SC24-5146-2
File No. S370/40

Program Product

VSE/VSAM
Messages and Codes

IBM

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Program Product

VSE/VSAM Messages and Codes

Program Number 5746-AM2

Release 3

IBM

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This edition, SC24-5146-2, is a major revision of SC24-5146-1 and applies to Release 3 of Virtual Storage Extended/Virtual Storage Access Method (VSE/VSAM), Program Product 5746-AM2, and to subsequent releases and modifications until otherwise indicated in new editions or Technical Newsletters. Changes are periodically made to the information herein; before using this publication in connection with the operation of IBM systems, consult the *IBM System/370 and 4300 Processors Bibliography*, GC20-0001, for the editions that are applicable and current.

Changes and additions to the text and illustrations are indicated by a vertical line to the left of the change.

Summary of Amendments

For a list of changes, see page 3.

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Summary of Amendments for VSE/VSAM Messages and Codes

Summary of Amendments for SC24-5146-2 VSE/VSAM Release 3

The following is a summary of the major changes to VSE/VSAM for Release 3.

- Multiple catalogs can now own space on the same DASD volume, as long as only one recoverable catalog owns space on that volume and only one catalog resides on the volume.
- The IGNOREERROR parameter is added by Release 3 to the Access Method Services DELETE command. This parameter allows you to delete incomplete catalog information which could have resulted from system failure during DEFINE or DELETE processing.
- This release provides messages which support the Catalog Check Service Aid. This new service aid is invoked automatically by VSAM OPEN and DELETE IGNOREERROR processing. You can invoke this service aid directly to verify the entire catalog structure.

Catalog errors are, by their nature, difficult to understand because they involve internal catalog records, data, and control blocks that the user has no contact with. To be useful in problem analysis, the message itself and the description of its cause must be very specific. The programmer action associated with most messages, however, is relatively easy and does not require a full knowledge of the error condition.

A dump of one 512-byte Catalog Control Record (CCR) follows many messages. You do not have to understand the CCR dump in order to perform the programmer action for the message. You may need to supply the dump to IBM Programming Support personnel, however, to aid in problem solving.

Catalog Check also produces a list of the different types of catalog records it finds. You should also provide this list to IBM Programming Support, if necessary.

- This release adds the SYNCHK parameter to the Access Method Services PARM command to allow you to verify the syntax of Access Method Services commands without actually executing the commands or modifying any data.

The following changes, not related to Release 3, are also included in this edition:

- Appendix A is reformatted to improve retrievability of error codes. All error codes are listed in one table in numerical order. Error codes were formerly listed in several tables according to the macro that issued the error codes.
- Programmer actions have been added to many error codes in Appendix A.
- Descriptions of return codes listed in Appendix B have been expanded to include:
  - Information about the cause of each system error
  - Names of modules that could have issued the return code.
- Miscellaneous technical and editorial changes have been included throughout this manual.

Summary of Amendments for SC24-5146-1 as Updated by SN24-5692 VSE/VSAM Backup/Restore Feature Release 2 and VSE/VSAM Device Support SPE

This Technical Newsletter contains VSAM and Access Method Services messages to support the products named above. VSAM tape-handling message-IDs, which were previously in 41xx format, are now in IDCnnn format, and are documented at the begining of the IDC section of this book. Message-IDs were changed from 41xx to IDCnnn to avoid confusion with VSE/Advanced Functions LIOCS tape-handling messages.

Note that the VSAM tape-handling messages are issued to the operator; the IDC prefix is followed by *three* digits. Most Access Method Services messages are not issued to the operator but to the programmer via SYSLST; for these messages, the IDC prefix is followed by *four* or *five* digits.

The Device Support SPE contains support fot the 3375 Direct Access Storage.

This TNL also includes the changes published in TNL SN24-5685, a one-page supplement TNL documenting Backup/Restore message IDC31343I.

Summary of Amendments for SC24-5146-1 as updated by SN24-5685

TNL SN24-5685 is a one-page supplement TNL documenting Backup/Restore message IDC3134I. It should be filed following page 90 in your manual. No cover letter exists for it.

Summary of Amendments as updated by SN24-5676 VSE/VSAM Backup/Restore Feature

This Technical Newsletter contains VSAM and Access Method Services messages to support the VSE/VSAM Backup/Restore Feature. The new VSAM messages appear in the format 41xx, in which the number 1 indicates that the message pertains to tape handling. The 41xx messages precede the 42xx and 4Axx messages in this manual.

VSE/VSAM Backup/Restore issues mount messages for the backup file in order to cause the correct mounting of the tape volumes of the backup file. In all messages, the specified volume sequence number is the one assigned by Backup/Restore during backup and printed at the end of the BACKUP command in the cross-reference listings. It is not the volume serial number because unlabeled tapes do not have a volume serial number and the messages are designed to be independent of the STDLABEL parameter.

Summary of Amendments for SC24-5146-1 VSE/VSAM Release 2

SC24-5146-1 contains messages and codes to support Release 2 line items and the VSE/VSAM Space Management for SAM Feature.

Beginning with Release 2, VSAM data management messages appear with one or two message identifiers, 42xx or 4Axx. (ISAM continues to use the 42xx format.) This manual documents 42xx and 4Axx messages in numerical order; use the xx combination to look up a specific message.

Preface

This publication lists and interprets the VSAM, Access Method Services, and ISAM Interface Program messages which the system issues to the operator and to the programmer. It enables both to decide on the action they have to take in reply to the message received.

References are made, where applicable, to *VSE/Advanced Functions Serviceability Aids and Debugging Procedures*, in this manual referred to as *VSE/Advanced Functions SADP*, SC33-6099, which describes general procedures, such as locating storage areas, obtaining dumps, etc. References also appear to the following manuals:

- *Using VSE/VSAM Commands and Macros*, SC24-5144
- *VSE/VSAM Programmer's Reference*, SC24-5145
- *VSE/Advanced Functions Messages*, SC33-6098
- *VSE/Advanced Functions System Utilities*, SC33-6100
- *VSE/Advanced Functions Diagnosis Reference: Supervisor*, LY33-9091
- *VSE/Advanced Functions System Generation*, SC33-6096
- *VSE/Advanced Functions Diagnosis Reference: Initial Program Load and Job Control*, LY33-9084
- *VSE/Advanced Functions Diagnosis Reference: LIOCS Volume 4, SAM for DASD*, LY24-5212
- *VSE/VSAM VSAM Logic Volume 1*, LY24-5191
- *VSE/VSAM VSAM Logic Volume 2*, LY24-5192
- *Using the VSE/VSAM Space Management for SAM Feature*, SC24-5192

Each message is preceded by an identifying number so that it can be found easily in the book. This method of listing also ensures that messages issued by the same program are grouped together.

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1. Some VSAM messages are followed by three more fields of information, for example:

   IJSYSCT SYSCAT = 135 111111

   where:

   IJSYSCT= filename*
   SYSCAT = cuu*
   111111 = volume serial number where applicable

   *These two appear only if they are available to the system.

2. For some messages that accept CANCEL as reply, the response can be CANCELV or DSPLYV instead.

   CANCELV Instead of typing CANCEL to terminate the job, the operator can type CANCELV to get a VTOC dump on SYSLST, if SYSLST is a printer (see *VSE/Advanced Functions SADP*).

   DSPLYV The operator can display the VTOC by typing DSPLYV, provided the proper assignments have been made. This reply does not terminate the job, but reissues the same message issued prior to the VTOC display request (see *VSE/Advanced Functions SADP*).

3. As a result of issuing an information type message, the following action is taken:
   - If the message was issued on behalf of a VSAM (ACB), a return code is given and processing continues.
   - If the message was issued on behalf of managed-SAM, the task is canceled.

4. As a result of replying CANCEL, CANCELV, or END/ENTER to an action or decision message, the task is canceled.

Label Explanation

Each disk volume has a Volume Table of Contents (VTOC) that contains all VTOC format labels. Each format label points to an area of DASD storage on the volume and indicates what the area is currently being used for.

A format-1 label describes one to three physical area (extents) on the volume. It is the first format label used to describe each file, VSAM data space, or UNIQUE VSAM file.

A format-2 label describes a file as being indexed sequentially organized. If a format-2 label is used, there is always a format-1 label describing the same file. VSAM does not use the format-2 label.

A format-3 label describes from one to thirteen physical areas (extents) on the volume. It is used when a VSAM data space or UNIQUE VSAM file is made up of four to sixteen physical areas (extents). The format-3 label is always associated with a format-1 label.

A format-4 label describes the Volume Table of Contents (VTOC).

4210I LOAD FOR xxxxxxxx NOT SUCESSFUL. RC = r

Cause: A VSAM phase (indicated by xxxxxxxx) could not be loaded. The return code (r) indicates the reason. This code is displayed in decimal.

Refer to the return codes for the GETVIS macro in *VSE/Advanced Functions Messages.*

System Action: The job is canceled.

Programmer Action:

Refer to the return codes for the GETVIS macro in *VSE/Advanced Functions Messages.*

Operator Action:

Refer to the return codes for the GETVIS macro in *VSE/Advanced Functions Messages.*

4211I {SAM|ISAM} mac1, VSAM mac2 RC = r [EC = e]

Cause:

- A managed-SAM open for a SAM ESDS attempted to create an ACB for the file but the GENCB failed as indicated by the RC (return code) and EC (error code), or
- The problem program issued the ISAM macro (mac1) and the ISAM Interface Program (IIP) issued the VSAM macro (mac2). The execution of mac2 failed, and VSAM set a return code (r) in register 15 and an error code (e) in register 0 to describe the cause of the error. These codes are displayed in decimal.

WRITE A in mac1 means WRITE NEWKEY when IOROUT = ADD in the DTF.
WRITE L in mac1 means WRITE NEWKEY when IOROUT = LOAD in the DTF.

System Action: The job is canceled.

Programmer Action: Examine the return code and error code for the VSAM macro in Appendix A.

If issued for a managed-SAM open, where RC=4 and EC=8, allocate additional GETVIS storage for the partition. For any other return code and error code combination issued by managed-SAM, contact your IBM Support Center.

If the problem recurs, you may wish to use the following for problem determination:

- system history list
- job stream
- log sheet
- printer output
- LISTCAT output for the file
- LSERV output

Operator Action: None.

4212I ISAM mac1, VSAM mac2 RC = r EC = e

Cause: The problem program issued the ISAM macro (mac1) and the ISAM Interface Program (IIP) issued the VSAM macro (mac2). The execution of mac2 failed, and VSAM set a return code (r) in register 15 and an error code (e) in the RPL to describe the cause of the error. These codes are displayed in decimal.

WRITE A in mac1 means WRITE NEWKEY when IOROUT = ADD in the DTF.
WRITE L in mac1 means WRITE NEWKEY when IOROUT = LOAD in the DTF.

System Action: The job is canceled.

Programmer Action: Examine the return code and error code for the VSAM macro in Appendix A.

If the problem recurs, you may wish to use the following for problem determination:

- system history list
- job stream
- log sheet
- printer output
- program listing

Operator Action: None.

4213I ISAM mac1, VSAM mac2 RC = r (SHOWCB FAILED RC = r2 [EC = e2])

Cause: The problem program issued the ISAM macro (mac1) and the ISAM Interface Program (IIP) issued the VSAM macro (mac2). The execution of mac2 failed, and VSAM set a return code (r) in register 15. IIP issued a VSAM SHOWCB macro to fetch the error code from the RPL, but the SHOWCB also failed with a return code (r2) in register 15 and an error code (e2) in register 0. These codes are displayed in decimal.

WRITE A in mac1 means WRITE NEWKEY when IOROUT = ADD in the DTF.
WRITE L in mac1 means WRITE NEWKEY when IOROUT = LOAD in the DTF.

System Action: The job is canceled.

Programmer Action: Examine the return code and error code for the VSAM macro in Appendix A.

If the problem recurs, you may wish to use the following for problem determination:

- system history list
- job stream
- log sheet
- printer output
- program listing

Operator Action: None.

4214I ISAM mac1, VSAM mac2 RC = r EC= e

Cause: The problem program issued the ISAM macro (mac1) and the ISAM Interface Program (IIP) issued the VSAM macro (mac2). The execution of mac2 failed, and VSAM set a return code (r) in register 15 and an error code (e) in the ACB to describe the cause of the error. These codes are displayed in decimal.

WRITE A in mac1 means WRITE NEWKEY when IOROUT = ADD in the DTF.
WRITE L in mac1 means WRITE NEWKEY when IOROUT = LOAD in the DTF.

System Action: The job is canceled.

Programmer Action: Examine the return code and error code for the VSAM macro in Appendix A.

If the problem recurs, you may wish to use the following for problem determination:

- system history list
- job stream
- log sheet
- printer output
- program listing

Operator Action: None.

4215I ISAM mac1, VSAM mac2 RC = r (SHOWCB FAILED RC = r2 [EC = e2])

Cause: The problem program issued the ISAM macro (mac1) and the ISAM Interface Program (IIP) issued the VSAM macro (mac2). The execution of mac2 failed, and VSAM set a return code (r) in register 15. IIP issued a VSAM SHOWCB macro to fetch the error code from the ACB, but the SHOWCB also failed with a return code (r2) in register 15 and an error code (e2) in register 0. These codes are displayed in decimal.

WRITE A in mac1 means WRITE NEWKEY when IOROUT = ADD in the DTF.
WRITE L in mac1 means WRITE NEWKEY when IOROUT = LOAD in the DTF.

System Action: The job is canceled.

Programmer Action: Examine the return code and error code for the VSAM macro in Appendix A.

If the problem recurs, you may wish to use the following for problem determination:

- system history list
- job stream
- log sheet
- printer output
- program listing

Operator Action: None.

4216I ISAM SETL, RECORD ID USED

Cause: The problem program used record ID in a SETL macro. Record ID is not supported by the ISAM Interface Program (IIP).

System Action: The job is canceled.

Programmer Action: Revise the ISAM program to eliminate record ID in the SETL macro.

If the problem recurs, you may wish to use the following for problem determination:

- system history file
- job stream
- log sheet
- printer output
- program listing

Operator Action: None.

4217I ISAM OPEN, GETVIS RC= r

Cause: When the problem program issued an ISAM OPEN macro, the ISAM Interface Program (IIP) issued a GETVIS macro to obtain space for its control blocks. The GETVIS macro failed and a return code (r) was set in register 15. Refer to the return codes for the GETVIS macro in *VSE/Advanced Functions Messages*.

System Action: The job is canceled.

Programmer Action: Examine the return code for the GETVIS macro.

If the problem recurs, you may wish to use the following for problem determination:

- system history list
- job stream
- log sheet
- printer output
- program listing

Operator Action: If the partition is too small (RC = 12), use ALLOC to increase its size. Then rerun the job.

4221A ATTEMPT m of n ENTER PASSWORD FOR JOB jobname FILE file-id S JOB jobname code

Cause: The VSAM file referred to in the message is security protected, and a password must be supplied by the operator before the file can be accessed. A one-to-eight character code may appear instead of the file-ID of the file. *m* is the number of this attempt and *n* is the total number of attempts allowed to specify the correct password.

If the VSAM catalog is security protected, the proper password must be supplied for the catalog before a VSAM file can be accessed or an Access Method Services command can be processed.

System Action: The system waits for the operator to supply the correct password, in order to process the file.

Programmer Action: If the operator cancels an IMPORT, IMPORTRA, or RESTORE job, the old, unprotected version of the file is deleted (even if the catalog was protected) before the new version is defined. You will have to rerun the job, specifying the correct password.

Operator Action: Enter the password required for the file or the VSAM catalog. You may be required to supply the correct password more than once. The number of attempts allowed was determined by the owner of the file or the programmer who created it. If you do not know the correct password, cancel the job, or press END/ENTER (causes job cancelation).

If you cancel an IMPORT, IMPORTRA, or RESTORE job, the old, unprotected version of the file was deleted (even if the catalog was protected) before the new version could be defined. You will have to rerun the job, specifying the correct password.

4222I r, jobname, xxxx

Cause: An error was detected during VSAM catalog management processing. The Access Method Services return code (r) indicates the type of error. This code is displayed in decimal. Access Method Services return codes are listed in Appendix B. The name of the job being processed (jobname) and the last four characters of the name of the VSAM catalog procedure that detected the error (xxxx) are included in the message.

System Action: See Appendix B, which lists the Access Method Services return codes and provides information about system action.

Programmer Action: See Appendix B, which lists the Access Method Services return codes and also tells the action to be taken.

Operator Action: None.

4223I xxxx1, xxxx2, xxxx3, ...xxxxn

Cause: The group of VSAM catalog management procedures that was in use when the error occurred is listed in order of use. The last procedure listed (xxxxn) is the module that detected the error. The last four characters of the procedure names are listed.

System Action: The system prints message IDC3007I or IDC3009I on SYSLST.

Programmer Action: See the message printed on SYSLST.

Operator Action: None.

4224I ec, cb, xxx, id

Cause: An error was detected by VSAM record management while processing the VSAM catalog. (Note that record management is used to read and write catalog entries.) This message follows the messages 4222I and 4223I. The fields in this message have the following meanings:

ec = Le Logical error (e is the error code associated with a VSAM record management return code of 8; that error code is displayed in decimal).

ec = Pe Physical error (e is the error code associated with a VSAM record management return code of 12; that error code is displayed in decimal).

See Appendix A for a description of the error codes.

cb = control byte that indicates the type of I/O that resulted in the error:

addressed PUT -- 00, 20
keyed PUT -- 19, 1B, 38, 3A, 3C
keyed ERASE -- 72
addressed GET -- 80, 88, A0, A8
keyed GET -- B2, BA
keyed GET (greater or equal) -- BB

xxx = MCT if the master catalog was processed.
xxx = address (cuu) of user catalog device if a user catalog was processed.

id = identifier for the catalog logical record that was being processed when the error occured. The value of id is either the key of the record (EBCDIC) or the relative control-interval number of the record (hexadecimal).

System Action: The request is terminated.

Programmer Action: Contact your IBM Support Center. It may be necessary to restore the VSAM catalog. The Access Method Services PRINT command (DUMP format) may be used to print the catalog.

Operator Action: None.

4225I FILE fileid -- DATA SET NOT CLOSED OR PREVIOUS CLOSE FAILED

Cause: The file was not successfully closed the last time it was processed because (1) there was a system failure; (2) an error caused the job step to terminate during CLOSE or before the CLOSE macro was issued; (3) the processing program did not issue a CLOSE macro; or (4) VSAM automatic close was unsuccessful. Records that were added to the end of the file or the end of a keyrange can be overwritten by subsequent new records because the new end of the file or keyrange is not indicated in the file's catalog entry. Also new or updated records that were in buffers not yet written in the file when the job was terminated may have been lost.

System Action: OPEN processing is completed and the file is ready for processing. A return code of X'04' is set in register 15 and an error code of X'74' is set in the ACB.

Programmer Action: If records were not added, deleted, or updated during the previous job, the file will not have data intergrity problems and can be processed as intended.

If records were added, deleted, or updated, determine whether these transactions were actually recorded in the file.

If you want to delete the file, issue the DELETE command of Access Method Services.

Operator Action: None.

4226I AUTOMATIC CLOSE COULD NOT BE STARTED. FILE = {ddname|N/A} R = dd

Cause: The system was unable to start an automatic close operation for the named file. In the message, d indicates a reason as shown below. This indication is provided to facilitate problem determination. Possible reasons are:

- *R = 1: The address of the ACB as contained in the open ACB list points to a location outside the partition.
- *R = 2: The ACB to be closed is invalid.
- R = 3: The ACB to be closed is not open.
- R = 4: The ACB to be closed is active.
- *R = 5: The address of the Access Method Block List points to a location outside the partition.
- *R = 6: The address of the VSAM Placeholder points to a location outside the partition.
- *R = 7: The VSAM Placeholder is invalid.
- R = 8: The VSAM Placeholder is active.
- R = 9: Partition boundaries could not be obtained.

The following reason codes for this message apply only to managed-SAM access of a SAM ESDS:

- R = 20: ACB indicates managed-SAM automatic close but the VSE/VSAM Space Management for SAM Feature is not in the system.
- R = 21: CDLOAD for managed-SAM automatic close phase (IKQSMACL) failed.
- *R = 22: BPL does not indicate that only non-CA format access is allowed.
- *R = 23: BPL does not contain a DTF pointer.
- *R = 24: The address of the DTF points to a location outside the partition.
- *R = 25: The DTF type is not a valid type for a managed-SAM file.
- R = 26: The DTF to be closed is not open.
- *R = 27: The DTF to be closed is not managed by VSAM.

*These conditions may occur when code being executed in the partition inadvertently destroys the contents of a control block or of some of the block's fields.

System Action: Processing continues without the file having been closed.

Programmer Action: Check your program for logical errors that may have caused the indicated condition.

If the problem persists, contact your IBM Support Center. You may wish to use the following for problem determination:

- system history log
- output of SYSLOG
- job stream
- source program listing

Operator Action: Save the SYSLOG output and make it available to the programmer.

4227I AUTOMATIC CLOSE WAS NOT SUCCESSFUL. FILE = {ddname|N/A} CLOSE ERR CODE = X'nn'

Cause: See Appendix A, which lists the CLOSE error codes and gives an explanation of each of them. The code is displayed in hexadecimal.

System Action: Processing continues without the file having been closed.

Programmer Action: If MACRF = OUT was specified for the file and its data is to be reused, run the VERIFY command of Access Method Services. Before you resubmit the job, correct your program to avoid recurrence of the condition that caused the failure.

Operator Action: Save the SYSLOG output and make it available to the programmer.

4228I FILE filename macro ERROR X'nn' (nnn)

Cause: The ACB error flag was set to X'nn' (given in decimal notation in parentheses) during the indicated VSAM operation (execution of OPEN, CLOSE, or TCLOSE). See Appendix A, which lists the error codes and gives an explanation of each of them.

System Action: The return code in register 15 indicates whether processing continues.

Programmer Action: Check your program for logical errors that may have caused the condition indicated by the error code. Correct these errors and resubmit the job.

Operator Action: Save the SYSLOG output and make it available to the programmer.

Note: If *filename* is blank, no *filename* was specified in the *DDNAME* parameter of the ACB. Refer to SYSLST output to find the *entryname* of the file being processed.

4233A EQUAL FILE-ID IN CATALOG [filename|SYSxxx=cuu|volserno]

Cause: For managed-SAM access of a SAM ESDS, the 44-byte file-id already exists as an unexpired VSAM catalog entry. Another job may have previously created the file with the same identifier or this job may have created the file and been canceled before completion. This message follows message 4228I.

System Action: If SYSLOG is assigned to a keyboard, the system waits for an operator response; otherwise, the job is canceled.

Programmer Action: Obtain a LISTCAT of the VSAM catalog and check whether the unexpired file may be deleted. Either delete the unexpired file, specify a different VSAM catalog, or change the file-id.

Operator Action:

1. Type CANCEL or press END/ENTER to cancel the job, or type DELETE to delete the unexpired file and continue processing. Any other response causes an INVALID RESPONSE message.
2. If standard (permanent) labels were used, execute LSERV and return the output to your programmer.

4236I NO MORE AVAIL/MATCH XTNT [POINT-ID=X'ccccccnn']

Cause: For managed-SAM access of a SAM ESDS, if the point-id is not present, then either:

- Insufficient VSAM data space of the correct class is available or any of the volumes that the file is elegible to reside on, or
- The maximum number of extents for the file has been reached (if reusable, 16 extents per volume, in any case, 123 extents per file).

If the point-id is present, then a POINTR or POINTW has been issued and is beyond the current allocation of the file.

System Action: The job is canceled.

