESES

Explanation: In a FORMAT statement, group repeat specifications were tcc deeply nested. FORTRAN E does nct allow a group repeat specification within a group repeat specification. FORTRAN G and H do allow this, but allow no further nesting of group repeat specifications.

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the jcb or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD072 INTEGER EXPECTED

Explanation: A numeric constant that was not an integer was found where an integer is required.

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the jcb or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD074 COMPLEX NUMBER INVALID

Explanation: The two parts cf a complex constant did not agree in length, or one or both parts was nct a real constant. (FORTRAN G and H only)

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the jcb or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD076 DELIMITER MISSING OR INVALID FORMAT CCDE

Explanation: In a FORMAT statement, either a format code was invalid, a delimiter (such as the required comma or slashes between two literal fcrmat codes) was missing or the right parenthesis at the end of the FORMAT was missing.

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the jcb or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD078 VARIABLE LIST EXPECTED

Explanation: In a DATA statement, a variable name (or list cf variable names) did not occur (1) as the first item of the data statement, or (2) after a comma following a list of constants enclosed in slashes. This message is alsc issued when there are invalid characters between the "DATA" keyword or the ccmma and the list of variables. (FORTRAN G and H only)

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the jcb or jobstep9

Problem Determination: Table I, items 3, 15, 22, 29.

IPD080 EXPECTED IN FORMAT CODE

Explanation: There was nc pericd as required in the "w.d" fcllcwing the D, E, cr F fcrmat ccde in a FORMAT statement.

Programmer Response: Probable user error. Make ccrrecticn as ncted in the explanaticn and rerun the jcb or jcbstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD082 NAME TCC LCNG

Explanation: A symbclic name ccntains ncre than six characters, a keyword of seven cr ncre letters at the beginning of a statement is misspelled, cr a misspelled keyword fcllcws the "IF(lcgical expression)" part cf a logical IF statement. A missing delimiter may cause this message tc be issued. Each cf the fcllcwing statements wculd prcduce this message:

    38 CONTINUE
        SUBROUTINE X(ARG1 ARG2)

Programmer Response: Probable user error. Make ccrrecticn as ncted in the explanaticn and rerun the jcb or jcbstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD084 STATEMENT NUMBER INVALID

Explanation: The statement number field (pcsiticns 1-5 cf the initial line of a statement) was zerc cr ccntained at least cne character that was neither a digit nor a blank. Within a statement, this message is issued if a statement number is zero or ccntains tcc nary digits.

Programmer Response: Probable user error. Make ccrrecticn as ncted in the explanaticn and rerun the jcb or jcbstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD086 H-LITERAL INCOMPLETE

Explanation: The number of characters in the statement after the "H" was smaller than the ccunt befcre the "H" in the H-literal.

Programmer Response: Probable user error. Make ccrrecticn as ncted in the explanaticn and rerun the jcb or jcbstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD088 FIELD WIDTH NCT IN RANGE 1-255

Explanation: The field width specified in a fcrmat ccde was nct in the required range.

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD090 LITERAL EXCEEDS 255 CHARACTERS

Explanation: The number cf characters between the apostrophes of a literal exceeds 255. In determining the number of characters enclosed, twc adjacent apostrophes within the cutermost apostrophes are counted as cne character.

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD092 STATEMENT ANALYSIS EXCEEDS TABLE LIMITS

Explanation: The statement was so complicated that the syntax checker ran out of space in its table. The statement cannot be checked by the syntax checker.

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD094 END REQUIRES BLANK LABEL & CONTIN FIELDS

Explanation: Positions 1-6 cf an END statement must be blank, and an END statement cannot have continuation lines.

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD096 INVALID OR EXCESS SOURCE CHARACTERS

Explanation: The statement being checked completely satisfies the definition for that type of statement at some point before the last non-blank character in the statement. This may occur if a delimiter has been left out between elements of a statement.

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD098 INVALID RANGE IN IMPLICIT STATEMENT

Explanation: An IMPLICIT statement contains a range of characters in which the last character cf the range alphabetically precedes the first character of the range. Note that "$" follows "Z" in the alphabet. A character

that is nct alphabetic will alsc cause this message tc be issued. (FORTRAN G and H cnly)

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD100 FIRST LINE IS A CONTINUATION

Explanation: The first line scanned did nct have "C" in position cne, ncr did it have a blank cr zerc in position six.

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD102 COMMENT LINE WITHIN STATEMENT

Explanation: A comment line was found between an initial line and a continuation line cr between twc continuation lines.

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD104 TOO MANY CONTINUATION LINES

Explanation: The statement consisted of an initial line followed by more than 19 continuation lines.

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD106 TOO MANY DECIMAL PLACES FOR FIELD WIDTH

Explanation: In a D, E, F, or G format ccde, the fractional portion ("d" of "w.d") exceeded the total field width ("w" cf "w.d"). (G in FORTRAN G and H cnly)

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD108 DECIMAL PLACES MUST BE SPECIFIED

Explanation: In a D, E, cr F format code, fractional portion ("d" of "w.d") was missing or was separated from the decimal point by invalid characters.

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD110I) REQUIRED FOR IMPLIED DO

Explanation: In the input or output list of an I/O statement, a right parenthesis was not the first non-blank character after the parameters of an implied DO.

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD112 DO VARIABLE CANNOT BE SUBSCRIPTED

Explanation: In an I/O list, a subscripted variable was used as the DO variable within an implied DO loop.

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD114 DEBUG FACILITY NOT SUPPORTED

Explanation: One of the Debug Facility statements appeared in a FORTRAN H program. These statements are allowed only in FORTRAN G. They are diagnosed when FORTRAN H is being checked since FORTRAN G and H use the same syntax table. If FORTRAN E is being checked, these statements will be diagnosed as unrecognizable or as beginning with too long a name.

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD116 EXPONENT MISSING OR INVALID

Explanation: The characters after the "D" or "E" in a double precision or real constant do not constitute a valid exponent.

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD118 REAL CONSTANT MUST HAVE AT LEAST 1 DIGIT

Explanation: In a place where a numeric constant might be written, a decimal point was found followed by an E or D exponent, but there was no digit on either side of the decimal point.

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD120 INTEGER TOO LARGE

Explanation: The magnitude of an integer constant exceeds 2147483647.

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD122 CLOSING ' EXPECTED

Explanation: The end of the statement was reached without finding the closing apostrophe for a literal constant or literal format code. The opening apostrophe of the literal is the source character identified in the error message. (Only the literal format code is allowed in FORTRAN E.)

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD124 DATA ILLEGAL FOR DUMMY ARRAY

Explanation: An array was dimensioned in a REAL, INTEGER, LOGICAL or COMPLEX type-statement. One of the dimensions was a variable name, making the array a dummy array, but a slash, indicating the start of a list of data, was then encountered. Dummy arrays cannot be assigned initial data values.

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD126 REAL NUMBER EXPECTED

Explanation: A numeric datum of a type other than real was written in a REAL type-statement. (FORTRAN G and H only)

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPD128 INVALID CHARACTERS AFTER STOP OR PAUSE

Explanation: Characters other than digits, or too many digits, follow the STOP or PAUSE in a STOP or PAUSE statement. (In FORTRAN G and H, a literal is also permitted to follow PAUSE and will not receive this diagnostic.)

IPD

Programmer Response: Probable user error.
Make correction as noted in the
explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3,
15, 22, 29.

IPD130 REAL NUMBER OUTSIDE OF ALLOWABLE RANGE

Explanation: A real number's magnitude,
taking the value of the exponent into
account, is outside the range 1.0E-79 to
9. (any fraction) E+75.

Programmer Response: Probable user error.
Make correction as noted in the
explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3,
15, 22, 29.

IPD132 FORMAT STMNT NO. OR ARRAY NAME EXPECTED

Explanation: In a PRINT, PUNCH, or READ
statement, no reference is made to a
FORMAT statement or to an array containing
a FORMAT. (FORTRAN G an H only)

Programmer Response: Probable user error.
Make correction as noted in the
explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3,
15, 22, 29.

IPD134 MISPLACED LENGTH SPECIFICATION PRECEDES

Explanation: A FUNCTION statement in
which the "FUNCTION" is preceded by
"REAL", "INTEGER", "COMPLEX", or "LOGICAL"
has a length specification between the
type and "FUNCTION". The length
specification is invalid in that position
and must be moved to the end of the
function name.

Programmer Response: Probable user error.
Make correction as noted in the
explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3,
15, 22, 29.

IPD138 ARITH EXP EXPECTED AFTER RELATIONAL OP

Explanation: A relational operator in a
logical expression was not followed by a
valid arithmetic expression. (FORTRAN G
and H only)

Programmer Response: Probable user error.
Make correction as noted in the
explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3,
15, 22, 29.

IPD140 INVALID COMMA IN DO

Explanation: An invalid comma was found
after the statement number in a DO
statement.

Programmer Response: Probable user error.
Make correction as noted in the
explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3,
15, 22, 29.

IPD142 = EXPECTED

Explanation: In a DO statement, in which
the statement number was followed by an
invalid comma, the equal sign expected
after the DO variable was not found.

Programmer Response: Probable user error.
Make correction as noted in the
explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3,
15, 22, 29.

IPD144 LITERAL CONTAINS NO CHARACTERS

Explanation: The closing apostrophe of a
literal constant or literal format code
occurred immediately to the right of the
opening apostrophe. (Only the literal
format code is allowed in FORTRAN E.)

Programmer Response: Probable user error.
Make correction as noted in the
explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3,
15, 22, 29.

IPD146 INVALID IF AFTER LOGICAL IF

Explanation: A statement after the "IF
(logical expression)" part of a logical IF
statement was recognized as an IF
statement, but was not a valid arithmetic
IF statement as required. (FORTRAN G and
H only)

Programmer Response: Probable user error.
Make correction as noted in the
explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3,
15, 22, 29.

IPD158 TOO MANY SUBSCRIPTS PRECEDE

Explanation: A list of eight or more
(four or more in FORTRAN E) expressions
within parentheses has been found
following a symbolic name on the left side
of the equal sign in an assignment
statement.

Programmer Response: Probable user error.
Make correction as noted in the
explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3,
15, 22, 29.

IPD160 'END' TOO FAR ON LINE

Explanation: The free-form END statement
contains more than 66 characters, not
including trailing blanks. (This message
will not appear if the statement contains
other errors.)

System Action: Processing continues.

Programmer Response: Probable user error. Make correction as noted in the explanation and rerun the job or jobstep.

Problem Determination: Table I, items 3, 15, 22, 29.

IPDxxx SYSTEM OR SYNTAX CHECKER FAILURE

(xxx = an even number from 162 through 254)

Explanation: While scanning the last statement, the syntax checker encountered a condition that should not occur. It may be a hardware, syntax checker, or operating system error.

Programmer Response: None.

Problem Determination: Table I, items 3, 19, 29.

IPD

PART IV: UNNUMBERED MESSAGES

American National Standard COBOL
Unnumbered Messages

American Naticnal Standard COBOL Unnumbered.
Messages are nct included in this publication.
They are dccumented in the publication _IBM_
System/360 Cperating System: Full American
National Standard COBCL Prcgrammer's Guide,
GC28-6399. If ycur installaticn uses Full
American Naticnal Standard COBOL frequently, you
may prefer tc have its urnumbered messages in this
publicaticn; this page and the index tab in this
section is prcvided sc that ycu can remove the
messages frcm the Prcgrammer's Guide and insert
them here.

For routing and descriptcr ccdes cf these
messages, see Table 31 in Part V cf this
publicaticn: "Routing and Cescriptcr Ccdes."

COBOL E Unnumbered Messages

COBCL E Unnumbered Messages are nct included in
this publicaticn. They are dccumented in the
publicaticn IEM System/360 Operating System:
COBCL E Programmer's Guide, GC24-5029. If your
installaticn uses COBCL E frequently, ycu may
prefer tc have its unnumbered messages in this
publicaticn; this page and the index tab for this
section is prcvided sc that ycu can remove the
messages frcm the Prcgrammer's Guide and insert
them here.

For routing and descriptcr ccdes cf these
messages, see Table 10 in Part V cf this
publication: "Routing and Cescriptcr Codes."

FORTRAN IV G Unnumbered Messages

FCRTRAN IV G Unnumbered Messages are nct included
in this publicaticn. They are documented in the
publicaticn _IBM System/360 Operating System:_
FORTRAN IV (G and H) Programmer's Guide,
GC28-6817. If your installaticn uses FORTRAN IV G
frequently, ycu may prefer tc have its messages in
this publicaticn; this page and the index tab for
this secticn is prcvided sc that ycu can remove
the messages frcm the Programmer's Guide and
insert them here.

For routing and descriptcr ccdes cf these
messages, see Table 14 in Part V cf this
publicaticn: "Routing and Lescriptor Codes."

FORTRAN IV H Unnumbered Messages

FORTRAN IV H Unnumbered Messages are not included in this publication. They are documented in the publication _IBM System/360 Operating System: FORTRAN IV (G and H) Programmer's Guide_, GC28-6817. If your installation uses FORTRAN IV G frequently, you may prefer to have its messages in this publication; the index tab on this page is provided so that you can remove the messages from the programmer's guide and insert them here.

For routing and descriptor codes of these messages, see Table 8 in Part V of this publication: "Routing and Descriptor Codes."

UNN

***** member name NOW ADDED TO DATA SET.

Explanation: The load module created by this
execution of the linkage editor has been
added to the partitioned data set specified
on the SYSLMOD DD card with the member name
specified in this message.

Programmer Response: None.

***** member name DOES NOT EXIST BUT HAS BEEN
ADDED TO THE DATA SET.

Explanation: The replacement function was
specified in the NAME control statement, but
the member named in this message did not
exist prior to this execution of the linkage
editor. The load module created has been
added to the partitioned data set specified
on the SYSLMOD DD card with the member name
specified in this message.

Programmer Response: None.

***** member name NOW REPLACED IN DATA SET.

Explanation: The replacement function was
specified in the NAME control statement, and
the member named in this message did exist
prior to this execution of the linkage
editor. The load module created by the
linkage editor has replaced the existing
member in the partitioned data set specified
on the SYSLMOD DD card.

Programmer Response: None.

***** alias name IS AN ALIAS FOR THIS MEMBER.

Explanation: The alias name specified in the
message has been assigned to the load module
created in this execution of the linkage
editor. The alias name can be an alternate
entry point in the module or an additional
name for the primary entry point.

Programmer Response: None.

***** MODULE HAS BEEN MARKED NOT EXECUTABLE.

Explanation: The linkage editor has
encountered an error condition (severity code
2 or greater) that may cause an error during
execution of the load module. (The numbered
diagnostic messages issued by the linkage
editor describe the error.) The linkage
editor sets a flag in the directory entry for
the load module to indicate that the module
cannot be executed.

Note: If the LET option has been specified,
the linkage editor will not take this action
for a severity 2 error condition.

Programmer Response: Correct the error and
link edit the step again. A NAME statement
with the replacement function will be needed
if the new load module is to replace the load
module marked NOT EXECUTABLE in an existing
data set.

***** MODULE HAS BEEN MARKED
attribute[,attribute][,AND attribute]

Explanation: The directory entry for the
load module created by this execution of the
linkage editor has been marked with the
attributes named in the message. Each
attribute field in the message can be one of
the following:

REFRESHABLE	NOT REFRESHABLE
REENTERABLE	NOT REENTERABLE
REUSABLE	NOT REUSABLE

The attributes (REFR, RENT, or REUS) are
specified in the PARM field of the EXEC
statement for the linkage editor job step.
The specified attributes can be negated,
however, because the linkage editor checks
the module attributes in the directory entry
for each input load module included from
system or private libraries by linkage editor
control statements or the automatic library
call mechanism. Any incompatible attributes
will cause the linkage editor to override the
attribute specified on the EXEC statement.
If any input load module is marked NOT
REUSABLE, the output load module is marked
NOT REUSABLE. If any is marked NOT
REENTERABLE, the output load module is marked
NOT REENTERABLE. If any is marked NOT
REFRESHABLE, the output load module is marked
NOT REFRESHABLE.

Programmer Response: Determine if each
attribute assigned to the output load module
is one you want. If not, check the attribute
assigned to each input load module for a
possible conflict. When an undesirable
attribute is found, examine the load module
to see if the attribute is accurate. If it
is not, recreate the incorrect module from
its object deck, specifying the correct
attribute on the PARM field of the EXEC
statement. Then link edit the original job
again.

CHANGE ITEM BYPASSEC - CHANGE LEVELS DO NOT CHECK.

> Explanation: The change level in the change SSI is not one greater than the change level in the library SSI.

CHANGE ITEM BYPASSED - EXCEPT CARD.

> Explanation: The change item is intended for a member that does not exist in the user's system libraries. The change item has not been treated as a new member, because no FORCE card was submitted for it. If a FORCE card was used, the change item is not an addition or replacement, and therefore cannot be added to a library.

CHANGE ITEM BYPASSED - LOCAL-FIX FLAG ON.

> Explanation: The local-fix flag is on in the library SSI; no FORCE card was submitted for the change item.

CHANGE ITEM BYPASSEC - NOT IN SYSTEM.

> Explanation: The change item is intended for a member that does not exist in the user's system libraries. The change item has not been treated as a new member, because no FORCE card was submitted for it. If a FORCE card was used, the change item is not an addition or replacement, and therefore cannot be added to a library.

CHANGE ITEM BYPASSED - PTF FLAGS DO NOT CHECK.

> Explanation: The PTF flag is on in the library SSI, but the product-temporary-fix is not expected by the change item. No FORCE card was submitted for the change item.

CHANGE ITEM EXPECTS PTF. PTF FLAG SET OFF.

> Explanation: The change item, which has been included in the job-stream output, expected the product- temporary-fix that had been made in the member to be updated. The PTF flag in the member's library SSI is set off.

FORCE AND EXCEPT BOTH SPECIFIED. FORCE OVERRIDES.

> Explanation: Both a FORCE card and an EXCEPT card were submitted for the change item. The analyzer accepts only the FORCE card.

FORCED MODIFICATION TO A LFF. LFF FLAG RETAINED.

> Explanation: The change item is a modification that has been forced against a library member containing a local fix. The local-fix flag in the library SSI remains on.

FORCED MODIFICATION TO A PTF. PTF FLAG RETAINED.

> Explanation: The change item is a modification that has been forced against a library member containing a product-temporary-fix. The PTF flag in the library SSI remains on.

FORCED REPLACEMENT TO A LFF. LFF FLAG SET OFF.

> Explanation: The change item is a replacement that has been forced against a library member containing a local fix. The local-fix flag in the library SSI is set off.

FORCED REPLACEMENT TO A PTF. PTF FLAG SET OFF.

> Explanation: The change item is a replacement that has been forced against a library member containing a product-temporary-fix. The PTF flag in the library SSI is set off.

LIBRARY BYPASSEC - COULD NOT BE OPENED.

> Explanation: The library identified in the header line of this log page could not be opened, probably because a DD card was not submitted for it (or the DD card contained an undetected error). Therefore, no change items for this library could be analyzed.

NEW MEMBER TO BE ADDED TO SYSTEM.

UPDATE ANALYSIS HAS COMPLETED.

> Explanation: Normal end-of-job message.

PL/I Cbject Prcgram Unnumbered Messages are not included in this publicaticn. They are documented in the publication IBM System/360 Operating System: PL/I (F) Prcgrammer's Guide, GC28-6594. If your installaticn uses PL/I F frequently, you may prefer tc have its messages in this publicaticn; this page and the index tab for this section is prcvided sc that ycu can remove the messages frcm the Prcgrammer's Guide and insert them here.

For routing and descriptcr ccdes cf these messages, see Table 23 in Part V cf this publicaticn: "Rcuting and Descriptor Codes."

UNN

7,* * * GENERATION TERMINATED * * *

> Explanation: The system generation
> process was abnormally terminated.
>
> Severity Code: 7

*,   message text

> Explanation: This type of message
> documents the options selected for the new
> system through the system generation macro
> instructions. All options are described,
> whether the selection was explicit or
> implicit.
>
> Severity Code: *

UNN

PART V: ROUTING AND DESCRIPTOR CODES

Messages Routing Codes

Routing codes provide the ability tc route system operator messages to selected functicnal areas. More than one routing code can be assigned to each message. Through multiple conscle support, each system operator receives only those messages related to the commands that he enters and to his assigned functions. The routing ccdes are specified in the ROUTCDE parameter cf the WTC/R macro instructicn.

Code   Meaning

1   MASTER CONSOLE ACTION
to be used for any message that indicates a change in the system status and demands action by the master console operator.

2   MASTER CONSOLE INFORMATION
to be used for any message that indicates a change in the system status. Such a message does not demand acticn, but alerts the master console operator to a condition that may require his acticn. This routing code is used for any message that indicates job status; it is also used for processor and problem program messages to the system operator.

3   TAPE POOL
to be used for any message that specifies the status of a tape unit or reel, the disposition of a tape reel, cr other tape oriented information -- fcr example, messages that request that tapes be mounted.

4   DIRECT ACCESS POOL
to be used for any message that specifies the status of a direct access unit or pack, the dispositicn cf a disk pack, or other direct access oriented information -- for example, messages that request that disks be mounted.

5   TAPE LIBRARY
to be used for any message that specifies tape library informaticn -- for example, messages that request, via vclume serial numbers, that tapes be cbtained for system or programmer use.

6   DISK LIBRARY
tc be used fcr any message that specifies disk library infcrmaticn -- fcr example, messages that request, via vclume serial numbers, that disk packs be cbtained for system cr prcgrammer use.

7   UNIT RECORD POOL
tc be used fcr any message that specifies unit reccrd equipment infcrmaticn -- for example, messages that request that printer chains be mcunted.

8   TELEPRCCESSING CCNTROL
tc be used fcr any message that specifies the status cr the dispcsiticn cf teleprccessing equipment -- fcr example, messages that indicate line errcrs.

9   SYSTEM SECURITY
tc be used fcr any message asscciated with security checking -- fcr example, messages that require replies specifying a passwcrd.

10   SYSTEM ERROR/MAINTENANCE
tc be used fcr any message that indicates a system errcr cr an uncorrectable input/cutput errcr, cr any message asscciated with system maintenance.

11   PRCGRAMMER INFORMATION
tc be used fcr any message that is of interest cnly tc the prcblem prcgrammer. This rcuting ccde is used cnly when the prcgram issuing the message has no way of rcuting the message tc the prcgrammer via the system cutput data set facility. The message will appear in the jcb's system cutput message class.

12   EMULATCRS
tc be used fcr any message issued by an emulatcr prcgram. (These messages are not included in this publicaticn, but are ccntained in the Systems Reference Library publicaticns that describe the emulator prcgrams.)

13   Reserved for custcmer use

14   Reserved for custcmer use

15   Reserved for custcmer use

16   Reserved fir future expansicn

16   Reserved for future expansicn

Messages Descriptor Codes

Descriptor codes provide the means for determining how a message is to be printed or displayed and how a message is to be deleted from a graphic device. Descriptor codes 1 through 7 are mutually exclusive; a message can be assigned only one such code. Descriptor code 8 and 9, however, may be used with any other descriptor code. The descriptor codes are specified in the DESC parameter of the WTO/R macro instruction.

Code	Meaning
1	SYSTEM FAILURE

to be used for any message that indicates an uncorrectable error occurred. To continue, the operator must restart the system.

2   IMMEDIATE ACTION REQUIRED
   to be used for any message that requires an immediate action by the operator. The task waits until the requested action is completed.

3   EVENTUAL ACTION REQUIRED
   to be used for any message that requires an eventual action by the operator. The task does not await completion of the action.

4   SYSTEM STATUS
   to be used for any message that indicates the status of a system task or the status of a hardware unit.

5   IMMEDIATE COMMAND RESPONSE
   to be used for any message that is issued as an immediate response to a system command. The completion of the response is not dependent upon another system action or task.

6   JOB STATUS
   to be used for any message that contains status information regarding the job or job step.

7   APPLICATION PROGRAM/PROCESSOR
   to be used for any message that is issued while a program is in problem program mode.

8   OUT OF LINE MESSAGE
   to be used for one message of a group of one or more messages that is to be displayed out of line. If the device support cannot print a message out of line, the code will be ignored and the message will be printed in line with other messages.

9   OPERATOR'S REQUEST
   to be used for a message that is written in response to an operator's request for information (made by means of the DISPLAY or MONITOR command).

10-16 Reserved for future use

Messages Sent to the Hard Copy Log

All messages that are sent to the hard copy log are prefixed with a time stamp and the routine codes used to route the messages. (The time stamp is included only if the timer feature is a part of the central processing unit and the timer option is specified in the CENPROCS or SUPRVSOR system generation macro instruction.) Each logged message will have the following format:

hhmmss rrrr message

hh
    specifies the hour (00-23).
mm
    specifies the minute (00-59).
ss
    specifies the second (00-59).
rrrr
    specifies the hexadecimal representation of the routing code field. The hexadecimal number must be converted to a binary number and then compared to the routing codes. For example, hexadecimal number 420C can be shown to represent routing codes 2, 7, 13, and 14:

Hexadecimal	4				2				0				C			
Binary	0	1	0	0	0	0	1	0	0	0	0	0	1	1	0	0
Routing codes	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

message
    specifies the message identification and message text.