Programmer Action: If the point-id is not present, then either:

- Ensure that sufficient VSAM data space of the correct class is available by defining more VSAM data space on the eligible volumes or by increasing the number of eligible volumes, or
- Increase the primary and/or secondary allocation size so that fewer secondary allocations are required.

If the point-id is present, check that a POINTR or POINTW does not point beyond the current allocation of the file. The invalid point-id is given when:

ccccc = the relative CI number in the file (origin 0),

and

nn = the record number within the CI (origin 1).

If the problem recurs, you may wish to use the following for problem determination:

- system history list
- job stream
- system log
- system dump
- program listing
- LISTCAT output
- LSERV output

Operator Action: Execute LSERV and return the output to the programmer with his job.

4244A OVERLAP ON UNEXPRD FILE [filename|SYSxxx = cuu|volserno]

Cause: VSAM is attempting to define a data space for:

- A DEFINE space, catalog, or unique cluster or alternate index; or
- An IMPORT(RA) of a unique cluster or alternate index.

An extent specified in an EXTENT statement (identified by filename and SYSxxx) or the ORIGIN parameter of DEFINE SPACE or DEFINE CATALOG overlaps the extent limits (VTOC file entry) of an unexpired non-data-secured nonVSAM file on drive cuu and volume volserno.

System Action: If SYSLOG is assigned to a keyboard, the system waits for an operator response; otherwise, the job is canceled.

Programmer Action: Compare the high and low extent limits as specified by the ORIGIN parameter, or the EXTENT statement or the LSERV output with the file limits on the VTOC display. If the extents overlap, correct the EXTENT statement in error so that the overlap no longer exists; or if the unexpired file is to be deleted, instruct the operator to type DSPLYV and then type DELETE when this message is displayed. Resubmit the job.

Operator Action:

1. Type CANCEL or CANCELV or press END/ENTER to cancel the job, or

   Type DSPLYV to obtain a VTOC display, then type BYPASS to bypass processing of that extent and any remaining extents for that file. The job is canceled; or

   Type DSPLYV to obtain a VTOC display, then type DELETE to delete the overlapped file. Never take this action unless you are told to do so. Under normal operating conditions, the SYSRES label file should never be deleted. Also, in a multiprogramming system, extents that may be required by another partition should never be deleted.
2. If you did not obtain a DSPLYV, execute the LVTOC system utility for the volume.
3. If in step 1 you did not enter DELETE, and the job uses standard (permanent) labels, execute LSERV, and return all SYSLOG and SYSLST output to the programmer.

4250I NO MORE AVAILABLE EXTENTS [filename|SYSxxx = cuu|volserno]

Cause: For managed-SAM access of a SAM ESDS, the user has requested the allocation of another extent and either:

- The maximum number of extents has been obtained (if REUSABLE, 16 extents per volume; in any case 123 extents in total), or
- No more VSAM data space of the requested class is available on the volumes contained in the catalog entry for the file.

System Action: The job is canceled.

Programmer Action: Obtain a LISTCAT to determine the extents allocated to the file. Then delete and redefine the file so that sufficient disk space will be allocated. If the file was implicitly defined, check the label information for the file to determine the allocation sizes for the file. If the 16 extent per volume limit has been exceeded, or no more VSAM data space is available on the volumes contained in the catalog entry for the file, the Access Method Services ALTER ADDVOLUMES command can be used to obtain needed data space by adding more volumes to the list of candidate volumes for the file.

Operator Action: If standard (permanent) labels were used, execute LSERV and return the output to your programmer.

4253I VSAM CANNOT BE INITIALIZED, reason

Cause: This is displayed in the message text, where reason can be one of the following:

INSUFFICIENT VIRTUAL STORAGE
CDLOAD FAILURE

Note that the message 4228I may also occur together with this message, indicating that insufficient storage is available (error X'32', decimal 50).

System Action: VSAM OPEN processing is terminated.

Programmer Action: If the message indicates insufficient storage or a CDLOAD failure, have the operator increase the size of the partition and resubmit the job.

Operator Action: If the message indicates insufficient storage or a CDLOAD failure, you may use the ALLOC statement to increase the size if the partition. Otherwise, report the message to the system programmer.

4258I NO EXTENT FOR OUTPUT FILE [filename|SYSxxx = cuu|volserno]

Cause: For managed-SAM access of a SAM ESDS, a sequential output or work file could not obtain a primary allocation.

System Action: The job is canceled.

Programmer Action: Ensure that sufficient VSAM data space of the correct class is available by defining more VSAM data space on the eligible volumes or by increasing the number of eligible volumes.

If the problem recurs, you may wish to use the following for problem determination:

- system history list
- job stream
- system log
- printer output
- LISTCAT output
- LSERV output

Operator Action: If standard (permanent) labels were used, execute LSERV and return the output to the programmer with his job.

4261I INVALID DLBL FUNCTION [filename|SYSxxx = cuu|volserno]

Cause: The user supplied a VSAM DLBL for a managed-SAM (DTF) open and the VSE/VSAM Space Management for SAM Feature is not installed.

System Action: The job is canceled.

Programmer Action: Check that the file type and file description on the DLBL card or in the standard (permanent) label are correct. Resubmit the job with the correct DLBL information.

Operator Action: If standard (permanent) labels were used, execute LSERV and return the output to your programmer.

4279I GETVIS FAILED RC=nnn [filename|SYSxxx = cuu|volserno]

Cause: For managed-SAM access of a SAM ESDS, a GETVIS was issued to get working storage for an open/close function and it failed as indicated by the RC (reason code) value of nnn as follows:

001 - The DSA (Dynamic Storage Area) space was not available.
002 - Space for the DTF extension was not available.
003 - Space for CI buffer was not available.
004 - Space for a save area was not available.

System Action: The system cancels the job.

Programmer Action: Ensure that the SIZE parameter has been specified on the EXEC statement, reduce the size specified on the SIZE parameter of the EXEC statement, or increase the partition allocation for the partition in which the job is to run. This will increase the size of the partition GETVIS area.

Operator Action: Check that the job has been run in the correct partition.

If the problem recurs, you may wish to use the following for problem determination:

- system history list
- MAP command output
- job stream
- system log

4283I INVALID LOGICAL UNIT [filename|SYSxxx = cuu|volserno]

Cause: For managed-SAM access of a SAM ESDS, an attempt was made to open the IJSYSLN (SYSLNK) file using DTFSD TYPEFLE=WORK. Work file access of the IJSYSLN (SYSLNK) file is not valid.

System Action: The job is canceled.

Programmer Action: Check that the symbolic unit is correct (if specified), and that the correct DTF type is being used.

If the problem recurs, check the LISTIO output for correct assignments. You may wish to use the following for problem determination:

- system history list
- program listing
- job stream
- link edit map

Check the supervisor assembly listing for correct device type specification.

Operator Action: Issue the LISTIO command and verify assignments. Correct assignments and rerun the job.

4288I EOF ON SYSTEM FILE

Cause: For managed-SAM access of a SAM ESDS, a DTFCP INPUT file access requested the next extent and there were no more extents. (DTFCP INPUT file access must read an SEOF (Software End Of File) to be sent to the EOFADDR. Running out of extents is an error condition.)

System Action: The job is canceled.

Programmer Action: Recreate the input file and resubmit the job.

If the problem recurs, obtain a printout of the file in question. You may wish to use the following for problem determination:

- system history list
- system log
- printer output
- job stream
- program listing of the program that created the file

Operator Action: None.

4292I NO CISIZE CATALOG ENTRY [filename|SYSxxx = cuu|volserno]

Cause: For managed-SAM access of a SAM ESDS, the user attempted to process a NOCIFORMAT SAM ESDS for INPUT with DTFSD.

System Action: The job is canceled.

Programmer Action: Recreate the file using DTFSD or recreate the file in CI format using DTFPH and specify a CI size on the DTF.

Operator Action: None.

4294I CISIZE INCORRECT [filename|SYSxxx = cuu|volserno]

Cause: For managed-SAM access of a SAM ESDS, the user attempted to open a DTFPH file for OUTPUT specifying a CISIZE greater than zero but less than eight. (For a CIFORMAT DTFPH file, the maximum logical block size is assumed to be CISIZE-7.)

System Action: The job is canceled.

Programmer Action: Specify a CISIZE on the DTFPH of greater than seven.

Operator Action: None.

4297I OVLAP EXPIRED SECRD FILE [filename|SYSxxx = cuu|volserno]

Cause: VSAM is attempting to define a data space for:

- A DEFINE space, catalog, or unique cluster or alternate index; or
- An IMPORT(RA) of a unique cluster or alternate index.

The extent limits for the data space being defined overlap the extent limits of an expired data-secured file. The filename, if displayed in the message text, identifies the overlapping extent on the associated DLBL/EXTENT statement in error. If the filename is omitted from the message text, the ORIGIN parameter in the DEFINE command identifies the overlapping extent.

System Action: The job is canceled.

Programmer Action: Examine the VTOC listing to determine where the overlap occurred. To eliminate the overlap, correct the ORIGIN parameter or the EXTENT statement causing the error and resubmit the job.

If the overlap occurs on a nonVSAM secured file that you do not need to save, open a DTF using the same file-id as that of the secured file, and instruct the operator to reply DELETE to message 4233A when it is issued.

If the overlap occurs on a VSAM space, use the Access Method Services DELETE command to delete the VSAM space if you do not need to save it.

VTOC entries (both VSAM and nonVSAM) can be scratched using the VSAM utility program IKQVDU. The procedures are described in the Diagnostic Aids section of *VSE/VSAM VSAM Logic*, Volume 1 or 2.

If the problem recurs after eliminating the overlap condition, you may wish to use the following for problem determination:

- system history list
- VTOC display
- failing job stream and associated listings
- dump at time of failure

Operator Action: Display the VTOC (LVTOC utility program). If the job uses standard (permanent) labels, execute the LSERV program. Return the SYSLOG and SYSLST output and the failing job to the programmer.

4298I OVLAP UNEXPRD SECRD FILE [filename|SYSxxx = cuu|volserno]

Cause: VSAM is attempting to define a data space for:

- a DEFINE space, catalog, or unique cluster or alternate index; or
- an IMPORT(RA) of a unique cluster or alternate index.

The extent limits for the data space being defined overlap the extent limits of an unexpired data-secured file. filename and SYSxxx identify the EXTENT statement. cuu and volser identify the disk device and volume serial number.

Note: If you are defining or importing a keyed file (KSDS or alternate index) with both data and index components UNIQUE and on the same volume. this error message can occur if data and index extents overlap.

System Action: The job is canceled.

Programmer Action: For a DEFINE or IMPORT(RA) of a UNIQUE keyed file, verify that the data and index extents do not overlap. If they do overlap, correct the ORIGIN parameter or EXTENT statement causing the error and rerun the job. Refer to the UNIQUE parameter of the DEFINE CLUSTER command for DLBL and EXTENT requirements.

Examine the VTOC listing to determine where the overlap occured. To eliminate the overlap, correct the ORIGIN parameter or EXTENT statement causing the error and resubmit the job. If the overlap occurs on a nonVSAM secured file that you do not need to save, open a DTF using the same file-id as that of the secured file, and instruct the operator to reply DELETE to message 4233A when it is issued.

If the overlap occurs on a VSAM space, use the Access Method Services DELETE command to delete the VSAM space if you do not need to save it.

VTOC entries (both VSAM and nonVSAM) can be scratched using the VSAM utility program IKQVDU. The procedures for using IKQVDU are described in the Diagnostic Aids section of *VSE/VSAM VSAM Logic,* Volume 1 or 2.

If the problem recurs after the eliminating the overlap condition, you may wish to use the following for problem determination:

- system history list
- VTOC display
- failing job stream and associated listings
- dump at time of failure

Operator Action: Display the VTOC (LVTOC utility program). If the job uses standard (permanent) labels, execute the LSERV program. Return the SYSLOG and SYSLST output and the failing job to the programmer.

4A37I FILE filename CATALOG ERROR DURING IMPLICIT {DEFINE|DELETE} - mmm,aa,nnn [filename|SYSxxx = cuu|volserno]

Cause: Catalog management returned a nonzero return code when invoked for implicit define or implicit delete. mmm is the decimal return code value, aa is the module identifier for the module detecting the error, and nnn is the decimal reason code. This message is accompanied by message 4228I.

System Action: If OPEN was in process when the error was detected, the open processing is terminated. If CLOSE was in process when the error was detected, close processing for the current ACB will continue since deletion is not critical to a successful close.

Programmer Action: Refer to the catalog management return code and reason code as described in Appendix B to determine if you made logical errors that caused the problem.

Operator Action: Save the SYSLOG output and make it available to your programmer.

4A46I FUNCTION IN VSAM SPACE MGMT NOT SUPPORTED RC = nnn

Cause: For managed-SAM access of a SAM ESDS, you attempted to open a DTF but failed as indicated by the RC (reason code) value of nnn as follows:

001 - DTFSD for spanned records is not supported.
002 - Filename or logical unit is not supported.
003 - The file is CI format, but DTFPH is not a version 3 DTF and thus there is no place to store the CI size for the user.

System Action: The job is canceled.

Programmer Action: Make sure that the job is intended to access a managed-SAM file and that the function is supported in the VSE/VSAM Space Management for SAM Feature. Change accordingly and resubmit the job.

4A57I REQUEST ERROR CODE X'nn' (nnn)

Cause: During managed-SAM access of a SAM ESDS, VSAM was unable to provide a secondary allocation or a volume mount.

System Action: The job is canceled.

Programmer Action: Refer to "Error Codes from Request Macros" in Appendix A for an explanation of the error code. (When looking up the error code, assume that the request is terminated; that is, register 15 contains X'08'.) If the message indicates insufficient virtual storage or a CDLOAD failure, have the operator increase the size of the partition and resubmit the job. Otherwise, report the message to the system programmer.

Operator Action: Save the SYSLOG output and make it available to the programmer.

4A84A REQUIRE VOLUME volserno [filename]

Cause: A VSAM or Access Method Services job requires that the volume identified by volserno be mounted on a disk device. If the DLBL and EXTENT statements are present, filename identifies the DLBL statement. If no DLBL statement was present, the filename does not appear in the message.

System Action: If SYSLOG has a keyboard, the system waits for an operator response; otherwise the job is canceled.

Programmer Action: If your job was canceled, reschedule the job, taking care to ensure that the volume is available for this volume.

Operator Action:

1. If the required volume is mounted on some device (as will always be the case for nonremovable volumes), or if this is a non-demountable volume, insure that the device is "up" (DVCUP), ready, and not reserved (via the VOLUMES command), then respond NEWPAC to continue processing.

   If the volume is not mounted, you may mount it on a device of your choosing. It is your responsibility to ensure that no programs are currently accessing the volume that may be currently mounted on that device. The device must be reserved using the VOLUMES command to ensure that new requestors will not be assigned to the device while the mount request is being satisfied. After you choose a device, mount the volume on the device, ensure that the device is "up" and ready, and reply NEWPAC to continue processing.
2. If you do not want to mount the volume, or if you are unable to mount the volume, type CANCEL or press END/ENTER to cancel the job. If you cancel the job, return the SYSLOG output (together with any SYSLST output) to the programmer, or otherwise notify the programmer of the reason for the job cancelation.

4A86A REQUIRE VOLUME AND RECOMMEND CUU volserno [filename|SYSxxx = cuu|volserno]

Cause: VSAM or Access Method Services requires that the volume identified by volserno be mounted on a disk device and suggests that it be mounted on cuu. If the DLBL and EXTENT statements are present, filename identifies the DLBL statement. If no DLBL statement was present, the filename does not appear in the message.

System Action: If SYSLOG has a keyboard, the system waits for an operator response; otherwise the job is canceled.

Programmer Action: If your job was canceled, reschedule the job, taking care to ensure that the volume is available and that a disk device is available for the volume.

Operator Action:

1. If the required volume is mounted on some device (as will always be the case for nonremovable volumes), ensure that the device is "up" (DVCUP), ready, and not reserved (via the VOLUMES command), then respond NEWPAC to continue processing.

   If the volume is not mounted, you may mount it on the recommended cuu or another device of your choosing. If the recommended cuu is used, you can be sure that no other users are accessing any volume that may be currently mounted on that device, and that new requestors will not be assigned to that device until the current mount request is satisfied. If you choose to use a cuu other than the one suggested, it is your responsibility to ensure that no programs are currently accessing the volume that may be currently mounted on that device. The device must be reserved using the VOLUMES command to ensure that new requestors will not be assigned to the device while the mount request is being satisfied. After you choose a device, mount the volume on the device, ensure that the device is "up" (DVCUP) and ready, and reply NEWPAC to continue processing.
2. If you do not want to mount the volume, or if you are unable to mount the volume, type CANCEL or press END/ENTER to cancel the job. If you cancel the job, return the SYSLOG output (together with any SYSLST output) to the programmer, or otherwise notify the programmer of the reason for the job cancelation.

Some IDC messages are issued to the system operator, but most of them are issued directly to the programmer via SYSLST. Messages issued to the operator are in the format IDC followed by *three* digits, while messages issued to the programmer are in the format IDC followed by *four* or *five* digits. These formats are described in greater detail below.

Access Method Services Messages Written to the System Operator

All 3-digit IDC messages are written to the system operator. All 4-digit and 5-digit IDC messages are written to the programmer (SYSLST). SYSLST messages have no operator action associated with them.

All Access Method Services 3-digit messages have the format shown in Figure 1.

Note: There is no severity code associated with messages written to the operator.

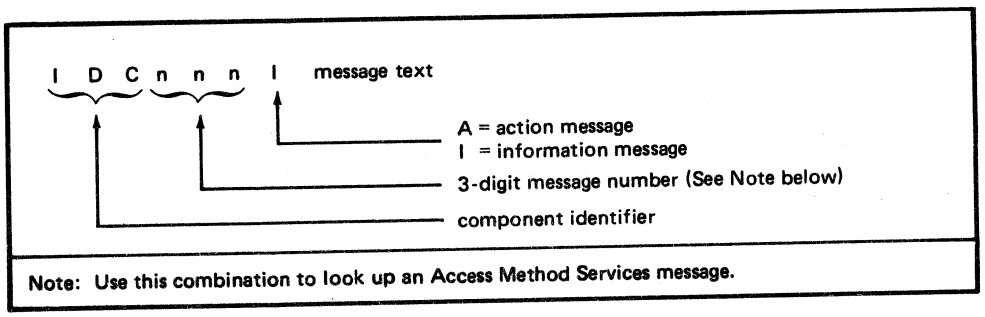

Figure 1. Format of the Access Method Services message written to the system operator.

IDC400A MOUNT VOLUME xxx OF BACKUP FILE ON SYS004=cuu

Cause: During the execution of the Access Method Services RESTORE command, the backup file volume with the volume sequence number xxx is required in order to continue restoration.

System Action: The processing of the RESTORE command is suspended until the correct tape volume has been mounted.

Programmer Action: None.

Operator Action: Mount the tape volume with the volume sequence number xxx on SYS004=cuu and press END/ENTER to continue the execution of the RESTORE command. Otherwise, type CANCEL to terminate the RESTORE command execution.

IDC401I BACKUP VOLUME REQUIRED FOR file-id

Cause: During the execution of the Access Method Services RESTORE command, the volume of the backup file is required that contains the first part of the object specified by the file-id. This message is always followed by message IDC402A, which gives additional information about the volume to be mounted.

System Action: The processing of the RESTORE command is suspended until the requested tape volume has been mounted.

Programmer Action: None.

Operator Action: See message IDC402A.

IDC402A MOUNT VOLUME xxx OR HIGHER ON SYS004=cuu

Cause: During the execution of the Access Method Services RESTORE command, the volume of the backup file is required that contains the first part of the object specified by file-id in message IDC401I. The exact starting volume is not known to the RESTORE command, but it must be a volume with a volume sequence number that is equal to or greater than xxx. This message is always preceded by message IDC401I.

System Action: The processing of the RESTORE command is suspended until the requested tape volume has been mounted.

Programmer Action: None.

Operator Action: Mount the first backup file volume for the object specified by file-id (in message IDC401I) on SYS004=cuu, and press END/ENTER to continue RESTORE processing. Otherwise, type CANCEL to discontinue.

The volume sequence number of this volume can be determined from the Backup Object Cross-Reference (BOCR). If the BOCR is not available and the exact volume cannot be determined, mount a volume of the backup file that has the volume sequence number xxx or a higher volume sequence number. If the volume sequence number is higher than the volume sequence number of the first volume for the specified object, the RESTORE command will prompt you again, now providing the volume sequence number of the volume to be mounted (message IDC400A).

IDC403I TIME STAMP MISMACH. BACKUP FILE CREATED ON date AT hh:mm:ss

Cause: The tape volume just mounted does not belong to the backup file being processed by the RESTORE command. Either the backup file creation time stamp or the backup volume creation time stamp does not match. The backup file being processed was created on the date specified in the message at the indicated time.

System Action: This message will be followed by either message IDC400A or messages IDC401I and IDC402A.

Programmer Action: None.

Operator Action: This message provides information stating that the previously mounted tape volume did not belong to the backup file being processed. Perform the actions specified by subsequent message IDC400A or subsequent messages IDC401I and IDC402A, but ensure that the mounted volume belongs to the backup file that was created on the date and at the time specified in message IDC403I.

Access Method Services Messages Written to the Programmer (SYSLST)

All 4-digit IDC messages are printed in numerical order, followed by all 5-digit IDC messages. Thus, message IDC3518I precedes message IDC11022I. Access Method Services 4- and 5-digit messages have the format shown in Figure 2.

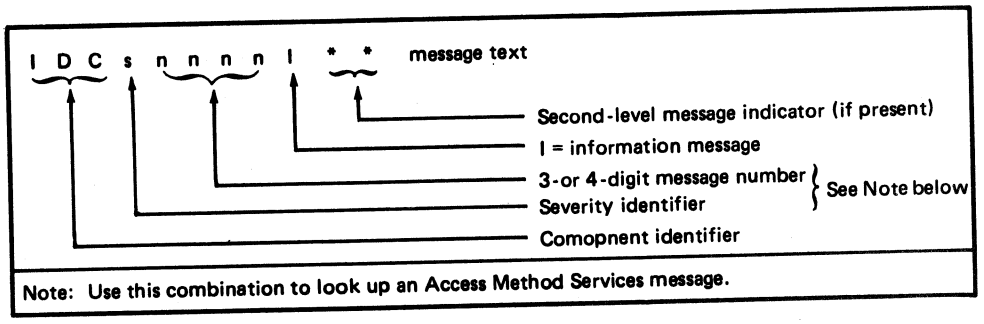

Figure 2. Format of the Access Method Services Message written to the Programmer

Severity Identifier

This can be one of the following:

0 = information - no effect on execution
1 = warning - successful execution is probable
2 = error - execution may fail
3 = serious error - successful execution is improbable
4 = terminating error - successful execution is impossible

3- or 4-Digit Message Number

Use this number together with the severity identifier to locate the message in this section of the manual.

Action Indicator

I indicates an information message. For SYSLST messages there is no operator communication with the system.

Secondary Message Indicator

When * * precedes the message text, the message further explains the preceding message.

All 4-digit and 5-digit Access Method Services messages are printed only on the device assigned to SYSLST. Because these messages are not printed at the operator console, there is no "operator action"; consequently this item is omitted from the descriptions of these messages.

IDC0001I FUNCTION COMPLETED, HIGHEST CONDITION CODE WAS xxx

Cause: This message is issued by any functional command upon its completion. If no error occurred, the condition code is 0. If an error has occurred, it will be indicated by error messages that precede the completion message.

System Action: LASTCC is set to xxx; MAXCC is also set if xxx is greater than the current MAXCC value.

Programmer Action: If xxx is not zero, use the system output (SYSLST) message(s) associated with this command for problem determination.

IDC0002I IDCAMS PROCESSING COMPLETE. MAXIMUM CONDITION CODE WAS xxx

Cause: This message is issued at the completion of the job step. The highest condition code (MAXCC) set during the job step is printed. For program invocation of IDCAMS (see *Using VSE/VSAM Commands and Macros*, Appendix D), MAXCC is returned to the caller in register 15.

System Action: Processing continues.

Programmer Action: If xxx is not zero, use the system output (SYSLST) message(s) associated with this job step for problem determination.

IDC0005I NUMBER OF RECORDS PROCESSED WAS nnn

Cause: This is an information message indicating the number of records (nnn) that were processed in the execution of the REPRO or PRINT command. If input records were selectively processed, nnn will include only those actually processed. (Note that for relative record files, "empty slots" are processed as records, and are thus counted.)

If the condition code is 0, then all records were processed. If the condition code is 4, then some of the records were not processed. 'COUNT' need not be specified for this situation to occur. For partial file processing, you must be familiar with the contents of the file to tell why condition code 4 occurred. This message might indicate that no records were processed, which could be an error.

System Action: Processing continues.

Programmer Action: None.

IDC0177I BLOCKS DEFINED FOR VOLUME volser ARE:

block number THROUGH block number

. . .

. . .

Cause: A data space has been defined on a fixed block volume via DEFINE SPACE, DEFINE MASTERCATALOG, DEFINE USERCATALOG, DEFINE CLUSTER|AIX (with UNIQUE) or IMPORT|IMPORTRA of a unique component. Due to possible rounding to device characteristics, actual allocations may be different from extents requested. The actual allocations are listed for information purposes.

System Action: Processing continues. The condition code is not changed.

Programmer Action: The difference, if any, between user-specified extents and the actual space allocations is available for future use (not currently included in the VSAM data space). No action is necessary unless the smaller space is not acceptable, in which case the space and associated objects may be deleted and redefined.

IDC0204I PRECEDING COMMAND BYPASSED DUE TO CONDITION CODES

Cause: The modal command structure specifications (that is, IF - THEN - ELSE) caused the command to be bypassed.

System Action: The command was checked for syntax errors, but it was not executed.

Programmer Action: Use the system output (SYSLST) associated with the job step for problem determination, if this is necessary.

IDC0206I IMPROPERLY PLACED COMMA HAS BEEN FOUND AND IGNORED

Cause: An unnecessary comma has been coded. Omitted positional parameters may not be denoted by consecutive commas.

System Action: The usage is accepted, and the extra comma is ignored.

Programmer Action: Check the command to ensure that you did not omit a parameter. Remove the extra comma to avoid this message should the command be run again.

IDC0222I WARNING: COMMAND-END DELIMITER APPEARS WITHIN APOSTROPHES

Cause: A semicolon, the optional command delimiter, exists in an item that is enclosed within apostrophes. A closing apostrophe may have been omitted.

System Action: The usage is accepted and processing continues. The semicolon is treated as a valid character in a character string, and not as a command delimiter.

Programmer Action: Check for a possible missing apostrophe. Insert the missing apostrophe, if one was omitted, and rerun the command(s).

IDC0233I TOO MANY RIGHT PARENTHESES FOUND. EXCESS IGNORED

Cause: Too many right parentheses have been found at the end of a subparameter list or following a first-level parameter.

System Action: The excess parentheses are ignored and processing continues.

Programmer Action: Correct the invalid syntax.

IDC0234I WARNING: TOO FEW RIGHT PARENTHESES FOUND AT END OF COMMAND

Cause: Too few right parentheses have been found at the end of the command to properly close off the subparameter lists. This may have been caused by the omission of a hyphen or plus sign continuation character.

System Action: The usage is accepted and processing continues as if the correct number of right parentheses were present.

Programmer Action: Verify that you did not omit a continuation character. Correct the invalid syntax. Rerun the command if the system action did not produce the desired result.

IDC0283I NO SYNTAX ERRORS WERE FOUND IN THIS COMMAND. COMMAND WILL NOT BE EXECUTED.

Cause: A syntax check was performed on the command listed immediately preceding this message. No syntax errors were found, and the command was not executed.

System Action: The system checks the syntax of any remaining Access Method Services commands in this job. None of the commands are executed.

Programmer Action: When all Access Method Services commands are free from syntax errors, run the job without specifying PARM=SYNCHK.

IDC0284I SYNTAX CHECKING STARTED. THE FOLLOWING COMMANDS ARE ONLY CHECKED, NOT EXECUTED.

Cause: You specified SYNCHK in the PARM Access Method Services command or as part of the PARM parameter on the EXEC statement.

System Action: A list of commands whose syntax is checked follows this message; the commands are not executed. Subsequent messages will identify syntax errors.

Programmer Action: Correct any syntax errors and rerun the syntax check because VSAM can detect only one syntax error per command at one time.

When no more syntax errors are found, run the job without specifying SYNCHK.

IDC0296I A DEFAULT MODEL HAS BEEN SUCCESSFULLY DEFINED

Cause: Successful definition of a default model.

System Action: Condition code (LASTCC) is set to zero. Processing continues.

Programmer Action: None.

IDC0508I DATA ALLOCATION STATUS FOR VOLUME volser IS nnn

Cause: This message indicates a nonzero allocation status for a volume specified for the data component. nnn is the VSAM catalog return code. Return codes are explained in Appendix B.

System Action: For DEFINE and IMPORT, processing of the command is normally terminated with LASTCC set to 12. For IMPORTRA, the current object is not imported and LASTCC is set to 8, but the command continues to import other objects on the portable file. With the exceptions noted below, this message is accompanied by message IDC3007I or IDC3009I. Message IDC3009I provides a catalog reason code with the catalog return code.

This message can occur with a successful DEFINE CLUSTER or ALTERNATEINDEX NONUNIQUE if more than one volume is specified (explicitly or implicitly). It indicates that a data component primary allocation failed on the indicated volume but succeeded on another volume. In this case, neither message IDC3007I nor IDC3009I appears, and LASTCC remains set to 0. No programmer action is required.

For a keyrange multivolume DEFINE UNIQUE data component, if more volumes than keyranges are specified, a nonzero data volume allocation status can occur with a successful define. In this case, neither message IDC3007I nor IDC3009I appears, and LASTCC remains set to 0. No programmer action is required.

Programmer Action: Refer to Appendix B to determine why allocation failed on the indicated volume.

IDC0509I INDEX ALLOCATION STATUS FOR VOLUME volser IS nnn

Cause: This message indicates a nonzero allocation status for a volume specified for the index object. nnn is the VSAM catalog return code. Return codes are explained in Appendix B.

System Action: For DEFINE and IMPORT, processing of the command is normally terminated with LASTCC set to 12. For IMPORTRA, the current object is not imported and LASTCC is set to 8, but the command continues to import other objects on the portable file. With the exception noted below, this message is accompanied by message IDC3007I or IDC3009I. Message IDC3009I will provide a catalog reason code with the catalog return code.

This message can occur with a successful DEFINE CLUSTER or ALTERNATEINDEX NONUNIQUE if more than one volume is specified (explicitly or implicitly). It indicates that an index component primary allocation failed on the indicated volume but succeeded on another volume. In this case, neither message IDC3007I nor IDC3009I appears, and LASTCC remains set to 0. No programmer action is required.

Programmer Action: Refer to Appendix B to determine why allocation failed on the indicated volume.

IDC0510I CATALOG ALLOCATION STATUS FOR VOLUME volser IS nnn

Cause: This message indicates a nonzero allocation status for the volume containing the VSAM catalog. nnn is the VSAM catalog return code. Return codes are explained in Appendix B.

System Action: Processing of the command is terminated. This message is accompanied by message IDC3007I or IDC3009I. Message IDC3009I will provide a catalog reason code with the catalog return code.

Programmer Action: Refer to Appendix B.

IDC0511I SPACE ALLOCATION STATUS FOR VOLUME volser IS nnn

Cause: This message indicates a nonzero allocation status for a volume on which VSAM space is being defined. nnn is the VSAM catalog return code. Return codes are explained in Appendix B.

For a single volume DEFINE SPACE, this message (along with message IDC3007I or IDC3009I) indicates the cause of failure of the DEFINE SPACE. No data spaces have been defined. LASTCC is always set to 12.

For a multivolume DEFINE SPACE:

- If this message appears for one or more volumes, but neither message IDC3007I nor message IDC3009I appears, a data space was successfully defined on those volumes not identified by this message. For those volumes that were identified by this message, no data space was defined due to the reason given in return code nnn. LASTCC is always set to 8.
- If this message appears for one or more volumes, and either message IDC3007I or IDC3009I appears, then data spaces have not been defined for those volumes identified by this message. Data spaces may or may not have been defined for volumes not identified by this message. Do a LISTCAT SPACE to determine whether any of the unidentified volumes have the new data spaces defined. LASTCC is always set to 12.

System Action: Processing continues.

Programmer Action: Refer to Appendix B. Correct the indicated error condition(s). If DEFINE was for multiple volumes, remove from the VOLUMES list any volumes that were successfully defined (see "Cause" above). Rerun the command.

IDC0512I NAME GENERATED-(x) file-id

Cause: This is an information message. DATA and INDEX object names are generated by VSAM catalog management when these names have not been specified. The character in parentheses ("D" or "I") indicates the object to which the file-id corresponds. In the case of default model definitions, the data (and index) names printed are generated by Access Method Services regardless of what, if anything, was specified by the user for a data (and index) name.

System Action: Processsing continues.

Programmer Action: None required. This is the name you would use to explicitly reference the component via ALTER or IMPORT(RA) OBJECTS.

IDC0520I CATALOG RECOVERY VOLUME IS volser

Cause: This message indicates the serial number of the volume that contains all catalog recovery data (CRA) for the object just defined.

System Action: Processing continues.

Programmer Action: The named volume must be mounted for any future operation that modifies the catalog entry for the object just defined.

IDC0526I ALTERED ALLOCATION STATUS FOR VOLUME volser IS nnn

Cause: This message indicates the allocation status of volumes being added or removed from a VSAM file. nnn is the VSAM catalog return code that indicates the status; a 0 indicates successful allocation for the volume. Return codes are explained in Appendix B.

System Action: Processing continues.

Programmer Action: None.

IDC0550I ENTRY (x) objectname DELETED

Cause: The specified objectname entry was deleted from the VSAM catalog. If it is a VSAM file or catalog, all space allocated to it has been deallocated. x indicates the type of entry:

A = nonVSAM	G = alternate index	R = path
C = cluster	I = index	U = user catalog
D = data	M = master catalog	V = volume

Note that a volume entry is deleted only when the volume no longer contains any data spaces. When this occurs, the catalog no longer owns the volume. The objectname field displays the volume serial number.

System Action: Processing continues.

Programmer Action: None.

IDC0551I ** ENTRY objectname NOT DELETED

Cause: The message preceding this message in the listing indicates why the objectname entry was not deleted.

System Action: The named object is not deleted.

Programmer Action: Correct the cause of the nondeletion and rerun the command.

IDC0555I DELETION OF SPACE OBJECT DID NOT CAUSE volser TO BE DELETED

Cause: Deletion of data spaces did not cause the volume to be deleted from the catalog, and the VSAM ownership flag in the format-4 VTOC label was not turned off. Possible causes include:

- The volume is a catalog volume.
- The volume contains nonempty data spaces and FORCE was not specified.
- The volume is a candidate volume for one or more VSAM files, and FORCE was not specified.

System Action: The volume remains owned by the catalog in which it was originally defined; empty data spaces have been deleted; and processing continues.

Programmer Action: If you wish to delete the (noncatalog) volume from the catalog:

- Using LISTCAT output, determine if any files have the volume listed as a candidate volume. (VOLFLAG is CANDIDATE in the DATA or INDEX VOLUME group.) If so:
  - delete these files,
  - remove this volume from the files' candidate lists using ALTER REMOVEVOLUMES, or
  - specify the FORCE option on the DELETE SPACE command

  and rerun the command.
- Using LISTCAT output, determine if any files have allocated data space on the volume. (VOLFLAG is PRIME or OVERFLOW in the DATA or INDEX VOLUME group.) If so:
  - delete these files, or
  - EXPORT or REPRO these files and then delete the old copy, or
  - specify the FORCE option on the DELETE SPACE command

  and rerun the command.

If the volume is a catalog volume, VSAM ownership can be removed only by executing a DELETE USERCATALOG or MASTERCATALOG.

IDC0571I CATALOG RELOAD HAS BEEN INVOKED

Cause: A REPRO command has been executed where the target file is a catalog. This message marks the beginning of processing of a catalog reload operation.

System Action: Processing continues.

Programmer Action: None.

IDC0594I PORTABLE DATA SET CREATED SUCCESSFULLY ON date AT hh:mm:ss

Cause: This is an information message. The portable file contains all information necessary to recreate the cluster or alternate index (and associated paths) being exported.

System Action: Processing continues.

Programmer Action: None required. When you import the cluster or alternate index, you can compare this date and time with the date and time in IMPORT message IDC0604I to ensure that the correct backup version was imported.

Note: After this message is issued, errors can occur that cause error messages to be printed and an error condition code to be set. These errors result from failure to delete the file (PERMANENT option) or to alter the file (TEMPORARY option, causes the file catalog entry to be flagged temporary). As a result of the failure, the file cannot be imported into this catalog without first deleting or renaming (including all components of the same name) the old copy.

IDC0603I CONNECT FOR USER CATALOG catname SUCCESSFUL

Cause: This information message identifies the name (catname) of the catalog for which CONNECT was completed successfully.

System Action: None.

Programmer Action: None.

IDC0604I DATA SET BEING IMPORTED WAS EXPORTED ON date AT hh:mm:ss

Cause: This information message gives the date and time that the file was exported.

System Action: Processing continues.

Programmer Action: None required; the message allows verification that the correct portable file is being imported.

IDC0622I USERCATALOG catname DISCONNECTED

Cause: A user catalog has been disconnected by IMPORTRA in order to connect a new pointer (having the same catname) to the user catalog.

System Action: Processing continues.

Programmer Action: None.

IDC0626I IMPORTRA SUCCEEDED FOR objectname

Cause: The object (objectname) has been successfully imported.

System Action: Processing continues; this is an information message.

Programmer Action: None.

IDC0652I altindex SUCCESSFULLY BUILT

Cause: The alternate index identified by altindex has been successfully built with no errors encountered.

System Action: Processing continues.

Programmer Action: None.

IDC0665I NUMBER OF ENTRIES THAT MISCOMPARED IN THIS CRA - nn

Cause: The COMPARE option was requested, and Access Method Services found nn entries (volume, cluster, alternate index, nonVSAM, and/or user catalog entries) for which one or more miscompares between the catalog recovery area (CRA) and catalog have been detected.

System Action: Processing continues.

Programmer Action: Check the * MISCOMPARES - field type print lines in the output listing to determine which entries had miscompares and which fields miscompared. Determine whether recovery is required. (See *VSE/VSAM Programmer's Reference* for information about data recovery procedures.)

IDC0669I EXPORTING FROM CRA ON VOLUME volser

Cause: Access Method Services is about to export one or more files, user catalog entries, or nonVSAM entries associated with the catalog recovery area (CRA) and volume named in the message.

System Action: Processing continues.

Programmer Action: None.

IDC0670I DATA SET SUCCESSFULLY EXPORTED

Cause: The file, catalog entry, or nonVSAM entry named in secondary message IDC0674I was successfully retrieved and written to the portable file.

System Action: Processing continues.

Programmer Action: None.

IDC0672I * * LOCKED ON CATALOG catname

Cause: This secondary message provides the name of the catalog that owns the first CRA processed. This is the catalog whose CRA entries are exported. It has been enqueued (that is, "locked") for access integrity.

System Action: See the primary message immediately preceding this message on the listing.

Programmer Action: See the primary message immediately preceding this message on the listing.

IDC0674I ** NAME IS file-id

Cause: This is a secondary message supplying the file-id in support of other messages. See the preceding primary message for the cause of the messages.

System Action: See the primary message immediately preceding this message on the listing.

Programmer Action: See the primary message immediately preceding this message on the listing.

IDC0676I PORTABLE DATA SET CREATED SUCCESSFULLY ON date AT time

Cause: A portable file has been created, and this file contains the necessary information to recreate the exported file(s), user catalog entries, and nonVSAM entries via IMPORTRA. IMPORTRA will print export date and time for each object imported.

System Action: Processing continues.

Programmer Action: None required. When the portable file is imported, this date and time are printed in message IDC0604I.

IDC0874I FOLLOWING NOT ALPHABETIC - INSUFFICIENT WORK SPACE FOR SORT

Cause: Insufficient virtual storage is available for sorting alphabetically the objects to be listed in response to a LISTCRA command with the DUMP or NAME option.

System Action: The sorting is not done, and the objects are listed in the order they are encountered while reading the catalog recovery area.

Programmer Action: If a sorted listing is desired, rerun the command in a larger partition.

IDC0877I NUMBER OF OBJECTS THAT MISCOMPARED IN THIS CRA - nn

Cause: The COMPARE option was requested, and this message indicates the number (nn) of records for which a miscompare between the catalog recovery area and catalog occurred. There are nn * MISCOMPARES - field type print lines in the output listing.

System Action: Processing continues.

Programmer Action: None required if nn is zero. Otherwise, determine whether recovery is required. For information about interpreting LISTCRA output, see *Using VSE/VSAM Commands and Macros*, Appendix C, for examples showing COMPARES option output listings. See *VSE/VSAM Programmer's Reference*, "LISTCRA: Analysis of Recoverable Catalogs" for further information about recovery actions for LISTCRA * MISCOMPARES messages.

IDC0888I ** ENTRY CONTAINS NO DATA RECORDS

Cause: This is a secondary message indicating there are no data records in the VSAM file to be exported. The name of the file is given in secondary message IDC0674I preceding this message on the listing. This condition can occur for the following reasons:

- The file has been defined (suballocated, unique, or no-allocate) but has not yet been loaded.
- The file is a dynamic or reusable file which when last closed was reset to empty because the DLBL DISP parameter specified DELETE or DATE (with the expiration date reached) or the ACB MACRF parameter specified DELETE or DATE (with the expiration date reached).
- The file is a dynamic or reusable file which when last opened was reset to empty because the ACB MACRF macro specified OUT, and either the DLBL DISP parameter specified NEW or the ACB MACRF parameter specified RST, and the file was closed without any records being loaded into it.
- The file is a default model. Default models never contain any data records.

System Action: Processing of only the catalog information for this file is attempted. See the preceding primary message for processing results. If processing was successful, then the portable file contains the necessary information to redefine the file via IMPORTRA.

Programmer Action: None.

IDC0922I 'xxx' DUMP ELEMENT INVALID FOR SYMBOLIC DUMP

Cause: The PARM command has caused a UDUMP macro to be issued, and the dump element xxx in a symbolic dump list either has an invalid type field, or the length field is invalid for the specified type. The condition code remains unchanged. This is a system error.

System Action: The dump element xxx is ignored; symbolic dumping continues.

Programmer Action: If the problem persists, save the job stream and system output (SYSLST) associated with the job for problem determination, and contact your IBM Support Center.

IDC0923I 'xxx' ARRAY HEADER INVALID FOR SYMBOLIC DUMP

Cause: The PARM command has caused a UDUMP macro to be issued, and the array header xxx in the symbolic dump list either:

- has an invalid extent field (must be greater than 0 and less than or equal to 99), or
- has an invalid item count field (must be greater than 0), or
- is an array header within an existing array specification (arrays of arrays are not allowed).

The condition code remains unchanged; this is a system error.

System Action: The array header xxx is ignored. Dump elements within the array specification are treated as single (unarrayed) items.

Programmer Action: If the problem persists, save the job stream and system output (SYSLST) associated with the job for problem determination, and contact your IBM Support Center.

IDC0924I DUMP ROUTINE INVOKED AT 'xxxx'

Cause: The PARM command has caused the Access Method Services dump routine to be invoked by the UDUMP macro from dump point xxxx.

System Action: A dump of the IDCAMS trace tables is provided, with symbolic and/or full partition dumps, as specified via the PARM command.

Programmer Action: None.

IDC0925I DUMP nnn PRODUCED AT DUMP POINT xxxx

Cause: The PARM command has caused a full partition (SNAP) dump. This is the nnnth SNAP dump. The UDUMP macro was invoked at dump point xxxx.

System Action: A SNAP dump occurs, and processing continues.

Programmer Action: None.

IDC1024I INDEX SHAREOPTIONS(4) CHANGED TO SHAREOPTIONS OF DATA

Cause: You specified SHAREOPTIONS(4) in a DEFINE command for the index component, but the shareoptions value for the data component is not 4. If the index shareoptions is 4, the data shareoptions must also be 4.

System Action: The index shareoptions is changed to the same value as the data shareoptions.

Programmer Action: Run a LISTCAT to determine what the index shareoptions was changed to. If it is not acceptable, change both data and index shareoptions to 4.

IDC1048I DATA SHAREOPTIONS MUST BE 4 WHEN INDEX SHAREOPTIONS IS 4

Cause: You specified SHAREOPTIONS(4) in an ALTER command for the index component. The data component must also have a shareoptions value of 4.

System Action: Index shareoptions is changed to 4, as you requested.

Programmer Action: Run a LISTCAT to determine what the shareoptions of the data component is. If the data shareoptions is 4, no action is required. If the data shareoptions is not 4, either change it to 4, or change the index shareoptions to another value.

IDC1172I USECLASS AS SPECIFIED AT DATA/INDEX IGNORED BECAUSE SPACE NOT SPECIFIED AT SAME LEVEL

Cause: USECLASS specification (other than zero) at the data or index level has been ignored because no space parameters (cylinders, tracks, blocks, records) were specified or modeled at the same level.

System Action: Processing continues. The condition code is set to 4.

Programmer Action: If the system action is unacceptable, delete the definition, and redefine with the desired USECLASS and space specification at the same level.

IDC1285I CRA ON VOLUME volid HAS NO FILES TO BE EXPORTED

Cause: The given CRA is valid but contains no files, or does not contain any of the files requested. This message does not occur if NONE was specified.

System Action: The LASTCC is set to 4 and processing of any other CRAs continues. If at the end of processing, nothing has been exported, the LASTCC is set to 12.

Programmer Action: If this message was unexpected, use the LISTCRA command to examine the CRA. LISTCAT can also be used to determine the correct volume for any file.

IDC1293I xxx PARAMETER IGNORED

Cause: The keyword parameter xxx as specified has been ignored because it is not applicable for the case or parameter combinations given.

If xxx is DEFAULTVOLUMES, the message indicates that DEFAULTVOLUMES was explicitly specified (either at the cluster/alternate index level, or at the data or index component level), but was overridden by the explicit specification of the VOLUMES parameter (either at the cluster/alternate index level, or at the data or index component level) so that no defalut model volume list generation occurred during the definition of the cluster or alternate index.

If xxx is ORIGIN, the message indicates that the ORIGIN parameter was specified along with the DEDICATE parameter. ORIGIN has been ignored.

If xxx is FILE, the message indicates that the FILE parameter was specified along with the DEDICATE parameter. FILE has been ignored.

For IMPORT and IMPORTRA, the name of the affected cluster or alternate index is identified by secondary message IDC0674I.

System Action: Processing continues. Where xxx is DEFAULTVOLUMES, the file or file component is defined with the volumes supplied by the VOLUMES parameter. The condition code (LASTCC) is set to 4.

Programmer Action: Where xxx is DEFAULTVOLUMES, if the volumes actually used (from the VOLUMES parameter) are satisfactory, no action is required. (Remove any unnecessary DEFAULTVOLUMES specifications if the command is to be used again.)