Multiple-line WTO hardcopy message format:

The following is the hardcopy log message format for multiple-line WTO messages (including system status displays):

First line (Control line of the status display)

Byte   1 2 3 4 5 6 7 8 9 10 11 12 13----to----84

Data   h h m m s s b rc rc rc rc b first line text

       time stamp   routing codes

Subsequent Lines

Byte   1 2 3 4 5----------to----------76

Data   n n n b   text

   Message
   Identification
   Number

Key to the Following Figures

Descriptor codes 1-8
   as described above.
Routing codes 1-12
   as described above.
*
   indicates that the messages will be routed
   back to the consoles that initiated the
   associated requests.
#
   indicates that the message will be routed:
   (1) according to the routing indicators
   specified by the operator; (2) according to
   the default routing instructions previously
   specified by the operator; or (3) back to the
   console that initiated the associated
   request.
x
   indicates that the code denoted by x is
   always present.
o
   indicates that one of the routing codes
   denoted by o is present.
a and b
   indicates that either both the routing codes
   denoted by a or both the routing codes
   denoted by b are present.
   indicates that the routing code may or may
   not be present

NOTE 1
   indicates messages that issued via START I/O
   operations. (These messages are not issued
   via the WTO/R macro instruction.)

NOTE 3
   indicates messages that have a routing code
   of 1 and are also routed to each active
   console. (All these messages are routed to
   the master console, but each individual
   message is routed only to the console that
   the message describes.)
NOTE 4
   indicates messages that are broadcast to each
   active console.
NOTE 5
   indicates messages that have a routing code
   of 2 and are also routed to each individual
   console assuming the capabilities of the
   failing console. (These messages are issued
   to indicate that a console switch has
   occurred.)
NOTE 6
   indicates messages that are routed only to
   the CRT Display Consoles. (These messages
   are not issued via the WTO/R macro
   instruction.) System Commands issued from
   the Model 85 Operator Console with CRT
   Display are moved from the entry area to the
   message area via the WTO macro instruction.
   The messages are routed back to the Model 85
   console.
NOTE 7
   indicates messages that are routed only to
   consoles where a DISPLAY (or MONITOR)
   JOBNAMES command is active.
NOTE 8
   indicates messages that are issued via the
   WTO/R macro instruction, but have no routing
   or descriptor codes specified (old format
   WTO/R macro instruction).

Descriptor Codes								Message Texts	*	Routing Codes											
1	2	3	4	5	6	7	8			1	2	3	4	5	6	7	8	9	10	11	12
	x							IEA000A adr,INT REQ,cm,stat,sensbbbbbb,,ser,jjj				o	o			o	o				
	x							IEA000A adr,INT REQ,CC=3/NO PATHS AVAILABLE,,,jjj				o	o			o	o				
			x					IEA000I adr,errmsg,cm,stat,sensbbbbbb,dcbctfd,ser,hh.mm.ss				x							x	x
			x					IEA000I lna,err,cm,stat,ibss,opxxterm,,jjj,hh.mm.ss									x		x	x
			x					IEA000I adr,err,cm,stat,sensbbbbbb,				o	o			o			x	x
								{binxcylntrck} ,ser,jjj,hh.mm.ss {binxsbstcytr} {dcbctfd }												
			x					IEA001I UNIT adr, PATH pth INOPERATIVE [FOR CPU x]				o	o			o			x	
			x					IEA007I NO CORE AVAIL FOR NEW REGN		x										
			x					IEA021I jjj sss CORE IMAGE BYPASSED -x	x											
			x					IEA022I jjj sss CORE IMAGE FAILED -x		x										
			x					IEA023I jjj sss CORE IMAGE COMPLETE -x		x										
			x					IEA027I jjj sss ENQUEUED RESOURCES	x											
			x					IEA027I xxxx, yyyy	x											
x								IEA028A REPLY 'C' OR 'N'	x											
			x					IEA029I jjj sss TASK xxx {REINSTATED } {REINSTATEMENT FAILED}	x											
								IEA100I TIMER IS NOT WORKING.												
								IEA101A SPECIFY SYSTEM PARAMETERS FOR RELEASE xx.yy.sss												
								IEA102A INVALID PARAMETER/FORMAT - RESPECIFY												
								IEA103I DATASET dsn NOT FOUND BY LOCATE												
								IEA104A M ser												
								IEA105A dsn RESIDES ON A UNIT (utn) FOR WHICH THERE IS NO UCB												
								IEA106I mem NOT FOUND IN lib												
		NONE						IEA107I prm IGNORED						NOTE 1						
								IEA108I PERMANENT I/O ERROR DURING BLDL												
								IEA109I BLDL FAILED FOR FOLLOWING MODULES												
								IEA110I LOAD FAILED FOR lmd												
								IEA111A SPACE EXCEEDED - RESPECIFY prm												
								IEA112I LIST lis FOR prm - INVALID FORMAT												
								IEA113I prm MODULE LIST												
								IEA114I SVC xxx NOT SUPPORTED												
								IEA115I SVC xxx NOT DEFINED												

Descriptor Codes								Message Texts	Routing Codes												
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
								IEA116A CONTINUE SYSTEM PARAMETERS													
								IEA117I NUMBER OF TIME-SLICING GROUPS EXCEEDS SYSGEN LIMIT													
								IEA118I TIME SLICE VALUE INCREASED TO 20 MILLISECONDS													
								IEA119I SQS SIZE INCREASED TO nnnn BYTES													
								IEA120A DEVICE ddd SHARED. REPLY 'CONTINUE' OR 'WAIT'													
								IEA130I LINK LIBRARY DATA SETS NOT FOUND													
								IEA131A MOUNT LINKLIB VOL(S): ser													
								IEA135A SPECIFY SYS1.DUMP TAPE UNIT ADDRESS OR NO													
								IEA136I DEVICE AT ddd UNACCEPTABLE FOR SYS1.DUMP-xxxx													
								IEA137A M ddd,NL													
								IEA138A D ddd													
								IEA150A SPECIFY HARDCPY													
								IEA152I HARDCPY SPECIFICATION INVALID													
								IEA153I HARDCPY CONSOLE UNAVAILABLE													
				NONE				IEA154I HARD COPY OF INITIALIZATION MESSAGES DISCONTINUED						NOTE 1							
								IEA205I UNABLE TO SCRATCH dsn ON ser													
								IEA206I UNABLE TO ALLOCATE dsn ON ser													
								IEA207I FORMATTING OF dsn DATA SET UNSUCCESSFUL													
								IEA208I fff FUNCTION INOPERATIVE													
								IEA209I dsn SCRATCHED FROM ser													
								IEA210I dsn ALLOCATED ON ser													
								IEA211I OBTAIN FAILED FOR dsn DATA SET													
								IEA212A D, xxx OR yyy													
								IEA213I INITIALIZATION OF SYS1.ASRLIB INCOMPLETE													
								IEA214I I/O ERROR DURING SYS1.ASRLIB INITIALIZATION													
								IEA216I GETMAIN FAILED DURING INITIALIZATION													
								IEA217I SEREP INTERFACE ESTABLISHED													
								IEA218I MODEL=nnn/sys, ALTSYS=ddd ASSUMED													
								IEA219I MODEL NOT SUPPORTED													
								IEA220I H0=nn BYTES H1=nn BYTES													
								IEA250E TIMER ON CPU y INOPERATIVE, VARY COMMANDS MAY BE AFFECTED													

IEA

Figure 1. Routing and Descriptor Codes of Supervisor Messages (Part 3 of 3)

Descriptor Codes								Message Texts	Routing Codes													
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12	
								IEA251E CONTROL UNIT ccX HAS PARTITION SWITCHES SET ASYMMETRICALLY														
								IEA252I STORAGE LOCATIONS xxxxxx TO yyyyyy OFFLINE														
								IEA253I CHANNELS OFFLINE y:x														
								IEA254W STORAGE BOX ENABLE/DISABLE SWITCHES SET ASYMMETRICALLY														
			NONE					IEA255W BOTH PREFIX SWITCHES ARE SET THE SAME						NOTE 1								
								IEA256I PARTITIONED SYSTEM INITIATED														
								IEA257I ONE CPU MULTIPROCESSOR INITIATED														
								IEA258I MULTIPROCESSOR INITIATED														
								IEA260I STATUS OF DEVICE dev dev dev dev dev cc x x x x x cc x x x x x cc x x x x x cc x x x x x cc x x x x x														
					x			IEA400I jjj, sss R/I I/O ERR			x						x			
					x			IEA401I jjj, sss R/O I/O ERR			x						x			
	x							IEA402A ROLLOUT/IN MSGS REQUIRED. REPLY Y OR N.	x												
					x			IEA403I jjj, sss, LOG R/O siz, adr			x									
					x			IEA404I REGN adr LOG ROLLIN			x									
					x			IEA405I jjj, sss, R/O OF jjj, sss			x									
					x			IEA406I jjj, sss, ROLLIN			x									
	x							IEA604A D adr,ser				x								
	x							IEA605A M adr,ser,,jjj				x								
		x						IEA606I adr,BAD VOLUME LABEL,cm,stat,sensbbbbb,,ser,[jjj]				x								
		x						IEA620I ddd TR=nnn, TW=nnn, SIO=nnnnn ERROR THRESHOLD REACHED			x							x		

Figure 2. Routing and Descriptor Codes of Data Set Utility Messages **IEB**

Descriptor Codes 1	2	3	4	5	6	7	8	Message Texts	*	1	2	3	4	5	6	7	8	9	10	11	12
	x							IEB901A M ddd,ser,jjj,sss				x									
						x		IEB902I INVALID NAME FIELD												x	
						x		IEB903I INVALID OPERATION												x	
						x		IEB904I INVALID KEYWORD												x	
						x		IEB905I INVALID PARAMETER VALUE												x	
						x		IEB906I DUPLICATE OPERATION FIELD												x	
						x		IEB907I INCONSISTENT REPLACE PARAMETER												x	
						x		IEB908I CONFLICTING OPTIONS SPECIFIED												x	
						x		IEB909I EXPECTED CONTINUATION NOT RECEIVED												x	
						x		IEB910I NO SYSUT1 DD CARD - JOB TERMINATED												x	
						x		IEB911I NO SYSIN DD CARD - ALL DEFAULT OPTIONS ASSUMED												x	
						x		IEB912I NO SYSPRINT DD CARD - DUMMY ASSUMED												x	
						x		IEB913I NO{SYSUT2/SYSUT3} DD CARD - DUMMY ASSUMED												x	
						x		IEB914I DCB SUBPARAMETER(S) MISSING IN ddn dd CARD - DEFAULTS ASSUMED												x	
						x		IEB915I DDNAME ddn CANNOT BE OPENED												x	
						x		IEB916I INCONSISTENT ddn DCB PARAMETERS												x	
						x		IEB917I LOAD MODULE SPECIFIED FOR prm NOT FOUND												x	
						x		IEB918I JOB TERMINATED AFTER prm EXIT	'											x	
						x		IEB919I INSUFFICIENT STORAGE AVAILABLE												x	
						x		IEB920I ddd,devtyp,ddn,op,err,xxxx,acc												x	
						x		IEB921I ddd,devtyp,ddn,op,err,xxxx,ac												x	
						x		IEB922I ddd,devtyp,ddn,op,err,xxxx,acc												x	

Figure 3. Routing and Descriptor Codes of Data
Management Messages (Part 1 of 4)

IEC

1	2	3	4	5	6	7	8	Message Texts	*	1	2	3	4	5	6	7	8	9	10	11	12
	x							IEC001A M ddd,ser[,labtyp][,den],jjj,sss[,dsn]				o	o								
		x						IEC001E M ddd,ser[,labtyp][,den],jjj,sss[,dsn]				x	x								
		x						IEC002E K ddd,ser[,labtyp][,den],jjj,sss[,SPACE=prm][,dsn]				o	o								
		x						IEC003E R ddd,ser[,labtyp][,den],jjj,sss[,SPACE=prm]				o	o								
		x						IEC004E D ddd,ser[,labtyp][,den],jjj,sss[,SPACE=prm][,dsn]				o	o								
	x							IEC007D E ddd,ser,jjj,sss,dsn	x			o	o								
	x							IEC009A F ddd,ser,jjj,sss,dsn				x									
	x							IEC010D F ddd,ser,jjj,sss,dsn				x									
			x					IEC012I I/O ERR ddd,ser				x				.		x			
	x							IEC014E D ddd				x									
			x					IEC017I A ddd,ddn{1 2}												x	
	x							IEC018D A ddd,ser,jjj,sss,dsn	x			x								x	
		x						IEC020I 001-x,jjj,sss,ddn,ddd,ser,dsn												x	
			x					IEC021I NO SPACE IN PASSWORD DATA SET										x	x		
					x			IEC022I 137-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC023I 237-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC024I 337-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC025I 437-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC026I 637-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC027I 737-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC028I 837-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC030I B37-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC031I D37-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC032I E37-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
	x							IEC101A M ddd,ser[,labtyp][,den],jjj,sss[,dsn]				o	o							x	
		x						IEC104E D ddd,ser				x									
			x					IEC105I ddd,jjj REDUCED ERROR RECOVERY REQUESTED												x	
		x						IEC106E R ddd,ser				x									
	x							IEC107D E ddd,ser,jjj,sss,dsn	x			o	o								
	x							IEC109A F ddd,ser,jjj,sss,dsn				x									
	x							IEC110D F ddd,ser,jjj,sss,dsn				x									
			x					IEC112I {I/O ERR SEC VOL} ddd,ser				x						x			

Figure 3. Routing and Descriptor Codes of Data
Management Messages (Part 2 of 4)

IEC

1	2	3	4	5	6	7	8	Message Texts	*	1	2	3	4	5	6	7	8	9	10	11	12
		x						IEC114E D ddd {,ser,jjj,sss,ddn-n / ,ddn-n}			x										
		x						IEC119I ERROR-IMAGELIB,CODE-n				x									
	x							IEC120A M xxx, character set code [,FOLD][,VERIFY]								x					
	x							IEC121D V xxx, character set code [,FOLD]								x					
	x							IEC122D xxx, character set code UCS IMAGE NOT FOUND								x					
	x							IEC123D xxx, SPECIFY UCS PARAMETER								x					
			x					IEC124I xxx, ERROR OCCURRED WHILE LOADING FCB								x					
			x					IEC125I ERROR - REPEAT REPLY								x					
			x					IEC126I xxx, UNCORRECTABLE ERROR LOADING UCS								x					
	x							IEC127D xxx, image-id FCB IMAGE NOT FOUND								x					
	x							IEC128D V xxx, VERIFY FORMS ALIGNMENT								x					
	x							IEC129D xxx, SPECIFY FCB PARAMETER								x					
					x			IEC130I ddn DD STATEMENT MISSING												x	
					x			IEC131I xx,jjj,sss,RDJFCB ISSUED FOR DCB WITH BLANK DDNAME												x	
	x							IEC134D A ddd,ser,jjj,sss,[dsn]	x	x										x	
					x			IEC140I ddn,ser {START / END} OF DATA SET NOT ON VOLUME												x	
					x			IEC141I 013-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC142I 113-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC143I 213-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC144I 313-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC145I 413-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC146I 513-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC147I 613-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC148I 713-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC149I 813-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC150I 913-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC151I A13-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC152I B13-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC153I C13-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC154I 140-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC155I 240-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC156I 03D-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC157I C13-rc,jjj,sss,ddn[-#],ddd												x	

IEC

Figure 3. Routing and Descriptor Codes of Data
Management Messages (Part 3 of 4)

Descriptor Codes 1	2	3	4	5	6	7	8	Message Texts	*	R1	2	3	4	5	6	7	8	9	10	11	12
					x			IEC158I D13-rc,jjj,sss,ddn[-#],ddd[,ser,dsn]												x	
					x			IEC159I E13-rc,jjj,sss,ddn[-#],ddd												x	
			x					IEC202E K ddd,ser[,labtyp][,den],jjj,sss[,SPACE=prm] [,dsn]					o	o							
			x					IEC204E D ddd,ser[,labtyp][,den],jjj,sss[,SPACE=prm] [,dsn]					o	o							
					x			IEC209I [jjj ser] ddd TR=nnn, TW=nnn, EG=nnn, CL=nnn, N=nnn, SIO=nnnnn				x						x			
					x			IEC210I 214-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC211I 314-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC212I 414-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC213I 514-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC214I 614-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC215I 714-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC216I A14-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC217I B14-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC218I 117-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC219I 217-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC220I 317-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC221I 417-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC222I 717-rc,jjj,sss,ddn[-#],ddd,ser,dsn												x	
					x			IEC223I jjj,sss,ddn[-#],ddd,ser,dsn												x	
	x							IEC301A S{JOB jjj, STEP sss, DDNAME ddn [,CONC n]} {DSNAME dsn										x			
	x							IEC400A M ddd,ser/dsn				x	x								
	x							IEC401A F ddd,ser/dsn				x									
	x							IEC402D F d-d,ser/dsn	x			x									
	x							IEC403A M ddd,ser					x		x						
	x							IEC601D M ddd,ser REPLY=SKIP VOL OR MOUNTING					x								
	x							IEC701D M ddd, VOLUME TO BE LABELED ser				x									
			x					IEC703I ddd, VOLUME IS FILE PROTECTED				x									
	x							IEC704A L ddd				x									
			x					IEC705I TAPE ON ddd, ser IS labtyp,den BPI				x									
			x					IEC801I lna THRESHOLD TRANS=nnn DC=nnn IR=nnn TO=nnn										x	x		
			x					IEC802I lna LINE TOTALS TRANS=nnnnnnnn DC=nnnnn IR=nnnnn TO=nnnnn										x			

Descriptor Codes								Message Texts	Routing Codes												
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
		x						IEC804A lna CONTROL UNIT NOT OPERATIONAL. REPLY CONT OR POST	x								x		x		
			x					IEC805I I/O ERROR - CHECKPOINTS TERMINATED				x							x		
			x					IEC806I lna, LINE UNAVAILABLE, ENDING STATUS NOT RECEIVED									x		x		
			x					IEC807I cuu ONLINE TEST xx yy tt nn id									x				
			x					IEC808I cuu ONLINE TEST xx yy tt ll dd									x				
			x					IEC809I lna CONTROL UNIT NOT OPERATIONAL									x		x		
			x					IEC815I { cuu tttt yy ERS z cuu xx tttt THRESHLD cuu xx tttt yy eeee zzzz yy eeee zzzz yy eeee zzzz yy eeee zzzz cuu ww tttt eeeeeee zzzz eeeeeee zzzz eeeeeee zzzz eeeeeee zzzz }			x						x		x		
					x			IEC900I INVALID ABEND CODE PASSED TO MODULE xxxxxxxx												x	
					x			IEC901I UNABLE TO RECOVER DUE TO I/O ERR ON JOBQUEUE												x	
					x			IEC950I 003-x 3525 ASSOCIATED DATA SET I/O SEQUENCE ERROR												x	
					x			IEC951I 004 INVALID FORMAT CARD OR INVALID DEVICE FOR OMR												x	
					x			IEC952I 004 CONFLICT/INVALID DCB FUNC OR RELATED PARAMETER												x	
					x			IEC953I 004 DATA PROTECTION IMAGE NOT FOUND												x	

Figure 4. Routing and Descriptor Codes of TCAM Messages (Part 1 of 5)

Descriptor Codes 1	2	3	4	5	6	7	8	Operator Messages	*	R1	2	3	4	5	6	7	8	9	10	11	12
					x			IED001I TCAM JOB jjj,sss,proc ADDRESS OF AVT adr			x									x	
	x							IED002A SPECIFY TCAM PARAMETERS	x												
	x							IED003A INVALID KEYWORD xxxx	x												
	x							IED004A REQUIRED PARAMETER MISSING. SPECIFY xxx	x												
	x							IED005A MSUNITS (m) SPECIFICATION NOT PERMITTED. CONTINUE RESPONSE	x												
	x							IED006A INVALID OPERAND ON KEYWORD. RESPECIFY xxx	x												
			x					IED007I xxx IS AN ILLEGAL DESTINATION												x	
			x					IED008I TCAM OPEN ERROR xxx=y IN DCB zzz descriptor												x	
			x					IED009I CHECKPOINT DISK ALLOCATION ERROR - DATA SET NOT OPENED												x	
			x					IED010I CHECKPOINT INSUFFICIENT CORE (DATA SET NOT OPEN xxx ENVIRON xxx INCIDENT xxx CKREQ name xxx INCIDENT RECORD IGNORED)												x	
				x				IED011I SYSTEM INTERVAL CANNOT BE ALTERED	x												
				x				IED012I TSO SESSION ON LINE xxx COMMAND REJECTED	x												
				x				IED013I STOP REQUEST FOR SELF - VARY COMMAND REJECTED	x												
			x					IED014I TCAM ALREADY IN SYSTEM												x	
			x					IED015I TCAM AP OPEN ERROR 043-x yyy zzz			x									x	
				x				IED016I STATION xxx NOT FOUND	x												
				x				IED017I LINE xxx NOT OPEN	x												
				x				IED018I xxx COMMAND INVALID	x												
				x				IED019I xxx ALREADY STARTED	x												
				x				IED020I xxx STARTED	x												
				x				IED021I AUTO POLL STARTED FOR xxx	x												
				x				IED022I AUTO POLL ALREADY STARTED FOR xxx	x												
				x				IED023I TRACE STARTED FOR xxx	x												
				x				IED024I TRACE ALREADY STARTED FOR xxx	x												
				x				IED025I xxx ALREADY STOPPED	x												
				x				IED026I xxx STOPPED	x												
				x				IED027I AUTO POLL STOPPED FOR xxx	x												
				x				IED028I AUTO POLL ALREADY STOPPED FOR xxx	x												
				x				IED029I TRACE STOPPED FOR xxx	x												
				x				IED030I TRACE ALREADY STOPPED FOR xxx	x												
				x				IED031I xxx QUEUE SIZE=yyy, QUEETYP=bb, STATUS=zzz,... PRIORITY=aaa,...	x												

Descriptor Codes								Operator Messages	Routing Codes												
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
				x				IED032I xxx LNSTAT=zzz,... ERR=aaa,...	x												
				x				IED033I xxx STATUS=yyy,... INTENSE=zz IN-SEQ=aaa OUT-SEQ=bbb	x												
				x				IED034I xxx HAS NO yyy OPTION	x												
				x				IED035I xxx OPTION yyy=zzz	x												
				x				IED036I xxx ACTIVE=yyy,...	x												
				x				IED037I xxx INACTIVE=yyy,...	x												
				x				IED038I xxx IS ON LINE yyy zzz aaa	x												
				x				IED039I NO STATIONS INTERCEPTED	x												
				x				IED040I INTERCEPTED STATIONS=xxx,...	x												
				x				IED041I PRIMARY=xxx	x												
				x				IED042I xxx ALREADY PRIMARY	x												
				x				IED043I SECONDARY=xxx,...	x												
				x				IED044I xxx NOT ELIGIBLE FOR PRIMARY	x												
				x				IED045I SYSTEM INTERVAL ALREADY ACTIVE	x												
				x				IED046I LINE FOR xxx IS OUTPUT ONLY STATION	x												
				x				IED047I SYSTEM INTERVAL IS$\begin{cases}\text{xxx}\\\text{ACTIVE}\end{cases}$	x												
				x				IED048I POLLING DELAY FOR xxx IS yyy	x												
				x				IED049I OLT CONTROLS LINE xxx COMMAND REJECTED	x												
				x				IED050I xxx OPTION yyy MODIFIED	x												
				x				IED051I xxx SET FOR HOLD SEQ-OUT=yyy	x												
				x				IED052I xxx ALREADY SET FOR HOLD	x												
				x				IED053I xxx ALREADY RELEASED	x												
				x				IED054I xxx RELEASED, SEQ-OUT=yyy	x												
				x				IED055I I/O TRACE CANNOT BE ALTERED	x												
				x				IED056I xxx OPTION yyy DATA FORMAT INVALID	x												
				x				IED057I xxx NOT CAPABLE OF AUTOPOLL	x												
				x				IED058I xxx SENSE COUNT=yy SETTING=zz	x												
				x				IED059I xxx LIST STATUS=zzz,...	x												
				x				IED060I xxx CANNOT BE HELD	x												
				x				IED061I POLLING DELAY FOR xxx CANNOT BE ALTERED	x												
				x				IED062I xxx OPTION yyy CANNOT ACCEPT SPECIFIED DATA	x												
				x				IED063I CLOSE DOWN IN PROGRESS COMMAND REJECTED	x												
			x					IED064I LINE addr CONTROL UNIT NOT OPERATIONAL									x				

Figure 4. Routing and Descriptor Codes of TCAM Messages (Part 3 of 5)