Where xxx is ORIGIN or FILE, you may accept the fact that the rest of the volume has been dedicated to VSAM space or may delete the space and redefine with DEDICATE omitted, using ORIGIN or FILE instead.

If you want to redefine the file using the DEFAULTVOLUMES facility, modify the command parameters so that the VOLUMES parameter does not override the DEFAULTVOLUMES parameter. For DEFINE and IMPORT, delete the file, and then rerun the command.

IDC1294I [NOCIFORMAT] SAM ESDS FOUND IN CRA volser, DATA SET IS BYPASSED

Cause: The EXPORTRA command requested that all entries (the ALL subparameter) in the catalog recovery area (CRA) on volser be exported. A SAM ESDS file, identified by secondary message IDC0674I, was not exported because:

- it is NOCIFORMAT (NOCIFORMAT is in message text) and NOCIFORMAT SAM ESDSs cannot be exported, or
- the VSE/VSAM Space Management for SAM Feature is not installed on this system and therefore SAM ESDSs cannot be exported. (NOCIFORMAT is omitted from message text.)

System Action: The indicated file is not exported, LASTCC is set to 4, and processing continues for other entries to be exported.

Programmer Action: None required. You can avoid this message by specifying the ENTRIES subparameter (for all entries which can be validly exported). For NOCIFORMAT SAM ESDSs, you must supply your own programs to provide file recovery and, if required, portable copies. SAM ESDSs cannot be accessed if the VSE/VSAM Space Management for SAM Feature is not installed on your system.

IDC1329I INCONSISTENT SPANNED RECORD DETECTED

Cause: An error was encountered during an Access Method Services action request of a spanned record. The level numbers stored in the control interval RDFs did not match. This means that two or more segments of the record are not at the same update level. This may have been caused by concurrent shared output access.

System Action: The record is bypassed, and exporting will continue unless this is the fourth such error. After four errors, processing of the file terminates.

Programmer Action: Rerun the command, ensuring that the file is not being accessed concurrently for output. If the problem recurs, recover the file from previous backup.

IDC1502I PASSWORD SUPPRESSION IN MODEL OBJECT

Cause: This is a warning message that occurs if the password provided for the model is not high enough to locate the passwords themselves; therefore, the passwords were not used for the object being defined.

System Action: Passwords are not modeled; processing continues.

Programmer Action: If password modeling is desired, supply the master password of the model object; delete and redefine the object.

IDC1543I NEW KEYS AND/OR RECORDSIZE VALUES EQUAL TO PRIOR DEFAULT VALUES

Cause: The ALTER command specified the KEYS or RECORDSIZE parameter with values equal to the default values chosen by the DEFINE command. The DEFINE defaults are KEYS(64 0), RECORDSIZE(4089 4089) for non-spanned files, and RECORDSIZE(4086 32600) for spanned files.

System Action: The system continues processing the ALTER command with a condition code of 4, altering any parameters other than KEYS and RECORDSIZE if possible. Invalid key values also prevent alteration of record size values in the same command and vice versa.

Programmer Action: None, if the default values are correct. Otherwise, execute an ALTER command to correct them.

IDC1544I KEYS AND/OR RECORDSIZE VALUES EQUAL TO PRIOR NON-DEFAULT VALUES

Cause: In the ALTER command, the values specified for KEYS or the maximum value specified for RECORDSIZE are the same as those already defined. Only DEFINE default values for KEYS and RECORDSIZE can be altered.

System Action: The system continues processing the ALTER command with a condition code of 4, altering any parameters other than KEYS and RECORDSIZE if possible. Invalid key values also prevent alteration of record size values in the same command and vice versa.

Programmer Action: None, if the specified values are correct. Otherwise, delete the entry and redefine it with correct values.

IDC1561I WKSPC LACKING FOR objectname

Cause: A larger partition size is required for this invocation of Access Method Services and LISTCAT.

System Action: The system bypasses processing of the LISTCAT command for the indicated objectname entry and continues processing with a condition code of 4.

Programmer Action: Rerun the command in a larger partition for those entries that were bypassed.

IDC1562I volser VOLUME SERIAL NUMBER TOO LONG

Cause: An ENTRIES parameter value exceeds six characters for the SPACE request of a LISTCAT command. When SPACE is specified for LISTCAT, ENTRIES parameters must be volume serial numbers. They must not exceed six characters in length.

System Action: The system bypasses the indicated entry of the LISTCAT command and continues processing with a condition code of 4.

Programmer Action: Rerun the command with the corrected volume serial number(s).

IDC1564I entryname IS AN UNKNOWN TYPE

Cause: The entryname returned from the catalog is a type not supported by LISTCAT.

System Action: The system bypasses the indicated entryname from the LISTCAT command and continues processing with a condition code of 4.

Programmer Action: If you are processing an OS/VS catalog, LISTCAT may have encountered an OS/VS-only entry type, such as a generation data group (type code B) or an alias entry (type code X) for a nonVSAM or user catalog entry. Otherwise run the Catalog Check Service Aid and follow the programmer action for the messages it issues. Catalog Check is documented in *VSE/VSAM Programmer's Reference*.

If the problem persists, save the job stream and system output (SYSLST) associated with the job for problem determination, and contact your IBM Support Center.

IDC1565I entryname NOT A REQUESTED TYPE

Cause: A specified entryname was not among the types of entries specified in the LISTCAT command.

System Action: The system bypasses the indicated entryname from the LISTCAT command and continues processing with a condition code of 4.

Programmer Action: Rerun the command with the correct entry type(s) specified.

IDC1566I ** entryname COULD NOT BE LISTED

Cause: entryname could not be listed due to lack of password authorization or a catalog access error. See the preceding message for the cause of the condition.

System Action: The system bypasses entryname and continues processing with a condition code of 4.

Programmer Action: See the primary message immediately preceding this message on the listing.

IDC1567I ** INVALID CONTROL INTERVAL NUMBER nnn

Cause: An associated object entry identified by a control interval number (decimal nnn) in the VSAM catalog does not exist. The preceding primary message indicates the catalog return code error.

System Action: The system bypasses the indicated entry and continues processing.

Programmer Action: Run the Catalog Check Service Aid to determine the name of the invalid object. Then follow the programmer action for the Catalog Check messages. Catalog Check is documented in *VSE/VSAM Programmer's Reference*.

IDC1574I CATALOG ENTRY COMPARISON NO LONGER FUNCTIONING

Cause: This message follows the 100th IDC1575I message. Comparison of the backup and target catalog continues, but only volume serial number mismatches are listed.

System Action: Reload process continues. Message IDC1575I is suppressed for file-id mismatches.

Programmer Action: The large number of discrepancies detected between the target and backup catalogs indicates that you should use the reloaded catalog with caution until the LISTCAT output obtained before and after the reload has been carefully checked. Execute the LISTCAT command to list the contents of the applicable catalog.

IDC1575I ONLY {BACKUP|TARGET} DEFINES {file-id|volser}

Cause: This message indicates that either the backup or target catalog does not contain the file or volume entry.

System Action: Reload process continues.

Programmer Action: If only the backup defines a file, the physical data for the file probably does not exist on the indicated volume. Consequently, the catalog entry should be deleted. Use the DELETE NOERASE option, since the ERASE option may affect other users' data.

If only the backup defines a volume, the volume is probably no longer owned by this catalog. Delete any files indicated as residing on this volume, then delete this volume. (A nonVSAM volume with the same volume serial number will have to be mounted.)

If only the target defines a VSAM file, access to the file has been lost. A backup copy of the file (output from EXPORT) should be obtained and imported (using the IMPORT command).

If only the target defines a nonVSAM file, these catalog entries can be reestablished with a DEFINE command.

If only the target defines a volume, access has been lost to the volume. It cannot be reused by VSAM until the VSAM ownership and data space protection attributes have been removed.

Execute the LISTCAT command to list the contents of the applicable catalog.

IDC1595I PASSWORDS SUPPRESSED FOR THE EXPORTED DATA SET

Cause: The password and other protection information was inaccessible because the master password of the file was not supplied.

System Action: Processing of the command continues. The portable version of the file has been created, but without the protection attributes. The file, when imported, will not have any protection attributes.

Programmer Action: If the protection attributes are desired, specify the master password of the file, and rerun the command.

IDC1614I INVALID NAME IN OBJECTS PARAMETER: objectname

Cause: The objectname specified in the OBJECTS parameter of the IMPORT command does not match any of the object names for the VSAM file or its associated paths being imported.

System Action: Import processing continues normally. The OBJECTS parameters associated with objectname are ignored. The condition code is set to 4.

Programmer Action: If the result is not as desired, correct the erroneous objectname specification, and rerun the command. Since the imported file is no longer marked as "temporary" (see EXPORT TEMPORARY option in *Using VSE/VSAM Commands and Macros*), it must be deleted before the IMPORT can be rerun.

IDC1627I PREDEFINED EMPTY DATA SET FOUND -- OBJECTS PARAMETER NOT USED

Cause: The OBJECTS parameter was specified for one or more components of the imported cluster or alternate index, and a matching predefined empty file was found in the catalog.

If the OBJECTS NEWNAME subparameter was used to rename the file-id of the imported cluster or alternate index to match the file-id of the empty file, this message can be ignored. (The file-ids must match to allow the predefined empty file to be used.)

System Action: The OBJECTS parameter(s) will be ignored, and the cluster or alternate index will be imported into the predefined empty file. The condition code is set to 4.

Programmer Action: If the result is not as desired, either redefine the empty file with the OBJECTS attributes, or delete the empty file; then rerun the command.

IDC1644I ALTERNATE INDEX KEY NOT IN BASE RECORD xxx

Cause: xxx identifies a base cluster record that is not long enough to contain the entire alternate key. If the base cluster is a key-sequenced file, xxx is the key of the short base cluster record (up to a maximum of the first ten bytes) expressed in hexadecimal. If the base cluster is an entry-sequenced file, xxx is the RBA of the short base cluster record, given in decimal.

System Action: The base cluster record is bypassed. It will therefore not be reflected in the alternate index being built. The name of the alternate index is given in message IDC1653I, which is also displayed. BLDINDEX processing continues.

Programmer Action: Check to ensure that you have not incorrectly specified the alternate key offset or length in the alternate index definition. If the key specified is correct, after the alternate index is built, you should delete the short record and rewrite a long enough record via a user program, with the alternate index as part of the upgrade set. This causes the alternate index to be upgraded to reflect this particular base record.

IDC1645I NONUNIQUE AIX KEY xxx

PRIME {KEY|RBA} IS xxx

Cause: The alternate index being built (for its name, see message IDC1653I, which is also displayed) was defined with the UNIQUEKEY attribute, that is, an alternate key exists in one and only one cluster record. However, multiple occurrences of the same alternate key have been encountered. The message is issued once for each multiple occurrence. The message gives the alternate key (up to a maximum of the first ten bytes) expressed in hexadecimal. If the base cluster is a key-sequenced file, the message gives the prime key (up to a maximum of the first ten bytes) expressed in hexadecimal. If the base cluster is an entry-sequenced file, the message displays the prime RBA in decimal.

System Action: An alternate index record is created containing the alternate key and only the first prime key or RBA listed. All subsequent prime keys/RBAs will not be reflected in the alternate index record.

Programmer Action: If the UNIQUEKEY attribute was correctly specified, then the base cluster is in error and must be corrected via a user program. If the UNIQUEKEY attribute was incorrectly specified and:

- The alternate index was defined with the REUSE parameter, change it to NONUNIQUEKEY using the ALTER command.
- The alternate index was not defined with the REUSE parameter, delete the alternate index and redefine it with the NONUNIQUEKEY attribute.

Then rebuild the alternate index using the BLDINDEX command.

IDC1646I nnnn EXCESS PRIME {KEY|RBA} VALUES FOR AIX KEY xxx

Cause: xxx is the key (expressed in hexadecimal up to a maximum of the first ten bytes) of an alternate index record that was too short to contain all the prime key or RBA pointer values that occurred for that alternate index key. nnn (expressed in decimal) gives the number of pointers that could not get into the record. The name of the alternate index being built is given in a subsequent message.

System Action: The alternate index record is created with only those pointers that could fit.

Programmer Action: Check to ensure that you have not incorrectly specified the alternate key offset or length in the alternate index definition. If the key specified is correct, delete the alternate index and redefine it (using Access Method Services commands) with a maximum record size long enough to contain the maximum number of prime keys or 4-byte RBA pointers for any one alternate key. Then rebuild the alternate index using the BLDINDEX command.

IDC1653I file-id BUILT WITH ERRORS

Cause: Building of the alternate index identified by file-id has been completed, but some non-terminating errors were encountered. Non-terminating errors consist of:

- alternate index key not contained in one or more base cluster records;
- multiple occurrences of one or more alternate keys for an alternate index defined with the UNIQUEKEY attribute; or
- one or more alternate index records too short to contain all the prime key or RBA pointers.

All non-terminating errors for this alternate index have been identified in preceding messages.

System Action: Processing continues.

Programmer Action: Depends on the error encountered. Refer to the action outlined for the individual errors in explanations to the preceding messages on the listing.

IDC1661I OUT-OF-SYNC DATA SET SUCCESSFULLY EXPORTED (BY FORCE)

Cause: The portable file contains the necessary information to recreate the file via IMPORTRA. At the time of export, the file was out of synchronization, caused by a mismatch between time stamps or space information in the data set directory volume record and in the data or index entry. See secondary message IDC0674I for the file-ID.

System Action: Processing continues.

Programmer Action: None.

IDC1662I ** OUT-OF-SYNC DATA SET NOT EXPORTED

Cause: The VSAM file named in secondary message IDC0674I, which follows, is out of synchronization and FORCE was not specified. The lack of synchronization is caused by a mismatch between the time stamps or space information in the data set directory volume record and in the data or index entry.

System Action: The VSAM file is not exported; processing continues.

Programmer Action: See the preceding message on SYSLST to determine the cause of the error. If you wish to export the file with its possible problems, specify FORCE and rerun the EXPORTRA command.

IDC1663I BYPASSED RELATION file-id

Cause: An error occurred or a catalog entry could not be located for a path to a VSAM cluster or to an alternate index, or for an OS/VS alias for a nonVSAM object. file-id is the name of the cluster, alternate index, or nonVSAM object. This message can occur for the last object only if an OS/VS catalog has been connected as a user catalog to a VSE system.

System Action: Processing for the associated (related) object is bypassed; processing for the named object is continued.

Programmer Action: If the above-named object is an OS/VS object, run a LISTCAT after an IMPORTRA operation to determine missing associated (related) objects and to redefine these objects. Otherwise run the Catalog Check Service Aid and follow the programmer action for the messages it issues. Catalog Check is documented in *VSE/VSAM Programmer's Reference*.

IDC1664I ASSOCIATION ERROR, file-id

Cause: The named file-id refers to a user catalog or a nonVSAM data set that has an association entry that is not an OS/VS alias. This message can occur only if an OS/VS catalog has been connected as a user catalog to a VSE system.

System Action: The association is bypassed for export, and processing of the object is continued.

Programmer Action: List the above-named object after an IMPORTRA operation to determine missing association(s) and to redefine the association(s).

IDC1667I VOLUME volser IS OUT-OF-SYNC AND LATER THAN VOLUME volser

Cause: The CRA directory file time stamp mismatches the file time stamp on one of the volumes for the VSAM file named in the message following on the listing. The volumes of a multivolume file are out of synchronization, although some of the data may still be recoverable.

System Action: Further synchronization checking for the file continues, but the VSAM file entry and its associated entries are bypassed for export.

Programmer Action: Get the two volumes in synchronization using the Copy and Restore Disk system utility program. Then rerun the command.

IDC1678I ** DATA SET EXPORTED WITH MINOR ERRORS

Cause: An error occurred while processing an object that is associated with the file being exported. Secondary message IDC0674I identifies the file exported.

System Action: Processing for the associated object is bypassed. The base cluster or alternate index is exported.

Programmer Action: See the preceding message on the SYSLST output to determine the type of error and recovery procedure.

IDC1679I ** OUT-OF-SYNC DATA SET EXPORTED WITH MINOR ERRORS

Cause: An error occurred while processing an object that is associated with an out-of-synchronization file. The lack of synchronization is caused by a mismatch between the time stamps or space information in the data set directory volume record and in the data or index entry. The FORCE option caused the out-of-sync file to be exported.

System Action: Processing for the associated object is bypassed. The base cluster or alternate index is exported.

Programmer Action: See the preceding message on the SYSLST output to determine the type of error and recovery procedure.

IDC1771I DELETE INCOMPLETE

Cause: Errors have occurred, and not all objects have been deleted. Message IDC0550I follows and identifies which objects have been deleted.

System Action: Access Method Services will invoke the Catalog Check Service Aid, which will produce output identifying catalog errors that have occurred.

Programmer Action: Refer to the Catalog Check Service Aid messages and their documentation to determine which objects were not deleted. Then delete them by specifying IGNOREERROR on the DELETE command.

IDC1870I ** IGNORED VSAM ERROR READING CRA - CI 'nn'X

Cause: A LISTCRA command encountered an I/O error reading a catalog recovery area (CRA) record at the specified control interval. 'nn' is the control interval number in hexadecimal. The preceding message identifies the VSAM I/O error.

System Action: The record is ignored, and processing is continued as long as no more than 50 errors have been encountered while processing the LISTCRA command, at which point processing is terminated.

Programmer Action: Determine the cause of the I/O error, correct the problem, and rerun the command.

IDC1871I IGNORED VSAM ERROR READING CATALOG - CI 'nn'X

Cause: A LISTCRA command encountered an I/O error reading a catalog record at the indicated control interval. 'nn' is the control interval number in hexadecimal. The preceding message identifies the I/O error.

System Action: The record is ignored, and processing is continued as long as no more than 50 errors have been encountered while processing the LISTCRA command, at which point processing is terminated.

Programmer Action: Determine the cause of the I/O error, correct the problem, and rerun the command.

IDC1875I ERROR TRANSLATING CRA CI FROM CATALOG CI - 'nn'X

Cause: An error occurred when translating an entry's catalog control interval (nn), which points to a related entry, to a CRA control interval before reading the entry. This normally results from an incomplete entry definition or an I/O error (identified in a preceding message.)

System Action: The error is bypassed and processing is continued; however, there may be minor errors in the list.

Programmer Action: Restore the volume on which the error occurred to a previous valid condition. For information on catalog recovery, see *VSE/VSAM Programmer's Reference.* If the problem persists, save the job stream and system output (SYSLST) associated with this job for problem determination and contact your IBM Support Center.

IDC1878I listcra-procname IGNORED ERROR FROM FIELD MANAGEMENT

Cause: Module IDCRC04 (EXPORTRA field management), called by LISTCRA, was unable to return information about a field specified by LISTCRA. This message normally results from an I/O error (identified in a preceding message). listcra-procname is the LISTCRA procedure in control when the error was detected.

System Action: The error is bypassed and processing is continued; however, there may be minor errors in the list.

Programmer Action: Restore the volume on which the error occurred to a previous valid condition. For information on catalog recovery, see *VSE/VSAM Programmer's Reference.* If the problem persists, contact your IBM Support Center, and make sure the job stream and system output (SYSLST) associated with this job are available for problem determination.

IDC1880I IGNORED I/O ERROR READING VOLUME LABEL

Cause: A LISTCRA command encountered an I/O error reading the format-4 label in the VTOC to obtain the time stamp information.

System Action: The error is ignored, and the time stamps are not printed.

Programmer Action: List the format-4 label using the LVTOC utility program, or determine the cause of the I/O error by referring to the reason code in the preceding I/O error message. Correct the problem, and rerun the command.

IDC1885I CRA RECORD COULD NOT BE READ BY FIELD MANAGEMENT

Cause: Module IDCRC04 (EXPORTRA field management) called by LISTCRA to read CRA fields for the miscompare list was unable to return the requested field. This message normally results from an I/O error identified in the preceding message.

System Action: The error is bypassed and processing is continued; however, there may be minor errors in the list.

Programmer Action: Restore the volume on which the error occurred to a previous, valid condition. For information on catalog recovery, see *VSE/VSAM Programmer's Reference.* If the problem persists, contact your IBM Support Center, and make sure the job stream and system output (SYSLST) associated with this job are available for problem determination.

IDC1887I ERROR REFERENCING CRA ON VOLUME volser - REASON CODE n

Cause: In opening the catalog recovery area (CRA), there was a problem indicated by the reason code n, where:

n = 3: time stamp for volume was not obtained.

n = 6: I/O error reading the CRA record.

System Action: Processing continues.

Programmer Action: None, but the problem causing this message may cause other messages that you should act on.

IDC1927I INVALID 'MARGINS' VALUES SPECIFIED. DEFAULT MARGINS ASSUMED

Cause: The leftmargin value specified in a PARM command MARGINS parameter is invalid; it must be at least two character positions less than the rightmargin value.

System Action: The system uses the default margin values (2 and 72) and continues processing with the condition code set to 4. Truncated or misaligned printing may occur.

Programmer Action: Correct the invalid MARGINS specifications, if this is necessary, and rerun the command stream.

IDC2035I INVALID ERROR CONVERSION TABLE

Cause: A UERROR macro was issued, and an error was detected when attempting to convert a numeric catalog return code to a prose message. This is a system error.

System Action: The prose message is not printed. The catalog return code error message is printed, and processing continues.

Programmer Action: Save the job stream and system output (SYSLST) associated with the job for problem determination, and contact your IBM Support Center.

IDC2552I ENTRY TYPE IS INVALID FOR DELETE

Cause: The types of entries that can be deleted are cluster, user catalog, master catalog, nonVSAM, space, path, and alternate index. Secondary message IDC0551I identifies the object not deleted.

System Action: The entry is not deleted. The rest of the valid entries are deleted.

Programmer Action: Correct or remove the invalid entryname in the command. If you think the entry should be deleted, run the Catalog Check Service Aid and follow the programmer action for the messages it issues. Catalog Check is documented in *VSE/VSAM Programmer's Reference*.

IDC2553I ERASE OPTION IS INVALID FOR ENTRY TYPE

Cause: The DELETE command being processed specifies ERASE for an object other than a VSAM cluster or an alternate index. Secondary message IDC0551I identifies the object not deleted.

System Action: The entry is not deleted. The remaining VSAM file entries, if any, are deleted.

Programmer Action: Correct the entryname or remove the ERASE parameter, and rerun the command.

IDC2556I INSUFFICIENT CORE AVAILABLE TO CONTINUE DELETION OF ENTRY entryname

Cause: A DELETE command was issued for entryname. During the deletion, storage was requested for a larger work area to contain names of related entries that are to be deleted, but the request failed.

System Action: The attempt to delete object entryname is terminated, and the system proceeds to the deletion of any remaining objects specified in the command.

Programmer Action: Submit a new job to delete any objects not deleted, and request that it be run in a larger partition. If necessary, execute the LISTCAT command to list the catalog entries for the applicable objects and any related objects.

IDC2563I ALLOCATION/VOLUME PARAMETER IS INVALID FOR ENTRY TYPE(S)

Cause: A LISTCAT command request for allocation or volume information conflicts with the desired entries or types of entries.

System Action: The LISTCAT command attempts to list that part of the request that does not conflict.

Programmer Action: Rerun the job with LISTCAT object type or objectname parameters that are compatible with the fields specification.

IDC2616I PATH pathname WAS NOT SUCCESSFULLY IMPORTED

Cause: One of the following has occurred:

- The IMPORT or IMPORTRA command was not able to successfully define pathname over the object being imported. The most likely cause is a duplicate object name already in the catalog. Check the preceding catalog return code message IDC3007I or IDC3009I for the cause of the define failure.
- The IMPORT command cannot import pathname because an attempt was made to rename the path via the NEWNAME parameter and the new name was a name reserved for default models. Check the preceding message IDC3298I.