Descriptor Codes								Operator Messages	Routing Codes												
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
			x					IED065I INITIALIZATION ERROR xxx			x									x	
			x					IED067I TCAM INITIALIZATION BEGUN			x									x	
			x					IED068I UNABLE TO OPEN IEDQDATA												x	
			x					IED069I INVALID KEYLEN FOR IEDQDATA												x	
			x					IED070I IEDQDATA DOES NOT SPECIFY CONTIG SPACE IN CYLINDERS												x	
			x					IED071I UNEQUAL PRIMARY AND SECONDARY EXTENTS ON IEDQDATA												x	
			x					IED072I I/O ERROR ON IEDQDATA			x								x	x	
			x					IED074I TCAM INITIALIZATION COMPLETE			x									x	
			x					IED075I END OF EXTENT. RECORD COUNT IS rrrrrrrr, TIME IS nnnn SEC												x	
			x					IED076I TCAM NON-REUSABLE DISK THRESHOLD CLOSEDOWN			x									x	
				x				IED077I xxx OPTION yyy DATA CHARACTER INVALID	x												
			x					IED078I DLQ TERM ERROR												x	
			x					IED079I ENDING STATUS NOT RECEIVED FROM LINE addr-LINE UNAVAILABLE									x				
					x			IED080I START OF TCAM SYSTEM DELAY			x										
					x			IED081I END OF TCAM SYSTEM DELAY			x										
			x					IED082I CHECKPOINT DISK ERROR--DATA SET NOT OPENED												x	
			x					IED083I CHECKPOINT DISK ERROR--RECOVERY FROM PREVIOUS RECORD												x	
			x					IED084I CHECKPOINT DISK ERROR -- RECOVERED												x	
			x					IED085I CHECKPOINT DISK ERROR --{CKREQ INCIDENT} RECORD IGNORED												x	
			x					IED086I CHECKPOINT DISK ERROR -- {ENVIRONMENT CKREQ,name}												x	
			x					IED087I CHECKPOINT DISK ERROR -- CONTROL RECORD												x	
				x				IED088I xxx ON DIAL LINE - CANNOT BE VARIED	x												
				x				IED089I LINE ACTIVE - VARY TERMINAL COMMAND REJECTED	x												
				x				IED090I xxx IS NOT A SINGLE ENTRY	x												
				x				IED091I LINE FOR xxx NOT OPEN	x												
				x				IED092I BISYNC ERROR - LINE xxx CANNOT BE STARTED	x												
				x				IED093I SET SYSTEM INTERVAL COMMAND ACCEPTED	x												
			x					IED094I CORE REQUESTED FOR ON-LINE TEST NOT AVAILABLE												x	

Descriptor Codes								Operator Messages	Routing Codes												
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
				x				IED095I MODIFY OLT REJECTED - OLT NOT ACTIVE	x												
			x					IED0961 (CHECKPOINT) (OPERATOR) (COMWRITE) CONTROL NO LONGER ACTIVE			x									x	
				x				IED097I TCAM IS CLOSED DOWN	-		x									x	
			x					IED098I DCB NOT OPEN FOR MESSAGE PROCESSING PROGRAM-jjj			x									x	
				x				IED099I ROUTINE LOADED	x												
				x				IED100I ROUTINE DEACTIVATED	x												
				x				IED101I RESTART IN PROCESS	x												
				x				IED102I INVALID OPERAND	x												
				x				IED103I ROUTINE ALREADY ACTIVE	x												
				x				IED104I ROUTINE NOT ACTIVE	x												
				x				IED105I RETURN CODE = xx	x												
				x				IED106I MULTIPLE REQUEST	x												
				x				IED107I COMWRITE NOT ACTIVE	x												
				x				IED109I ROUTINE NOT DELETED	x												
				x				IED110I LESS THAN 4 ENTRIES	x												
				x				IED111I NO TRACE TABLE	x												
						x		IED112I TCAM REQUESTED COMWRITE CLOSEDOWN			x										
			x					IED113I I/O ERROR addr,statsens,recordtype,COMWRITE CLOSING											x	x	
						x		IED114I Sxxx ABEND COMWRITE CLOSING			x									x	
								IED115I userid DATA AREA EXCEEDS CORE													
								IED116I userid PARMLIST NOT ON FULLWORD BOUNDRY													
								IED117I userid BLKSIZE EXCEEDS DEVICE SPECS													
			x					IED118I PERMANENT I/O ERROR ON TRACE UNIT												x	
						x		IED119I UNABLE TO OPEN ddname												x	
						x		IED120I BLOCK= PARM REQUIRES TAPE INPUT												x	
						x		IED121I REQUESTED TIME NOT FOUND												x	
						x		IED122I INVALID MESSAGE CHAIN												x	
						x		IED123I INVALID PARAMETERS												x	
						x		IED124I QUEUE HAS BEEN WRAPPED												x	
				x				IED125I xxx BYTES NEEDED	x												
						x		IED126I OLT REQUEST REJECTED, NO DCHB FOR CONTROL TERMINAL											x		
						x		IED127I OLT REQUEST REJECTED, CONTROL TERMINAL UNIDENTIFIED											x		

Figure 4. Routing and Descriptor Codes of TCAM Messages (Part 5 of 5)

Descriptor Codes								Operator Messages	*	1	2	3	4	5	6	7	8	9	10	11	12
1	2	3	4	5	6	7	8														
						x		IED128I ALTERNATE PRINTER REQUESTED BY OLT ALREADY IN USE											x		
						x		IED129I OLT REQUEST REJECTED, C.T. LINE CANNOT BE STARTED											x		
						x		IED130I OLT REQUEST REJECTED, CONTROL TERMINAL NOT OPEN											x		
						x		IED131I TRM CANCELLED, NOT ENTERED FROM SWITCHED C.T.											x		
	x							IED132D CAN OLT USE FOR NON-CONCURRENT MODE LINES xxx,xxx,xxx,xxx... (up to 11 lines)									x		x		
						x		IED133I C.T. REQUESTED BY OLT ASSIGNED TO ANOTHER OLT											x		
						x		IED134I xxxxxxxx TERMINAL FAILED, OLT CANCELLED											x		
						x		IED135I message											x		
	x							IED136D message											x		

Descriptor Codes									Message Texts	Routing Codes													
1	2	3	4	5	6	7	8	9		#	*	1	2	3	4	5	6	7	8	9	10	11	12
				x					IEE019I cm QUOTE(S) MISSING.		x												
				x					IEE023I cm CLASSNAME ERROR.		x												
				x					IEE025I UNIT ddd HAS NO PATHS		x												
				x					IEE026I cm NOT SUPPORTED.		x												
				x					IEE032I WRITELOG COMMAND PENDING. CLASSNAME = x.		x												
				x					IEE033I HALT OR WRITELOG CLOSE COMMAND HAS BEEN ISSUED		x												
				x					IEE034I WRITELOG EXECUTION DEFERRED. NO BACKUP DATASET		x												
			x						IEE037I LOG NOT SUPPORTED				x										
			x						IEE038I LOG NOT SUPPORTED. ser NOT MOUNTED.				x										
			x						IEE039I LOG SYS1.SYSVLOG {X}{Y} NOT FOUND ON ddd				x										
			x						IEE040I LOG I/O ERROR ON ddd				x		x					x			
			x						IEE041I LOG NOW RECORDING ON SYS1.SYSVLOG{X}{Y} ON ddd		x		x										
			x						IEE042I LOG DATA SET SYSVLOG{X}{Y} ON ddd CLOSED		x		x										
			x						IEE043I LOG DATA SET{X}{Y} QUEUED TO SYSOUT CALSS x				x										
			x						IEE044I {LOG}{SMF} ABEND COMPLETION CODE = hhh				x										
			x						IEE045I LOG INACTIVE				x										
			x						IEE046I LOG NOW ACTIVE				x										
	x								IEE050A SMF OPTION CANCELED - REPLY U TO CONTINUE			x											
				x			x	x	IEE070I hh.mm.ss CPU/CHANNEL [id] AB0123456 yyxxxxxxx	x													
				x			x	x	IEE071I hh.mm.ss DEVICE STATUS [id] 0123456789ABCDEF cc xxxxxxxxxxxxxxx	x	x												
				x					IEE072I NO STORAGE OFFLINE		x												
				x					IEE073I cm IMPROPER CHANNEL NUMBER SPECIFICATION		x												
		x							IEE090I cm-x I/O ERROR DUMP TERMINATED						o					o			
				x					IEE091I cm-x SYS1.DUMP DATA SET FULL OR IN USE		x												
				x					IEE092I CORE DUMP SUCESSFULLY COMPLETED		x												
				x					IEE093I op OPERAND IS INVALID REPLY FOR DUMP COMMAND		x												
				x					IEE094D SPECIFY OPERAND(S) FOR DUMP COMMAND		x												
				x					IEE095I cm-x-retcde INVALID RETURN CODE FROM SVC DUMP		x												

IEE

Descriptor Codes 1	2	3	4	5	6	7	8	9	Message Texts	#	*	1	2	3	4	5	6	7	8	9	10	11	12
				x					IEE096I cm-x SYS1.DUMP DEVICE NOT SPECIFIED OR SUPPORTED		x												
	x								IEE101A READY			x											
				x			x	x	IEE102I hh.mm.ss ACTIVE DISPLAY [id] STRADDR ENDADDR SQA xxxxxxx xxxxxxx xxxx R SUBT NAME1 NAME2 NAME3 x xx xxxxxxxx xxxxxxxx xxxxxxxx	x	x												
			x						IEE103I S proc[.ident][,ddd][,ser][,DSNAME=dsn]*			x											
				x					IEE110I [REPLY IDS: xx] [READY UNITS: ddd] [AVR MOUNT PENDING]		x												
				x					IEE111I NO OUTSTANDING REQUESTS		x												
	x								IEE114A DATE=yy.ddd,CLOCK=hh.mm.ss REPLY WITH SET PARAMETER OR U.			x											
				x					IEE115I INSUFFICIENT STORAGE AVAILABLE TO PROCESS SELECTED OPTION		x												
	x								IEE116A TOD CLOCK INVALID - REPLY WITH SET PARAMETERS			x											
	x								IEE117A INTERVENTION REQUIRED ON TOD CLOCK ENABLE SWITCH		x												
				x					IEE118I SET PARAMETER(S) ACCEPTED.		x												
				x					IEE119I SET PARAMETER(S) NOT ACCEPTED - ENABLE SWITCH NOT DEPRESSED.		x												
				x					IEE120I Q SEARCH I/O ERROR		x												
		x							IEE121I JOB QUEUE I/O ERR DURING COMMAND EXEC		x	x									x		
				x					IEE122I START COMMAND JCL ERROR		x												
				x					IEE124I MOUNT COMMAND JCL ERR		x												
NONE									IEE130I TIMEOUT - TERMINAL RESET	NOTE 1													
				x					IEE132I START COMMAND DEV ALLOC ERR		x										x		
				x					IEE134I MOUNT COMMAND DEV ALLOC ERR		x										x		
				x					IEE135I ERR - REQUESTED DEVICE RESERVED		x												
				x					IEE136I TIME=hh.mm.ss DATE=yy.ddd		x												
				x					IEE137I cm VALID ONLY IN MCS		x												
				x					IEE138I cm ALREADY IN SYSTEM		x												
x									IEE139A INITIALIZATION FAILED CODE=nn				x										
			x						IEE140I SYSTEM CONSOLES CONSOLE/ALT COND AUTH ID AREA ROUTED {console/alt} H auth1 nn x,a-b routcd {SYSLOG } console/alt {M} auth2 nn x,a-b routcd {A} {N}	NOTE 3													

Descriptor Codes 1-9	Message Texts	Operator Messages (# * 1-12)
x (2)	IEE141A MASTER AND ALL ALTERNATES UNAVAILABLE - ISSUE VARY MSTCONS	NOTE 4
x (3)	IEE142I ddd NOW RECEIVING HARDCOPY	NOTE 5
x (3)	IEE143I OLD=console NEW=console VALDCMD=auth IEE143I ROUTCDE=routcd T=a H=b	NOTE 5
x (3)	IEE147I 'text'	x (1)
NONE	IEE150I CHANGE OPTIONS IF DESIRED	NOTE 6
NONE	IEE151I DELETE REQUEST INCONSISTENT - xxxxxx	NOTE 6
NONE	IEE152I *ENTER* *CANCEL* *D C,K*	NOTE 6
NONE	IEE153E ERROR - ENTRY GREATER THAN 126 CHARACTERS	NOTE 6
NONE	IEE154I ILLEGAL CURSOR OPERATION - CURSOR REPOSITIONED	NOTE 6
NONE	IEE155E NO HARD COPY-CON=Y, DEL=N	NOTE 6
NONE	IEE156I cm INVALID OPERAND - xxxxxx	NOTE 6
NONE	IEE157E DELETION REQUESTED	NOTE 6
NONE	IEE158I K REQUEST INCONSISTENT - xxxxxx	NOTE 6
NONE	IEE159E MESSAGE WAITING	NOTE 6
NONE	IEE160I UNVIEWABLE MESSAGE	NOTE 6
NONE	IEE161I WARNING - CON=N,DEL=Y	NOTE 6
x (4) x (8) x (9)	IEE162I hh.mm.ss K COMMAND [id]	x (#)
NONE	IEE163I MODE=$\{R\atop RD\}$	NOTE 6
NONE	IEE164I ILLEGAL LIGHT PEN - CURSOR DETECT	NOTE 6
NONE	IEE165I DEL UNCHANGED, NO TIMER	NOTE 6
NONE	IEE167E OUTPUT IN HOLD MODE	NOTE 6
NONE	IEE170E RETRYABLE ERROR. RECENT ACTION MAY NEED TO BE REPEATED. IEE170E PRESS THE CANCEL KEY TO RESTORE THE SCREEN.	NOTE 6
NONE	IEE171E CONDITIONAL ERROR. RECENT ACTION MAY NEED TO BE REPEATED. IEE171E PRESS CANCEL TO CONTINUE, OR SWITCH CONSOLES.	NOTE 6
x (3)	IEE191I REQUIRED DD ENTRY MISSING FROM PROCEDURE	x (*)
x (3)	IEE192I INVALID PROCEDURE PARM FIELD FORMAT	x (*)
x (3) x (8) x (9)	IEE250I hh.mm.ss CONSOLES [id] CONSOLE/ALT COND AUTH ID AREA ROUTED console/alt H auth1 nn x,a$_1$-a$_2$ rouced SYSLOG rouced Console/alt $\{M\atop A[,P]\atop N[,P]\}$ auth2	x (#)
x (3)	IEE298I cm INVALID CHARACTER	x (*)

Figure 5. Routing and Descriptor Codes of Master
Scheduler Messages (Part 4 of 9)

IEE

1	2	3	4	5	6	7	8	9	Message Texts	#	*	1	2	3	4	5	6	7	8	9	10	11	12
				x					IEE299I {SYSLOG}/{ddd} REQ'D FOR HARDCOPY		x												
				x					IEE300I ddd/aaa INVALID ALTCON		x												
				x					IEE301I jjj CANCEL COMMAND ACCEPTED		x												
				x					IEE302I dddy ONLINE		x												
				x					IEE303I dddy OFFLINE		x												
				x					IEE304I jjj JOB RESET		x		x										
				x					IEE305I {cm/NO CORE/(blanks)/CSCB USE/MODE} COMMAND INVALID		x												
				x					IEE306I cm INVALID NUMERICS		x												
				x					IEE307I cm DELIMITER ERROR		x												
				x					IEE308I cm TERM LENGTH ERROR		x												
				x					IEE309I cm UNIDENTIFIABLE KEYWORD		x												
				x					IEE310I cm KEYWORD MISSING		x												
				x					IEE311I cm PARAMETER MISSING		x												
				x					IEE312I cm PARAMETERS CONFLICT		x												
									IEE313I {utn/HARDCOPY} UNIT REF INVALID														
				x					IEE314I cm UNIT NOT AVAILABLE		x												
				x					IEE315I cm UNIT NOT SUPPORTED		x												
				x					IEE316I jjj JOB NOT FOUND		x												
				x					IEE317I jjj JOB SELECTED		x												
				x					IEE318I QUEUE EMPTY		x												
				x					IEE320I jjj ALL SYSOUT CANCELLED		x		x										
				x					IEE321I jjj SYSOUT CLASS x CANCELLED		x		x										
				x					IEE322I jjj JOB CANCELLED		x		x										
				x					IEE323I cm CLASSNAME ERROR		x												
				x					IEE324I xxxx NOT LOGGED ON		x												
				x					IEE325I xxx REJECTED - TSO NOT ACTIVE		x												
				x					IEE327I USERS=nnnn id(regno) id(regno)		x												
				x					IEE328I cm COMMAND ABORTED		x												
				x					IEE329I unitaddr UNDER TEST BY OLTEP		x												
				x					IEE330I jjj JOB HELD		x		x										
				x					IEE331I jjj JOB RELEASED		x		x										
				x					IEE332I QUEUE HELD		x		x										

Descriptor Codes 1	2	3	4	5	6	7	8	9	Message Texts	Operator Messages #	*	1	2	3	4	5	6	7	8	9	10	11	12
	x								IEE141A MASTER AND ALL ALTERNATES UNAVAILABLE – ISSUE VARY MSTCONS						NOTE 4								
		x							IEE142I ddd NOW RECEIVING HARDCOPY														
		x							IEE143I OLD=console NEW=console VALDCMD=auth						NOTE 5								
		x							IEE143I ROUTCDE=routcd T=a H=b														
		x							IEE147I 'text'			x											
NONE									IEE150I CHANGE OPTIONS IF DESIRED														
									IEE151I DELETE REQUEST INCONSISTENT – xxxxxx														
									IEE152I *ENTER* *CANCEL* *D C,K*														
									IEE153E ERROR – ENTRY GREATER THAN 126 CHARACTERS														
									IEE154I ILLEGAL CURSOR OPERATION – CURSOR REPOSITIONED						NOTE 6								
									IEE155E NO HARD COPY-CON=Y, DEL=N														
									IEE156I cm INVALID OPERAND – xxxxxx														
									IEE157E DELETION REQUESTED														
									IEE158I K REQUEST INCONSISTENT – xxxxxx														
									IEE159E MESSAGE WAITING														
									IEE160I UNVIEWABLE MESSAGE														
									IEE161I WARNING – CON=N,DEL=Y														
				x			x	x	IEE162I hh.mm.ss K COMMAND [id]	x													
NONE									IEE163I MODE= {R / RD}														
									IEE164I ILLEGAL LIGHT PEN – CURSOR DETECT														
									IEE165I DEL UNCHANGED, NO TIMER														
									IEE167E OUTPUT IN HOLD MODE						NOTE 6								
									IEE170E RETRYABLE ERROR. RECENT ACTION MAY NEED TO BE REPEATED. IEE170E PRESS THE CANCEL KEY TO RESTORE THE SCREEN.														
									IEE171E CONDITIONAL ERROR. RECENT ACTION MAY NEED TO BE REPEATED. IEE171E PRESS CANCEL TO CONTINUE, OR SWITCH CONSOLES.														
			x						IEE191I REQUIRED DD ENTRY MISSING FROM PROCEDURE		x												
			x						IEE192I INVALID PROCEDURE PARM FIELD FORMAT		x												
			x			x	x		IEE250I hh.mm.ss CONSOLES [id] CONSOLE/ALT COND AUTH ID AREA ROUTED console/alt H auth1 nn x,a₁-a₂ rouced SYSLOG rouced Console/alt {M / A[,P] / N[,P]} auth2	x													
			x						IEE298I cm INVALID CHARACTER		x												

Descriptor Codes									Message Texts	Routing Codes													
1	2	3	4	5	6	7	8	9		#	*	1	2	3	4	5	6	7	8	9	10	11	12
				x					IEE299I {SYSLOG} REQ'D FOR HARDCOPY {ddd }		x												
				x					IEE300I ddd/aaa INVALID ALTCON		x												
				x					IEE301I jjj CANCEL COMMAND ACCEPTED		x												
				x					IEE302I dddy ONLINE		x												
				x					IEE303I dddy OFFLINE		x												
				x					IEE304I jjj JOB RESET		x												
				x					IEE305I {cm } COMMAND INVALID {NO CORE } {(blanks)} {CSCB USE} {MODE }		x												
				x					IEE306I cm INVALID NUMERICS		x												
				x					IEE307I cm DELIMITER ERROR		x												
				x					IEE308I cm TERM LENGTH ERROR		x												
				x					IEE309I cm UNIDENTIFIABLE KEYWORD		x												
				x					IEE310I cm KEYWORD MISSING		x												
				x					IEE311I cm PARAMETER MISSING		x												
				x					IEE312I cm PARAMETERS CONFLICT		x												
									IEE313I {utn } UNIT REF INVALID {HARDCOPY}														
				x					IEE314I cm UNIT NOT AVAILABLE		x												
				x					IEE315I cm UNIT NOT SUPPORTED		x												
				x					IEE316I jjj JOB NOT FOUND		x												
				x					IEE317I jjj JOB SELECTED		x												
				x					IEE318I QUEUE EMPTY		x												
				x					IEE320I jjj ALL SYSOUT CANCELLED		x		x										
				x					IEE321I jjj SYSOUT CLASS x CANCELLED		x		x										
				x					IEE322I jjj JOB CANCELLED		x		x										
				x					IEE323I cm CLASSNAME ERROR		x												
				x					IEE324I xxxx NOT LOGGED ON		x												
				x					IEE325I xxx REJECTED - TSO NOT ACTIVE		x												
				x					IEE327I USERS=nnnn id(regno) id(regno)		x												
				x					IEE328I cm COMMAND ABORTED		x												
				x					IEE330I jjj JOB HELD		x		x										
				x					IEE331I jjj JOB RELEASED		x		x										
				x					IEE332I QUEUE HELD		x		x										

1	2	3	4	5	6	7	8	9	Message Texts	#	*	1	2	3	4	5	6	7	8	9	10	11	12
				x					IEE333I QUEUE RELEASED		x	x											
				x					IEE334I HALT EOD SUCCESSFUL		x	x											
				x					IEE335I VOL PARAMETER MISSING		x												
				x					IEE338I ddd INACTIVE AS HARDCPY		x												
				x					IEE339I ddd CHANGING STATUS		x												
				x					IEE341I ttt NOT ACTIVE.		x												
				x					IEE342I cm REJECTED - TASK BUSY.		x												
	x								IEE343A ser, dsn, NOT MOUNTED			x		x									
	x								IEE344A dsn, NOT FOUND ON ser, ddd		x												
				x					IEE345I cm AUTHORITY INVALID		x												
					x				IEE346I INPUT RDR JOBNAME OVER 8 CHARS		x												
			x						IEE348I ddd UNAVAILABLE CONSOLE.		x												
				x					IEE349I HARDCOPY CONSOLE ⎫ IEE349I CONSOLES ⎬ CONSOLE/ALT COND AUTH ID AREA ROUTCD ⎧console/alt⎫ H authl nn x,a₁-a₂ routcd ⎩SYSLOG ⎭ routcd console/alt ⎧M ⎫auth2 ⎪A[,P]⎪ ⎪N[,P]⎪ ⎩N[,T]⎭	x													
			x						IEE350I SMF SYS1.MAN{X}{Y} NOT DEFINED				x										
			x						IEE351I SMF SYS1.MAN RECORDING NOT BEING USED				x										
	x								IEE352A SMF MEMBER MISSING - REPLY WITH SMF VALUES			x											
	x								IEE353A I/O ERROR ON SMFDEFLT READ - REPLY WITH SMF VALUES OR RE-IPL			x		x									
			x						IEE354I SMF PARAMETERS				x										
			x						IEE355I SMF PARAMETER ERRORS IEE355I ⎧xxxx UNRECONGNIZABLE KEYWORD/FORMAT ⎫ ⎨keyword=value INVALID VALUE SPECIFIED⎬ ⎩keyword - KEYWORD NOT SPECIFIED ⎭				x										
	x								IEE356A REPLY WITH SMF VALUES			x											
	x								IEE357A REPLY WITH SMF VALUES OR U			x											
			x						IEE358I SMF SYS1.MAN{X}{Y} NOT FOUND ON utn				x										
			x						IEE359I INCOMPATIBLE SMF VALUES FOR OPT AND DSV. OPT=2 SUBSTITUTED.				x										
			x						IEE360I SMF NOW RECORDING ON SYS1.MAN{X}{Y} ON utn TIME=hh.mm.ss					o	o								
			x						IEE361I SMF DATA LOST -- SYS1.MANX/Y NOT AVAILABLE TIME=hh.mm.ss				x	o	o								

R/D

Descriptor Codes									Message Texts	Routing Codes														
1	2	3	4	5	6	7	8	9		#	*	1	2	3	4	5	6	7	8	9	10	11	12	
	x								IEE362A SMF ENTER DUMP FOR SYS1.MAN{X}ON utn {Y}		x													
			x						IEE363I SMF {ser} {DEVICE CAPACITY TOO SMALL FOR {utn} BUFFER / DEVICE NOT IN SYSTEM / INCORRECT DEVICE TYPE / NOT DIRECT ACCESS / OFFLINE / PRIVATE / IS BUSY}				x											
			x						IEE364I SMF I/O ERROR ON utn				x	o	o									
				x					IEE371I D M COMMAND IGNORED		x													
				x					IEE376I PATHdddy LAST PATH TO DEVICE		x													
				x					IEE377I PATHdddy TP - CANNOT BE VARIED		x													
				x					IEE378I PATHdddy DOES NOT EXIST		x													
				x					IEE379I PATHdddy NOT AVAILABLE		x													
				x					IEE380I ddd DEVICE TYPE INVALID		x													
				x					IEE381I ddd DEVICE UNALLOCATED.		x													
				x					IEE382I DDR CURRENTLY ACTIVE		x													
			x						IEE390I NO ALTERNATE CONSOLE			x												
			x						IEE391I ALTERNATE CONSOLE IS adr			x												
x									IEE395W MASTER SCHEDULER INITIALIZATION FAILED - RE-IPL			x												
				x					IEE400I THESE MESSAGES CANCELLED- xx,xx,xx				x											
				x					IEE403I cm COMMAND ABORTED		x		x											
		o	o						IEE404I {M} dd [rr] xx yyy z {S}		x		x											
				x					IEE415I INVALID PROCEDURE ON START cm		x													
				x			x	x	IEE450I hh.mm.ss UNIT STATUS [id]	x														
							x		IEE452I UNIT STATUS NUMBER OF UNITS REQUESTED EXCEEDS NUMBER AVAILABLE		x													
							x		IEE453I UNIT STATUS, INVALID OPERAND. RE-ENTER		x													
							x		IEE454I UNIT STATUS, DEVICE DOES NOT EXIST		x													
							x		IEE455I UNIT STATUS, NO DEVICES WITH REQUESTED ATTRIBUTES		x													
				x					IEE475I TASK jjj sss ABENDED. COMPLETION CODE hhh		x													
		x							IEE500E CHANNEL xy NOT OPERATIONAL			x												
				x					IEE502I CH xy ONLINE			x												

Descriptor Codes									Message Texts	Routing Codes														
1	2	3	4	5	6	7	8	9		#	*	1	2	3	4	5	6	7	8	9	10	11	12
				x					IEE503I CH xy OFFLINE			x											
				x					IEE504I CPU y ONLINE [:CHANNELS OFFLINE ARE x]			x											
				x					IEE505I CPU y OFFLINE			x											
		x							IEE506E 2ND CPU DID NOT RESPOND TO EXTERNAL START			x											
		x							IEE507E TIMER ON SECOND CPU NOT WORKING. VARY COMMANDS MAY BE AFFECTED			x											
		x							IEE508E BOTH PREFIX SWITCHES SET THE SAME			x											
				x					IEE509I VARY REJECTED, CHANNEL ERROR			x											
				x					IEE510I STORAGE LOCATIONS xxxxxx TO yyyyyy OFFLINE			x											
		x							IEE511E QUIESCE IS NOT POSSIBLE. BUSY DEVICES ARE: ddd			x											
		x							IEE512E ddd BUSY. COMMAND IGNORED			x											
		x							IEE515E STORAGE PHYSICALLY REMOVED FROM SYSTEM			x											
				x					IEE517I INVALID ADDRESS SPECIFIED IN VARY STORAGE			x											
				x					IEE518I VARY STORAGE OFFLINE OVERLAPS SUPERVISOR			x											
		x							IEE519E STORAGE ONLINE HAS IMPERFECT OVERLAP			x											
				x					IEE520I VARY STORAGE OFFLINE CANCELLED DUE TO SUBSEQUENT ONLINE			x											
				x					IEE521I CH xy INVALID			x											
				x					IEE522I CPU y INVALID			x											
				x					IEE523I INVALID COMMAND IN ONE CPU SYSTEM			x											
				x					IEE524I STORAGE LOCATIONS xxxxxx TO yyyyyy ONLINE			x											
				x					IEE525I LOGICAL STORAGE UNIT z IS NOW OFFLINE			x											
				x					IEE526I LOGICAL STORAGE UNIT z IS NOW ONLINE			x											
	x								IEE527E VARY REJECTED, WOULD REMOVE ACCESS TO CONSOLE			x											
	x								IEE541E VARY REJECTED, VARYING OUT LAST PATH TO DEVICE ddd			x											
				x					IEE600I REPLY TO xx IS text		x												
				x					IEE699I REPLY xx IGNORED; NON-DECIMAL ID		x												
				x					IEE700I REPLY xx IGNORED; REPLY TOO LONG FOR REQUESTOR		x												
				x					IEE701I REPLY xx IGNORED; NO REPLIES OUTSTANDING		x												
				x					IEE702I REPLY xx IGNORED; IMPROPER USE OF DELIMITERS		x												
				x					IEE703I REPLY xx NOT REQUESTED FROM THIS CONSOLE		x												
				x					IEE704I REPLY xx NOT OUTSTANDING		x												

Descriptor Codes									Message Texts	Routing Codes														
1	2	3	4	5	6	7	8	9		#	*	1	2	3	4	5	6	7	8	9	10	11	12
			x						IEE706I {SWITCH} NOT SUCCESSFUL {HALT }		x													
	x								IEE801D CHANGE PARTITIONS - REPLY YES/NO (,LIST)			x											
	x								IEE802A ENTER DEFINITION		x												
	x								IEE803A CONTINUE DEFINITION		x												
			x						IEE804I Pn= {(jclass,psize) } {(jclass, psize0 H0, psizel H1)} {(INACTIVE) }		x												
			x						IEE805I DEFINITION COMPLETED	NOTE 4													
			x						IEE806I TOTAL SIZE OF PARTITIONS IS x BYTES TOO LARGE FOR STORAGE		x												
	x								IEE807A DEFINITION PARAMETER ERROR, REPLY AGAIN	o	o												
	x								IEE808A P n NOT DEFINABLE - REPLY AGAIN		x												
			x						IEE809I SIZE DEFINITION OF Pxx OR LOWER EXCEEDS AVAILABLE SPACE		x												
	x								IEE810A PROBLEM PROGRAM PARTITIONS EXCEED 15, RESPECIFY		x												
	x								IEE811A CHANGED PARTITIONS NOT ADJACENT, RESPECIFY		x												
		x							IEE812I P n HAS xxxx EXCESS BYTES ADDED IN Hy		x												
			x						IEE813I cm yyy - FAILED		x												
		x							IEE814I DEFINITION CANCELLED	NOTE 4													
x									IEE815A DEFINITION DELIMITER ERROR, REPLY AGAIN		x												
		x							IEE816I CLASSES=jclass		x												
		x							IEE817I TMSL=xxxx		x												
x									IEE818A TMSL SPECIFICATION NOT ACCEPTABLE, RESPECIFY		x												
			x						IEE819I TIME SLICING IS NOT SUPPORTED IN THIS SYSTEM		x												
			x						IEE820I TMSL VALUE LESS THAN MINIMUM; 20 MILLISEC DEFAULT USED		x												
			x			x	x		IEE821I hh.mm.ss ACTIVE DISPLAY [id] PNO JOBNAME STEPNAME SUBT PNO JOBNAME xxx xxxxxxxx xxxxxxxx xx xxx xxxxxxxx STEPNAME SUBT xxxxxxxx xx	x													
x									IEE822A NO PARTITION SPECIFIED FOR EXCESS BYTES, RESPECIFY		x												
x									IEE823A xxxx IS NOT SUPPORTED - REPLY AGAIN		x												
		x							IEE866I DEFINE COMMAND BEING PROCESSED	NOTE 4													

Descriptor Codes 1	2	3	4	5	6	7	8	9	Message Texts	#	*	1	2	3	4	5	6	7	8	9	10	11	12
				x			x	x	IEE870I hh.mm.ss NAME DISPLAY [id] QUEUE JOBNAME STAT JOBNAME STAT XXXX X XXXXXXXX XXXXXXXX X-XXX JOBNAME STAT JOBNAME STAT XXXXXXXX X-XXX XXXXXXXX X-XXX	x													
				x					IEE901I xxx NOT VERIFIED		x												
				x					IEE902I ddd ONLINE		x												
				x					IEE903I ddd OFFLINE		x												
				x					IEE904I ddd-LOADED. NO MOUNT.		x												
				x					IEE905I ddd REFERENCE ILLEGAL		x												
				x					IEE907I xxx ABEND - {SEND / D} CMD ABORTED		x												
				x					IEE908I cm CMD LENGTH EXCEEDS MAX		x												
				x			x	x	IEE920I NO MN A UPDATE AT hh.mm.ss	x													
				x					IEE921I cm op REJECTED { NO TIMER DISPLAY ALREADY EXISTS NO DISPLAY AREA AVAILABLE NO CRT CONSOLES NEEDS DISPLAY AREA DEVICE NOT SUPPORTED DISPLAY AREA BUSY }		x												
				x					IEE922I K M,UTME=nnn		x												
			NONE						IEE924I INVALID AREA DEFINITION { SCREEN SIZE EXCEEDED AREA TOO SMALL DISPLAY IN OR ABOVE AREA }		x												

| Descriptor Codes | | | | | | | | | Routing Codes | | | | | | | | | | | | |
1	2	3	4	5	6	7	8	Message Texts	*	1	2	3	4	5	6	7	8	9	10	11	12
			x					IEF110I Q MGR I/O ERR FOR jjj RETURN CODE x			x								x		
			x					IEF125I jjj LOGGED ON [TIME=hh.mm.ss]	NOTE 1												
			x					IEF126I jjj LOGGED OFF [TIME=hh.mm.ss]	NOTE 1												
			x					IEF161I ddd - READER CLOSED	x												
					x			IEF165I cm		x											
	x							IEF166D REPLY Y/N TO EXECUTE/SUPPRESS COMMAND		x											
					x			IEF182I jjj WILL RESTART IN Pn			x										
		x						IEF183E PY=(aaaK,bbbbK,x) AFTER (cccK,ddddK) NEEDED TO RESTART jjj		x											
		x						IEF184E JOBCLASS x NEEDED IN Pn TO RESTART jjj		x											
					x			IEF185I COMMAND CANCELLED BY RESTART READER: START xxx	x												
		x						IEF189E REDEFINE Pn WITHOUT HIERARCHY ZERO TO RESTART jjj		x											
					x			IEF190I COMD REJECTED FOR INITIATOR 'ident' - LIMIT MORE THAN 15	x												
					x			IEF191I COMD REJECTED FOR INITIATOR 'ident' - FORCE MORE THAN 15	x												
					x			IEF203I COMD REJECTED FOR INITIATOR 'ident' - TOO MANY OPERANDS	x												
					x			IEF204I COMD REJECTED FOR INITIATOR 'ident' - TOO MANY CLASSES	x												
					x			IEF205I COMD REJECTED FOR INITIATOR 'ident' - INVALID OPERAND	x												
					x			IEF206I COMD REJECTED FOR INITIATOR 'ident' - NO CLASSES SPECIFIED	x												
					x			IEF207I COMD REJECTED FOR INITIATOR 'ident' - STORAGE KEY UNAVAILABLE	x												
						x		IEF209I MAIN STORAGE UNAVAILABLE FOR jjj.sss.ppp			x										
					x			IEF222I COMD REJECTED FOR INITIATOR 'ident' - UNIQUE IDENT REQUIRED	x												
	x							IEF225D SHOULD jjj.sss.ppp [checkid] RESTART		x											
					x			IEF228I jjj RESTART CANCELLED - I/O ERROR SCHEDULER WORK AREA			x										
	x							IEF233A M ddd,ser,[labtyp], {jjj / jjj,sss / jjj,sss,dsn / jjj,,dsn}				a	b	a	b						
	x							IEF233A ddd,dsn				a	b	a	b						
		x						IEF234E {R}/{D} ddd,ser[,SPACE=prm][,jjj]				o	o								
					x			IEF235I jjj.sss.ddn WAITING FOR VOLUMES			x										

1	2	3	4	5	6	7	8	Message Texts	*	1	2	3	4	5	6	7	8	9	10	11	12
					x			IEF236I ALLOC. FOR jjj sss [ppp]			x					x					
					x			IEF237I ddd ALLOCATED TO ddn			x					x					
	x							IEF238A REPLY [DEVICE NAME][,'WAIT'][,'NOSEP'] OR 'CANCEL'			x	o	o			o					
					x			IEF239I jjj sss ddn WAITING FOR ALLOCATION			x		x								
		x						IEF243E UNIT xxx UNLOADED. VOLUME HAS ANS LABEL				x									
					x			IEF244I jjj sss ddn UNABLE TO ALLOCATE			x	x	x								
					x			IEF247I {jjj ALLOCATION RECOVERY} {jjj ddd-list OFFLINE, }			x	o	o			o					
			x					IEF248I jjj sss ddn ERROR ALLOCATING RESERVED VOLUME			x		x								
			x					IEF248I ddd HAS RESERVED VOLUME ser			x		x								
			x					IEF249I FOLLOWING P/R & RSV VOLUMES ARE MOUNTED ser ON ddd ccc-ccc			x		x								
		x						IEF250I FOLLOWING MAY BE MOUNTED · ser ON dddtyp			x		x								
				x				IEF250D REPLY DEVICE ADDRESSES OR GO	x				x								
					x			IEF251I JOB CANCELED (in SYSOUT)			x	o	o			o					
					x			IEF251I jjj JOB CANCELED (on console)													
			x					IEF255I DIRECT ACCESS - PERMANENT I/O ERROR					x						x		
			x					IEF268I ddd FOR ser ccc-ccc			x		x								
	x							IEF269A ddd ADDRESS INVALID OR OFFLINE. REPEAT REPLY	x				x								
	x							IEF270D I/O ERROR IN PRESRES READ. REPLY GO OR RE-IPL	x				x						x		
			x					IEF271I VOLUME NOT CONSIDERED IN SYSTEM			x		x								
					x			IEF277I jjj.{sss}.ddn ALLOC. FOR CONTROL VOLUME {ppp}			x										
				x				IEF278I ddd NOT MOUNTED, I/O ERROR			x	o	o			o			x		
				x				IEF279I ddd NOW MOUNTED [,SL] [,AL]			x	o	o			o					
		x						IEF280E K ddd,ser,jjj[,sss][,SPACE=prm][,dsn]				o	o								
		x						IEF280I ddd,dsn				o	o								
			x					IEF281I ddd NOW OFF-LINE			x	o	o			o					
			x					IEF282I ddd NOW UNLOADED			o	o	o			o					
			x					IEF283I dsn NOT DELETED x VOL SER NOS= ser[z],ser[z],ser[z],ser[z],ser[z] VOL SER NOS= ser[z],ser[z],ser[z].			o	o	o								
					x			IEF289I jjj ACCT/SYSTEM ERROR			x										

Descriptor Codes 1	2	3	4	5	6	7	8	Message Texts	Routing Codes *	1	2	3	4	5	6	7	8	9	10	11	12
			x					IEF292I RETAINED VOLUMES RELEASED FOR JOB jjj					x	x							
			x					IEF300I ddd WTR CLOSED -- QMGR I/O ERROR	x	x								x			
			x					IEF301I ddd WTR CLOSED	x												
			x					IEF303I ddd WTR CLOSED -- OUTPUT ERROR	x							x		x			
			x					IEF304I jjj, DSNAME=dsn,			x		x								
			x					IEF304I DDNAME=ddn, VOLUME=SER-ser			x		x								
			x					IEF307I ddd WTR CLOSED-OUTPUT DCB FAILED TO OPEN								x		x			
					x			IEF308I jjj - NOT ENOUGH CORE FOR PROCESSING			x										
			x					IEF312I INVALID BLKSIZE SPECIFIED FOR PROCEDURE LIBRARY	x		x										
					x			IEF317I TEMPORARY FAILURE OF OPEN FOR JOB jjj sss			x									x	
			x					IEF326I PERMANENT I/O ERROR ON BLDL LOCATE OF UCS/FCB IMAGE IN IMAGE LIBRARY			x					x			x	x	
			x					IEF327I WTR ddd CLOSED. PERMANENT I/O ERROR WHILE LOADING UCS/FCB BUFFER			x					x			x	x	
			x					IEF328I WTR ddd CLOSED. PERMANENT I/O ERROR ON UCS/FCB IMAGE VERIFICATION.			x					x			x	x	
			x					IEF330I INTERPRETER ABENDED DURING JOB jjj COMPLETION CODE hhh	x												
					x			IEF331I WTR ddd CLOSED. SETPRT NOP - UNCORRECTABLE OUTPUT ERROR ON PREVIOUS OPERATION			x					x			x	x	
			x					IEF334I QUEUE DEVICE I/O ERROR PROCESSING FOR JOB jjj	x		x	x						x			
			x					IEF335I INSUFFICIENT QUEUE SPACE FOR JOB jjj	x		x										
			x					IEF336I QUEUE FULL AND WAITING			x										
	x							IEF382A ddd WTR WAIT DUE TO PAUSE			x					x					
	x							IEF383A ddd WTR, CHANGE FORM TO nnn								x					
			x					IEF384I dsn NOT DELETED w VOL SER NOS= ser x,ser x,ser x,ser x,ser x.					x								
			x					IEF385I ddd DSO OPEN FAILURE OUTCLASS=s jjj				o				o		x			
			x					IEF386I ddd DSO OUTPUT I/O ERROR OUTCLASS=s jjj				o				o		x			
					x			IEF388I jjj.sss.ddn WAITING FOR DEVICES			x	o	o								
					x			IEF389I jjj.sss.ddn SEP REQUEST IGNORED			x										
		x						IEF390I DSO, (s,j,devtyp) NEEDED TO RESTART jjj [Pn]			x										
				x				IEF391I ddd DSO CLOSED	x												
				x				IEF392I ddd DSO JOBCLASS=jclass,OUTCLASS=s	x												
				x				IEF393I ddd DSO COMMAND OR PROCEDURE ERROR	x												
				x				IEF394I ddd DSO PARTITION ERROR	x												
			x					IEF395I ddd DSO JOBQ I/O ERROR MSGCLASS=s jjj			x							x			
				x				IEF396I READER PARTITION ERROR	x												
			x					IEF397I ddd DSO END OF OUTPUT RECORD NOT WRITTEN			x							x			

Descriptor Codes								Message Texts	Routing Codes												
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
			x					IEF398I ddd DSO OPEN UNSUCCESSFUL			x								x		
			x					IEF399I DSO ABEND EXIT PROCEDURES COMPLETED			x										
x								IEF401W I/O ERROR SCHEDULER WORK AREA		x									x		
					x			IEF403I jjj STARTED [TIME=hh.mm.ss]	NOTE 7												
					x			IEF404I jjj ENDED [TIME=hh.mm.ss]													
			x					IEF406I ddd - READER CANNOT BE OPENED	x										x		
			x					IEF407I ddd - PROCLIB CANNOT BE OPENED FOR READER	x		x								x		
			x					IEF408I ddd - jjj JOB NOT FOUND FOR READER	x												
				x				IEF409I jjj,CLASS=cc,PRTY=pp,POS=nn,qqqq	x												
				x				IEF410I INCORRECT PARTITION FOR START COMMAND	x												
			x					IEF412I SPOOL DEVICE I/O ERROR WRITING FOR JOB jjj	x				x					x		
			x					IEF413I QUEUE DEVICE I/O ERROR INTERPRETING JOB jjj	x		x		x					x		
			x					IEF414I QUEUE DEVICE I/O ERROR ENQUEUEING JOB jjj	x		x		x					x		
			x					IEF415I I/O ERROR ON ddd PURGING JOB jjj	x		x		x					x		
			x					IEF416I SPOOL FULL AND WAITING jjj	x		x										
			x					IEF417I PROCLIB DEVICE I/O ERROR READING FOR JOB jjj	x		x							x		
			x					IEF418I SPOOL DEVICE I/O ERROR OPENING FOR JOB jjj	x				x					x		
			x					IEF419I INPUT DEVICE I/O ERROR READING JOB jjj	x									x		
					x			IEF420I RDR=jjj			x										
					x			IEF421I INIT=jjj.sss.ppp (x) cond			x										
			x					IEF422I ddd I/O ERROR DURING SYSTEM RESTART (c)			x	x						x		
	x							IEF423A SPECIFY JOB QUEUE PARAMETERS		x											
	x							IEF424A INVALID PARAMETER/FORMAT		x											
					x			IEF425I jjj EXCEEDED SPECIFIED QUEUE SPACE			x										
		x						IEF426I QUEUE CRITICAL			x										
			x					IEF427I COMD REJECTED FOR INITIATOR 'ident' INSUFFICIENT QUEUE SPACE	x												
		x						IEF429I INITIATOR 'ident' WAITING FOR WORK			x										
				x				IEF430I RESTART STEP NOT FOUND jjj	x		x										
x								IEF431W SYSTEM RESTART I/O ERROR ON JOB QUEUE		x											
			x					IEF432I START INIT REJECTED	x												

1	2	3	4	5	6	7	8	Message Texts	*	1	2	3	4	5	6	7	8	9	10	11	12
			x					IEF438I SUBTASK OF utn TERMINATED. SYSTEM COMPLETION CODE hhh			x										
			x					IEF440I I/O ERROR IN THE SYS1.SYSJOBQE DATA SET FOR jjj sss nnn			x								x		
			x					IEF441I SYSTEM RESTART ERROR ON {jjj / FREELIST / QUEUE} , qqqq, {TTR=nnn / NN=nn} {status / C / E / D} ,[sense],mod			x								x		
			x					IEF442I AUTO COMMANDS SUPPRESSED ON RESTART ERROR		x									x		
			x					IEF443I WORK ON QUEUES: [HOLD], [ASB], [OUTPUT=list], [RJE], [INPUT=list], [BRDRQ]		x									x		
			x					IEF444I SYSTEM RESTART ERROR TERMINATING JOB jjj			x								x		
					x			IEF450I jjj.sss.[ppp] ABEND {Shhh / Udddd / Shhh Udddd} TIME=hh.mm.ss	NOTE 7												
					x			IEF451I jjj.sss.[ppp] ENDED BY CC dddd TIME=hh.mm.ss	NOTE 7												
					x			IEF452I xxx JOB NOT RUN - JCL ERROR [TIME=hh.mm.ss]	NOTE 7												
					x			IEF453I jjj JOB FAILED - JCL ERROR	NOTE 7												
		x						IEF454I DOS VTOC CANNOT BY CONVERTED TO OS VTOC				x									
			x					IEF460I WTP MESSAGE LIMIT EXCEEDED			x										
			x					IEF461I I/O ERROR SYS1.SYSJOBQE, WTP PROCESSING jjj			x								x		
			x					IEF462I NO RECORDS AVAILABLE SYS1.SYSJOBQE, WTP PROCESSING jjj			x										
			x					IEF500I VOLUME NEEDED ON DIFFERENT UNIT				o	o								
			x					IEF501I UNIT NEEDS DIFFERENT VOLUME				o	o								
			x					IEF502I DUPLICATE SERIAL				o	o								
			x					IEF503I WRONG DENSITY OR INCORRECT LABEL				o	o								
	x							IEF504A M dvtyp,ser,, {jjj / jjj,sss / jjj,sss,dsn / jjj,,dsn}				a	b	a	b						
			x					IEF505I UNIT REQUIRED				o	o								
			x					IEF507I utn[,N] - SYS1.ACCT - text			x										
	x							IEF507D REPLY XXX OR XXX,N OR SKIP		x											
			x					IEF510E VOLUME HAS AND LABEL.			x										
	x							IEF533A M ddd,ser,, {jjj / jjj,sss / jjj,sss,dsn / jjj,,dsn}				x		x							
			x					IEF656I 16 EXTENTS EXCEEDED SPOOLING JOB [-jjj]	x												

Descriptor Codes								Message Texts	Routing Codes												
1	2	3	4	.5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
					x			IEF861I FOLLOWING RESERVED DATA SET NAMES UNAVAILABLE TO jjj			x										
					x			IEF862I FOLLOWING RESERVED DATA SET NAMES UNAVAILABLE TO jjj, IN Pnn			x										
					x			IEF863I DSNAME=dsn			x										
	x							IEF864D REPLY 'RETRY' OR 'CANCEL' [OR 'WAIT']		x											
	x							IEF865A Q FULL - REPLY 'WAIT' OR 'CANCEL' - jjj.		x											
		x						IEF866E SCHEDULER ABEND COMPLETION CODE hhh			x										
	x							IEF867D CPO FULL -- REPLY 'WAIT' OR 'CANCEL' jjj		x											
			x					IEF868I ddd WTR WAITING FOR WORK			x										
				x				IEF869I hh.mm.ss QUEUE DISPLAY [id] QUEUE JOBS STAT QUEUE JOBS STAT XXXX X XXXX XXXX XXXX X XXXX XXXX QUEUE JOBS STAT QUEUE JOBS STAT XXXX X XXXX XXXX XXXX X XXXX XXXX	x												
			x					IEF871I SYSTEM ISSUED DISPLAY A			x										
			x					IEF875I PROC FAILED, JCL ERROR	x												
			x					IEF876I PROC FAILED, I/O ERROR	x												
			x					IEF877I PROC FAILED, INSUFFICIENT Q-SPACE	x												

IEH

Figure 7. Routing and Descriptor Codes of System Utility Messages

Descriptor Codes 1	2	3	4	5	6	7	8	Message Texts	*	1	2	3	4	5	6	7	8	9	10	11	12
	x							IEH220A jobname,stepname,'utility statement', REPLY WITH {'PASWORD1' 'PASWORD2' 'CPASWORD'}										x			
	x							IEH807D cuu (or cuu/b) HAS UNEXPIRED DATA SETS, serial, jobname, stepname.					x								
			x					IEH808I REPLY IN ERROR. REPLY WITH 'U' OR 'T', jobname, stepname.					x								
		x						IEH809I {R N} cuu (or cuu/b), serial, jobname, stepname [,NOW OFFLINE]					x								
	x							IEH841D cuu (or cuu/b for a 2321 volume) CONFIRM REQUEST TO INITIALIZE LABEL					x								
	x							IEH848D IS ANOTHER TAPE REQUIRED FOR THIS RESTORE JOB. REPLY Y OR N.					x								

IEK

Figure 8. Routing and Descriptor Codes of FORTRAN IV H Messages

Descriptor Codes 1	2	3	4	5	6	7	8	Message Texts	*	1	2	3	4	5	6	7	8	9	10	11	12
						x		IEK403I OPEN ERROR ON SYSPRINT												x	
						x		IEK404I SYNCHRONOUS ERROR ON SYSPRINT												x	