System Action: The indicated path is not imported, the condition code (LASTCC) is set to 8, and normal import processing continues for the cluster or alternate index and any other associated path objects (and for IMPORTRA, any other objects contained on the portable file).

Programmer Action: Consult the "Programmer Action" for the preceding message. If the path define failed (catalog return code message), determine whether the path name already exists in the catalog.

If so, either:

- DELETE or rename (ALTER NEWNAME) the duplicate object and then DEFINE the path entry which previously failed, or
- DEFINE the path entry which previously failed with a new name, or
- Verify that the correct target catalog was used. If incorrect, DELETE all imported objects and rerun the command with the correct catalog specifications.

IDC2618I INVALID OBJECTS SUBPARAMETER FOR PATH pathname

Cause: An OBJECTS subparameter other than NEWNAME was specified for path object pathname.

System Action: The indicated path is not imported. Otherwise, normal processing continues, attempting to define any remaining paths and to import the cluster or alternate index from the portable file.

Programmer Action: DEFINE the missing path, or correct the OBJECTS parameter, DELETE the imported file, and rerun the command.

IDC2620I OBJECT TYPE {ALIAS|GDG|SAM ESDS} NOT SUPPORTED FOR OBJECT file-id

Cause: One of the following has occurred:

- IMPORTRA has encountered on the portable file an OS/VS generation data group (GDG) identified by file-id. OS/VS generation data groups cannot be imported into VSE.
- IMPORTRA has encountered on the portable file an OS/VS user catalog alias entry (ALIAS) or an OS/VS nonVSAM alias entry (ALIAS) identified by file-id. User catalog entries and nonVSAM files can be imported into VSE (nonVSAM files are restricted to non-recoverable catalogs), but alias entries cannot be imported.
- IMPORT or IMPORTRA has encountered on the portable file a SAM ESDS entry (SAM ESDS) identified by file-id. The VSE/VSAM Space Management for SAM Feature is not installed on this system. Therefore, SAM ESDS cannot be imported.

System Action: For IMPORT, LASTCC is set to 12 and processing of the command is terminated.

For IMPORTRA, the object identified by file-id is bypassed and processing continues with the next object on the portable file. LASTCC is set to 4 for alias's and to 8 for generation data groups and SAM ESDSs.

Programmer Action: Determine whether the correct portable file was mounted and imported. If correct, no action is required. If incorrect, delete any objects successfully imported (IMPORTRA only), mount the correct portable file, and rerun the command.

IDC2621I IMPORTRA FAILED FOR file-id

Cause: The object named could not be imported. A preceding message indicates the cause.

System Action: Processing continues with the next object on the portable file.

Programmer Action: Determine the cause of the failure by examining previous messages on the SYSLST output, correct the problem, and rerun the command.

IDC2640I file-id NOT AN AIX

Cause: The file identified by file-id is not an alternate index or a path over an alternate index. The file-id was specified in the DLBL statement identified via the OUTFILE dname subparameter, or in the OUTDATASET parameter. The OUTFILE file or OUTDATASET file must be a defined alternate index or a path over the alternate index.

System Action: Processing is terminated for this file-id. Processing continues, however, with any other file-id specified.

Programmer Action: Ensure that the file-id in the DLBL statement identified via the OUTFILE dname subparameter or in the OUTDATASET parameter is that of a defined alternate index or a path over an alternate index. Then rerun the command for this file-id. If necessary, execute the LISTCAT command to obtain a list of the catalog entries for the applicable objects and any related objects.

IDC2642I file-id NOT RELATED TO BASE

Cause: The file identified by file-id is an alternate index or a path over an alternate index, but the alternate index is not related to the base cluster. All alternate indexes identified via the OUTFILE/OUTDATASET parameter of the BLDINDEX command must have been defined as being related to the base cluster identified via the INFILE/INDATASET parameter. This relationship is established via the RELATE parameter in the DEFINE ALTERNATEINDEX command.

System Action: Processing is terminated for this alternate index. Processing continues, however, for any other alternate indexes identified via the OUTFILE/OUTDATASET parameter.

Programmer Action: Either the alternate index identified via the OUTFILE/OUTDATASET parameter or the base cluster identified via the INFILE/INDATASET parameter must be corrected so that the proper relationship exists. If the alternate index was defined improperly, it must be deleted and redefined with the proper relationship specified in the RELATE parameter. Then rerun the command for this file-id. If necessary, execute the LISTCAT command to obtain a list of the catalog entries for the applicable objects and any related objects.

IDC2647I INSUFFICIENT STORAGE TO OBTAIN BUFFERS AND WORKAREAS

Cause: The BLDINDEX command encountered a failure when attempting to obtain virtual storage for buffers, work areas, and a minimum sort area. (See *Using VSE/VSAM Commands and Macros* for a discussion of virtual storage considerations in BLDINDEX.) This is the amount of storage needed for one alternate index to get started. The name of the alternate index is given in message IDC2654I.

System Action: Processing is terminated for this alternate index. BLDINDEX attempts to process any other alternate indexes specified.

Programmer Action: Increase the size of the partition and rerun the command for any alternate indexes not built.

IDC2648I JOB CONTROL CARDS FOR EXTERNAL SORT MISSING OR IN ERROR

Cause: If this message occurs by itself, it means you specified the EXTERNALSORT parameter and omitted the WORKVOLUMES parameter but did not provide the proper job control for the sort work files. (See *Using VSE/VSAM Commands and Macros* for a discussion of the requirements for sort work file job control.) If this message is preceded by IDC2649I or IDC2650I, BLDINDEX was not able to complete an internal sort, and proper job control for the external sort work files was not supplied. The alternate index being built is named in message IDC2654I.

System Action: Processing is terminated for this alternate index. BLDINDEX, however, attempts to process any other alternate indexes specified.

Programmer Action: Provide the external sort work file specification, or provide a larger partition so that an internal sort can be performed. Then rerun the command for any alternate indexes not built.

IDC2649I INSUFFICIENT STORAGE TO PERFORM INTERNAL SORT

Cause: Although the BLDINDEX command was able to obtain a minimum amount of virtual storage to start the sort, it was less than the amount required for the entire sort (based on the number of records in the base cluster statistic stored in the VSAM catalog entry for the base cluster). Under these circumstances, BLDINDEX attempts to perform an external sort.

System Action: Processing is terminated for this alternate index. BLDINDEX, however, attempts to process any other alternate indexes specified.

Programmer Action: Provide the sort work file specification, or provide a larger partition so that an internal sort can be performed. Rerun the command for any alternate indexes not built.

IDC2650I INSUFFICIENT STORAGE TO FINISH INTERNAL SORT

Cause: During initialization, BLDINDEX calculates the amount of storage required for an internal sort. This calculation is based on the number of records in the base cluster statistic stored in the VSAM catalog entry for the base cluster. In the case of this message, BLDINDEX was able to obtain enough virtual storage to meet the calculated requirement. The statistic was erroneously low (probably due to a failure during a close of the base cluster), however, and the initial amount of storage obtained was insufficient. Under these circumstances, BLDINDEX must perform an external sort.

System Action: Processing is terminated for this alternate index. BLDINDEX, however, attempts to process any other alternate indexes specified.

Programmer Action: Do one of the following:

- Provide the sort work file specification.
- Use the IMPORT command to rebuild the file (this action will correct the erroneous statistic).
- Provide a larger partition so that an internal sort can be performed.

Rerun the command for any alternate indexes not built.

IDC2651I DEFINE OF SORT WORK FILES FAILED

Cause: In preparing for an external sort, BLDINDEX attempts to dynamically define two sort work files. The define, however, was rejected by VSAM catalog management. This message may be preceded by message IDC3007I or IDC3009I giving the VSAM catalog return code, and possibly the reason code.

If this message is not preceded by message IDC3007I or IDC3009I, an invalid file-id of IDCUT1 or IDCUT2 may have been specified in the DLBL statement.

System Action: Processing is terminated for this alternate index. BLDINDEX, however, attempts to process any other alternate indexes specified.

Programmer Action: Correct the error as explained for the catalog return or reason code. If the catalog return code indicated insufficient space to allow suballocation of the defined file (sort work file), you must provide more data space. Calculate the amount of data space required for sort work files from the formula described in *Using VSE/VSAM Commands and Macros*, "Building an Alternate Index." Rerun the command for any alternate indexes not built.

IDC2654I file-id WAS NOT BUILT

Cause: A terminating error was encountered for the alternate index identified. The message containing the terminating error precedes this message.

System Action: Processing is terminated for this alternate index. BLDINDEX, however, attempts to process any other alternate indexes specified.

Programmer Action: Depends on the error encountered. Refer to the action described for the preceding message.

IDC2655I UNABLE TO LOCATE ATTRIBUTES OF file-id

Cause: While Access Method Services processed a BLDINDEX command, it has been unable to obtain all the necessary information for the entry identified by file-id. This indicates a serious catalog error, since the requested information should be present for all catalog entries, namely: entry type, associated objects, and AMDSB control block (for data objects).

System Action: If file-id is the base cluster, BLDINDEX processing is terminated. If it is an alternate index or a path over an alternate index, processing is terminated for the alternate index. BLDINDEX, however, attempts to process any other alternate indexes identified.

Programmer Action: Specify DELETE IGNOREERROR to delete the bad catalog entry; then recreate the object. If it is a path or alternate index, redefine it. If it is the base cluster, IMPORT(RA), RESETCAT, or otherwise reconstruct it.

If the problem persists, save the job stream and system output (SYSLST) associated with the job for problem determination; execute the LISTCAT command to list the catalog entries for the applicable objects and any related objects; contact your IBM Support Center.

IDC2656I LOCATE FAILED FOR file-id

Cause: The VSAM catalog locate request issued against the base cluster or alternate index (identified by file-id) failed. Message IDC3007I or IDC3009I precedes this message and gives the catalog return code, and possibly a reason code. The file-id given in this message was specified via the INFILE/INDATASET or OUTFILE/OUTDATASET parameter. The locate failure may have been against the named object or an object associated with the named object (for example, the alternate index, if the named object is a path over the alternate index).

System Action: If the failure is associated with the base cluster, processing is terminated for the entire BLDINDEX command. If the failure is associated with an alternate index, processing is terminated for the alternate index. BLDINDEX, however, attempts to process any other alternate indexes specified.

Programmer Action: Correct the error as explained for the catalog return code and reason code, and rerun the command for any alternate indexes not built.

IDC2660I INVALID ENTRY TYPE IN CATALOG, OBJECT BYPASSED

Cause: The entry type field indicates that the object being exported is not a VSAM cluster, alternate index, user catalog, nonVSAM object, or OS/VS2 generation data group. The secondary message IDC0674I indicates the name of the invalid entry.

System Action: The indicated object is not exported. Processing of other objects to be exported continues.

Programmer Action: Run the Catalog Check Service Aid and follow the programmer action for the messages it issues. Catalog Check is documented in *VSE/VSAM Programmer's Reference*.

IDC2666I ENTRY NAME SPECIFIED CANNOT BE FOUND IN SPECIFIED CRA

Cause: The file or other object named in the ENTRIES parameter of the EXPORTRA command cannot be found in the specified catalog recovery area (CRA). Secondary message IDC0674I indicates the name of that file or other catalog object.

System Action: Processing of this object is terminated, and processing of the next object continues.

Programmer Action: Verify the name and CRA of the file or other catalog object to be exported using the LISTCRA command, and correct it as required; then rerun the command for the object.

IDC2668I DATA SET NOT EXPORTED, VOLUME volser REQUIRED BUT NOT SUPPLIED

Cause: Export of a multivolume file requires the indicated volume. It was not included in the list of volumes in the CRA keyword. Secondary message IDC0674I identifies the file.

System Action: The VSAM entry is bypassed for export; processing continues.

Programmer Action: Add to the CRA parameter list the dname entry (with the NONE keyword) and the associated DLBL and EXTENT statements for the volume serial number. Then rerun the command.

IDC2671I WILL NOT PROCESS CRA ON VOLUME volser. DIFFERENT CATALOG NAME

Cause: This volume does not belong to the catalog that owned the first CRA named in the EXPORTRA command. All volumes specified in the CRA parameter list must belong to the same catalog (identified by message IDC0672I).

System Action: Processing of this volume is discontinued; processing of other CRAs continues.

Programmer Action: Rerun the command with the correct CRA volumes indicated.

IDC2673I CONFLICTING JCL SPECIFICATIONS FOR DNAME dname

Cause: The volume serial number could not be obtained for the volume represented by the EXPORTRA CRA dname1parameter or the LISTCRA INFILE dname parameter. Possible causes include:

- The CRA or INFILE dname has no matching DLBL filename parameter.
- The associated EXTENT statement is missing.
- The DLBL statement has more than one associated EXTENT statement.
- The volume serial number parameter is missing from the associated EXTENT statement.

System Action: Processing of this volume is discontinued; processing of other CRAs continues.

Programmer Action: Correct the dname, DLBL filename, or associated EXTENT statement. Ensure that there is one EXTENT statement with the proper volume serial number (all other parameters can be omitted). Rerun the command.

IDC2675I DUPLICATE NAME ENCOUNTERED, NAME ON VOLUME volser BYPASSED

Cause: Duplicate object names were found in the catalog recovery areas (CRAs) on two different volumes. Secondary message IDC0674I identifies the file-id of the bypassed object.

System Action: The object name specified in the secondary message is not exported.

Programmer Action: If the copy of the file skipped was one you did not want skipped, EXPORTRA the entry separately using the CRA ENTRIES subparameter.

IDC2677I ** DATA SET NOT EXPORTED

Cause: An error occurred or a catalog entry could not be located for the object being exported. The preceding message indicates the cause. The following secondary message IDC0674I identifies the file-id of the object.

System Action: The indicated object is not exported; processing continues for other objects.

Programmer Action: Determine the type of error from the preceding message on the SYSLST output. If a severe error has occurred, then redefine the object.

IDC2872I CRA IS OWNED BY catname

Cause: COMPARE was specified and the catalog recovery area on this volume belongs to a catalog other than the one specified in the CATALOG parameter.

System Action: The COMPARE option is ignored for this CRA (secondary message IDC2873I is issued), and processing continues.

Programmer Action: Specify the correct catalog in the CATALOG parameter or the correct volume in the INVOLUMES or INFILE parameter, and rerun the job.

IDC2873I ** COMPARE OPTION IGNORED

Cause: The COMPARE option was specified and the catalog specified in the CATALOG parameter cannot be opened, or the catalog recovery area (CRA) on this volume belongs to a catalog other than the one specified in the CATALOG parameter. If an error occurred during open processing, the cause of that error is given in a message preceding this one on the SYSLST output. If incorrect catalog is the cause, primary message IDC2872I precedes this message.

System Action: The COMPARE option of the LISTCRA command is ignored, and processing continues. If the catalog cannot be opened, the COMPARE option is ignored for all CRAs listed under INVOLUMES or INFILE.

Programmer Action: Take the action indicated in the preceding primary message, and rerun the command.

IDC2876I IGNORED VERIFY FAILURE FOR CRA

Cause: When a catalog recovery area is opened, a VERIFY must be issued to set up the proper end-of-file condition. The VERIFY was unsuccessful.

System Action: The error is ignored and processing continues. An incomplete listing of the contents of the catalog recovery area may result.

Programmer Action: Check the message(s) preceding this message for Programmer Action. A volume restore may be required.

IDC2879I CATALOG NOT LOCKED UP FOR THIS EXECUTION

Cause:

- An error occurred in module IDCRC04 (EXPORTRA field management) when it was called by LISTCRA to obtain the catalog volume serial number.
- An error occurred when attempting to lock the catalog to prevent concurrent resetting (RESETCAT) or updates to the catalog and its associated CRAs (the error is identified by error message IDC3289I).

See SYSLST output for any preceding error messages.

System Action: LISTCRA processing continues. Because the catalog is not enqueued ("locked") for LISTCRA COMPARE, some listing errors or miscompares may result if a catalog or recovery area entry is updated during LISTCRA processing.

Programmer Action: If you question the accuracy of the CRA listing, rerun the command when no other programs are accessing the catalog.

IDC2882I VSAM ERROR READING CRA CONTROL RECORD

Cause: A LISTCRA command encountered an error reading the catalog control record in the catalog recovery area.

System Action: Processing of this CRA is bypassed. Processing of other specified CRAs continues.

Programmer Action: Check the preceding message(s) for Programmer Action. A volume restore may be required. If recovery cannot be effected, rerun the job using the PARM TEST FULL command at dump points LRCT and LRZZ preceding the LISTCRA command. This dump may be used to determine the cause of the error. Save the jobstream and the system output (SYSLST) related to the job, and contact your IBM Support Center.

IDC2884I IGNORED VERIFY FAILURE FOR CATALOG

Cause: When a catalog is opened, a VERIFY must be issued to set up the proper end-of-file condition. The VERIFY was unsuccessful.

System Action: The error is ignored, and processing continues. Erroneous miscompares and/or I/O errors may result.

Programmer Action: Check the preceding messages for Programmer Action. A RESETCAT or volume restore may be required to restore the catalog.

IDC2886I UNABLE TO REFERENCE CRA ON VOLUME volser - REASON CODE n

Cause: When opening the catalog recovery area (CRA), there was a problem indicated by the reason code n, where:

- n = 1: cannot verify the CRA
- n = 2: cannot open the CRA
- n = 4: CI number 0 got I/O error
- n = 5: CI number 3 got I/O error
- n = 7: error on number of directories, or the specified CRA contained no file entries.
- n = 8: error on directory entries
- n = 9: unable to lock the CRA to prevent concurrent update activity. Preceding message IDC3289I indicates the cause of the failure.

System Action: The CRA is marked bad, and none of its entries are placed on the portable file. Processing continues for other CRAs specified.

Programmer Action: If the reason code is 1, 2, 4, or 5, restore the volume on which the error occurred to a previously valid condition. For more information on catalog recovery, see *VSE/VSAM Programmer's Reference*.

If the reason code is 7 or 8, provide the FORCE keyword in the EXPORTRA command to override the synchronization problem.

If the reason code is 9, refer to the suggested corrective action in preceding error message IDC3289I and rerun the command.

IDC2950I INVALID FORMAT STRUCTURE

Cause: An element of one of the text format structures is invalid. This is a system error.

System Action: The request to print a line is ignored. Further processing depends upon the particular command; the command may or may not ignore this error.

Programmer Action: If the problem persists, save the job stream and system output (SYSLST) associated with the job for problem determination, and contact your IBM Support Center.

IDC2951I OUTPUT COLUMN SPECIFIED OUT OF RANGE

Cause: The specified output column is outside the print line width; for example, not between columns 1 and 121. This is a system error.

System Action: This field and subsequent fields are ignored. An incomplete message or print line is printed. Further processing depends on the particular command; the command may or may not ignore this error.

Programmer Action: If the problem persists, save the job stream and system output (SYSLST) associated with the job for problem determination, and contact your IBM Support Center.

IDC2952I EXCESSIVE FIELD LENGTH FOR BD OR PU CONV

Cause: A binary to decimal or packed to unpacked conversion length was specified as greater than 15 characters. This is a system error.

System Action: The default (15) is used to convert the data for printing. An incorrect print line may result. Further processing depends on the particular command; the command may or may not ignore this error.

Programmer Action: If the problem persists, save the job stream and system output (SYSLST) associated with the job for problem determination, and contact your IBM Support Center.

IDC2953I A REDO SUB-STRUCTURE IS NESTED

Cause: A redo print line structure cannot be defined within the set of structures to be redone. This is a system error.

System Action: The current redo operation is terminated. All structures will be treated only once. One or more incorrect print lines may result. Further processing depends on the particular command; the command may or may not ignore this error.

Programmer Action: If the problem persists, save the job stream and system output (SYSLST) associated with the job for problem determination, and contact your IBM Support Center.

IDC2954I STATIC TEXT ENTRY REQUESTED NOT IN MODULE

Cause: A static text request indicated an entry that was not in the module specified. Probable system error.

System Action: The request to print a message or other print line is ignored. A print line or message is lost. Further processing depends on the particular command; the command may or may not ignore this error.

Programmer Action: If the problem persists, save the job stream and system output (SYSLST) associated with the job for problem determination, and contact your IBM Support Center.

IDC2955I INVALID PACKED DECIMAL FIELD

Cause: A print data conversion request for packed to unpacked format found a digit that was not in the range 0 to 9. The input data may be wrong. This is a system error.

System Action: Conversion stops; previously converted data is printed. An incomplete message or print line is printed. Further processing depends on the particular command; the command may or may not ignore this error.

Programmer Action: If the problem persists, save the job stream and system output (SYSLST) associated with the job for problem determination, and contact your IBM Support Center.

IDC3003I FUNCTION TERMINATED. CONDITION CODE IS nnn

Cause: This message is issued when a terminating error condition has occurred while executing a functional command. Messages printed just before this message in the program listing indicate the error that occurred.

System Action: The command terminates, and processing continues with the next command. LASTCC is set to nnn; MAXCC is also set if nnn is greater than the current MAXCC value.

Programmer Action: Correct the cause of the error and rerun the command.

IDC3004I FUNCTION TERMINATED. INSUFFICIENT MAIN STORAGE

Cause: The partition size was not large enough to execute a functional command.

System Action: The command terminates processing unless subsequent messages indicate otherwise.

Programmer Action: Increase the size of the partition and rerun the command.

IDC3006I FUNCTION TERMINATED DUE TO BEGINNING POSITIONING ERROR

Cause: An error occurred when positioning to a record in a file (such as occurs via the FROMKEY facility of the PRINT command) was attempted. The position indicator may be beyond the limits of the file, or an I/O error may have occurred in positioning. An I/O error message may have been printed.

System Action: The command is terminated.

Programmer Action: Correct the positioning parameter value. See the I/O error message description for the I/O error indicated ahead of this message.

IDC3007I ** VSAM CATALOG RETURN-CODE IS nnn

Cause: This catalog management return code is the result of a catalog error or exceptional condition. This message is used only when a reason code is not returned, and thus message IDC3009I cannot be issued. The preceding primary message provides a verbal description of the catalog error. Appendix B contains a description of the cause for this particular return code.

System Action: A subsequent message will indicate the action taken for the command that encountered the condition. Thus, if message IDC3003I follows, it indicates that the condition caused command termination.

Programmer Action: See the specified return code. A complete list of return codes with an explanation for each of these codes, including the possible user response, is given in Appendix B.

IDC3009I ** VSAM CATALOG RETURN CODE IS nnn - REASON CODE IS IGG0CLxx - mmm

Cause: The return code (nnn) and reason code (mmm) were returned by catalog management module IGG0CLxx as a result of a catalog error or exceptional condition. The preceding primary message provides a verbal description of the catalog error. Appendix B contains a description of the cause for this particular return code and reason code.

System Action: A subsequent message will indicate the action taken for the command that encountered the condition. Thus, if message IDC3003I follows, it indicates that the condition caused command termination.

Programmer Action: See the specific return and reason code. A complete list of return and reason codes with an explanation for each of these codes, including the possible user response, is given in Appendix B.

IDC3010I UNABLE TO OPEN file-id

Cause: For ALTER, DEFINE, DELETE, or LISTCAT, the filename (dname) in the CATALOG parameter identifies a DLBL statement file-id that is not a catalog. For EXPORT and IMPORT, the filename (dname) in the INFILE and OUTFILE respectively does not identify a DLBL statement file-id that matches the file-id of the file (or one of its paths) being exported or imported.

System Action: A subsequent message will indicate the action taken for the command that encountered the condition. Thus, if message IDC3003I follows, it indicates that the condition caused command termination.

Programmer Action: Omit the CATALOG dname parameter or the EXPORT INFILE parameter or the IMPORT OUTFILE parameter (and associated job control statements).

IDC3012I ENTRY entryname NOT FOUND

Cause: The entryname supplied by the user for a catalog alter, locate, or delete is not in the specified catalog. See the secondary message that follows for the specific catalog management error code value and its cause.

System Action: A subsequent message (following the secondary message) will indicate the action taken for the command that encountered the condition. Thus, if message IDC3003I follows, it indicates that the condition caused command termination.

Programmer Action: Check that the entryname is spelled correctly. Verify that the catalog containing the entry is correctly referenced; check to make sure the entryname has not been deleted and has been defined. Make the required correction and rerun the command.

IDC3013I DUPLICATE DATA SET NAME

Cause: The entryname supplied by the user is already in the specified catalog, and thus a catalog define is rejected due to the existing duplicate entry. The duplicate name can be a user catalog, path entry, etc., as well as a file-id. See the secondary message that follows for the specific catalog management error code value and its cause.

System Action: A subsequent message (following the secondary message) will indicate the action taken for the command that encountered the condition. Thus, if message IDC3003I follows, it indicates that the condition caused command termination.

Programmer Action: Check that the entryname is spelled correctly, and verify that you are referencing the correct catalog. If appropriate, delete or rename the duplicate entry. Make the required correction, and rerun the command.

IDC3014I CATALOG ERROR

Cause: An error occurred during a VSAM catalog operation. See the secondary message that follows for the specific catalog management error code value and its cause.

System Action: A subsequent message (following the secondary message) will indicate the action taken for the command that encountered the condition. Thus, if message IDC3003I follows, it indicates that the condition caused command termination.

Programmer Action: See the programmer action associated with the secondary message return and reason codes.

IDC3016I CATALOG IS NOT AVAILABLE

Cause: An error occurred while a VSAM catalog was being opened or closed, or the user catalog specified by the command cannot be found. See the secondary message that follows for the specific catalog management error code value and its cause.

System Action: A subsequent message (following the secondary message) will indicate the action taken for the command that encountered the condition. Thus, if message IDC3003I follows, it indicates that the condition caused command termination.

Programmer Action: Verify that the catalog specified by the command exists, or determine why it cannot be accessed. Refer to Appendix B for an explanation of the specific reason code given in the secondary message. Make the required correction, and rerun the command.

IDC3017I INSUFFICIENT SPACE IN CATALOG

Cause: The catalog or the catalog recovery area is full. There is insufficient VSAM space of the required class to allow secondary allocation on the volume in which the catalog or CRA resides, or the maximum number of extents (16) has been reached. See the secondary message that follows immediately. The reason code is from a VSAM request macro. Refer to Appendix A for an explanation of the Error Codes.

System Action: A subsequent message (following the secondary message) will indicate the action taken for the command that encountered the condition. Thus, if message IDC3003I follows, it indicates that the condition caused command termination.

Programmer Action: The reason code in the secondary message is from a VSAM request macro. Refer to "Appendix A: Error Codes from Request Macros."

Scratch nonVSAM files no longer needed from the volume, then submit a DEFINE SPACE command to make additional VSAM data space of the required class available; and/or delete VSAM files, path entries, or nonVSAM entries no longer needed; or delete and redefine an available VSAM data space, changing the class to that required for the catalog.

If the catalog has reached 16 extents, EXPORT(RA) all objects in the catalog, DELETE SPACE FORCE all volumes owned by the catalog, redefine the catalog with a larger primary or secondary allocation, DEFINE SPACE(s) on all volumes, and IMPORT(RA) all objects previously exported. LISTCAT will tell you the space class of the catalog; CRAs can be suballocated into any space class. Then rerun the command.

IDC3018I PASSWORD VERIFICATION FAILED

Cause: No password parameter (or an incorrect password parameter) was present, and:

- no operator prompting was allowed; or
- the maximum number of attempts to supply the correct password was exceeded by the operator; or
- the user-specified verification routine did not authorize use of the file.

See the secondary message that follows for the specific catalog management error code value and its cause.

System Action: A subsequent message (following the secondary message) will indicate the action taken for the command that encountered the condition. Thus, if message IDC3003I follows, it indicates that the condition caused command termination.

Programmer Action: Correct the password specified, or determine why the verification routine did not allow access. LISTCAT can be used to display the catalog, file, or path password and other authorization information. Refer to Appendix B for an explanation of the specific reason code given in the secondary message. Rerun the command with the proper password.

IDC30191 INVALID ENTRY TYPE FOR REQUESTED ACTION

Cause: A catalog action was requested which is invalid for the named entry; for example, an attempt was made to delete an index component of a VSAM file. See the secondary message that follows for the specific catalog management error code value and its cause.

System Action: A subsequent message (following the secondary message) will indicate the action taken for the command that encountered the condition. Thus, if message IDC30031 follows, it indicates that the condition caused command termination.

Programmer Action: Ensure that the specified action is allowed for this entry type. The entry type can be validated by the LISTCAT command. Refer to Appendix B for an explanation of the specific return and reason code given in the secondary message.

IDC30201 INSUFFICIENT SPACE ON USER VOLUME

Cause:

- An attempt was made to extend a unique VSAM file.
- A specified volume cannot accomodate an initial allocation, or a required secondary extension was not successful.
- Rounding of user-supplied fixed-block extents caused no data space to be allocated.

See the secondary message that follows for the specific catalog management error code value and its cause.

System Action: A subsequent message (following the secondary message) will indicate the action taken for the command that encountered the condition. Thus, if message IDC30031 follows, it indicates that the condition caused command termination.

Programmer Action: Refer to Appendix B for the cause and programmer action for the return and reason codes given in the secondary message.

IDC30211 USER VOLUME NOT MOUNTED

Cause:

- An illegal symbolic unit was assigned, or
- No symbolic unit was assigned (and the EXTENT statement included a symbolic unit parameter), or
- Suballocation failed using default volumes and there are volume(s) on the volume list of the corresponding default model that were not mounted.

See the secondary message that follows for the specific Catalog Management error code value and its cause.

System Action: A subsequent message (following the secondary message) will indicate the action taken for the command that encountered the condition. Thus, if message IDC30031 follows, it indicates that the condition caused command termination.

Programmer Action: Refer to Appendix B for the cause and programmer action for the secondary message.

IDC30221 INVALID RELATED OBJECT

Cause:

- The object specified in the RELATE parameter of a DEFINE command does not exist, or is improper for the type of object being defined; or
- An alternate index is being imported, and the related base cluster is not the proper type or does not exist.

See the secondary message that follows for the specific catalog management error code value and its cause.

System Action: A subsequent message (following the secondary message) will indicate the action taken for the command that encountered the condition. Thus, if message IDC30031 follows, it indicates that the condition caused command termination.

Programmer Action: Refer to Appendix B for an explanation of the specific reason code given in the secondary message.

For DEFINE, correct the entry named in the RELATE or PATHENTRY parameter and rerun the command. For IMPORT(RA), ensure you are importing to the correct catalog and that it contains the base cluster and its path names, and rerun the command.

IDC3023I UNEXPIRED PURGE DATE

Cause: An attempt to delete an entry failed because that entry's expiration date has not been reached, and the PURGE option was not specified. The secondary message that follows contains no additional "cause" or "action" information.

System Action: A subsequent message (following the secondary message) will indicate the action taken for the command that encountered the condition. Thus, if message IDC3003I follows, it indicates that the condition caused command termination.

Programmer Action: Specify the PURGE option if the entry is to be deleted, and rerun the command.

IDC3025I INSUFFICIENT SUBALLOCATION DATA SPACE

Cause:

- None of the specified volumes contains a data space of the required class with sufficient room for allocation of a newly-defined VSAM file; or
- The data space allocated on a DEFINE catalog is not large enough for initial CRA allocation.
- Sufficient space is available, but it spans more than five extents. Only five extents are permitted.

See the immediately-following secondary message for the specific catalog management error code value and its cause.

System Action: A subsequent message (following the secondary message) will indicate the action taken for the command that encountered the condition. Thus, if message IDC3003I follows, it indicates that the condition caused command termination.

Programmer Action: Refer to Appendix B for the cause and programmer action for the return and reason codes given in the secondary message.

IDC3026I DUPLICATE DATA SPACE NAME ON VOLUME

Cause: A DEFINE operation, using the UNIQUE attribute, has specified the name of a file component on a volume on which another nonVSAM file with the same name already exists; or a key-sequenced file or alternate index with the UNIQUE attribute specifies more than one key range on the same volume. The secondary message that follows contains no additional "cause" or "action" information.

System Action: A subsequent message (following the secondary message) will indicate the action taken for the command that encountered the condition. Thus, if message IDC3003I follows, it indicates that the condition caused command termination.

Programmer Action: One of the following:

- Remove the UNIQUE parameter.
- Specify another component file-id.
- Specify another volume.
- Remove the original file from the volume.
- Place each key range on a separate volume.

IDC3027I NO SPACE IN VTOC FOR LABEL

Cause: During the definition of a data space (DEFINE SPACE or DEFINE CLUSTER/AIX UNIQUE), an attempt was made to perform a VSAM allocate function, but there was no space in the VTOC for an additional format-1 label. The secondary message that follows contains no additional "cause" or "action" information.

System Action: A subsequent message (following the secondary message) will indicate the action taken for the command that encountered the condition. Thus, if message IDC3003I follows, it indicates that the condition caused command termination.

Programmer Action:

- Delete any nonVSAM files (with SCRATCH option) or VSAM unique files or data spaces no longer needed from the volume to make additional format-1 labels available, or
- Reinitialize the volume with a larger volume table of contents.

If neither of these actions is immediately practical, specify a different volume. Then rerun the command.

IDC3028I DATA SET IN USE

Cause: The file or catalog is currently open and cannot be deleted. This condition arises when two different jobs are referencing the same VSAM file or catalog simultaneously. See the secondary message that follows for the specific catalog management error code value and its cause.

System Action: A subsequent message (following the secondary message) will indicate the action taken for the command that encountered the condition. Thus, if message IDC3003I follows, it indicates that the condition caused command termination.

Programmer Action: Refer to Appendix B for an explanation of the specific reason code given in the secondary message. Check that no other partition (or sharing system in a DASD sharing environment) needs the file or catalog before you resubmit the command.

IDC3029I LOGICAL RECORD LENGTH EXCEEDS 32761

Cause: The maximum logical record length specified is greater than 32761 for a non-spanned file. Note that the maximum control interval size is 32768. The secondary message that follows contains no additional "cause" or "action" information.

System Action: A subsequent message (following the secondary message) will indicate the action taken for the command that encountered the condition. Thus, if message IDC3003I follows, it indicates that the condition caused command termination.

Programmer Action: Reduce the maximum logical record length, or redefine the file as spanned. Then rerun the command.

IDC3030I CONTROL INTERVAL SIZE TOO LARGE

Cause: The data-component control-interval size specified is greater than 32,768, or the index-component control-interval size is greater than the maximum value allowed for the device type. For 2314/2319, the maximum size is 7,168 bytes; for all other devices, the maximum is 8,192 bytes. See the secondary message that follows for the specific catalog-management error-code value and its cause.

System Action: A subsequent message (following the secondary message) will indicate the action taken for the command that encountered the condition. Thus, if message IDC3003I follows, it indicates that the condition caused command termination.

Programmer Action: Refer to Appendix B for an explanation of the specific reason code given in the secondary message. Reduce the control-interval size, or use a different device with a larger maximum index control-interval size if the error was due to the index component's device type. Then rerun the command.

IDC3031I KEY EXTENDS BEYOND MAXIMUM RECORD LENGTH

Cause: The KEYS specification extends beyond the end of the maximum logical record. The secondary message that follows contains no additional "cause" or "action" information.

System Action: A subsequent message (following the secondary message) will indicate the action taken for the command that encountered the condition. Thus, if message IDC3003I follows, it indicates that the condition caused command termination.

Programmer Action: Reduce the key length, change the key position, or increase the record length. Then rerun the command.

IDC3032I BUFFER SPACE TOO SMALL

Cause: The buffer size specified during a DEFINE operation is too small to contain the minimum number of control intervals for the VSAM file being defined. An indexed file requires enough virtual storage for two data-component control intervals plus one index-component control interval; a non-indexed file requires enough virtual storage for two data-component control intervals. The secondary message that follows contains no additional "cause" or "action" information.

System Action: A subsequent message (following the secondary message) will indicate the action taken for the command that encountered the condition. Thus, if message IDC3003I follows, it indicates that the condition caused command termination.

Programmer Action: For DEFINE,

- omit the BUFFERSPACE parameter, or
- increase the BUFFERSPACE parameter value, or
- decrease the DATA or INDEX CONTROLINTERVALSIZE values.

Then rerun the command.

For IMPORT(RA), you cannot import the file, as defined, to the device type you have chosen. For IMPORT you can predefine an empty file to eliminate the problem. For IMPORTRA, rerun the command using a different device type, preferably the device type from which the file was exported.

IDC3033I VOLUME RECORD NOT FOUND IN CATALOG

Cause: You have referenced a volume that is not owned by the specified (or the default) VSAM catalog. The secondary message that follows contains no additional "cause" or "action" information.

System Action: A subsequent message (following the secondary message) will indicate the action taken for the command that encountered the condition. Thus, if message IDC3003I follows, it indicates that the condition caused command termination.

Programmer Action: Ensure that the correct catalog has been specified. Also, ensure that the correct volumes have been specified and that the volumes have been defined (using the DEFINE SPACE command) in the catalog against which the request is being issued. Then rerun the command.

IDC3044I SPECIFIED EXTENTS NOT ON CYLINDER BOUNDARY

Cause: The CYLINDER parameter was specified in a DEFINE command or in an internal define for an IMPORT(RA) command (for a unique file), but the extents found on the corresponding EXTENT statements either do not start or do not end on a cylinder boundary. For DEFINE, this error can occur only on a DEFINE catalog, space, unique cluster, or unique alternate index. The secondary message that follows contains no additional "cause" or "action" information.

System Action: A subsequent message (following the secondary message) will indicate the action taken for the command that encountered the condition. Thus, if message IDC3003I follows, it indicates that the condition caused command termination.

Programmer Action: For a UNIQUE file, correct the EXTENT statement(s) to reflect cylinder boundaries for the device type identified by the volume serial number parameter, or for DEFINE space or catalog, remove the FILE parameter, and use the ORIGIN, DEDICATE, TRACKS, or RECORDS parameter to specify space allocation. Then rerun the command. Note that the extents for components with unique allocation must be on cylinder boundaries.

IDC3045I CATALOG NOT EMPTY

Cause: An attempt was made to delete a non-empty VSAM catalog. The secondary message that follows contains no additional "cause" or "action" information.

System Action: A subsequent message (following the secondary message) will indicate the action taken for the command that encountered the condition. Thus, if message IDC3003I follows, it indicates that the condition caused command termination.

Programmer Action: A VSAM catalog may be deleted only when it contains no entries other than data space entries for the catalog volume. Use LISTCAT to determine the names and types of the entries still in the catalog, and delete them. Then rerun the command.

IDC3046I NO CATALOG RECOVERY AREA ON VOLUME FOR UNIQUE FILE

Cause: An attempt was made to define a unique file on a volume that does not contain a catalog recovery area (CRA). The secondary message that follows contains no additional "cause" or "action" information.

System Action: A subsequent message (following the secondary message) will indicate the action taken for the command that encountered the condition. Thus, if message IDC3003I follows, it indicates that the condition caused command termination.

Programmer Action: Verify that the correct catalog and volumes are being referenced.

- Define the unique file in a non-recoverable catalog, or
- Using the DEFINE SPACE command, allocate a minimum of one cylinder of VSAM space for the catalog recovery area on the volume (CKD device), or
- Using the DEFINE SPACE command, allocate blocks equal to the VSAM maximum control area unit value for the catalog recovery area on the volume (fixed block device).

Then rerun the command.

IDC3047I VTOC, FILE OR EXTENT OVERLAP

Cause: A space allocation operation (for a define space or define unique file) failed because the new extent(s) specified in the DEFINE SPACE ORIGIN parameter or the EXTENT statement(s) overlapped one or more of the following:

- volume table of contents extent
- expired secure nonVSAM file
- unexpired secure nonVSAM file
- unexpired nonVSAM file
- more than one set of extents was specified, and they overlap each other.

The secondary message that follows contains no additional "cause" or "action" information.

System Action: A subsequent message (following the secondary message) will indicate the action taken for the command that encountered the condition. Thus, if message IDC3003I follows, it indicates that the condition caused command termination.

Programmer Action: If more than one extent was provided for the space allocation, verify that they do not overlap each other. Run the VSE LVTOC program to determine exactly what space on the volume is unused and available for space allocation. Correct the ORIGIN parameter or the EXTENT statement(s), and rerun the command.

IDC3048I FILE DEFINITION STATEMENT MISSING OR IN ERROR

Cause: A DLBL or EXTENT statement is missing or in error, or the ORIGIN specification is in error, or a system logical unit error was detected. See the secondary message that follows for the specific catalog management error code value and its cause.

System Action: A subsequent message (following the secondary message) will indicate the action taken for the command that encountered the condition. Thus, if message IDC3003I follows, it indicates that the condition caused command termination.

Programmer Action: Refer to Appendix B for an explanation of the specific reason code given in the secondary message. Correct or remove the DLBL or EXTENT statement in error, and rerun the command.

IDC3171I INVALID VALUE SPECIFIED FOR {CLASS|SECONDARY USECLASS}

Cause: Unacceptable values were given for CLASS or secondary USECLASS.

System Action: For the DEFINE and IMPORT commands, processing terminates, and the condition code (LASTCC) is set to 12.

For the IMPORTRA command, the affected cluster or alternate index (and any associated paths) is not imported. Processing continues for other files contained on the portable file, and the condition code (LASTCC) is set to 8.

Programmer Action: Check the values given for CLASS or secondary USECLASS. Refer to the description contained in *Using VSE/VSAM Commands and Macros* for correct usage of these parameters. Correct the error, and rerun the command.

IDC3173I USECLASS SPECIFIED INVALID WITH UNIQUE

Cause: A nonzero USECLASS value was specified concurrently with the UNIQUE attribute. The USECLASS parameter value may only be zero for a cluster or alternate index component that also has the UNIQUE attribute. The USECLASS conflict may occur due to explicit specification or modeling in DEFINE. For IMPORT and IMPORTRA, a nonzero USECLASS parameter value cannot be specified as an OBJECTS subparameter when the component also has the UNIQUE attribute.

System Action: For the DEFINE and IMPORT commands, processing terminates and the condition code (LASTCC) is set to 12.

For the IMPORTRA command, the affected cluster or alternate index (and any associated paths) is not imported. Processing continues for other files contained on the portable file, and the condition code (LASTCC) is set to 8.

Programmer Action: Eliminate either the UNIQUE or the nonzero USECLASS, and rerun the command.

IDC3190I keyword PARAMETER INVALID WITH ENTRY TYPE

Cause: The specified keyword is improper for the type of object being altered. Frequently, this is a problem in distinguishing between cluster/alternate index and data/index component attributes.

System Action: The command is terminated.

Programmer Action: Specify the proper component name on the command. Refer to *Using VSE/VSAM Commands and Macros* for a table showing the valid ALTER parameters for each entry type. Then rerun the command.

IDC3200I TOO MANY POSITIONAL PARAMETERS AFTER 'xxx'

Cause: A parameter list has too many positional parameters specified. When the error was found, the command was being scanned for correct syntax.

System Action: No further syntax checking is performed on the command. The command is not executed. Processing resumes with the next command.

Programmer Action: Remove the excess parameters and rerun the command.

IDC3201I CONSTANT 'xxx' EXCEEDS LENGTH LIMIT

Cause: Parameter value xxx is longer than the maximum allowed by the parameter definition or by the implementation. A shorter value must be specified. When the error was found, the command was being scanned for correct syntax.

System Action: No further syntax checking is performed on the command. The command is not executed. Processing resumes with the next command.

Programmer Action: Check the definition of the parameter value in question, specify an allowable value, and rerun the command.

IDC3202I ABOVE TEXT BYPASSED UNTIL NEXT COMMAND. CONDITION CODE IS 12.

Cause: An error has been detected in the current command. The remainder of the command is bypassed. An error message preceding this message in the program listing will indicate the error. When the error was found, the command was being scanned for correct syntax.

System Action: No further syntax checking is performed on the command. The command is not executed. Processing resumes with the next command.

Programmer Action: Correct the error and rerun the command.

IDC3203I ITEM 'xxx' DOES NOT ADHERE TO RESTRICTIONS

Cause: Parameter value xxx, which is an entryname (that is, file-id/objectname), does not meet the naming restrictions on its format. See *Using VSE/VSAM Commands and Macros* for naming conventions for file-id/objectname. When the error was found, the command was being scanned for correct syntax.

System Action: No further syntax checking is performed on the command. The command is not executed. Processing resumes with the next command.

Programmer Action: Check the format restrictions for the parameter, correct the item, and rerun the command.

IDC3205I DELIMITER 'x' IS NOT PROPERLY PRECEDED BY A CONSTANT OR KEYWORD

Cause: A delimiter was found where a keyword or subparameter list or data should have been specified. The delimiter x is being used improperly. Parentheses are likely to be improper, or a positional or keyword parameter may be missing. When the error was found, the command was being scanned for correct syntax.

System Action: No further syntax checking is performed on the command. The command is not executed. Processing resumes with the next command.

Programmer Action: Correct your specification and rerun the command.

IDC3207I REMAINDER OF COMMAND INPUT STREAM IGNORED

Cause: An error has occurred that prohibits further scanning of the command input stream for the jobstep. The preceding error message explains the error. When the error was found, the command was being scanned for correct syntax.

System Action: The current command is not executed, and the remainder of the command input stream of the jobstep has been ignored. The condition code (MAXCC) has been set to 16.

Programmer Action: Correct the related error, and rerun the jobstep.

IDC3208I LEFT PARENTHESIS MISSING FOLLOWING KEYWORD 'xxx'

Cause: Keyword xxx is not properly followed by an opening parenthesis delimiting the subparameter list or constants associated with the keyword. When the error was found, the command was being scanned for correct syntax.

System Action: No further syntax checking is performed on the command. The command is not executed. Processing resumes with the next command.

Programmer Action: Check the requirements of the parameter, correct your specification, and rerun the command.

IDC3209I RIGHT PARENTHESIS MISSING AFTER 'xxx'

Cause: A right parenthesis, which should delimit the end of one or more parameter values, is missing after xxx. Too many items might be specified. When the error was found, the command was being scanned for correct syntax.

System Action: No further syntax checking is performed on the command. The command is not executed. Processing resumes with the next command.

Programmer Action: Check the requirements of the parameter, correct your specification, and rerun the command.

IDC3210I INVALID PARENTHESES FOR SPECIFYING REPEATED SUBPARAMETER LIST

Cause: Parentheses for delimiting repetitions of a repeated subparameter list are missing or unmatched. When the error was found, the command was being scanned for correct syntax.

System Action: No further syntax checking is performed on the command. The command is not executed. Processing resumes wih the next command.

Programmer Action: Check for missing or unmatched parentheses in repeating subparameters, correct your specification, and rerun the command.

IDC3211I KEYWORD 'keyword' IS IMPROPER

Cause: keyword is not recognized in its specified usage. It may be not applicable, misspelled, or specified as a subparameter in the wrong subparameter list. When the error was found, the command was being scanned for correct syntax.

System Action: No further syntax checking is performed on the command. The command is not executed. Processing resumes with the next command.