Figure 9. Routing and Descriptor Codes of PL/I Messages

Descriptor Codes								Message Texts	Routing Codes												
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
					x			T IEM3854I COMPILER ERROR. PROGRAM INTERRUPT TYPE nn HAS OCCURRED IN PHASE AK.			x									x	
					x			T IEM3862I I/O ERROR ON SYSPRINT			x									x	
					x			T IEM3876I UNABLE TO OPEN SYSPRINT			x									x	
					x			T IEM3896I SYSPRINT BLOCKSIZE IS NOT OF FORM 4+N*125			x									x	

Figure 10. Routing and Descriptor Codes of COBOL E Messages

Descriptor Codes								Message Texts	Routing Codes												
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
						x		IEP000A XXX...		x										x	
						x		IEP850I TABLE OF DEBUG REQUESTS OVERFLOWED. RUN TERMINATED.		x											
						x		IEP854I IDENTIFICATION DIVISION NOT FOUND. RUN TERMINATED.		x											
						x		IEP855I DEBUG EDIT RUN COMPLETE. INPUT FOR COBOL COMPILATION ON SYSUT4.		x											
						x		IEP990D 'AWAITING REPLY'		x										x	

Figure 11. Routing and Descriptor Codes of Sort/Merge Messages (Part 1 of 3)

Descriptor Codes								Message Texts	*	Routing Codes											
1	2	3	4	5	6	7	8			1	2	3	4	5	6	7	8	9	10	11	12
					x			IER001A - COL 1 OR 1-15 NOT BLANK			x										
					x			IER002A - EXCESS CARDS			x										
					x			IER003A - NO CONTIN CARD			x										
					x			IER004A - INVALID OP DELIMITER			x										
					x			IER005A - STMT DEFINER ERR			x										
					x			IER006A - OP DEFINER ERR			x										
					x			IER007A - SYNTAX ERR - xxx			x										
					x			IER008A - FLD OR VALUE GT 8 CHAR - xxx			x										
					x			IER009A - EXCESS INFO ON CARD - xxx			x										
					x			IER010A - NO S/M CARD			x										
					x			IER011A - TOO MANY S/M KEYWORDS			x										
					x			IER012A - NO FLD DEFINER			x										
					x			IER013A - INVALID S/M KEYWORD			x										
					x			IER014A - DUPLICATE S/M KEYWORD			x										
					x			IER015A - TOO MANY PARAMETERS			x										
					x			IER016A - INVALID VALUES IN FLD			x										
					x			IER017A - ERR IN DISP LENGTH VALUE			x										
					x			IER018A - CTL FLD ERR			x										
					x			IER019A - SIZE-SKIPREC ERR			x										
					x			IER020A - INVALID REC KEYWORD			x										
					x			IER021A - NO TYPE DEFINER			x										
					x			IER022A - RCD FORMAT NOT F/V			x										
					x			IER023A - NO LENGTH DEFINER			x										
					x			IER024A - ERR IN LENGTH VALUE			x										
					x			IER025A - RCD SIZE GT MAX			x										
					x			IER026A - L1 NOT GIVEN			x										
					x			IER027A - CF BEYOND RCD			x										
					x			IER028A - TOO MANY EXITS			x										
					x			IER029A - IMPROPER EXIT			x										
					x			IER030A - MULTIPLY DEFINED EXIT			x										
					x			IER031A - INVALID MODS OP CHAR			x										

Descriptor Codes								Message Texts	*	1	2	3	4	5	6	7	8	9	10	11	12
1	2	3	4	5	6	7	8	**Routing Codes**													
					x			IER032A - EXIT E61 REQUIRED			x										
					x			IER033A - CF SEQ INDIC E REQUIRED			x										
					x			IER034A - PARAM ERR FOR MODS			x										
					x			IER035A - DUPLICATE MOD RTN IN PHASE			x										
					x			IER036I - B = xxxxxx			x										
					x			IER037I - G = xxxxxx			x										
					x			IER038I - NMAX = xxxxxx			x										
					x			IER039A - INSUFFICIENT CORE			x										
					x			IER040A - INSUFFICIENT WORK UNITS			x										
					x			IER041A - N GT NMAX			x										
					x			IER042A - UNITS ASGN ERROR			x										
					x			IER043A - DATA SET ATTRIBUTES NOT SPECIFIED			x										
					x			IER044I - EXIT Exx INVALID OPTION			x										
					x			IER045I - END SORT PH			x										
					x			IER046A - SORT CAPACITY EXCEEDED			x										
					x			IER047A - RCD CNT OFF, IN xxxxxx, OUT xxxxxx			x										
					x			IER048I - NMAX EXCEEDED			x										
					x			IER049I - SKIP MERGE PH			x										
					x			IER050I - END MERGE PH			x										
					x			IER051A - UNENDING MERGE			x										
					x			IER052I - EOJ			x										
					x			IER053A - OUT OF SEQ			x										
					x			IER055I - INSERT xxxxxx, DELETE xxxxxx			x										
					x			IER056A - SORTIN/SORTOUT NOT DEFINED			x										
					x			IER057A - SORTIN NOT SORTWK01			x										
					x			IER058A - SORTOUT A WORK UNIT			x										
					x			IER059A - RCD LNG INVALID FOR DEVICE			x										
					x			IER060A - DSCB NOT DEFINED			x										
		x						IER061A - I/O ERR, jobname,stepname,unit address,device type,ddname,operation attempted,error description,last seek address or block count,access method (SYNADAF)				o	o			o					
					x			IER062A - L E ERR			x										

Figure 11. Routing and Descriptor Codes of Sort/Merge Messages (Part 3 of 3)

Descriptor Codes								Message Texts	Routing Codes												
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12	
					x			IER063A - OPEN ERR xxxxxxxx			x											
					x			IER064A - DELETE ERR			x											
					x			IER065A - PROBABLE DECK STRUCTURE ERROR			x											
					x			IER066A - APROX RCD CNT xxxxxx			x											
					x			IER067I - INVALID EXEC OR ATTACH PARAMETER			x											
					x			IER068A - OUT OF SEQ SORTINxx			x											

Figure 12.   Routing and Descriptor Codes of Assembler F Messages

Descriptor Codes								Message Texts	Routing Codes												
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
						x		IEU996I ASSEMBLY TERMINATED. INSUFFICIENT STORAGE			x									x	
						x		IEU997I OPEN FAILED FOR SYSPRINT, NOLIST OPTION USED			x									x	
						x		IEU998I ASSEMBLY TERMINATED, OPEN FAILED FOR DATA SET (ddname)			x									x	
						x		IEU999I ASSEMBLY TERMINATED, jobname, stepname, unit address, device type, ddname, operation attempted, error description			x									x	

Figure 13.   Routing and Descriptor Codes of ALGOL Messages

Descriptor Codes								Message Texts	Routing Codes												
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
						x		IEX201I T nnnnn DD CARD FOR (ddname) INCORRECT OR MISSING.												x	
						x		IEX210I T nnnnn UNRECOVERABLE I/O ERROR ON DATA SET (ddname)												x	

R/D

Figure 14. Routing and Descriptor Codes of FORTRAN IV G Messages

Descriptor Codes								Message Texts	*	Routing Codes											
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
							x	IEY034I I/O ERROR [COMPILATION TERMINATED] xxx...xxx												x	
							x	IEY035I UNABLE TO OPEN ddname												x	

Figure 15. Routing and Descriptor Codes for SMF DUMP Messages

Descriptor Codes								Message Texts	*	Routing Codes											
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
	x							IFA006A REQUEST MADE TO DUMP ACTIVE ACTIVE SMF DATA SET - REPLY CANCEL			x										
						x		IFA007I SMF DUMP CANCELLED			x										

Descriptor Codes								Message Texts	Routing Codes												
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
			x					IFB002I CHANNEL DETECTED ERROR ON ddd RECORDED,xxxx, op,stat,hh.mm.ss		x											
			NONE					IFBF05W { CPU ERROR / CHAN x ERROR } RELOAD OS/360,hh.mm.ss	NOTE 1												
								IFBF06W { CPU ERROR / CHAN x ERROR } RELOAD OS/360,hh.mm.ss													
								IFBF07S { CPU ERROR / CHAN x ERROR } EXECUTE SEREP,hh.mm.ss													
								IFBF08S { CPU ERROR / CHAN x ERROR } EXECUTE SEREP,hh.mm.ss													
								IFBF09S { CPU ERROR / CHAN x ERROR } EXECUTE SEREP,hh.mm.ss													
								IFBF0AS { CPU ERROR / CHAN x ERROR } EXECUTE SEREP													
			x					IFBF0BI CPU ERROR,hh.mm.ss	x												
			x					IFBF0CI { CPU ERROR / CHAN x ERROR } ,LOGREC FULL,hh.mm.ss	x												
			NONE					IFBF0DS { CPU ERROR / CHAN x ERROR } ,EXECUTE SEREP,hh.mm.ss	NOTE 1												
			x					IFBF0EI { CPU ERROR / CHAN x ERROR } RECORD LOST,hh.mm.ss	x												
			x					IFBF0FI MACHINE ERROR. BFR SEG x DSBL		x											

Figure 17. Routing and Descriptor Codes of IFCDIP00 and IFCEREP0 Messages

Descriptor Codes								Message Texts		Routing Codes											
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
						x		IFC001I D=ddd N=x F=trck* L=trck* S=recd** DIP COMPLETE	x												
						x		IFC002I INVALID INPUT	x												
						x		IFC003I I/O ERRORS IN FORMATTING DISK	x												
						x		IFC004I END OF DATA SET BEFORE PROGRAM COMPLETE	x												
						x		IFC005I I/O ERROR ON OUTPUT DEVICE	x												
						x		IFC006I HEADER RECORD INCORRECT	x												
						x		IFC007I END OF DATA SET BEFORE PROGRAM COMPLETE	x												
						x		IFC008I READ DISK FAILURE	x												
						x		IFC009I WRITE DISK FAILURE	x												
						x		IFC00AI PARAMETER FIELD ERROR	x												
						x		IFC00BI STAT RECORD KEY DIFFERS FROM THE EXPECTED -- EXPCD xxx REC xxx	x												
						x		IFC00CI INPUT NOT ACCUMULATIVE DATA SET	x												
						x		IFC00DI ACCUMULATION OUTPUT TERMINATED - ERROR	x												
						x		IFC00EI JOB TERMINATED DUE TO INPUT ERRORS	x												
						x		IFC00FI ddname DD STATEMENT INCORRECT STEP TERM	x												

Descriptor Codes								Message Texts		Routing Codes												
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
						x		IFD100I message												x		
						x		IFD101D message												x		
						x		IFD102I OLTS RUNNING				x								x		
						x		IFD103I UCB NOT READY BIT ON - dddddddd TESTS BYPASSED												x		
						x		IFD104E TO FORCE COMMUNICATION WITH OLTEP EXECUTIVE, ENTER ANY CHARACTER												x		
						x		IFD105D ENTER -- DEV/TEST/OPT/												x		
						x		IFD106I INPUT DATA DOES NOT CONTAIN 3 SLASHES												x		
						x		IFD107I OPTIONS ARE xxx,...xxx												x		
						x		IFD108I INVALID ENTRY IN DEV FLD xx												x		
						x		IFD109I xxxxxxxx(OFFLINE,)(UNALLOCATED)WILL NOT BE TESTED (ONLINE,)(ALLOCATED)												x		
						x		IFD110I TESTABLE DEVICES MAY NOT EXCEED 16												x		
						x		IFD111I NO DEVICES AVAILABLE FOR TEST												x		
						x		IFD112I ILLEGAL ENTRY IN TEST FLD xx												x		
						x		IFD114I ALL GRAPHICS ON CONTROL UNIT NOT OFFLINE												x		
						x		IFD115I ILLEGAL ENTRY IN OPT FLD --xxxxxxxxxx												x		
						x		IFD117I SECTION xxxxxyyy NOT FOUND												x		
						x		IFD118I UNREADABLE TAPE LABEL - dddddddd												x		
						x		IFD119I NONSTANDARD TAPE LABEL - dddddddd												x		
						x		IFD120D CAN VOL DATA ON dddddddd BE DESTROYED REPLY, YES OR NO												x		
						x		IFD121I xx MESSAGE CANCELLED BY OLTEP												x		
						x		IFD122I VOL ON dddddddd (SECURITY PROTECTED) (UNEXPIRED DATE)												x		
						x		IFD124I CE VOL NOT ON UNIT dddddddd												x		
						x		IFD125I UNREADABLE LABEL ON ddd												x		
						x		IFD126I BIN 0 OF dddddddd DOES NOT INDICATE CE CELL												x		

R/D

Descriptor Codes								Message Texts		Routing Codes												
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
						x		IFD128I TEST BYPASSED CHANNEL DATA PROTECT NOT DONE											x		
						x		IFD129I FIRST ERROR COMMUNICATION xxxxxxxx yyyy UNIT dddddddd [aaaaaaaa]											x		
						x		IFD130I INTERVENTION REQ dddddddd											x		
						x		IFD131I SENSE TO dddddddd FAILED											x		
						x		IFD132I CE BIT WILL NOT RESET - dddddddd											x		
						x		IFD133I TIMER NOT STEPPING, TIMING TEST BYPASSED											x		
						x		IFD135D ARE TIME DEPENDENT DEVICES ACTIVE (TP, 1419), REPLY YES OR NO											x		
						x		IFD136I TIME DEPENDENT DEVICES ARE ACTIVE, TIMING TEST BYPASSED											x		
						x		IFD137I CSW - XXyyyyyyyyyyyyyyyy SNS - sns											x		
						x		IFD138I DEV dddddddd NOT OPERATIONAL, CC=3											x		
						x		IFD139D REPLY ⎧ B TO BYPASS, R TO RETRY ⎫ B TO BYPASS, R TO RETRY, P TO PROCEED ⎨ B TO BYPASS, R TO RETRY, P TO PROCEED ⎬ (MAY DESTROY DATA) ⎩ R TO RETRY, P TO PROCEED ⎭											x		
						x		IFD142D OLTS WAITING FOR CHANNEL x, REPLY PROCEED OR CANCEL											x		
						x		IFD144D TIMEOUT, NO INTERRUPT - UNIT dddddddd. REPLY WAIT OR CANCEL											x		
						x		IFD145D IS dddddddd OFFLINE IN ALL SHARING SYSTEMS, REPLY YES OR NO											x		
						x		IFD146I SEE SRL - ONLINE TEST EXECUTIVE PROGRAM											x		
						x		IFD147I EXAMPLES OF DEVICE FIELD											x		
						x		IFD147I 181/ TEST DEVICE 181											x		
						x		IFD147I 185-187/ TEST DEVICES 185, 186, AND 187											x		
						x		IFD147I 285-286,184,E/ TEST DEVICES 285, 286, 184 AND SYMBOLIC E											x		
						x		IFD147I .CH282/ TEST CHANNEL 2											x		
						x		IFD147I .NDR/ NO DEVICE REQUIRED FOR TEST											x		
						x		IFD147I / (slash alone) TEST PREVIOUSLY SELECTED DEVICES											x		

Descriptor Codes								Message Texts	Routing Codes												
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
							x	IFD148I EXAMPLES OF TEST FIELD											x		
							x	IFD148I 2400/ TAPE TESTS											x		
							x	IFD148I 2400A/ SECTION A OF TAPE TEST 2400											x		
							x	IFD148I 2400C,2/ RTN. 2, SEC. C, TEST 2400											x		
							x	IFD148I 2400A-C,E,G/ SEC. A,B,C,E, AND G OF TEST 2400											x		
							x	IFD148I R2540AA/ SEC. AA OF READER TEST 1540											x		
							x	IFD148I / (slash alone)RUN PREVIOUSLY SELECTED TESTS											x		
							x	IFD149I TABLE OF OPTIONS											x		
							x	IFD149I TO REQUEST TO OMIT BY											x		
							x	IFD149I OPTION OPTION OPTION DEFAULT											x		
							x	IFD149I TESTING LOOP TL NTL NTL											x		
							x	IFD149I TL (VALUE) VAL=1-32767											x		
							x	IFD149I ERROR LOOP EL NEL NEL											x		
							x	IFD149I EL (VALUE) VAL=1-32767											x		
							x	IFD149I ERROR PRINT EP NEP EP											x		
							x	IFD149I CONTROL PRINT CP NCP CP											x		
							x	IFD149I PARALLEL PRINT PP NPP NPP											x		
							x	IFD149I REMOTE FE CONTROL RE NRE NRE											x		
							x	IFD149I PP (level) VAL=1-3											x		
							x	IFD149I FIRST ERROR COMMUNICATION FE NFE FE											x		
							x	IFD149I MANUAL INTER- VENTION MI NMI NMI											x		
							x	IFD149I PRINT PR NPR PR											x		
							x	IFD149I REMOTE RE NRE NRE											x		
							x	IFD149I ILLUSTRATIVE EXAMPLES OF OPTION FIELD											x		
							x	IFD149I OPT-SPECIFICATION OF OPTIONS											x		
							x	IFD149I PP, NMI, RE/											x		
							x	IFD149I EP, TL(5o),FE,EXT=A,B/											x		
							x	IFD150I TEST BYPASSED. xxxxxxxxxxxxx ON dddddddd											x		
							x	IFD151I TEST BYPASSED, CHANNEL NOT A 2880											x		
							x	IFD152I TEST BYPASSED, CHANNEL CONNOT BE QUIESCED											x		
							x	IFD153I TEST BYPASSED, CPU NOT SUPPORTED FOR CHANNEL TESTING											x		
							x	IFD154E message											x		
							x	IFD155I TEST SECTIONS MAY NOT EXCEED 26, WILL TEST xxx-xxx											x		
							x	IFD156I DEVICE dddddddd STATUS CHANGED, BYPASS TESTS											x		
							x	IFD157I CATASTROPHIC ERROR ON DEVICE dddddddd[name]											x		
							x	IFD158I ww xxxxx{ yyy }UNIT dddddddd { y $ }											x		
							x	IFD159I MODULE { xxxxxxxx / G0000ddd / aaaaaaaa } NOT FOUND											x		
							x	IFD160I INSUFFICIENT CORE											x		
							x	IFD161I FOR HELP ENTER PROMPT xxxx TO DEV/TEST/OPT/ MESSAGE											x		
							x	IFD162I UNIT dddddddd,DSNAME=xxxxxxxx COULT NOT BE SCRATCHED											x		

Figure 18. Routing and Descriptor Codes of OLTEP Message (Part 4 of 4)

Descriptor Codes								Message Texts	Routing Codes													
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
						x		IFD163I RETAIN/370 READY											x		
						x		IFD164I CANNOT LINK TO RETAIN/370											x		
						x		IFD165I ENTRY IN DEV FLD NOT ALLOWABLE BY REMOTE											x		
						x		IFD167I PERMANENT ERROR ON REI DEVICE											x		
						x		IFD168E TO COMMUNICATE WITH REMOTE SPECIALIST ENTER MESSAGE											x		
						x		IFD169I RETAIN/370 TERMINATED											x		
						x		IFD173I REPLY xx NOT VERIFIED											x		
						x		IFD174I UNABLE TO RESTORE LABEL ON DEVICE dddddddd											x		
						x		IFD176I MUTUALLY EXCLUSIVE OPTIONS HAVE BEEN SELECTED											x		
						x		IFD212I CANNOT DATA PROTECT DEVICE dddddddd											x		
						x		IFD255I message											x		
						x		IFD505I TIME INTERVAL EXPIRED, NO LINE ACTIVITY											x		

Figure 19. Routing and Descriptor Codes of Graphic
Programming Services Messages   **IFF**

Descriptor Codes								Message Texts	Routing Codes													
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
			x					IFF001I utn - REQUEST IGNORED - LACK OF STORAGE			x									x	
			x					IFF002I utn - REQUEST IGNORED - PERMANENT I/O ERROR			x									x	
			x					IFF003I utn - REQUEST IGNORED - NO 2250 BUFFER AVAILABLE			x									x	
			x					IFF004I utn - REQUEST IGNORED - OPEN FAILURE ON SYSBFDMP			x									x	
			x					IFF005I jjj,sss,utn,dev,ddn,op,			x								x	x	
			x					IFF005I err, {***,acs} {rel,acs} {trk,acs}			x								x	x	

Descriptor Codes								Message Texts	Routing Codes													
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
								IGF001W [S] {P B U} aaaaaa [CPU ID {1 2}]													
								IGF002W [S] SUPVR MC CPU ID {1 2}													
								IGF003W [S] UNEX MCI													
								IGF004W [S] PGM CHK CPU ID{1 2}													
			NONE					IGF006W [S] I/O ERR {CPU ID{1 2} cua}				NOTE 1								
								IGF010W S NOT M/xx CPU ID{1 2}													
								IGF011W S MCI-NIP CPU ID{1 2}													
								IGF012W [S] MCI-CCH {CPU ID{1 2} c}													
								IGF013W [S] SHAN ERR {CPU ID{1 2} c}													
			x					IGF014{I cua csw W S cua csw}			x										
			x					IGF015{I UNEX ERR W [S] UNEX ERR} ,hh.mm.ss			x										
			x					IGF020I ABEND,hh.mm.ss			x										
			x					IGF021I nnmnnnn			x										
			x					IGF022I RAM xx			x										
			x					IGF023I BLDL DLT,hh.mm.ss			x										
			x					IGF024I {P B U} address {S P} ,hh.mm.ss			x										
			x					IGF025I {MSTRSCHD ßßßßßßßß}			x										
			x					IGF026I {RDR xx WTR xx I/T xx SYTSK xx STC xx}			x										
			x					IGF027I STORAGE DAMAGE aaaaaa-bbbbbb JOB ABEND (DS OPEN)			x										
			x					IGF027I jjj(dsn) (dsn) ...; jjj(dsn);...			x										
			x					IGF028I I/O ERR			x										
			x					IGF029I csw,hh.mm.ss			x										
			x					IGF032I aaaaaa,hh.mm.ss			x										

Figure 20. Routing and Descriptor Codes of Machine-Chack Handler and
Dynamic Device Reconfiguration Messages (Part 2 of 3)

Descriptor Codes								Message Texts	Routing Codes													
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
		x						IGF033E RUN EREP,hh.mm.ss			x										
			x					IGF040I TSO {S R} {ND AB}			x										
			x					IGF041I STAT ERR,hh.mm.ss			x										
			x					IFD042I HSM-ERR,hh.mm.ss			x										
			x					IGF043I {HIR ECC} CNT,hh.mm.ss			x										
			x					IGF044I ECC SUCCESSFUL			x										
			x					IGF045I {MULT BIT x_1 x_2 x_3 / MULTIPLE BIT ERROR} ,hh.mm.ss			x										
			x					IGF046I n SEC xx,hh.mm.ss			x										
			x					IGF047I n BUFFER,hh.mm.ss			x										
			x					IGF048I HIR SUCCESSFUL,hh.mm.ss			x										
				x				IGF049I MODE STATUS SECTORS DELETED MULT	x												
				x				IGF049I HIR - mode ECC - mode 00-10 nnnnnnnnn status	x												
				x				IGF049I THR-dddddddddd THR-dddddddddd 11-21 nnnnnnnnnn BUFR	x												
				x				IGF049I CNT-dddddddddd CNT-dddddddddd 22-31 nnnnnnnnn status	x												
				x				IGF049I HIR, {R Q} ,aaaa/bbbb,cccc/dddd ECC, BUF DEL=xxxx	x												
x								IGF050W [S] TOD ERROR	1												
			x					IGF051I HRT ERROR,hh.mm.ss			x										
			x					IGF052I xxxx BUFF PG DELETED,hh.mm.ss			x										
				x				IGF053I MODE STATUS-ECC {QUIET RECORD} HIR {QUIET RECORD} COUNT-n THRESHOLD-n IGF053I MODE STATUS {RECORD QUIET} COUNT-n THRESHOLD-n BUFFER {ENABLED DISABLED}	x												
			x					IGF054E SYS1.LOGREC FULL,hh.mm.ss				x									
			x					IGF055I {QUIET MODE ECC / QUIET MODE} [,HIR],hh.mm.ss			x										
			x					IGF056I I/O ERR IN RECORDER,hh.mm.ss			x									x	
		x						IGF057E DISK FORMAT ERROR,hh.mm.ss			x									x	
					x			IGF061I MODE SWITCH COMPLETEQQ	x												
			x					IGF063I SVC BLDL DLT			x										
			x					IGF500I SWAP xxx TO yyy		x		o	o								
	x							IGF500D {REPLY 'YES', DEVC, OR 'NO' / REPLY 'YES' OR 'NO'}		x		o	o								
NONE								IGF501D SWAP SYSRES FROM xxx TO yyy	NOTE 1												

Descriptor Codes								Message Texts	Routing Codes												
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
			x					IGF503I ERROR ON yyy, SELECT NEW DEVICE	x		x										
			x					IGF504I AN ERP IS IN PROCESS FOR xxx			x										
			x					IGF505I SWAP FROM xxx TO yyy COMPLETE		x	x										
		NONE						IGF507A VOLUME ON DEVICE yyy UNIDENTIFIABLE, SWAP SYSRES TO zzz	NOTE 1												
			x					IGF508I OPERATOR INITIATED SWAP CANCELLED BY SYSTEM				x									
			x					IGF509I SWAP xxx	x			x									
	x							IGF509D REPLY DEVC, OR 'NO'	x			x									
			x					IGF510I SYSRES RESIDES ON xxx				x									
	x							IGF511A WRONG VOLUME MOUNTED ON yyy	x		x										
			x					IGF512I DDR TERMINATED		x	x										
			x					IGF513I yyy INVALID FOR SWAP	x	o	o										

Figure 21. Routing and Descriptor Codes of FORTRAN IV Object Program Messages

Descriptor Codes								Message Texts	Routing Codes												
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
	x							IHC001A PAUSE xx	x												
						x		IHC002I STOP x		x											

Figure 22. Routing and Descriptor Codes of COBOL E Object Program Messages

Descriptor Codes								Message Texts	Routing Codes												
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
						x		IHD980I I/O ERROR, jobname,stepname,unit address, device type,ddname,operation attempted,error description,actual block and track address in hex (shown in BBCCHHR format),QISAM.												x	
						x		IHD981I I/O ERROR ,jobname,stepname,unit address, device type,ddname,operation attempted,error description,block and track address,BISAM.												x	
						x		IHD982I I/O ERROR ,jobname,stepname,unit address, device type,ddname,operation attempted,error description,block and track address, BSAM/QSAM.												x	
						x		IHD983I I/O ERROR ,jobname,stepname,unit address, device type,ddname,operation attempted, error description,block and track address, BDAM.												x	
						x		IHD9841 AN ISAM FILE MAY NOT BE OPENED FOR OUTPUT MORE THAN ONCE.												x	

Descriptor Codes								Message Texts	Routing Codes												
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
						x		IHE003I SOURCE PROGRAM ERROR IN STATEMENT nnnnn												x	
						x		IHE004I INTERRUPT IN ERROR HANDLER – PROGRAM TERMINATED												x	
						x		IHE005I PSEUDO-REGISTER VECTOR TOO LONG – PROGRAM NOT EXECUTED												x	
						x		IHE006I NO MAIN PROCEDURE. PROGRAM TERMINATED.												x	
						x		IHE009I IHEDUM*. NO PLIDUMP DD CARD. EXECUTION TERMINATED.												x	
						x		IHE010I TASK TERMINATED BY OS. RETURN CODE = hhh (a hexadecimal number).												x	
						x		IHE011I KEY ERROR WHEN CLOSING FILE AT END OF TASK												x	
						x		IHE018I FILE name – FILE TYPE NOT SUPPORTED												x	
						x		IHE020I FILE name – ATTEMPT TO READ OUTPUT FILE												x	
						x		IHE021I FILE name – ATTEMPT TO WRITE INPUT FILE												x	
						x		IHE022I GET/PUT STRING EXCEEDS STRING SIZE												x	
						x		IHE023I FILE name – OUTPUT TRANSMIT ERROR NOT ACCEPTABLE												x	
						x		IHE024I FILE name – PRINT OPTION/FORMAT ITEM FOR NON-PRINT FILE												x	
						x		IHE025I DISPLAY – MESSAGE OR REPLY AREA LENGTH ZERO												x	
						x		IHE026I FILE name – DATA DIRECTED INPUT – INVALID ARRAY DATUM												x	
						x		IHE027I GET STRING – UNRECOGNIZABLE DATA NAME												x	
						x		IHE029I FILE name – UNSUPPORTED FILE OPERATION												x	
						x		IHE030I FILE name – REWRITE/DELETE NOT IMMEDIATELY PRECEDED BY READ												x	
						x		IHE031I FILE name – INEXPLICABLE I/O ERROR												x	
						x		IHE032I FILE name – OUTSTANDING READ FOR UPDATE EXISTS												x	
						x		IHE033I FILE name – NO COMPLETED READ EXISTS (INCORRECT NCP VALUE)												x	
						x		IHE034I FILE name – TOO MANY INCOMPLETE I/O OPERATIONS												x	
						x		IHE035I FILE name – EVENT VARIABLE ALREADY IN USE												x	
						x		IHE036I FILE name – IMPLICIT OPEN FAILURE, CANNOT PROCEED												x	
						x		IHE037I FILE name – ATTEMPT TO REWRITE OUT OF SEQUENCE												x	
						x		IHE038I FILE name – ENDFILE FOUND UNEXPECTEDLY IN MIDDLE OF DATA ITEM.												x	

Descriptor Codes								Message Texts	Routing Codes												
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
						x		IHE039I FILE name - ATTEMPT TO CLOSE FILE NOT OPENED IN CURRENT TASK												x	
						x		IHE100I FILE name - UNRECOGNIZABLE DATA NAME												x	
						x		IHE110I FILE name - RECORD CONDITION SIGNALED												x	
						x		IHE111I FILE name - RECORD VARIABLE SMALLER THAN RECORD SIZE												x	
						x		IHE112I FILE name - RECORD VARIABLE LARGER THAN RECORD SIZE												x	
						x		IHE113I ATTEMPT TO WRITE/LOCATE ZERO LENGTH RECORD												x	
						x		IHE114I FILE name - ZERO LENGTH RECORD READ												x	
						x		IHE120I FILE name - PERMANENT INPUT ERROR												x	
						x		IHE121I FILE name - PERMANENT OUTPUT ERROR												x	
						x		IHE122I FILE name - TRANSMIT CONDITION SIGNALED												x	
						x		IHE130I FILE name - KEY CONDITION SIGNALED												x	
						x		IHE131I FILE name - KEYED RECORD NOT FOUND												x	
						x		IHE132I FILE name - ATTEMPT TO ADD DUPLICATE KEY												x	
						x		IHE133I FILE name - KEY SEQUENCE ERROR												x	
						x		IHE134I FILE name - KEY CONVERSION ERROR												x	
						x		IHE135I FILE name - KEY SPECIFICATION ERROR												x	
						x		IHE136I FILE name - KEYED RELATIVE RECORD/TRACK OUTSIDE DATA SET LIMIT												x	
						x		IHE137I FILE name - NO SPACE AVAILABLE TO ADD KEYED RECORD												x	
						x		IHE140I FILE name - END OF FILE ENCOUNTERED												x	
						x		IHE150I FILE name - CANNOT BE OPENED, NO DD CARD												x	
						x		IHE152I FILE name - FILE TYPE NOT SUPPORTED												x	
						x		IHE153I FILE name - BLOCKSIZE NOT SPECIFIED												x	
						x		IHE154I FILE name - UNDEFINEDFILE CONDITION SIGNALED												x	
						x		IHE155I FILE name - ERROR INITIALIZING REGIONAL DATA SET												x	
						x		IHE156I FILE name - CONFLICTING ATTRIBUTE AND ENVIRONMENT PARAMETERS												x	
						x		IHE157I FILE name - CONFLICTING ENVIRONMENT AND/OR DD PARAMETERS												x	
						x		IHE158I FILE name - KEYLENGTH NOT SPECIFIED												x	

Descriptor Codes								Messages Texts	Routing Codes												
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
						x		IHE159I FILE name - INCORRECT BLOCKSIZE AND/OR LOGICAL RECORD SIZE IN STATEMENT NUMBER xxx												x	
						x		IHE160I FILE name - LINESIZE GREATER THAN IMPLEMENTATION DEFINED MAXIMUM LENGTH												x	
						x		IHE161I FILE name - CONFLICTING ATTRIBUTE AND DD PARAMETERS												x	
						x		IHE200I rtname - X LT 0 IN SQRT (X)												x	
						x		IHE202I rtname - X LT 0 IN LOG(X) OR LOG2(X) OR LOG10(X)												x	
						x		IHE203I rtname - ABS(X) GE (2**50)*K IN SIN(X) OR COS(X) (K=PI) OR SIND(X) OR COSD(X) (K=180)												x	
						x		IHE204I rtname - ABS(X) GE (2**50)*K IN TAN(X) (K=PI) OR TAND(X) (K=180)												x	
						x		IHE206I rtname - X=Y=0 IN ATAN(Y,X) AND ATAND(Y,X)												x	
						x		IHE208I rtname - ABS(X) GT 1 IN ATANH(X)												x	
						x		IHE209I rtname - X=0, Y LE 0 IN X**Y												x	
						x		IHE210I rtname - X=0, Y NOT POSITIVE REAL IN X**Y												x	
						x		IHE211I rtname - Z=+I OR -I IN ATAN(Z) OR Z=+1 OR -1 IN ATANH(Z)												x	
						x		IHE212I rtname - ABS(X) GE (2**18)*K IN SIN(X) OR COS(X) (K=PI) OR SIND(X) OR COSD(X) (K=180)												x	
						x		IHE213I rtname - ABS(X) GE (2**18)*K IN TAN(X) (K=PI) OR TAND(X) (K=180)												x	
						x		IHE300I OVERFLOW												x	
						x		IHE310I SIZE												x	
						x		IHE320I FIXEDOVERFLOW												x	
						x		IHE330I ZERODIVIDE												x	
						x		IHE340I UNDERFLOW												x	
						x		IHE350I STRINGRANGE												x	
						x		IHE360I AREA CONDITION RAISED IN ALLOCATE STATEMENT												x	
						x		IHE361I AREA CONDITION RAISED IN ASSIGNMENT STATEMENT												x	
						x		IHE362I AREA SIGNALED												x	
						x		IHE380I IHESTR - STRUCTURE OR ARRAY LENGTH GE 16**6 BYTES												x	
						x		IHE381I IHESTR - VIRTUAL ORIGIN OF ARRAY GE 16**6 OR LE -16**6												x	

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Descriptor Codes								Message Texts	*	Routing Codes											
1	2	3	4	5	6	7	8			1	2	3	4	5	6	7	8	9	10	11	12
						x		IHE400I DELAY STATEMENT EXECUTED - NO TIMER FUNCTION IN SYSTEM												x	
						x		IHE401I TIME STATEMENT EXECUTED - NO TIMER FUNCTION IN SYSTEM												x	
						x		IHE500I SUBSCRIPTRANGE												x	
						x		IHE501I CONDITION												x	
						x		IHE550I ATTEMPT TO WAIT ON AN INACTIVE AND INCOMPLETE EVENT												x	
						x		IHE551I TASK VARIABLE ALREADY ACTIVE												x	
						x		IHE552I EVENT ALREADY BEING WAITED ON												x	
						x		IHE553I WAIT ON MORE THAN 255 INCOMPLETE EVENTS												x	
						x		IHE554I ACTIVE EVENT VARIABLE AS ARGUMENT TO COMPLETION												x	
						x		IHE555I INVALID TASK VARIABLE AS ARGUMENT TO PRIORITY PSEUDO-VARIABLE												x	
						x		IHE556I EVENT VARIABLE ACTIVE IN ASSIGNMENT STATEMENT												x	
						x		IHE557I EVENT VARIABLE ALREADY ACTIVE												x	
						x		IHE558I ATTEMPT TO WAIT ON AN I/O EVENT IN WRONG TASK												x	
						x		IHE559I UNABLE TO CALL TASK DUE TO INSUFFICIENT MAIN STORAGE.												x	
						x		IHE560I UNABLE TO CALL TASK DUE TO MORE THAN 255 TASKS ACTIVE.												x	
						x		IHE571I TASK (name) TERMINATED. COMPLETION CODE= hhh.												x	
						x		IHE572I TASK (name) TERMINATED. COMPLETION CODE = hhh. EVENT VARIABLE OVERWRITTEN OR DESTROYED.												x	
						x		IHE573I TASK (name) TERMINATED. COMPLETION CODE = hhh. TASK VARIABLE OVERWRITTEN OR DESTROYED.												x	
						x		IHE574I TASK (name) TERMINATED. COMPLETION CODE = hhh. INVALID FREE STATEMENT.												x	
						x		IHE575I TASK (name) TERMINATED. COMPLETION CODE = hhh. DISPLAY STATEMENT. REPLY NOT WAITED FOR.												x	
						x		IHE576I TASK (name) TERMINATED. COMPLETION CODE = hhh. TOO MUCH MAIN STORAGE REQUESTED.												x	
						x		IHE577I TASK (name) TERMINATED WHILE STILL ACTIVE -- END OF BLOCK REACHED IN ATTACHING TASK.												x	
						x		IHE579I TASK (name) TERMINATED. COMPLETION CODE = hhh. ABNORMAL TERMINATION DURING PUT STATEMENT.												x	
						x		IHE600I CONVERSION CONDITION SIGNALED												x	
						x		IHE601I CONVERSION ERROR IN F-FORMAT INPUT												x	
						x		IHE602I CONVERSION ERROR IN E-FORMAT INPUT												x	
						x		IHE603I CONVERSION ERROR IN B-FORMAT INPUT												x	
						x		IHE604I ERROR IN CONVERSION FROM CHARACTER STRING TO ARITHMETIC												x	

Descriptor Codes								Message Texts		Routing Codes												
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
						x		IHE605I ERROR IN CONVERSION FROM CHARACTER STRING TO BIT STRING												x	
						x		IHE606I ERROR IN CONVERSION FROM CHARACTER STRING TO PICTURED CHARACTER STRING												x	
						x		IHE607I CONVERSION ERROR IN P-FORMAT INPUT (DECIMAL)												x	
						x		IHE608I CONVERSION ERROR IN P-FORMAT INPUT (CHARACTER)												x	
						x		IHE609I CONVERSION ERROR IN P-FORMAT INPUT (STERLING)												x	
						x		IHE700I INCORRECT E(W,D,S) SPECIFICATION												x	
						x		IHE701I F FORMAT W SPECIFICATION TOO SMALL												x	
						x		IHE702I A FORMAT W UNSPECIFIED AND LIST ITEM NOT TYPE STRING												x	
						x		IHE703I B FORMAT W UNSPECIFIED AND LIST ITEM NOT TYPE STRING												x	
						x		IHE704I A FORMAT W UNSPECIFIED ON INPUT												x	
						x		IHE705I B FORMAT W UNSPECIFIED ON INPUT												x	
						x		IHE706I UNABLE TO ASSIGN TO PICTURED CHARACTER STRING												x	
						x		IHE798I ONSOURCE OR ONCHAR PSEUDOVARIABLE USED OUT OF CONTEXT												x	
						x		IHE799I RETURN ATTEMPTED FROM CONVERSION ON-UNIT BUT SOURCE FIELD NOT MODIFIED												x	
						x		IHE800I INVALID OPERATION												x	
						x		IHE801I PRIVILEGED OPERATION												x	
						x		IHE802I EXECUTE INSTRUCTION EXECUTED												x	
						x		IHE803I PROTECTION VIOLATION												x	
						x		IHE804I ADDRESSING INTERRUPT												x	
						x		IHE805I SPECIFICATION INTERRUPT												x	
						x		IHE806I DATA INTERRUPT												x	
						x		IHE810I PROTECTION EXCEPTION UNPROCESSED AFTER MULTIPLE-EXCEPTION IMPRECISE INTERRUPT												x	
						x		IHE811I ADDRESSING EXCEPTION UNPROCESSED AFTER MULTIPLE-EXCEPTION IMPRECISE INTERRUPT												x	
						x		IHE812I SPECIFICATION EXCEPTION UNPROCESSED AFTER												x	
						x		IHE813I DATA EXCEPTION UNPROCESSED AFTER MULTIPLE-EXCEPTION IMPRECISE INTERRUPT												x	
						x		IHE814I ZERODIVIDE UNPROCESSED AFTER MULTIPLE-EXCEPTION IMPRECISE INTERRUPT												x	

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Figure 23. Routing and Descriptor Codes of PL/I Object
Program Messages (Part 6 of 6)

Descriptor Codes								Message Texts	Routing Codes												
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
						x		IHE815I OVERFLOW UNPROCESSED AFTER MULTIPLE-EXCEPTION IMPRECISE INTERRUPT												x	
						x		IHE900I TOO MANY ACTIVE ON-UNITS AND ENTRY PARAMETER PROCEDURES												x	
						x		IHE902I GOTO STATEMENT REFERENCES A LABEL IN AN INACTIVE BLOCK												x	

Descriptor Codes								Message Texts	Routing Codes												
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
				NONE				IHG001I NO BLANK AFTER OP (image of control card)												NOTE 8	
								IHG002I OP CODE IN ERROR (image of control card)													
								IHG003I OPERAND IN ERROR (image of control card)													
								IHG004I NOT AN UAP CTL CARD (image of control card)													
								IHG005I PRIOR CARD THIS TYPE (image of control card)													
								IHG006I IS NOT CONT OF PREV (image of control card)													
								IHG007I LAST CARD PROCESSED EXPECTED A CONTINUATION NONE ENTERED													
								IHG008I LIBSEQ CARD MISSING OR CARD NUMBER DUPLICATED													
								IHG009I ALIAS TABLE IS FULL (image of control card)													
								IHG010I DATA TABLE IS FULL (image of control card)													
								IHG011I NO SPACE/BASE JOB CD													
								IHG012I LIBSEQ TABLE IS FULL (image of control card)													
								IHG013I IHGUAP PARM ERROR													
								IHG014I CARD FORMAT ERROR													
								IHG015I DU/DP DATA MISSING													
								IHG016I FELIB TABLE IS FULL (image of control card)													
								IHG017I FEITEM TABLE IS FULL (image of control card)													
								IHG018I DUPLICATE ALIAS CARD (image of alias card)													
								IHG021I DISTN ERROR. CHANGE TYPE SHOULD BE M OR R OR D.													
								IHG022I DISTN ERROR. CT HDR CARD MISSING OR MISPUNCHED.													
								IHG023I BLDL PERM I/O ERROR.													
								IHG024I DISTN ERROR. DISTN CTL CARD MISSING OR MISPUNCHED.													
								IHG025I DISTN ERROR. SYSLIN DD CARD MISSING OR MISPUNCHED.													
								IHG026I DISTN ERROR. LE EXEC CARD MISSING OR MISPUNCHED.													
								IHG027I DISTN ERROR. CHANGE TYPE SHOULD BE A OR R.													
								IHG031I member HAS BEEN DELETED.													
								IHG032I member WAS NOT IN DIRECTORY.													
								IHG033I member, PERM I/O ERROR.													
								IHG040I NO CHANGE TO LIBRARY ON LIBSEQ CARD libname													

Figure 24. Routing and Descriptor Codes of Maintenance
Program Analyzer Messages (Part 2 of 2)

Descriptor Codes								Message Texts	Routing Codes													
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
								IHG041I changepds member name DIST CTL CD MEMBER OR LIBRARY NAME ERROR	NOTE 8												
		NONE						IHG042I TABLE AREA OVERFLOW													
								IHG043I I/O ERROR													
								IHG044I changepds NOT PROCESSED													
								IHG050I UPDATE ANALYSIS COMPLETED													

Figure 25. Routing and Descriptor Codes of ALGOL Object Program Messages

Descriptor Codes								Message Texts	Routing Codes													
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
						x		IHI032I SC=nnnnn DSN=nn. UNRECOVERABLE I/O ERROR												x	
						x		IHI041I SC=nnnnn DSN=nn. DD CARD INCORRECT OR MISSING												x	

Figure 26. Routing and Descriptor Codes of Checkpoint/Restart Messages

Descriptor Codes								Message Texts	Routing Codes													
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
					x			IHJ000I CHKPT jjj [(ddn)] NOT TAKEN (xx)		x										x	
					x			IHJ001I jjj (ddn,utn,ser) INVLD checkid (xx)		x										x	
				x				IHJ002I jjj (ddn,utn,ser) ERROR checkid		x										x	
				x				IHJ004I jjj (ddn,utn,ser) CHKPT checkid		x										x	
				x				IHJ005I jjj (ddn,utn,ser) ENQS checkid		x										x	
					x			IHJ006I jjj RESTARTING AT {wwwwww xxxxxx / yyyyyy zzzzzz / wwwwww xxxxxx yyyyyy zzzzzz}		x											
					x			IHJ007I RESTART NOT SUCCESSFUL FOR jjj (xx,ddd)		x										x	
					x			IHJ008I jjj RESTARTED		x										x	

Figure 27. Routing and Descriptor Codes of Remote Job Entry and Conversational Remote Job Entry Messages (Part 1 of 5)

Descriptor Codes 1	2	3	4	5	6	7	8	Message Texts	*	R1	2	3	4	5	6	7	8	9	10	11	12
			x					IHK000I RJSTART ACCEPTED termid unitname		x											
				x				IHK001I uuuu kkk {OFF / OFF termid / ON termid unitname} / NO USERS IN DIRECTORY	x												
			x					IHK003I RJEND ACCEPTED termid		x											
				x				IHK004I NO JOB(S) IN SYSTEM [jobname]	x												
					x			IHK005I JOB(S) NOT COMPLETE jobname userid	x												
					x			IHK007I JOB DELETED jobname		x											
			x					IHK011I MSG PENDING STARTUP {NONE / termid / termid NONE}	x												
			x					IHK012I MSG QUEUED FOR DELIVERY {userid / termid / TERMINALS}		x											
			x					IHK013I MSG IGNORED {userid / termid / DISK ERROR}		x											
			x					IHK014I MAX JOBS EXCEEDED jobname		x											
			x					IHK016I RJE CLOSED DOWN		x											
				x				IHK019I JOB WAITING DELIVERY jobname	x												
				x				IHK025I START RJE REJECTED	x												
					x			IHK026I CENOUT jobname (class,....,class)	x												
				x				IHK027I termid {I / A unitname / P unit uuu} / NO ACTIVE WORK STATIONS	x												
				x				IHK028I jobname uuu {aaa / N/A} {COMP / INCP} {I / D nnn} / NO DEFERRED OUTPUT uuu	x												
				x				IHK030I DELETED FROM USER DIRECTORY userid key	x												
				x				IHK031I ADDED TO USER DIRECTORY userid key	x												
				x				IHK032I USER DIRECTORY FULL userid key	x												
				x				IHK033I MSGS DELETED FOR WORK STATION termid	x												
				x				IHK034I MSG CANNOT BE ADDED {BRDCST / DELAYED} termid	x												
				x				IHK035I INVALID SLOT NUMBER BRDCST	x												

R/D

Figure 27. Routing and Descriptor Codes of Remote Job Entry and
Conversational Remote Job Entry Messages (Part 2 of 5)

Descriptor Codes								Message Texts	Routing Codes													
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
				x				IHK036I BRDCST {NONE / nn message}	x												
			x					IHK037I INFORM INACTIVE WORK STATION jobname userid termid {N / O}			x										
				x				IHK038I INVALID LINENAME SHOW	x												
				x				IHK040I INVALID USERID operation	x												
				x				IHK041I INVALID PROTECTION KEY userid	x												
				x				IHK042I INVALID TERMID operation	x												
				x				IHK047I REQD PARAMETER MISSING operation	x												
				x				IHK048I ILLEGAL DELIMITER operation	x												
				x				IHK049I ILLEGAL CONTINUATION operation	x												
				x				IHK050I UNDEFINED KEYWORD operation	x												
				x				IHK051I MULTIPLE USE OF KEYWORD operation	x												
				x				IHK055I INCORRECT TEXT LENGTH operation	x												
			x					IHK060I ABNORMAL CENTRAL CLOSEDOWN			x										
					x			IHK061I OUT OF SPACE {SYSIN jobname / SYS1.SYSJOBQE / EMITTER WORKAREA}			x										
			x					IHK063I DISK ERROR {WRITING TABLE ENTRY (1) / ROLLIN TABLES RJE ABORTED (2) / BRDCST DIRECTORY (3) / BRDCST MSG (4) / DELAYED MSG DIRECTORY (5) / DELAYED MSG (6) / JED [jobname/PURGE SYSTEM] (7) / Q MGR RJE ABORTED (8) / Q MGR (jobname) (9) / (volume serial jobname ddname) (10) / IN CLOSEDOWN (11) / addr,dev,ddname,op,err,trkaddr, accmeth (12) / INITIALIZATION UNABLE TO OPEN ddname (13) / INITIALIZATION I/O ERROR ON ddname (14)}			x		x						x		
			x					IHK064I LINE xxx NOT OPERATIONAL			x										
			x					IHK065I UNABLE TO OPEN DDNAME=xxxxxxxx			x										
			x					IHK066I termid NOW RESPONDING TO POLLING			x										
			x					IHK067I termid NOT RESPONDING TO POLLING			x										
				x				IHK068I RJE SUBTASK ABENDED			x										
			x					IHK069I LINE xxx DEFINED INCORRECTLY			x										
			x					IHK070I SYSOUT VOLUME NOT FOUND ser jjj ddn			x										
				x				IHK200I LOGOFF userid	x												
				x				IHK201I ACTIVE CRJE USER userid lineaddress time	x												