Programmer Action: Check your specification of the keyword and parentheses, make the necessary correction, and rerun the command.

IDC3212I INVALID LEFT PARENTHESIS AFTER 'xxx'

Cause: A left parenthesis appears to delimit positional parameter xxx. However, the positional parameter is not defined as having subparameters, so no parentheses are allowed. When the error was found, the command was being scanned for correct syntax.

System Action: No further syntax checking is performed on the command. The command is not executed. Processing resumes with the next command.

Programmer Action: Correct your specification, and rerun the command.

IDC3213I KEYWORD 'keyword' APPEARS TOO OFTEN

Cause: keyword has been coded more than once in the same parameter list or subparameter list. When the error was found, the command was being scanned for correct syntax.

System Action: No further syntax checking is performed on the command. The command is not executed. Processing resumes with the next command.

Programmer Action: Remove the redundant keyword, and rerun the command.

IDC3214I HEX OR BINARY CONSTANT SPECIFIED IMPROPERLY

Cause: A hexadecimal or binary parameter value is not of the form X'...' or B'...'. A numeric parameter value begins with X or B but is not followed by a single quote. When the error was found, the command was being scanned for correct syntax.

System Action: No further syntax checking is performed on the command. The command is not executed. Processing resumes with the next command.

Programmer Action: Correct the numeric parameter value, and rerun the command.

IDC3216I ABOVE TEXT BYPASSED UNTIL NEXT COMMAND

Cause: An error has been detected in the current command. The preceding message on the output listing will pinpoint the error. When the error was found, the command was being scanned for correct syntax.

System Action: No further syntax checking is performed on the command. The command is not executed. Processing resumes with the next command.

Programmer Action: Correct the error and rerun the command.

IDC3217I PASSWORD IMPROPER AFTER 'xxx'

Cause: A password exists following a parameter value (xxx) that does not allow a password. This may be due to an illegal slash (/) appearing in the parameter value. When the error was found, the command was being scanned for correct syntax.

System Action: No further syntax checking is performed on the command. The command is not executed. Processing resumes with the next command.

Programmer Action: Correct the miscoded parameter value, and rerun the command.

IDC3218I TOO MANY REPEATED SUBPARAMETER LISTS APPEAR

Cause: More repeated subparameter lists are coded than allowed. When the error was found, the command was being scanned for correct syntax.

System Action: No further syntax checking is performed on the command. The command is not executed. Processing resumes with the next command.

Programmer Action: Check the parameter description to see how many repetitions are allowed. Correct your specification and rerun the command.

IDC3219I VERB NAME 'xxx' UNKNOWN

Cause: Command xxx is not known to the system for one of the following reasons:

- A command name is misspelled.
- A statements is out of sequence.
- A missing command continuation character may have caused a parameter to be interpreted as a command name.
- The command is part of a feature that is not supported on this system.

System Action: No further syntax checking is performed on the command. The command is not executed. Processing resumes with the next statement.

Programmer Action: If the command is supported on this system, correct the misspelled verb name, statement out of sequence, or missing continuation character, and rerun the command. Otherwise, you must install the necessary feature to execute the command.

IDC32201 IMPROPER NUMERIC DIGIT FOUND IN 'xxx'

Cause: An invalid numeric digit exists in xxx. A decimal number may use only 0-9, a hexadecimal number specified as X'...' may use only 0-9 and A-F, and a binary number specified as B'...' may use only digits 0 and 1. When the error was found, the command was being scanned for correct syntax.

System Action: No further syntax checking is performed on the command. The command is not executed. Processing resumes with the next command.

Programmer Action: Correct the invalid digit(s) and rerun the command.

IDC32211 CONSTANT 'xxx' NOT WITHIN VALUE RANGE

Cause: Numeric value xxx is not within the range of values allowed for this parameter. When the error was found, the command was being scanned for correct syntax.

System Action: No further syntax checking is performed on the command. The command is not executed. Processing resumes with the next command.

Programmer Action: Correct the numeric value and rerun the command.

IDC32231 TOO MANY CONSTANTS IN LIST BEGINNING AT 'xxx'

Cause: Too many parameter values have been coded in a list beginning at xxx. When the error was found, the command was being scanned for correct syntax.

System Action: No further syntax checking is performed on the command. The command is not executed. Processing resumes with the next command.

Programmer Action: Check the parameter definition to see how many parameter values can appear in the list. Correct your specification and rerun the command.

IDC32251 REQUIRED (SUB)PARAMETER OF 'xxx' IS MISSING

Cause:

- A keyword parameter xxx required by the command is missing
- A keyword parameter xxx required due to the presence of another parameter is missing
- A required positional subparameter of keyword parameter xxx is missing
- Any one of a group of keyword parameters is required by the command, but is missing. xxx identifies one of this group of keywords
- Any one of a group of keyword parameters is required due to the presence of another parameter, but is missing.

xxx identifies one of this group of keywords. When the error was found, the command was being scanned for correct syntax.

System Action: No further syntax checking is performed on the command. The command is not executed. Processing resumes with the next command.

Programmer Action: Add the missing parameter and rerun the command.

IDC32261 INCONSISTENT PARAMETERS INVOLVING 'xxx'

Cause: Keyword xxx indicates a parameter that conflicts with some other parameter. When the error was found, the command was being scanned for correct syntax.

System Action: No further syntax checking is performed on the command. The command is not executed. Processing resumes with the next command.

Programmer Action: Refer to the documented restrictions for this parameter. Remove one of the parameters, and rerun the command.

IDC32811 VOLUME ALREADY HAS A CATALOG ON IT

Cause: Only one catalog may reside on a volume. The volume you specified already contains a catalog. See the secondary message that follows immediately for the specific catalog management error code and its cause.

System Action: Subsequent message IDC3003I (following the secondary message) indicates that the command terminated.

Programmer Action: Either delete the existing catalog or specify a different volume for the new catalog. Then rerun the DEFINE command.

IDC3282I ANOTHER RECOVERABLE CATALOG ALREADY OWNS SPACE ON VOLUME

Cause: Only one recoverable catalog may own space on a volume. The volume you specified already contains space owned by another recoverable catalog. See the secondary message that follows immediately for the specific catalog management error code and its cause.

System Action: A subsequent message (following the secondary message) will indicate the action taken for the command that encountered the condition. Thus, if message IDC3003I follows, it indicates that the condition caused command termination.

Programmer Action: Perform one of the following actions:

- Delete the space already owned by the recoverable catalog
- Specify a non-recoverable catalog to own the new space
- Define the new space on a different volume.

IDC3287I **OPERATOR CANCELED A MOUNT REQUEST DURING CRA-OPEN

Cause: Failure during mounting of the CRA volume that is needed by this command.

System Action: Refer to the system action for the following message on the listing. CRA-OPEN returns an OPEN error code.

Programmer Action: Ensure that the proper volume is available and rerun the job.

IDC3288I **AUTO-ASSGN FAILED DURING CRA-OPEN

Cause: The assignment for the CRA volume needed by this command failed.

System Action: Refer to the system action for the following message on the listing. CRA-OPEN returns an OPEN error code.

Programmer Action: Reduce the number of explicit assignments used by the program (both temporary and permanent) or request that more logical units be allocated for the partitions that the program uses.

IDC3289I LOCK REQUEST FAILED, RC=xxx FOR RESOURCE name WITH {SCOPE{INT|EXT}|VOLID volid}

Cause: A request to lock a resource failed. The reason code is indicated by RC=xxx.

System Action: Refer to the system action on subsequent messages on the listing.

Programmer Action: Refer to Appendix B under return code 246 and the appropriate reason code indicated in this message by RC=xxx for an explanation of the cause and programmer action for this error.

IDC3290I RECORDFORMAT PARAMETER REJECTED. SAM ESDS FEATURE NOT INSTALLED.

Cause: For the DEFINE command the RECORDFORMAT parameter was explicitly specified or modeled but the required VSE/VSAM Space Management for SAM Feature has not been installed to support the function provided by the parameter.

System Action: The condition code (LASTCC) is set to 12 and processing of the command is terminated.

Programmer Action: Omit the RECORDFORMAT parameter and resubmit the command or install the required VSE/VSAM Space Management for SAM Feature.

IDC3291I DEFAULTVOLUMES NOT ALLOWED FOR {UNIQUE|ORDERED|DEFAULT MODEL} OBJECT

Cause: The DEFAULTVOLUMES parameter has been specified for an object (cluster, alternate index, data component, or index component) which has the indicated attribute. The DEFAULTVOLUMES facility is not permitted for objects which:

- belong to a file with any unique components (UNIQUE)
- have the ordered attribute (ORDERED)
- are default model objects (any object name beginning with the character string "DEFAULT.MODEL. ...").

Note that if DEFAULTVOLUMES is specified for the cluster or alternate index name, it propagates to data and index components unless it is overridden by the VOLUMES parameter.

The name of the affected cluster or alternate index is identified by secondary message IDC0674I.

System Action: For the IMPORT command, processing terminates, and the condition code (LASTCC) is set to 12.

For the IMPORTRA command, the affected cluster or alternate index is not imported. Processing continues for other files contained on the portable file, and the condition code (LASTCC) is set to 8.

Programmer Action: Replace the DEFAULTVOLUMES parameter with the VOLUMES parameter and rerun the command.

Note: For the IMPORT command, if this conflict was with the ORDERED attribute, you may alternatively specify the UNORDERED subparameter of OBJECTS (to eliminate the ORDERED attribute) and rerun the command.

IDC3292I VOLUMES PARAMETER REQUESTED WITH xxx

Cause: The VOLUMES parameter was not explicitly specified or modeled when defining an object with the indicated (xxx) parameter or condition:

- DEFAULT MODEL DEFINE
- UNIQUE parameter
- ORDERED parameter

System Action: Processing of the DEFINE command terminates, and the condition code (LASTCC) is set to 12.

Programmer Action: Resubmit the command with the required VOLUMES parameter or eliminate the associated parameter/condition.

IDC3295I REQUESTED DATA SET file-id IS [NOCIFORMAT] SAM ESDS AND CANNOT BE EXPORTED

Cause: For EXPORT, the entryname parameter has specified:

- a NOCIFORMAT SAM ESDS, but NOCIFORMAT SAM ESDSs cannot be exported (NOCIFORMAT is in message text), or
- a SAM ESDS and the VSE/VSAM Space Management for SAM Feature is not installed on this system. Therefore, SAM ESDSs cannot be exported (NOCIFORMAT is omitted from message text).

For EXPORTRA, the ENTRIES (entryname) parameter has specified:

- a NOCIFORMAT SAM ESDS, but NOCIFORMAT SAM ESDSs cannot be exported (NOCIFORMAT is in the message text), or
- a SAM ESDS and the VSE/VSAM Space Management for SAM Feature is not installed on this system. Therefore, SAM ESDSs cannot be exported (NOCIFORMAT is omitted from this message text).

System Action: For EXPORT, LASTCC is set to 12 and processing of the command is terminated. For EXPORTRA, the indicated file is not exported. LASTCC is set to 8, and processing continues for other entries to be exported via EXPORT(RA).

Programmer Action: If the file was accidentally selected due to incorrect catalog or file-id specifications, correct the specification and rerun the command. For NOCIFORMAT SAM ESDSs, you must supply your own programs to provide file backup and restoration and, if required, portable copies. SAM ESDSs cannot be accessed if the VSE/VSAM Space Management for SAM Feature is not installed on your system.

IDC3297I INVALID DEFAULT MODEL NAME

Cause: For DEFINE, a VSAM object has been named with the prefix qualifiers "DEFAULT.MODEL." but the additional qualifiers do not conform to the required reserved names for the file type being defined.

For IMPORT, when connecting a user catalog, the specified name for the catalog (the "name" subparameter of the OBJECTS parameter) contains a name reserved for default models. A reserved model name is any name beginning with DEFAULT.MODEL. ...".

System Action: Processing of the command is terminated with the condition code (LASTCC) set to 12. For IMPORT, the user catalog is not connected to the master catalog, but other user catalogs specifed in the OBJECTS parameter may have been connected. They will be identified by message IDC0643I.

Programmer Action: For DEFINE, change either the filetype or the default model name to conform to one of those combinations required for default models. If a default model definition was not intended, avoid the "DEFAULT.MODEL. ..." prefix. Then rerun the command.

For IMPORT, correct the catalog name to a valid name and rerun the command.

IDC3298I RENAMING DEFAULT MODEL NAME default-model-name {FROM|TO} entryname IS NOT ALLOWED

Cause:

- An attempt was made to rename the object "entryname" to the reserved default model name (DEFAULT.MODEL.xxxx) via ALTER NEWNAME or IMPORT NEWNAME, or
- An attempt was made to rename the default model object (DEFAULT.MODEL.xxxx) to the new name "entryname" via ALTER NEWNAME.

Renaming default model objects and renaming objects to default model names is not allowed. A reserved model name is any name beginning with "DEFAULT.MODEL. ...".

System Action: For ALTER, the catalog is not altered and processing of the command is terminated with the condition code (LASTCC) set to 12.

For IMPORT, if "entryname" is an alternate index, cluster, data component or index component, nothing is imported and processing of the command is terminated with the condition code (LASTCC) set to 12. If "entryname" is a path name, the affected path is not imported, message IDC2616I is issued, the condition code (LASTCC) is set to 8 and normal import processing continues for the cluster or alternate index and any other path objects.

Programmer Action:

For ALTER: If you wish to rename a default model, you must delete the default model and redefine it; if you wish to rename an object so that it becomes a default model,you should delete the object and redefine it with the appropriate default model name.

For IMPORT: If the command terminated, select a valid name for "entryname", place it in the NEWNAME parameter and rerun the command; if the error occurred on a path, either define the path with a valid name, or place a valid pathname in the NEWNAME parameter, delete the cluster or alternate index and rerun the command.

IDC3299I INVALID PARAMETER COMBINATION: xxx/yyy/zzz

Cause: The parameters named in the message have been used in an unacceptable or inconsistent combination. Although this is normally a result of explicit specification, it may also result from modeling or the use of system defaults in the case of the DEFINE command. Also, in the case of the DEFINE command, the inconsistency may involve parameter conflicts between the data and index components.

- NOALLOC/SUBALLOC/UNIQUE
  - NOALLOCATION was specified for one component (Data or Index), but not for both.
- RESERVED NAME/SUBALLOC/UNIQUE
  - Cannot define a default model without the NOALLOCATION parameter also given.

The following are invalid combinations for use with the VSE/VSAM Space Management for SAM Feature:

RECORDFORMAT/SPANNED
RECORDFORMAT/RECOVERY
RECORDFORMAT/NUMBERED
RECORDFORMAT/INDEXED
NOCIFORMAT/WRITECHECK
NOCIFORMAT/ERASE
NOCIFORMAT/EXCEPTIONEXIT

System Action: Processing of the command is terminated with condition code (LASTCC) set to 12.

Programmer Action: Change the parameter specifications to eliminate one of the unacceptable parameters and rerun the command.

IDC3300I ERROR OPENING {file-id|filename}

Cause: An error was detected while an attempt was being made to open the file identified by the file-id (filename appears if file-id is not available). See the associated message in the program listing for explanation. For EXPORTRA, LISTCRA, and RESETCAT, the message can occur due to an error in opening the CRA.

Note: The file-id of a CRA is always of the form "CATALOG.RECOVERY.AREA.VOL.volser".

System Action: See the explanation given for the asssociated message.

Programmer Action: See the explanation given for the associated message.

IDC3301I ERROR CLOSING { file-id|filename}

Cause: An error was detected while an attempt was being made to close the file identified by the file-id (filename appears if file-id is not available). See the associated message in the program listing for explanation. For EXPORTRA, LISTCRA, and RESETCAT, the message can occur due to an error in closing the CRA.

Note: The file-id of a CRA is always of the form "CATALOG.RECOVERY.AREA.VOL.volser".

System Action: See the explanation given for the associated message.

Programmer Action: See the explanation given for the associated message.

IDC3302I ACTION ERROR ON file-id

Cause: An error was detected while an attempt was being made to access the file identified by file-id. See the associated message in the program listing for explanation.

System Action: See the explanation given for the associated message.

Programmer Action: See the explanation given for the associated message.

IDC3303I ** CANNOT OPEN FOR UPDATE

Cause: Only VSAM files may be opened for update mode. The filename to be opened prints to a nonVSAM DLBL statement.

System Action: The file is not opened, and the command is terminated.

Programmer Action: Verify your specification in the DLBL statement, correct the statement, and rerun the command.

IDC3304I ** JCL STATEMENT MISSING

Cause: The DLBL job control statement named in a FILE, INFILE, or OUTFILE parameter cannot be found.

System Action: Processing of the command is terminated.

Programmer Action: Check for an incorrectly spelled dname parameter, a missing DLBL statement, or a misspelled filename in the DLBL statement. Correct the error, and rerun the command.

IDC3305I ** CANNOT BE OPENED FOR OUTPUT

Cause: For output, Access Method Services can open only VSAM files and nonVSAM files with physical sequential organization on disk or tape. The dname in OUTFILE or WORKFILE is not one of these file types.

System Action: Processing of the command is terminated.

Programmer Action: Change the OUTFILE or WORKFILE dname and/or associated DLBL statement to specify either a VSAM file or a nonVSAM physical sequential file on disk or tape; then rerun the command.

IDC3306I ** PS PROCESSING INVALID FOR KEYED DATA SET

Cause: Physical sequential access is not possible for the file. Index sequential files may not be processed other than sequentially by key.

System Action: Processing of the command is terminated.

Programmer Action: Change the DLBL statement to specify a VSAM file, or correct the usage of the file in the command, and rerun the command.

IDC3307I ** DATA SET CANNOT BE OPENED FOR KEYED PROCESSING

Cause: Only key sequenced VSAM and index sequential files can be opened for keyed processing.

System Action: Processing of the command is terminated.

Programmer Action: Change the DLBL statement to specify a keyed file, or correct the usage of the file in the command, and rerun the command.

IDC3308I ** DUPLICATE RECORD xxx

Cause: The output file of a REPRO command already contains a record with the same key or record number. For an indexed file, xxx is the first five bytes in hexadecimal format of the key of the duplicate keyed record. For a relative record file, xxx is the relative record number (in decimal) of the duplicate record.

System Action: The record is not written, and processing continues until four such errors occur, in which case no more records are written to the file.

Programmer Action: If you wish to overlay duplicate records in the output file, rerun the REPRO command specifying REPLACE.

IDC3309I ** RECORD xxx NOT WRITTEN. LENGTH INVALID.

Cause: Record xxx was not written for one of the following reasons:

- The record length was greater than the LRECL of the output file (logical processing).
- The record length was unequal to the LRECL of the output file, and output was either RECFM=FIXUNB or FIXBLK or a relative record file.
- The control interval length to be written did not equal the control interval size for the output file.

In the message, xxx is the first five bytes of the record in hexadecimal notation.

System Action: Processing continues until four such errors occur, in which case no more records are written to the file.

Programmer Action: Redefine the output file with the correct LRECL or control interval size. If the input file is composed of variable length records, the output file cannot be a VSAM relative record file or a physical sequential file with fixed length records.

IDC3310I ** KEY SUPPLIED IS LONGER THAN KEY LENGTH OF DATA SET

Cause: The key supplied for positioning was longer than the key length of the file. For example, the key specified by FROMKEY is longer than the key length of the file.

System Action: Processing of the command is terminated.

Programmer Action: Check to be sure you are processing the correct file. Specify the correct key on the command, or the correct file-id in the DLBL statement, and rerun the command.

IDC3311I ** TYPE OF POSITIONING NOT SUPPORTED

Cause: Positioning is valid only for VSAM and index sequential files.

System Action: Processing of the command is terminated.

Programmer Action: Respecify the DLBL and EXTENT statements defining a VSAM or index sequential file, or remove the positioning parameter. Then rerun the command.

IDC3312I ** SYSTEM UNABLE TO OPEN

Cause: The DTF open flags were not set on after an OPEN request.

System Action: Processing of the command is terminated.

Programmer Action: Check the SYSLOG output for additional system messages that indicate the reason why the system was unable to open a DTF.

IDC3314I RECORD xxx OUT OF SEQUENCE

Cause: The record to be written contains a key lower than that of the preceding record written in the file. In the message, xxx is the first five bytes, in hexadecimal notation, of the key of the record that was out of sequence.

System Action: The record is not written, and processing continues until four such errors occur, in which case no more records are written to the file.

Programmer Action: Rearrange the records to be written so that they are in ascending sequence, and rerun the command.

IDC3316I ** DATA SET IS NOT VSAM CATALOG

Cause: This message is not valid in VSE.

System Action: Unpredictable.

Programmer Action: Save all associated output, obtain a dump for problem determination, and contact your IBM Support Center.

IDC3317I ** PERMANENT I/O ERROR

Cause: An I/O error was detected while performing an I/O operation on a file named in the preceding message on the listing.

System Action: A subsequent message will indicate the action taken for the command that encountered the condition. Thus, if message IDC3003I follows, it indicates that the condition caused command termination.

Programmer Action: Check the DLBL job control statement to ensure that it provides the correct information. Correct the statement, if necessary, and rerun the command. Check whether the BLKSIZE parameter is correctly specified for IMPORT(RA), PRINT, or REPRO. If the statement or parameter provided correct information, check the SYSLOG I/O error message. If a DASD media error occurred, run the Assign Alternate Track utility program (CKD device) or the Assign Alternate Block utility program (FBA device), and restore the file from a backup copy.

IDC3318I ** INVALID DATA SET SPECIFICATION

Cause: The ENVIRONMENT parameter or the DLBL, EXTENT, or TLBL statement has been incorrectly specified. The information is incorrect, or required parameters are missing.

System Action: Processing of the command is terminated.

Programmer Action: Check the ENVIRONMENT parameter to ensure that all required parameters are specified. Also check the DLBL, EXTENT, or TLBL job control statement to ensure that it is correctly specified. Correct any error and rerun the command.

IDC3320I ** INVALID DEVICE TYPE

Cause: An invalid device type was specified on the job control statement.

System Action: Processing of the command is terminated.

Programmer Action: Check whether the ENVIRONMENT (PDEV and HDEV) parameter is correctly specified. See the discussion of the ENVIRONMENT parameter of the pertinent command in *Using VSE/VSAM Commands and Macros* for correct usage of PRIMEDATADEVICE and HINDEXDEVICE parameters. Correct the error and rerun the command.

IDC3321I ** OPEN/CLOSE ABEND EXIT TAKEN

Cause: This message is not valid in VSE.

System Action: Unpredictable.

Programmer Action: Save all associated output, obtain a dump for problem determination, and contact your IBM Support Center.

IDC3322I DATA SET ORGANIZATION IS NOT VSAM

Cause: A verify request (UVERIFY) was made to a file that is not a VSAM file.

System Action: The verify request is terminated. Subsequent action depends upon the individual command. See subsequent messages for command action.

Programmer Action: Correct the file name or type, and rerun the command.

IDC3323I ** VSAM CATALOG RETURN CODE IS nnn

Cause: An error occurred while the catalog (identified in the associated message) was being opened. The possible return code values and their meanings are given in Appendix B.

System Action: A subsequent message will indicate the action taken for the command that encountered the condition. Thus, if message IDC3003I follows, it indicates that the condition caused command termination.

Programmer Action: See the action indicated for the given return code in Appendix B.

IDC3324I ** VSAM CATALOG RETURN CODE IS nnn - REASON CODE IS IGG0CLxx - mmm

Cause: An error occurred while the catalog (identified in the associated message) was being opened. The return code (nnn) and reason code (mmm) were returned by catalog management module IGG0CLxx as a result of a catalog error or exceptional condition.