Descriptor Codes								Message Texts	Routing Codes												
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
				x				IHK202I USERID INVALID/NOT FOUND {SHOW / MSG / USERID} ICR userid	x												
				x				IHK203I START OF CRJE MESSAGES	x												
				x				IHK204I USERID PREVIOUSLY ASSIGNED userid	x												
				x				IHK205I INVALID PASSWORD password	x												
				x				IHK206I TEXT MUST BE 1 TO 40 CHARACTERS LONG {BRDCST / MSG} chars	x												
				x				IHK207I DELETED FROM USER LIST-userid	x												
				x				IHK208I ADDED TO USER LIST-userid	x												
				x				IHK209I MSG NOT SAVED BRDCST chars	x												
				x				IHK210I LINE ADDRESS INVALID/NOT FOUND lineaddress	x												
				x				IHK211I JOB NOT IN SYSTEM jobname	x												
			x					IHK212I LOGON userid	x												
				x				IHK213I END OF CRJE MESSAGES	x												
				x				IHK214I CENOUT jobname	x												
				x				IHK215I START CRJE REJECTED	x	x											
			x					IHK216I DISK ERROR {ACTIVE AREA / CRJE.SYSLIB} {START / (dsname)}				x							x		
				x				IHK217I CRJE BROADCAST MESSAGES START	x												
				x				IHK218I CRJE BROADCAST MESSAGES END	x												
			x					IHK219I OUT OF MAIN STORAGE [START]			x										
			x					IHK220I nnn LINE NOT OPERATIONAL									x	x			
				x				IHK221I LOGONS SUPPRESSED	x												
			x					IHK222I ABNORMAL CRJE CLOSEDOWN			x										
			x					IHK223I CRJE NOW ACTIVE			x										
				x				IHK225I CRJE BROADCAST MESSAGE(S) DELETED [nnnn]	x												
				x				IHK226I OPERAND MISSING/INVALID command operand	x												
				x				IHK227I NO JOBS IN SYSTEM	x												
			x					IHK228I UNABLE TO OPEN {ACTIVE / ddname} [RLN=xxxx]			x						x	x			
				x				IHK229I LOGONS RESUMED	x												

Figure 27. Routing and Descriptor Codes of Remote Job Entry and
Conversational Remote Job Entry Messages (Part 4 of 5)

Descriptor Codes								Message Texts	*	Routing Codes											
1	2	3	4	5	6	7	8			1	2	3	4	5	6	7	8	9	10	11	12
			x					IHK230I CRJE CLOSED DOWN			x										
				x				IHK231I JOB NOT COMPLETE jobname [userid]	x												
				x				IHK232I NO CRJE BROADCAST MESSAGES	x												
				x				IHK233I NO CRJE DELAYED MESSAGES [userid]	x												
			x					IHK234I ACTIVE AREA NOT ON SUPPORTED DEVICE			x										
			x					IHK235I DD CARD NOT IN PROCEDURE ddname			x										
			x					IHK236I MAXIMUM NO. OF CRJE USER MESSAGES REACHED			x										
				x				IHK237I MAXIMUM BRDCST INDENTIFIER EXCEEDED - LAST=nnnn	x												
				x				IHK238I SPECIFIC SHOW SESS MAXIMUM EXCEEDED - userid	x												
				x				IHK239I SHOW SESS NOT IN EFFECT [userid]	x												
			x					IHK240I ACTIVE AREA OUT OF SPACE			x										
			x					IHK241I LIBRARY I/O ERROR ddname CRJE.LIB.userid				x							x		
			x					IHK242I ACTIVE AREA I/O ERROR-ABNORMAL CRJE CLOSEDOWN			x	x							x		
				x				IHK243I LINE BEING ACTIVATED lineaddress	x												
				x				IHK244I LINE DEACTIVATED lineaddress	x												
				x				IHK245I {nnn}{NO} ACTIVE CRJE USERS	x												
			x					IHK246I QUEUE MANAGER DISK ERROR [jobname]			x	x							x		
				x				IHK247I NO CRJE USERS	x												
				x				IHK248I INACTIVE CRJE USER userid	x												
				x				IHK249I SHOW SESS IN EFFECT [userid]	x												
				x				IHK250I SHOW SESS RELEASED [userid]	x												
				x				IHK251I LINE NOT ACTIVE lineaddress	x												
				x				IHK252I USER LIST FULL [userid]	x												
				x				IHK253I JOB WAITING DELIVERY jobname	x												
				x				IHK254I ILLEGAL DELIMITER command operand	x												
				x				IHK255I MESSAGES DELETED FOR userid	x												
				x				IHK256I MSG QUEUED FOR DELIVERY userid	x												
				x				IHK257I JOB COMPLETE jobname userid	x												
				x				IHK258I MODIFY BEING PROCESSED lineaddress	x												
				x				IHK259I INVALID BRDCST IDENTIFIER operand	x												

Descriptor Codes								Message Texts	*	Routing Codes											
1	2	3	4	5	6	7	8			1	2	3	4	5	6	7	8	9	10	11	12
			x					IHK260I CRJE,aaa,bb,cccccccc,dddddd, eeeeeeeeeeeeeee,fffffffffffffff, gggggg,hhh			x										
			x					IHK261I ACTIVE AREA CONTAINS MULTIPLE EXTENTS			x										
				x				IHK263I REQUIRED PARAMETER MISSING {START} {EXEC}	x		x										
				x				IHK265I LINE ALREADY ACTIVE lineaddress	x												
			x					IHK267I MAXIMUM NO. OF CRJE BROADCAST MESSAGES REACHED			x										
				x				IHK268I CRJE BRDCST MESSAGE ADDED nnnn	x												
				x				IHK269I CRJE BRDCST MESSAGE REPLACED nnnn	x												
			x					IHK270I ACTIVE AREA I/O ERROR			x	x						x			
				x				IHK272I JOB DELETED jobname	x												
			x					IHK273I OUT OF SPACE CRJE.SYSLIB (dsname)			x	x						x			
			x					IHK274I CRJE SUBTASK ABEND xxx			x										

Figure 28. Routing and Descriptor Codes for Generalized Trace Facility Messages (Part 1 of 2)

Descriptor Codes								Message Texts	Routing Code													
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
	x							IHL001A INVALID KEYWORD. RESPECIFY PARAMETERS OR REPLY U			x										
	x							IHL002A INVALID DELIMETER. RESPECIFY PARAMETERS OR REPLY U			x										
	x							IHL003A INVALID OPERAND. RESPECIFY PARAMETERS OR REPLY U			x										
	x							IHL004A KEYWORD(S) REPEATED. RESPECIFY PARAMETERS OR REPLY U			x										
			x					IHL005I NO TIMESTAMP -- TIMER NOT WORKING			x										
			x					IHL006I GTF ACKNOWLEDGES STOP COMMAND			x										
			x					IHL007I GTF TERMINATING ON ERROR CONDITION			x										
			x					IHL012I SYSPRINT DD STATEMENT NOT SUPPLIED			x									x	
			x					IHL013I GTF ACTIVE FROM A PREVIOUS START COMMAND.			x									x	
			x					IHL014I UNSUCCESSFUL OPEN SYSPRINT DATA SET			x									x	
			x					IHL015I STAE REQUEST UNSUCCESSFUL			x									x	
			x					IHL016I GTF INITIALIZATION UNSUCCESSFUL			x									x	
			x					IHL021I IEFRDER DD STATEMENT NOT SUPPLIED			x										
			x					IHL022I OPEN FAILURE FOR TRACE DATA SET			x										
			x					IHL023I INSUFFICIENT ALLOCATED BUFFER SIZE -- DEFAULT ASSIGNED			x										
			x					IHL031I GTF INITIALIZATION COMPLETE			x										
			x					IHL034I WARNING -- INSUFFICIENT CORE FOR ABEND			x										
	x							IHL100A SPECIFY TRACE OPTIONS			x										
	x							IHL101A SPECIFY TRACE EVENT KEYWORDS -- keyword,...,keyword			x										
	x							IHL102A CONTINUE TRACE DEFINITION OR REPLY END			x										
			x					IHL103I TRACE OPTIONS SELECTED -- value,value,...,value			x										
	x							IHL104A TRACE= KEYWORD NOT SPECIFIED			x										
	x							IHL105A SYNTAX ERROR. IMPROPER DELIMITER			x										
	x							IHL106A NO OPTIONS SPECIFIED			x										
	x							IHL107A SYNTAX ERROR. MISSING COMMA			x										
	x							IHL108A INVALID OPTION SPECIFIED -- opt			x										
	x							IHL109A INVALID DEVICE SPECIFIED -- cuu			x										
	x							IHL110A INVALID EVENT KEYWORD SPECIFIED			x										
	x							IHL111A UNBALANCED PARENTHESIS IN KEYWORD keywd			x										

Figure 28.   Routing and Descriptor Codes for Generalized
             Trace Facility Messages (Part 2 of 2)

Descriptor Codes								Message Texts	Routing Code													
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
	x							IHL112A UNALLOWABLE KEYWORD FOR THE PROMPTING SEQUENCE -- Keywd			x										
	x							IHL113A LMT ERROR. EXCEEDED 50 DEVICES FOR IO=			x										
								IHL114A LMT ERROR. EXCEEDED 50 DEVICES FOR SIO=			x										
	x							IHL115A INVALID INTERRUPT CODE SPECIFIED			x										
	x							IHL116A INVALID SVC NUMBER SPECIFIED			x										
	x							IHL117A LMT ERROR. EXCEEDED 50 SVC NUMBERS			x										
			x					IHL118I ERROR IN IHLxxxx. yyy DISABLED. TIME=hh.mm.ss			x										
			x					IHL120I INVALID SYSTEM FOR GTF -- INITIALIZATION TERMINATED			x										
			x					IHL121I SYS1.PARMLIB INPUT INDICATED			x										
			x					IHL122I MEMBER NOT SPECIFIED. PARMLIB IGNORED			x										
			x					IHL123I MEMBER ddn NOT FOUND. PARMLIB IGNORED			x										
			x					IHL124I GTF PARMLIB INPUT ERROR			x										
	x							IHL125A RESPECIFY TRACE OPTIONS OR REPLY U			x										
	x							IHL126A ILLEGAL SPECIFICATION OF TRACE OPTIONS			x										
			x					IHL127I GTF PARMLIB I/O ERROR text			x										
			x					IHL128I GTF MODULE mod NOT FOUND			x										
			x					IHL130I INSUFFICIENT CORE FOR TRACE INITIALIZATION			x									x	
			x					IHL131I GTF PARMLIB ERROR DURING OPEN -- ccc			x										

Figure 29. Routing and Descriptor Codes of Graphic Job Processor
and Satellite Graphic Job Processor Messages (Part 1 of 2)

Descriptor Codes								Message Texts	*	Routing Codes											
1	2	3	4	5	6	7	8			1	2	3	4	5	6	7	8	9	10	11	12
			x					IKA001I utn - GWRITE REG 15 = dd			x										
			x					IKA002I utn - GCNTRL ALM, REG 15 = dd			x										
			x					IKA003I utn - GCNTRL STR, REG 15 = dd			x										
			x					IKA004I utn - GCNTRL RMV, REG 15 = dd			x										
			x					IKA005I utn - GREAD CUR, REG 15 = dd			x										
			x					IKA006I utn - BUF SEG OVFL			x										
			x					IKA007I utn - OF UNKNOWN ORIGIN			x										
			x					IKA008I utn - CST ENTRY NOT ON FULLWORD BOUNDARY			x										
			x					IKA011I utn - lmd - OCTxxxxx ERR			x										
				x				IKA013I prm BAD KEY	x												
			x					IKA024I utn - EXTRACT RECORD, UNKNOWN KEY			x										
			x					IKA029I utn - lmd - BAD POST CODE			x										
			x					IKA032I utn PSTENTRY LNG INVALID			x										
			x					IKA035I utn - lmd - CCTCCR VIOLATION			x										
			x					IKA037I utn LOG ON			x										
				x				IKA040I prm PARM LNG INVALID	x												
				x				IKA041I MAKE prm ⎧ALPHA ⎫ ⎨NUMERIC ⎬ ⎩A THRU O⎭	x												
				x				IKA042I prm INVALID	x												
				x				IKA043I DONT USE MODIFY	x												
			x					IKA044I I/O ERR, GFX			x										
	x							IKA045E INFORM USER ON utn			x										
				x				IKA046I START GFX IGNORED	x												
			x					IKA047I jjj - SYSOUT FOR Y DELETED			x										
			x					IKA048I jjj SYSOUT ON Y			x										
			x					IKA049I DEQ ERR, CODE=hh			x										
			x					IKA050I utn LOG OFF			x										
	x							IKA051E GFX READY	x		x										
				x				IKA053I MAKE MSGF UNIQUE	x												
				x				IKA054I GFX STOPPED	x		x										
			x					IKA055I utn UNSUCCESSFUL SPAR dd			x										

Descriptor Codes								Message Texts	Routing Codes												
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
			x					IKA056I utn OPEN dsn DCB UNSUCCESSFUL			x										
			x					IKA057I utn INSUFF BUFFER			x										
			x					IKA058I utn ASGNBFR ERR dd			x										
			x					IKA059I utn INVALID UNIT ADDRESS IN CIB			x										
			x					IKA060I lmd GETMAIN UNSUCCESSFUL			x										
			x					IKA061I utn END OF DATA ON dsn			x										
			x					IKA062I utn I/O ERR READING dsn			x										
			x					IKA063I utn - NO JOBCLASS Y, $\begin{Bmatrix} I \\ R \\ S \end{Bmatrix}$	x												
			x					IKA064I utn - PARTITION SIZE TOO SMALL FOR Y, $\begin{Bmatrix} I \\ R \\ S \end{Bmatrix}$	x												
			x					IKA065I utn - PARTITIONS FOR Y BUSY $\begin{Bmatrix} I \\ R \\ S \end{Bmatrix}$	x												
			x					IKA066I utn QUEUED ON Pnn	x												
			x					IKA067I utn - NO PARTITION OF SCHEDULER SIZE FOR Y, $\begin{Bmatrix} I \\ R \end{Bmatrix}$	x												
			x					IKA068I utn - I/O ERROR - xxxx			x								x		
			x					IKA999I utn lmd ddd			x										

Figure 30.   Routing and Descriptor Codes of Satellite
Graphic Job Processor Messages

Descriptor Codes								Message Texts	*	Routing Codes											
1	2	3	4	5	6	7	8			1	2	3	4	5	6	7	8	9	10	11	12
	x							IKD001D utn - INITIALIZATION FAILURE			x										
	x							IKD002D utn - LINE ERROR			x						x				
	x							IKD003D utn - SYNCHRONIZATION ERROR			x										
		x						IKD005I utn - DCB NOT OPENED			x						x				

Figure 31.   Routing and Descriptor Codes of American
National Standard COBOL Messages

Descriptor Codes								Message Texts	*	Routing Codes											
1	2	3	4	5	6	7	8			1	2	3	4	5	6	7	8	9	10	11	12
	x							IKF000A- xxx			x									x	
					x			IKF111I- EXCEPTIONAL I/O CONDITION SENSED PROCESSING ddname			x									x	
					x			IKF888I- 'UNSUCCESSFUL SORT FOR sort-file-name'			x									x	
	x							IKF990D- 'AWAITING REPLY'			x									x	
					x			IKF999I- UNSUCCESSFUL OPEN FOR ddname.			x									x	
					x			IKF0003I-D message			x									x	

Figure 32. Routing and Descriptor Codes of TSO Messages (Part 1 of 5)   **IKJ**

Descriptor Codes								Operator Messages	*	Routing Codes											
1	2	3	4	5	6	7	8			1	2	3	4	5	6	7	8	9	10	11	12
		x						IKJ000I cm userid		x											
	x							IKJ001D START ERROR - REPLY, 'MEMBER NAME', 'U',OR 'CANCEL'	x												
	x							IKJ002D START ERROR - REPLY, 'LIST', 'U', OR 'CANCEL'	x												
	x							IKJ003D START ERROR - REPLY, 'FORM', 'FORM=ALL', 'U', OR 'CANCEL'	x												
				x				IKJ004I START REJECTED - OPEN FOR SYS.PARMLIB	x												
				x				IKJ005I MEMBER OF SYS1.PARMLIB NOT FOUND	x												
				x				IKJ006I START REJECTED - I/O ERROR READING SYS1.PARMLIB	x												
				x				IKJ007I START REJECTED - TIME SHARING IS IN PROCESS	x												
				x				IKJ008I BLDL FAILED FOR MODULE mod FOR TSO LINK PACK AREA	x												
				x				IKJ009I START REJECTED - BLDL FAILED FOR A TSO MODULE	x												
				x				IKJ010I START REJECTED - BLDL FAILED FOR A TSO DRIVER MODULE, mod	x												
				x				IKJ011I START REJECTED - MODULE, mod, COULD NOT INITIALIZE	x												
				x				IKJ012I DRIVER=(PARAMETER DOES NOT HAVE A RIGHT PARENTHESIS	x												
				x				IKJ013I {LPA= } PARAMETER IS NOT ALLOWED ON THE START {DUMP=} COMMAND	x												
				x				IKJ014I START REJECTED - I/O ERROR SEARCHING	x												
				x				IKJ015I THE TIME SHARING SYSTEM CANNOT BE INITIALIZED	x												
				x				IKJ016I REGNMAX=nn - REGIONS STARTED=xx	x		x										
				x				IKJ017I SMF NOT ACTIVE, SMF PARAMETER IGNORED	x												
				x				IKJ018I SMF OPI BIT IS SET - SMF PARAMETER IGNORED	x												
				x				IKJ019I TSO IS INITIALIZED	x		x										
				x				IKJ021I START REJECTED - INVALID CORE REQUEST FOR TSC REGION	x												
	x							IKJ024D TSO STOP IN PROGRESS, REPLY 'U' OR 'FSTOP'			x										
		x						IKJ025I TSO UNABLE TO TERMINATE DUE TO REGION FAILURE			x										
				x				IKJ026I HOLD AND REGSIZE SPECIFIED FOR SAME REGION=n	x												
	x							IKJ027D REPLY 'HOLD', 'REGSIZE','U', OR 'CANCEL'	x												
				x				IKJ030I ddname,xxxxx,yyyyy SWAP DATA SET FORMAT	x												
		x						IKJ031I SWAP DATA SET(S) ARE FULL			x										
				x				IKJ033I ddname SWAP DATA SET OPEN FAILED	x										x	
	x							IKJ034D FORMAT ddname SWAP DATA SET, REPLY 'YES' OR 'NO'	x												

| 1	2	3	4	5	6	7	8	Operator Messages	*	1	2	3	4	5	6	7	8	9	10	11	12
				x				IKJ035I ddd INVALID SWAP DEVICE,ddname	x												
				x				IKJ036I SWAP DATA SET STRUCTURE INVALID	x												
			x					IKJ037I I/O ERROR WHILE SWAPPING OUT TJID=xxxx			x										
	x							IKJ040D RESPECIFY 'BACKGROUND=nn' OR 'CANCEL'	x												
				x				IKJ041I BACKGROUND PERCENTAGE INVALID	x												
	x							IKJ043D RQEL PARM NOT SUPPLIED FOR REGION nn SPECIFY OR CANCEL	x												
				x				IKJ050I UNABLE TO START TS REGION nn - PROTECTION KEY UNAVAILABLE	x												
				x				IKJ051I TIME SHARING REGION nn HAS TERMINATED	x		x										
				x				IKJ052I TIME SHARING REGION nn HAS STARTED	x		x										
				x				IKJ053I INSUFFICIENT MAIN STORAGE AVAILABLE FOR TS REGION nn	x												
	x							IKJ054D REPLY 'RETRY' OR 'CANCEL'	x												
		x						IKJ055I TIME SHARING REGION xx HAS FAILED - TSO CANNOT BE TERMINATED			x										
		x						IKJ060I START REJECTED - UNABLE TO ESTABLISH A STAE ENVIRONMENT			x										
				x				IKJ061I THIS KEYWORD IS INVALID - cccccccc=nnnn	x												
		x						IKJ062I TSO REGION nn NO LONGER AVAILABLE FOR LOGONS		x								x			
				x				IKJ063I THIS KEYWORD IS MISSING - cccccccc	x												
				x				IKJ064I THE VALUE OF THIS KEYWORD IS INVALID - cccccccc=nnnn	x												
	x							IKJ066D REPLY 'keyword=value', ['U'] or 'CANCEL'	x												
				x				IKJ067I THE ABOVE KEYWORD AND ITS VALUE WILL BE IGNORED	x												
				x				IKJ072I cccccccc=nnnn EXCEEDS MAXIMUM OF max	x												
				x				IKJ073I REGION nn NOT ACTIVE, REGSIZE/HOLD IGNORED	x												
				x				IKJ074I nn DOES NOT EXIST, REGSIZE INVALID	x												
				x				IKJ075I TSO/SMF OPTIONS CANNOT EXCEED aaaaa bbbbb	x												
				x				IKJ076I SUM OF REGSIZE AND LSQA EXCEEDS MAX - 16382	x												
				x				IKJ078I jjj sss TSO IS STOPPING	x		x										
				x				IKJ079I jjj sss TSO HAS BEEN MODIFIED	x												
				x				IKJ080I TSO MODIFY CANCELLED BY OPERATOR	x												
			x					IKJ085I TSO MODIFY/STOP SUBTASK TERMINATED			x										
			x					IKJ086I REGION nn HAS FAILED, REGSIZE/HOLD IGNORED			x										

Figure 32. Routing and Descriptor Codes of TSO Messages (Part 3 of 5) **IKJ**

Descriptor Codes								Operator Messages	Routing Codes												
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
				x				IKJ090I TSO DUMP FUNCTION INOPERATIVE	x												
				x				IKJ091I TSO DUMP DATA SET ON INVALID DEVICE	x												
				x				IKJ092I TSO DUMP INCOMPLETE - UNABLE TO DUMP ALL OF STORAGE	x												
			x					IKJ093I TSO MAIN STORAGE DUMP COMPLETE [SWAP UNITS RESERVED]			x										
				x				IKJ094I TSO DUMP OF MAIN STORAGE BYPASSED	x												
			x					IKJ095I ddd TSO UNIT, DUMP DATA SET FULL			x										
				x				IKJ401I START TCAM BEFORE TSO	x												
				x				IKJ402I TCAM PROCEDURE DOES NOT SUPPORT TSO	x												
					x			IKJ403I LINEGROUP FOR DD ddn NOT OPENED			x										
			x					IKJ500I BRDR OPEN ERROR code			x										
			x					IKJ501I BRDR INVALID INPUT			x										
			x					IKJ502I BRDR SYNAD synad			x										
			x					IKJ503I BRDR REQUIRED DD MISSING FROM PROC			x										
			x					IKJ504I BRDR R/I ERROR code			x										
			x					IKJ505I BRDR PARAMETER MISSING			x										
			x					IKJ506I BRDR MISSING VOL volser FOR JOB jjj			x										
			x					IKJ507I BRDR INCONSISTENT VOLSER/DEVICE volser devtype			x										
			x					IKJ508I BRDR DATA SET NOT FOUND ON VOL volser FOR JOB 'jjj'			x										
			x					IKJ509I BRDR QUEUE READ ERROR			x										
			x					IKJ510I BRDR QUEUE DELETE ERROR			x										
			x					IKJ511I BRDR QUEUE DEQUEUE ERROR			x										
			x					IKJ512I BRDR QUEUE ENQUEUE ERROR			x										
			x					IKJ513I BRDR JOB jjj WAS CANCELLED			x										
			x					IKJ514I BRDR INVALID VOLUME FOR JOB jjj			x										
			x					IKJ520I SUBMIT QUEUE FULL			x										
			x					IKJ549I TIME SHARING JOB jjj CANCELLED			x										
				x				IKJ570I SEND NOT SUPPORTED IN THIS SYSTEM	x												
				x				IKJ571I INVALID USERID(S) userid, userid,...	x												
				x				IKJ572I USER(S) userid NOT LOGGED ON, MESSAGE CANCELLED	x												
				x				IKJ573I SEND SYNTAX ERROR. COMMAND REJECTED	x												
				x				IKJ574I NO SPACE IN BROADCAST DATA SET FOR {MAIL / NOTICES}	x												

R/D

Descriptor Codes 1	2	3	4	5	6	7	8	Operator Messages	*	R1	2	3	4	5	6	7	8	9	10	11	12
			x					IKJ575I DATA SET SYS1.BRODCAST NOT USABLE	x												
			x					IKJ576I NO BROADCAST MESSAGE(S)	x												
			x					IKJ578I BROADCAST MSGNO=nn	x												
				x				IKJ579I CANNOT EXECUTE SEND	x												
			x					IKJ580I MESSAGE TRUNCATED TO 115 CHARACTERS	x												
				x				IKJ600I TSOLOGON {I/O / OBTAIN / OPEN} ERROR, DDNAME ddname, USER {userid / UNKNOWN} ,PROC {PROC / UNKNOWN}			x							x			
				x				IKJ601I TSOLOGON ABEND nnn, USER {userid / UNKNOWN} ,PROC {procname / UNKNOWN}			x							x			
				x				IKJ602I INCONSISTENT AUTHORIZATION DATA FOR userid			x							x			
				x				IKJ603I TSOLOGON TERMINATED, INSTALLATION EXIT {ABEND / ERROR} nnn			x							x			
					x			IKJ605I TSOLOGON TERMINATED. TOO MANY ATTEMPTS. USER {userid / UNKNOWN}			x							x			
					x			IKJ606I TSOLOGON REJECTED. USERID, userid, IN USE			x							x			
					x			IKJ607I TSOLOGON REJECTED. nnnnK REGION NOT AVAILABLE. USER userid			x										
				x				IKJ608I TSOLOGON TERMINATED. {srname / macname} ERROR nnn. USER {userid / UNKNOWN} PROC {procname / UNKNOWN}			x							x			
				x				IKJ609I TSOLOGON REQUIRED DDNAME, ddname, MISSING			x							x			
				x				IKJ610I TSOLOGON REGION NOT INITIALIZED			x							x			
x								IKJ650D TSO NOT ACTIVE. TSTRACE WAITING.	x		x										
			x					IKJ651I NO VALUE SPECIFIED FOR TRACE WRITER TRPARM	x		x										
			x					IKJ652I ZERO VALUE SPECIFIED FOR TRACE WRITER TRPARM	x		x										
			x					IKJ653I TRACE WRITER ALREADY ACTIVE.	x												
x								IKJ654D TSO STOPPED, TSTRACE WAITING.	x		x										
				x				IKJ655I TRACE WRITER CANNOT ESTABLISH STAE ENVIRONMENT	x		x										
				x				IKJ656I INSUFFICIENT SPACE AVAILABLE FOR TRACE WRITER BUFFER	x		x										
			x					IKJ657I NO DD STATEMENT FOR TRACE DATA SET	x		x										
			x					IKJ658I I/O ERROR ON TRACE DATA SET	x		x									x	
				x				IKJ659I TRACE DATA SET BLKSIZE LESS THAN MINIMUM ALLOWED	x		x										

Figure 32. Routing and Descriptor Codes of TSO Messages (Part 5 of 5)   **IKJ**

Descriptor Codes								Operator Messages	*	Routing Codes											
1	2	3	4	5	6	7	8			1	2	3	4	5	6	7	8	9	10	11	12
				x				IKJ660I TRACE WRITER TRPARM VALUE EXCEEDS MAXIMUM ALLOWED	x	x											
				x				IKJ661I NON-NUMERIC CHARACTER IN TRACE WRITER TRPARM	x		x										
			x					IKJ662I TSTRACE TERMINATED	x	x											
			x					IKJ663I TSO ACTIVE, TSTRACE RECORDING	x	x											
						x		IKJ681I I/O ERROR DURING TRACE PROCESSOR PROGRAM												x	
						x		IKJ682I UNABLE TO OPEN SYSPRINT DATA SET												x	

Descriptor Codes								Message Texts	*	Routing Codes											
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
					x			IMA002I DATA SET ASSOCIATED WITH THE //xxxx DD CARD CANNOT BE OPENED												x	
				x				IMA101I SYSLIB I/O ERROR device, operation, error condition, access method			x										
				x				IMA102I SYSLIB DD SPECIFICATION ERROR			x										
				x				IMA103I CSECT ABSENT - ALL CSECTS FOLLOW			x										
				x				IMA104I VERIFY REJECT - SET NO GO SWITCH			x										
				x				IMA105I INVALID CARD OR NO GO SWITCH SET			x										
				x				IMA106I PATCH OVERLAPS - CHECK DUMP			x										
				x				IMA107I DS AREA NOT INCLUDED IN TEXT			x										
				x				IMA109I ERROR - ODD NUMBER DIGITS - IGNORED			x										
				x				IMA110I NO DIRECTORY SSI - SETSSI IGNORED			x										
				x				IMA111I PREVIOUS ERROR - SETSSI IGNORED			x										
				x				IMA112I MEMBER NOT FOUND - SETSSI IGNORED			x										
				x				IMA114I PERMISSION TO UPDATE VTOC DENIED			x										
x								IMA116I ENTER IMASPZAP CONTROL STATEMENT OR END	x												
x								IMA117D REPLY Y OR N TO UPDATE UTOC xxxxxx yyy zzzzzzzz	x												
						x		IMA118I SYSPRINT DD NOT IN INPUT			x									x	
				x				IMA120I FULL IDR FOR MODULE name			x										
	x							IMA121I CCHHRR UPDATE BY jobname ON ser,cchhr,dsn			x						x				
						x		IMB001I SYSPRINT DD STATEMENT MISSING												x	
						x		IMB002I SNAPDUMP DD STATEMENT MISSING												x	
	x							IMC001A SPECIFY SELECT PARAMETERS [OR END]	x												
						x		IMC002A COMMAND ERROR [- ENTER QDUMP PARAMETERS]	x												
NONE								IMC003A QUEUE NOT FOUND ON SPECIFIED DEVICE - ENTER QDUMP PARAMETERS		NOTE 1											
						x		IMC004I QDUMP COMPLETED	x												
						x		IMC006I THESE JOBS NOT FOUND jobname 1 jobname 2, etc.	x												
NONE								IMC007E K ddd, {SCRTCH}/JQDUMP {ser }		NOTE 1											
								IMC008A M ddd, {SCRTCH} /JQDUMP {SLTAPE }													
								IMC009A ENTER TODAY'S DATE IN THE FOLLOWING FROM YYDDD													
								IMC010I TAPE IS STANDARD LABELED, DSN=JQDUMP													

Descriptor Codes								Message Texts	Routing Codes												
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
			NONE					IMC012E TAPE PROTECTED FROM USE						NOTE 1							
								IMC013A adr, INT REQ													
								IMC014E TAPE HAS USACII LABELS													
	x							IMC016I PERMANENT I/O ERROR ON ddname - [EXECUTION TERMINATED]												x	
						x		IMC017I FILE {OSJQDIN / OSJQDOUT} CANNOT BE OPENED												x	
							x	IMD150I FILE {PRINTER / SYSUT1} CANNOT BE OPENED												x	
							x	IMD151I INSUFFICIENT MAIN STORAGE - EXECUTION TERMINATED												x	
							x	IMD152I SYSUT1 IS DATA CELL - DEVICE NOT SUPPORTED												x	
							x	IMD153I PERMANENT I/O ERROR ON ddname - EXECUTION TERMINATED												x	
							x	IMD154D REPLY TITLE, 'SAME' OR 'END'			x										
							x	IMD155D REPLY WITH GO, DESIRED FUNCTION, OR END			x										
							x	IMD156I REPLY WITH STOP TO TERMINATE CURRENT FUNCTION			x										
							x	IMD157A MOUNT NEW DUMP TAPE			x	x									
							x	IMD158I I/O ERROR ON TAPE {ENTIRE TAPE WILL BE PRINTED / ONLY NUCLEUS AND SQA WILL BE PRINTED / SELECT OPTION TO RETRY / LINKPACK AREA MAP ABORTED / QCB TRACE ABORTED}			x										
							x	IMD159I IMDPRDMP PROGRAM CHECK ENTIRE TAPE WILL BE PRINTED / ONLY NUCLEUS AND SQA WILL BE PRINTED / SELECT OPTION TO RETRY			x										
							x	IMD161I FORMAT ERROR {ENTIRE TAPE WILL BE PRINTED / ONLY NUCLEUS AND SQA WILL BE PRINTED / SELECT OPTION TO RETRY / LINKPACK AREA MAP ABORTED / QCB TRACE ABORTED}			x										
							x	IMD162I JOB jobname {NOT FOUND / ROLLED OUT}			x										
							x	IMD163I GO FUNCTIONS TO BE PERFORMED [ongo operands]			x										
							x	IMD164I TAPE IS PRE-FORMATTED DUMP REMAINING PARAMETERS IGNORED			x										
							x	IMD165I ERROR ON PRECEDING CONTROL STATEMENT error descriptor			x										
							x	IMD168I DUMP DATA SET EMPTY - DD xxxxxxxx			x										
							x	IMD176I ddname DD NOT TAPE DEVICE - NO WORK FILE DD													

Figure 33. Routing and Descriptor Codes of Service Aids Messages (Part 3 of 3)

Descriptor Codes								Message Texts	Routing Codes												
1	2	3	4	5	6	7	8		*	1	2	3	4	5	6	7	8	9	10	11	12
	x							IMD181I DELETE ERROR - mod							x						
								IMD199D CONTINUE DEFINITION	x												
					x			IMD201I INVALID KEYWORD BEGINNING WITH xxx			x										
					x			IMD202I INVALID PARENTHESES			x										
					x			IMD203I INVALID PARM VALUE FOR KEYWORD keywd			x										
					x			IMD204I LENGTH OF PARM INVALID FOR KEYWORD keywd			x										
					x			IMD205I DUPLICATE KEYWORD - keywd			x										
					x			IMD206I EXCESSIVE NO. PARM VALUES FOR KEYWORD keywd			x										
					x			IMD207I INVALID DELIMITER FOR KEYWORD keywd			x										
					x			IMD208I START VALUE EXCEEDS STOP VALUE IN STMTS ABOVE			x										
					x			IMD209I INVALID USR EID OR RANGE			x										
					x			IMD211I EDIT OPTIONS IN EFFECT - option list			x										
					x			IMD212I RCD ON PG nnnn-RET CODE retcde RCVD FR MODULE mod			x										
					x			IMD213I PROCESSING CONTINUES - BYPASSING MODULE mod			x										
					x			IMD214I CURRENT EDIT FUNCTION TERMINATED			x										
					x			IMD215I FURTHER RECS REQUIRING mod WILL BE DUMPED IN HEX			x										
					x			IMD216I RCD AND OTHER INFO ON PG nnnn. PGM CHECK IN MODULE mod			x										
					x			IMD217I NO SYS DATA, JOB OR TCB SELECTION NOT ALLOWED			x										
	x							IMD218D REPLY 'C' TO EDIT W/O JOB/TCB SELECTION, 'S' TO TERMINATE	x												
	x							IMD219D EDIT DUMP - NO SELECT. REPLY DDNAME OR '0' TO TERMINATE	x												
					x			IMD220I NO EDIT DD CARD - ddn			x										
	x							IMD225I REG/PART nnnK TOO SMALL FOR EDIT BUFFERS			x										

Descriptor Codes 1 2 3 4 5 6 7 8	Message Texts	Routing Codes * 1 2 3 4 5 6 7 8 9 10 11 12
x (7)	**COBOL E** xxx...	x (1)
NONE	**COBOL F** xxx... **MAINTENANCE ANALYSIS LOG** CHANGE ITEM BYPASSED - CHANGE LEVELS DO NOT CHECK. CHANGE ITEM BYPASSED - EXCEPT CARD. CHANGE ITEM BYPASSED - LOCAL-FIX FLAG ON. CHANGE ITEM BYPASSED - NOT IN SYSTEM. CHANGE ITEM BYPASSED - PTF FLAGS DO NOT CHECK. CHANGE ITEM EXPECTS PTF. PTF FLAG SET OFF. FORCE AND EXCEPT BOTH SPECIFIED. FORCE OVERRIDES. FORCED MODIFICATION TO A LFF. LFF FLAG RETAINED. FORCED MODIFICATION TO A PTF. PTF FLAG RETAINED. FORCED REPLACEMENT TO A LFF. LFF FLAG SET OFF. FORCED REPLACEMENT TO A PTF. PTF FLAG SET OFF. LIBRARY BYPASSED - COULD NOT BE OPENED. NEW MEMBER TO BE ADDED TO SYSTEM. UPDATE ANALYSIS HAD COMPLETED.	NOTE 8
x (7)	**PL/I OBJECT PROGRAM** xxx...	o (*) o (1)
x (7)	**AMERICAN NATIONAL STANDARD COBOL** xxx...	x (1) x (11)

Problem Determination

Problem determination is the activity required to identify a failing hardware unit or program and determine who is responsible for maintenance.

Problem determination is accomplished by using procedures specified by IBM. In some cases, these procedures may be initiated by a message or code which requires operator or programmer response. The response may include the requirement for additional problem-related data to be collected and will attempt, where possible, to indicate "probable" failure responsibility.

Problem determination information is included for applicable messages and codes under the heading "Problem Determination." Standard problem determination actions are identified as items of Tables I and II. Unique actions are identified following the list of standard actions to be taken. In any case, it is intended that the specified actions be taken before calling IBM for support.

Table I

If the problem recurs, follow the problem determination aids specified by the associated message or code before calling IBM for support:

1. Make sure that MSGLEVEL=(1,1) was specified in the JOB statement.

2. Save the console sheet from the primary console. In systems with Multiple Console Support (MCS), save a copy of the hard copy log.

3. Save the job stream associated with the job.

4. Save the system output (SYSOUT) associated with the job.

5. Make sure that the failing job step includes a:

   a. SYSABEND DD statement.
   b. SYSUDUMP DD statement.
   c. PL1DUMP DD statement.

6. Make sure that the PARM parameter of the EXEC statement specifies:

   a. MAP   e. CORE, if applicable
   b. LIST   f. XREF
   c. DIAG   g. DUMP
   d. MSG=AP

7. Execute the LISTIDR function of the IMBLIST service aid program to obtain a list of all members with a PTF or local fix, and save the output. Execute the program against the:

   a. SYS1.LINKLIB data set.
   b. SYS1.SVCLIB data set.
   c. library containing the program that issued the message.

8. Execute the IMCJQDMP or IMCOSJQD service aid program to obtain a formatted copy of the contents of the SYS1.SYSJOBQE data set. For IMCOSJQD, specify the select option:

   a. ALL.
   b. JOBNAME.
   c. QCR. Save the resulting output.

9. Execute the IMBLIST service aid program to obtain:

   a. an object module listing, specifying the LISTOBJ function.
   b. a load module map and cross-reference listing, specifying the OUTPUT=BOTH option of the LISTLOAD function.

10. Have a copy of the Message Control Program (MCP) available.

11. Execute the IMDSADMP service aid program, specifying the TYPE=HI option, to dump the contents of main storage on magnetic tape. After restarting the system, execute the IMDPRDMP service aid program, specifying the GO option, to print the dump tape produced by the IMDSADMP program.

    If a tape is not available, execute the IMDSADMP specifying the TYPE=LO option, to dump the contents of main storage directly to the printer.

    Save the resulting dump output.

12. Execute the SEREP program, and save the resulting output.

13. Save all the associated output.

14. In the normal response to this message, the programmer/operator was requested to execute a specific program. Save all output from that program.

15. Save the program listing associated with the job.

16. Save the dump.

17. Have the system generation (SYSGEN) output available from

    a. Stage I   b. Stage II

18. Execute the IFCEREP0 service aid program, to dump the SYS1.LOGREC data set. Save the resulting output.

19. Save the assembly listing associated with the job.

20. Save the control cards associated with the job.

21. Save the compiler output associated with the job.

22. Save the source input associated with the job.

23. Save the source program listing associated with the job.

24. Run OLTEP diagnostics for the problem device and save the output.

25. Execute the IEHLIST system utility program to obtain a list of the

    a. volume table of contents of the associated volume, specifying the FORMAT option.
    b. volume table of contents of the associated volume, specifying the DUMP option.
    c. directory of the associated data set.
    d. the system catalog.

26. Execute the IEBPTPCH data set utility to

    a. print the directory of the applicable data set.
    b. print the applicable data set.
    c. print the applicable member.
    d. print the applicable procedure.

27. Have the linkage editor/loader map available.

28. Save the associated volume.

29. Contact IBM for programming support.

30. Contact IBM for hardware support.

Table I

If the problem recurs, follow the problem determination aids specified by the associated message or code before calling IBM for support:	
1. Make sure that MSGLEVEL=(1,1) was specified in the JOB statement.	12. Execute the SEREP program, and save the resulting output.
2. Save the console sheet from the primary console. In systems with Multiple Console Support (MCS), save a copy of the hard copy log.	13. Save all the associated output.
3. Save the job stream associated with the job.	14. In the normal response to this message, the programmer/operator was requested to execute a specific program. Save all output from that program.
4. Save the system output (SYSOUT) associated with the job.	15. Save the program listing associated with the job.
5. Make sure that the failing job step includes a:	16. Save the dump.
a. SYSABEND DD statement.	17. Have the system generation (SYSGEN) output available from
b. SYSUDUMP DD statement.	a. Stage I b. Stage II
c. PL1DUMP DD statement.	18. Execute the IFCEREP0 service aid program, to dump the SYS1.LOGREC data set. Save the resulting output.

Make sure that MSGLEVEL=(1,1) was specified in the JOB statement.

Save the console sheet from the primary console. In systems with Multiple Console Support (MCS), save a copy of the hard copy log.

Save the job stream associated with the job.

Save the system output (SYSOUT) associated with the job.

Make sure that the failing job step includes a:

   a. SYSABEND DD statement.
   b. SYSUDUMP DD statement.
   c. PL1DUMP DD statement.

6. Make sure that the PARM parameter of the EXEC statement specifies:

   a. MAP   e. CORE, if applicable
   b. LIST   f. XREF
   c. DIAG   g. DUMP
   d. MSG=AP

7. Execute the LISTIDR function of the IMBLIST service aid program to obtain a list of all members with a PTF or local fix, and save the output. Execute the program against the:

   a. SYS1.LINKLIB data set.
   b. SYS1.SVCLIB data set.
   c. library containing the program that issued the message.

8. Execute the IMCJQDMP or IMCOSJQD service aid program to obtain a formatted copy of the contents of the SYS1.SYSJOBQE data set. For IMCOSJQD, specify the select option:

   a. ALL.
   b. JOBNAME.
   c. QCR. Save the resulting output.

9. Execute the IMBLIST service aid program to obtain:

   a. an object module listing, specifying the LISTOBJ function.
   b. a load module map and cross-reference listing, specifying the OUTPUT=BOTH option of the LISTLOAD function.

10. Have a copy of the Message Control Program (MCP) available.

11. Execute the IMDSADMP service aid program, specifying the TYPE=HI option, to dump the contents of main storage on magnetic tape. After restarting the system, execute the IMDPRDMP service aid program, specifying the GO option, to print the dump tape produced by the IMDSADMP program.

If a tape is not available, execute the IMDSADMP specifying the TYPE=LO option, to dump the contents of main storage directly to the printer.

Save the resulting dump output.

19. Save the assembly listing associated with the job.

20. Save the control cards associated with the job.

21. Save the compiler output associated with the job.

22. Save the source input associated with the job.

23. Save the source program listing associated with the job.

24. Run OLTEP diagnostics for the problem device and save the output.

25. Execute the IEHLIST system utility program to obtain a list of the

   a. volume table of contents of the associated volume, specifying the FORMAT option.
   b. volume table of contents of the associated volume, specifying the DUMP option.
   c. directory of the associated data set.
   d. the system catalog.

26. Execute the IEBPTPCH data set utility to

   a. print the directory of the applicable data set.
   b. print the applicable data set.
   c. print the applicable member.
   d. print the applicable procedure.

27. Have the linkage editor/loader map available.

28. Save the associated volume.

29. Contact IBM for programming support.

30. Contact IBM for hardware support.

Table II

GTF FOR PROBLEM DETERMINATION

Format 1:   Tracing without prompting for event keywords.

Before reproducing the problem, have the system operator issue a START GTF command specifying tape output, MODE=EXT and TIME=YES. In response to message IHL100A, he should type TRACE=opt, where opt is the trace option keyword indicated for the particular message or code, within the text of his reply.

When data for the problem has been recorded, run the IMDPRDMP service aid program using the EDIT statement to format the trace output, specifying DDNAME=(ddname of the trace data set).

Format 2:   Tracing with prompting for event keywords.

Before reproducing the problem, have the system operator issue a START GTF command specifying tape output, MODE=EXT and TIME=YES. In response to the message IHL100A, he should specify the trace option keywords indicated for the associated message or code within the text of his reply. Then, in response to the message IHL101A, he should specify the event keywords also indicated with the associated message or code.

When data for the problem has been recorded, run the IMDPRDMP service aid program using the EDIT statement to format the trace output, specifying DDNAME=(ddname of the trace data set).

Format 3:   Specialized tracing action.

Before reproducing the problem, have the system operator issue a START GTF command specifying tape output, MODE=EXT and TIME=YES. In response to message IHL100A, he should type 'TRACE=SYS,USR'. The DD statement for a data set in error should specify DCB=DIAGNS=TRACE.

When data for the problem has been recorded, execute the EDIT function of IMDPRDMP specifying the options SYS and USR=FFF.

Figure 35. Problem Determination

Problem Determination

> Problem determination is the activity required to identify a failing hardware unit or program and determine who is responsible for maintenance.
>
> Problem determination is accomplished by using procedures specified by IBM.
> In some cases, these procedures may be initiated by a message or code which requires operator or programmer response. The response may include the requirement for additional problem-related data to be collected and will attempt, where possible, to indicate "probable" failure responsibility.
>
> Problem determination information is included for applicable messages and codes under the heading "Problem Determination." Standard problem determination actions are identified as items of Tables I and II. Unique actions are identified following the list of standard actions to be taken. In any case, it is intended that the specified actions be taken before calling IBM for support.

Figure 35. Problem Determination (Part 1 of 3)

Table I

If the problem recurs, follow the problem determination aids specified by the associated message or code before calling IBM for support:	
1. Make sure that MSGLEVEL=(1,1) was specified in the JOB statement.	14. In the normal response to this message, the programmer/operator was requested to execute a specific program. Save all output from that program.
2. Save the console sheet from the primary console. In systems with Multiple Console Support (MCS), save a copy of the hard copy log.	15. Save the program listing associated with the job.
3. Save the job stream associated with the job.	16. Save the dump.
4. Save the system output (SYSOUT) associated with the job.	17. Have the system generation (SYSGEN) output available from a. Stage I b. Stage II

5. Make sure that the failing job step includes a:
   a. SYSABEND DD statement.
   b. SYSUDUMP DD statement.
   c. PL1DUMP DD statement.
	18. Execute the IFCEREP0 service aid program, to dump the SYS1.LOGREC data set. Save the resulting output.

6. Make sure that the PARM parameter of the EXEC statement specifies:
   a. MAP   e. CORE, if applicable
   b. LIST   f. XREF
   c. DIAG   g. DUMP
   d. MSG=AP
	19. Save the assembly listing associated with the job.

	20. Save the control cards associated with the job.
	21. Save the compiler output associated with the job.
	22. Save the source input associated with the job.

7. Execute the LISTIDR function of the IMBLIST service aid program to obtain a list of all members with a PTF or local fix, and save the output. Execute the program against the:
   a. SYS1.LINKLIB data set.
   b. SYS1.SVCLIB data set.
   c. library containing the program that issued the message.
	23. Save the source program listing associated with the job. (Reference GC38-1001, *OS/VS Message Library: VS1 System Messages,* page IHB-24).

	24. Run OLTEP diagnostics for the problem device and save the output.

8. Execute the IMCJQDMP or IMCOSJQD service aid program to obtain a formatted copy of the contents of the SYS1.SYSJOBQE data set. For IMCOSJQD, specify the select option:
   a. ALL.
   b. JOBNAME.
   c. QCR. Save the resulting output.
	25. Execute the IEHLIST system utility program to obtain a list of the
	   a. volume table of contents of the associated volume, specifying the FORMAT option.
	   b. volume table of contents of the associated volume, specifying the DUMP option.
	   c. directory of the associated data set.
	   d. the system catalog.

9. Execute the IMBLIST service aid program to obtain:
   a. an object module listing, specifying the LISTOBJ function.
   b. a load module map and cross-reference listing, specifying the OUTPUT=BOTH option of the LISTLOAD function.
	26. Execute the IEBPTPCH data set utility to
	   a. print the directory of the applicable data set.
	   b. print the applicable data set.
	   c. print the applicable member.
	   d. print the applicable procedure.

	27. Have the linkage editor/loader map available.
10. Have a copy of the Message Control Program (MCP) available.	28. Save the associated volume.
11. Execute the IMDSADMP service aid program, specifying the TYPE=HI option, to dump the contents of main storage on magnetic tape. After restarting the system, execute the IMDPRDMP service aid program, specifying the GO option, to print the dump tape produced by the IMDSADMP program. If a tape is not available, execute the IMDSADMP specifying the TYPE=LO option, to dump the contents of main storage directly to the printer. Save the resulting dump output.	29. Contact IBM for programming support. (Reference GC38-1001, *OS/VS Message Library: VS1 System Messages,* page IHB-24).
	30. Contact IBM for hardware support.
12. Execute the SEREP program, and save the resulting output.	
13. Save all the associated output. (Reference GC38-1001, *OS/VS Message Library: VS1 System Messages,* page IHB-24).	

Figure 35. Problem Determination (Part 2 of 3)

Table II

GTF FOR PROBLEM DETERMINATION

Format 1:   Tracing without prompting for event keywords.

Before reproducing the problem, have the system operator issue a START GTF command specifying tape output, MODE=EXT and TIME=YES. In response to message IHL100A, he should type TRACE=opt, where opt is the trace option keyword indicated for the particular message or code, within the text of his reply.

When data for the problem has been recorded, run the IMDPRDMP service aid program using the EDIT statement to format the trace output, specifying DDNAME=(ddname of the trace data set).

Format 2:   Tracing with prompting for event keywords.

Before reproducing the problem, have the system operator issue a START GTF command specifying tape output, MODE=EXT and TIME=YES. In response to the message IHL100A, he should specify the trace option keywords indicated for the associated message or code within the text of his reply. Then, in response to the message IHL101A, he should specify the event keywords also indicated with the associated message or code.

When data for the problem has been recorded, run the IMDPRDMP service aid program using the EDIT statement to format the trace output, specifying DDNAME=(ddname of the trace data set).

Format 3:   Specialized tracing action.

Before reproducing the problem, have the system operator issue a START GTF command specifying tape output, MODE=EXT and TIME=YES. In response to message IHL100A, he should type 'TRACE=SYS,USR'. The DD statement for a data set in error should specify DCB=DIAGNS=TRACE.

When data for the problem has been recorded, execute the EDIT function of IMDPRDMP specifying the options SYS and USR=FFF.

Figure 35. Problem Determination (Part 3 of 3)

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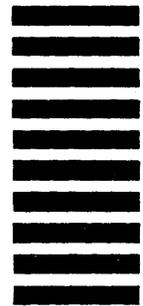
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