System Action: A subsequent message will indicate the action taken for the command that encountered the condition. Thus, if message IDC3003I follows, it indicates that the condition caused command termination.

Programmer Action: See the specific return and reason codes. A complete list of return and reason codes with an explanation for each of these codes, including the possible user response, is given in Appendix B.

IDC3325I ** INCORRECT BLOCKSIZE SPECIFIED FOR IMPORTRA

Cause: The portable file cannot be read due to an incorrect blocksize in the INFILE parameter. A wrong length record error has occured.

System Action: Processing of the IMPORTRA command is terminated.

Programmer Action: Change the BLOCKSIZE value in the INFILE parameter to that used for EXPORTRA, and rerun the command. Any blocksize greater than or equal to EXPORTRA blocksize will correct the problem.

IDC3326I ** REPLACE INVALID FOR OUTPUT THROUGH A PATH

Cause: The REPLACE parameter has been specified in a REPRO command when the output file is a path.

System Action: Processing of the command is terminated.

Programmer Action: If the input does not contain any records duplicating prime keys (and alternate keys of any upgrade set alternate index having the UNIQUEKEY attribute) in the output, you may still execute REPRO by simply removing the REPLACE parameter. Otherwise, you may be able to specify the base cluster or alternate index name as the output file. See *Using VSE/VSAM Commands and Macros* for restrictions on the REPLACE parameter.

IDC3327I ** DUPLICATE RECORD IN UPGRADE SET - BASE RECORD xxxxx

Cause: During a REPRO operation, an attempt has been made to add a record to the output base cluster. However, a duplicate record in the upgrade set has been encountered when upgrading an alternate index (with the UNIQUEKEY attribute) over the output file. If the base cluster is a key sequenced file, xxxxx is the first five bytes of the prime key expressed in hexadecimal. If the base cluster is an entry sequenced file, xxxxx is the first five bytes (in hexadecimal) of the record.

System Action: The record is not written into the base cluster, and the alternate index(es) are not updated for this record. Processing continues until four such errors occur, at which time processing terminates.

Programmer Action: If the UNIQUEKEY attribute was correctly specified, the base cluster record being added is in error and must be corrected. If the UNIQUEKEY attribute was incorrectly specified, it may be changed to NONUNIQUEKEY using the ALTER command. Make the required corrections and rerun the command.

IDC3328I ** FBA DEVICE NOT SUPPORTED FOR ISAM PROCESSING

Cause: A fixed block device was specified in the HINDEXDEVICE subparameter of the ENVIRONMENT parameter of the PRINT or REPRO command. This would imply a request for ISAM processing on a fixed block device, which is not supported. You may have erroneously specified HINDEXDEVICE instead of PRIMEDATADEVICE for a SAM file.

System Action: Processing of the command is terminated.

Programmer Action: If your INFILE is ISAM, change HINDEXDEVICE and your JCL to reflect the correct device type. If your INFILE is SAM, specifiy PRIMEDATADEVICE. If your INFILE is VSAM, ENVIRONMENT and its subparameters must be omitted. Correct your command and associated INFILE dname JCL, and rerun the command.

IDC3351I ** VSAM {OPEN|CLOSE|I/O} RETURN CODE IS nnn

Cause: An error was encountered during VSAM open, close or action request execution as indicated in the text of the message. In the message, nnn is the error code (in decimal) returned by VSAM. A complete list of error codes, with an explanation for each of the codes, is given in Appendix A.

System Action: The action depends on the function being executed. See the preceding and/or subsequent messages in the listing.

Programmer Action: Correct the error, according to the information in Appendix A.

IDC3500I A VALID VSAM DEFINE STRUCTURE WAS NOT PROVIDED

Cause: The object parameter list (FDT) does not specify AIX, CLUSTER, MCAT, UCAT, NONVSAM, PATH, or SPACE. The Access Method Services reader/interpreter should have detected this error. This is a system error.

System Action: Processing of the command is terminated.

Programmer Action: Check your command to be sure an object type was specified. If it was not specified, correct it, and rerun the command. Otherwise, save the job stream and system output (SYSLST) associated with the job for problem determination, and contact your IBM Support Center.

IDC3501I MODEL ENTYPE IS NOT CONSISTENT WITH THE OBJECT BEING DEFINED

Cause: The object being used to model a VSAM file, an alternate index, or a user catalog differs from that being defined; that is, the model's entry type does not match the entry type of the object that is being defined.

System Action: Processing of the command is terminated.

Programmer Action: Ensure that the model object type is identical to that being defined, and rerun the command.

IDC3503I FILE SEQUENCE LIST IS INCONSISTENT WITH VOLUME LIST

Cause: The number of elements in the FILESEQUENCENUMBERS parameter list is not equal to the number of volumes in the VOLUMES parameter list.

System Action: Processing of the command is terminated.

Programmer Action: Check the elements in both lists, and make corrections where needed; then rerun the command.

IDC3504I THE RANGE LIST CANNOT BE CONSTRUCTED

Cause: The area allotted to Access Method Services was insufficient to build the required keyrange list. This is probably a system error.

System Action: Processing of the command is terminated.

Programmer Action: This problem can be circumvented by not modeling KEYRANGES. Rerun the job with the PARM TEST(FULL((DE33,1,1))) specified. Save the dump and the job stream and system output (SYSLST) associated with the job for problem determination, and contact your IBM Support Center.

IDC3505I INCORRECT SPECIFICATION OF SPACE ALLOCATION

Cause: The space parameter BLOCKS, TRACKS, CYLINDERS, DEDICATE, or RECORDS has not been validly specified on a DEFINE command.

- For DEFINE CLUSTER|ALTERNATEINDEX, the space parameters must be specified in one of the following combinations: cluster|alternate index level only; data level only; data level and index level (cluster|alternate index level must be omitted).
- For DEFINE SPACE, one of the space parameters (or CANDIDATE) must be a subparameter of SPACE.
- For DEFINE catalog, the space parameters must be specified in one of the following combinations: catalog level, data level, and index level; catalog level and data level; catalog level only.

The space parameter BLOCKS, TRACKS, CYLINDERS, DEDICATE, or RECORDS does not appear on the appropriate object parameter list.

System Action: Processing of the command is terminated.

Programmer Action: See the discussion of the DEFINE command and space specifications in *Using VSE/VSAM Commands and Macros*. Correct the DEFINE command in error, and rerun the command.

IDC3507I THE RECORDSIZE PARAMETER IS REQUIRED BUT NOT SPECIFIED

Cause: The RECORDSIZE parameter was omitted from the command. This message can occur only for DEFINE SPACE when the RECORDS parameter is specified.

System Action: Processing of the command is terminated.

Programmer Action: Specify RECORDSIZE, or change allocation from RECORDS to TRACKS, CYLINDERS, DEDICATE, or BLOCKS and rerun the command.

IDC3513I DNAME NOT SPECIFIED WITH UNIQUE ATTRIBUTE

Cause: The FILE parameter was not specified for an object which has the UNIQUE attribute.

System Action: Processing of the command is terminated.

Programmer Action: Specify the FILE parameter, supply the associated DLBL and EXTENT statements, and rerun the command. Note that the associated EXTENT statements must include the relative-track and number-of-tracks parameters for CKD devices (or beginning-block and number-of-blocks for FBA devices).

IDC3514I KEYRANGES ARE INVALID

Cause: The KEYRANGES parameter (DEFINE or IMPORT command) specified invalid key values for the low or high key values; either:

- the high key value is lower than the low key value in low-key high-key pair
- two or more low-key high-key pairs overlap, or are identical.

System Action: Processing of the command is terminated.

Programmer Action: Correct the KEYRANGES parameter, and rerun the command.

IDC3515I AVERAGE RECORD SIZE EXCEEDS MAXIMUM RECORD SIZE

Cause: The first size value of the RECORDSIZE parameter is greater than the second.

System Action: Processing of the command is terminated.

Programmer Action: Correct either the RECORDSIZE average or maximum size value, and rerun the command.

IDC3516I KEYS PARAMETER REQUIRED FOR KEY SEQUNCED DATA SET

Cause: The definition of a key sequenced file requires the specification of the key position and length in the KEYS parameter of the DEFINE command. This is a system error because the default parameters for KEYS should be used if they are not specifically stated.

System Action: Processing of the command is terminated.

Programmer Action: Provide (or correct) the KEYS parameter, and rerun the command. If the problem persists, save the job stream and system output (SYSLST) associated with the job for problem determination, and contact your IBM Support Center.

IDC3517I AVG AND MAX RECORDSIZE NOT EQUAL FOR RELATIVE RECORD DATA SET

Cause: The RECORDSIZE parameter specified different average and maximum record sizes for a relative record file (NUMBERED parameter specified).

System Action: Processing of the command is terminated.

Programmer Action: In your DEFINE command, correct either the average or the maximum RECORDSIZE value. If you want an entry sequenced file, change NUMBERED to NONINDEXED. Then rerun the command.

IDC3518I REUSE PARAMETER INVALID WITH UNIQUE OR KEYRANGES

Cause: The REUSE attribute may not be specified for a cluster or an alternate index together with the UNIQUE or KEYRANGES parameter, either explicitly or through modeling.

System Action: Processing of the command is terminated.

Programmer Action: Correct either the REUSE parameter or the UNIQUE and/or KEYRANGES parameters, and rerun the command.

IDC3519I REUSE ATTRIBUTE CONFLICT BETWEEN DATA AND INDEX

Cause: The REUSE attribute was not the same for the DATA and INDEX objects. For example, NOREUSE is specified at the CLUSTER level and REUSE is specified at the DATA level; if nothing is specified for the INDEX level, the default is NOREUSE. Another example is where modeling at the CLUSTER level is specified, but attributes are explicitly overridden at the DATA or INDEX level, but not at both.

System Action: Processing of the command is terminated.

Programmer Action: Redefine the object ensuring that the REUSE attribute specified for DATA and INDEX are the same, and rerun the command.

IDC3521I SPANNED ATTRIBUTE INVALID FOR A RELATIVE RECORD DATA SET

Cause: SPANNED and NUMBERED were specified together, either explicitly or through modeling. Records of a relative record file may not span control intervals.

System Action: Processing of the command is terminated.

Programmer Action: Correct the SPANNED parameter or the file type specification, and rerun the command.

IDC3522I SPANNED ATTRIBUTE REQUIRED IF RECORDSIZE GREATER THAN 32,761

Cause: The RECORDSIZE parameter specifies a maximum size greater than 32,761, but SPANNED is not specified.

System Action: Processing of the command is terminated.

Programmer Action: Correct the RECORDSIZE parameter, or specify the SPANNED parameter; then rerun the command.

IDC3524I KEYRANGE VALUES EXCEED KEYLENGTH OR ARE NOT IN ASCENDING ORDER

Cause: The key values of the KEYRANGE parameter are specified incorrectly. Either a key-range key value was longer than the user-specified/defaulted key length, or the key-range pairs were in non-ascending order.

System Action: Processing of the command is terminated.

Programmer Action: Examine the key range values on the DEFINE command. Determine what the key length will be for the data set, and ensure that all key values specified in the KEYRANGE parameter are not longer than this length. Also, ensure that key-range pairs are ordered in ascending sequence. Then resubmit the command.

IDC3525I INSUFFICIENT PASSWORD AUTHORIZATION TO ALTER KEYS

Cause: The password supplied was not of a level high enough to permit the ALTER to occur. To modify KEYS values, either the master password of the cluster, alternate index, or path is needed, or alternatively, the catalog master password can be supplied. If one component is password protected and the other is not, the master password of the protected component is sufficient, although both the data and the index components will be altered.

System Action: Processing of the command is terminated.

Programmer Action: Provide the correct password, and rerun the command.

IDC3527I ALTER WAS UNABLE TO LOCATE ATTRIBUTES OF OBJECT TO BE MODIFIED

Cause: Either an attempt was made to alter attributes which cannot be changed, or the entry to be modified was found in the catalog but the required fields could not be located.

System Action: Processing of the command is terminated.

Programmer Action: Verify that the parameters you are altering are valid for the entryname object type. Verify the data in the catalog entry and the correctness of the catalog being used. If necessary, save the job stream and system output (SYSLST) associated with this job for problem determination, and contact your IBM Support Center.

IDC3528I THE OBJECT TO BE MODIFIED IS PASSWORD SUPPRESSED

Cause: The ALTER command being processed specifies that one or more security fields (passwords, code, attempts, etc.) of an entry are to be altered, but it does not include either the master password of the entry or the update or higher-level catalog password.

System Action: Processing of the command is terminated.

Programmer Action: Either the master password of the entry to be modified, or the update or higher-level catalog password must be supplied for the requested modification(s) to be allowed to that entry. Provide the password, and rerun the command.

IDC3537I INVALID ALTERNATE INDEX PARAMETERS SPECIFIED

Cause: Either UPGRADE was specified but the object being altered is not an alternate index, or UNIQUEKEY was specified but the DATA object being altered is not the DATA object of an alternate index.

System Action: Processing of the command is terminated.

Programmer Action: Correctly specify the name of an alternate index or of the DATA object of an alternate index, and rerun the command.

IDC3538I UNIQUEKEY/UPGRADE INVALID FOR NON-EMPTY ALTERNATE INDEX

Cause: The UNIQUEKEY or UPGRADE parameter is specified, but the alternate index is not empty. These parameters can be specified only if the alternate index contains no records.

System Action: Processing of the command is terminated.

Programmer Action: If an alternate index with the UNIQUEKEY and/or UPGRADE attributes is truly desired, delete and redefine this alternate index with these attributes, then rebuild with BLDINDEX.

IDC3539I KEYS AND/OR RECORDSIZE PARAMETER SPECIFIED FOR NON-EMPTY OBJECT

Cause: The ALTER command specified the KEYS or RECORDSIZE parameter, but the cluster or alternate index contains data records.

System Action: Processing of the command is terminated, and the object's catalog entry remains unchanged.

Programmer Action: If you want to change key position and/or record size, delete the file, then redefine and reload it. You can use REPRO or EXPORT/IMPORT with a predefined empty file to recreate the file.

IDC3540I KEYS/RECORDSIZE VALUES CONFLICT WITH CONTROL INTERVAL SIZE

Cause: The new key length, key position, or maximum record size requires a larger control interval.

System Action: Processing of the command is terminated, and the object's catalog entry remains unchanged.

Programmer Action: Check the specified KEYS or RECORDLENGTH value(s) for correctness. Delete and redefine the object with the desired KEYS or RECORDSIZE parameter values.

IDC3541I NEW ALTERNATE INDEX KEY VALUES CONFLICT WITH BASE CLUSTER RECORDSIZE

Cause: The ALTER command for an alternate index specifies a KEYS parameter for a key whose ending position is either outside the base cluster's average record size, or if the base cluster is spanned, the ending key position is not in the base cluster record's first control interval segment.

System Action: Processing of the command is terminated, and the object's catalog entry remains unchanged.

Programmer Action: Execute the LISTCAT command to obtain a list of the catalog entries for the applicable objects and any related objects. Correct the ALTER command, or correct the base cluster's maximum record size or control interval size. Then rerun the command.

IDC3542I AVG AND MAX RECORDSIZE NOT EQUAL FOR RELATIVE RECORD DATA SET

Cause: The RECORDSIZE parameter specified different average and maximum record sizes for a relative record file (file type NUMBERED).

System Action: Processing of the command is terminated.

Programmer Action: In your ALTER command, correct either the average or the maximum size value. Then rerun the command.

IDC3545I KEYS AND/OR RECORDSIZE VALUES CANNOT BE ALTERED

Cause: The ALTER command specified new KEYS or RECORDSIZE values for an object whose corresponding values were not the default values when the object was defined, or which have been altered to non-default values. See *Using VSE/VSAM Commands and Macros* for ALTER restrictions for KEYS and RECORDSIZE.

System Action: Processing of the command is terminated, and the object's catalog entry remains unchanged.

Programmer Action: Delete and correctly redefine the object, and rerun the command.

IDC3546I NEW KEY VALUES CONFLICT WITH RECORDSIZE

Cause: The ALTER command specifies a KEYS parameter that defines a key whose ending position is either outside the average record size, or if the records are spanned, the ending key position is not in the record's first control interval segment.

System Action: Processing of the command is terminated, and the object's catalog entry remains unchanged.

Programmer Action: Execute the LISTCAT command to obtain a list of the catalog entries for the applicable objects and any related objects. Correct the ALTER command, or correct the base cluster's average record size or control interval size. Then rerun the command.

IDC3547I ENTRY TYPE INVALID WITH KEYS/RECORDSIZE PARAMETER

Cause: The entryname specified is not the data component of a cluster or alternate index, nor is it a cluster or alternate index, nor is it a path over a cluster or alternate index.

System Action: Processing of the command is terminated, and the entry's catalog data remains unchanged.

Programmer Action: Verify that you are accessing the correct catalog. Execute the LISTCAT command to obtain a list of the catalog entries for the applicable object and any related objects. Correct the entryname, and rerun the command.

IDC3570I DELIMITERS MUST NOT BE SPECIFIED WHEN RELOADING A CATALOG

Cause: REPRO command delimiters (FROMKEY, TOKEY, etc.) cannot be specified when reloading a catalog.

System Action: Processing of the command is terminated. The target catalog has not been modified.

Programmer Action: Remove delimiters from the REPRO command, and rerun the command.

IDC3572I TARGET CATALOG IS TOO SMALL TO CONTAIN THE BACKUP CATALOG

Cause: The size of the target catalog is not adequate.

System Action: Processing of the command is terminated. The target catalog has not been modified.

Programmer Action: Determine the size of the backup catalog from the LISTCAT output obtained at the time of the unload. Delete and redefine the target catalog with adequate space to contain the entries from the backup catalog, and rerun the command.

IDC3573I {NAME|VOLSER|DEVTYP} OF BACKUP AND TARGET CATALOG DO NOT AGREE

Cause: The target catalog name (NAME), its volume serial number (VOLSER), or its device type (DEVTYP) does not agree with the backup. These values must all match those of the backup catalog.

System Action: Processing of the command is terminated. The target catalog has not been modified.

Programmer Action: Determine whether you are reloading from the proper backup into the intended catalog, make corrections as necessary, and rerun the command.

IDC3582I INPUT DATA SET ORGANIZATION INCOMPATIBLE WITH OUTPUT DATA SET

Cause: This error condition arises if you try to copy from a non-relative record file to a non-empty relative record output file. Either the file does not have the REUSE attribute, or the ALTER REUSE option was not specified.

System Action: Processing of the command is terminated. No data is copied.

Programmer Action: Check the file type of the input and output files, the empty/non-empty status, and REUSE attribute of the output file. Note that for the condition indicated, both the output file and REPRO command must specify REUSE for the copy to succeed. Set up the files and REPRO parameters correctly, and rerun the command.

IDC3583I 'parameter' INCOMPATIBLE WITH INFILE DATA SET TYPE

Cause: The named parameter is not correctly used with this type of file. A conflict results between the delimiter and the file type. An example is specifying TOKEY with a relative record file. See *Using VSE/VSAM Commands and Macros* for the restrictions on the use of this parameter in the REPRO command description.

System Action: Processing of the command is terminated. No data is copied.

Programmer Action: Correct the parameter(s) or file specified, and rerun the command.

IDC3592I THE ENTRY NAME IS NOT CLUSTER OR ALTERNATE INDEX

Cause: The object identified by the entry parameter in the command is not a cluster or alternate index. Only clusters or alternate indexes can be exported. A path name cannot be used to identify a cluster or alternate index.

System Action: Processing of the command is terminated. The portable file has not been opened.

Programmer Action: Check that your entryname is really a cluster or an alternate index object name. Correct your specification, and rerun the command.

IDC3593I A REQUIRED CATALOG FIELD WAS NOT LOCATED

Cause: One of the following required catalog fields could not be located by catalog management: ENTYPE, ENTNAME, or NAMEDS, or for EXPORTRA, the data component could not be located. For EXPORTRA, secondary message IDC0674I identifies the affected file.

This is probably a system error.

System Action: For EXPORT, processing of the command is terminated; no export action takes place. For EXPORTRA, the object is bypassed for export; processing continues.

Programmer Action: Save the job stream and system output (SYSLST) associated with this job for problem determination. Contact your IBM Support Center.

IDC3596I THE DATA SET SPECIFIED IN THE EXPORT PARAMETER IS NOT USABLE

Cause: The file specified in the EXPORT command has been marked as not usable either by a DELETE FORCE operation (because of space occupation conflicts), or by RESETCAT because the file could not be reset. (Refer to *Using VSE/VSAM Commands and Macros* for the IGNORE option of RESETCAT and the FORCE option of DELETE.)

System Action: Processing of the command is terminated.

Programmer Action: This file cannot be exported because it has been flagged as unusable. If you wish to recover the data, use the REPRO or EXPORTRA command, or revert to an earlier exported copy. LISTCAT can be used to determine which catalog entries have been flagged with the NOTUSABLE attribute.

IDC3602I IMPORT OF DATA SET FAILED AFTER DEFINE - DELETE ATTEMPTED

Cause: The cluster or alternate index being imported was defined successfully, but an error occurred before all the data was copied into the newly-defined cluster or alternate index. The preceding message in the program listing explains why the import failed — for example, invalid DLBL statement, I/O error on the volume that contains the portable file.

System Action: The defined data set is deleted. Message IDC0550I, following, will indicate successful deletion. The IMPORT command then terminates. The IMPORTRA command continues to import other objects on the portable file.

Programmer Action: Refer to the preceding message(s) in the program listing.

IDC3606I PORTABLE DATA SET IN ERROR

Cause: The data on the portable file is not as was expected. One of the following conditions has occurred:

- The timestamp record is not valid.
- The special record preceding data records for the cluster or alternate index is not valid.
- A control record for a user catalog, nonVSAM data set, OS/VS alias, or OS/VS generation data group is not valid.
- The tape was produced by BACKUP.

Only the first two conditions can occur with IMPORT.

This is probably an operator or user error if message IDC0604I has not been issued (file identified by INFILE is not a valid portable file). Otherwise, this is probably a system error.

System Action: Processing of the command is terminated. If message IDC0604I has been issued, some importing may have occurred. Also, catalog entries may have been deleted; SYSLST messages will indicate any such deletions.

Programmer Action: Ensure that a portable file to be processed by IMPORT was created by EXPORT, or one to be processed by IMPORTRA was created by EXPORTRA. If the tape was created by BACKUP, you must process it with RESTORE.

If the problem recurs, save the job stream and system output (SYSLST) associated with this job for problem determination, execute the LISTCAT command to obtain a list of the volume table of contents of the associated volumes, and contact your IBM Support Center.

IDC3607I DELETE UNSUCCESSFUL - NOT A TEMPORARY DATA SET

Cause: While processing an IMPORT command, Access Method Services found a duplicate file-id name in the catalog. The duplicate file was not empty, and the temporary flag was not on. If NEWNAME was specified for the file, it is the new name that has a duplicate entry in the catalog.

System Action: Processing of the command is terminated.

Programmer Action: Check the file-id being imported and verify that you are importing into the correct catalog, and either:

- Correct the catalog name and rerun the command
- Correct the name of the object that is to be imported, and rerun the command
- Run an ALTER NEWNAME command or a DELETE command for the duplicate catalog object, and then rerun the IMPORT command.

IDC3608I CONNECT FOR catname FAILED

Cause: The connect for the indicated user catalog has failed.

System Action: Processing of the command is terminated.

Programmer Action: The previous message in the program listing indicates the cause of the failure and the action you should take.

IDC3609I VOLUME SPECIFICATION NEEDED FOR file-id

Cause: Volume information could not be found on the portable file or in the IMPORT command. This condition should only occur if you are importing a cluster that was exported with the PERMANENT option on DOS/VS Release 30 or earlier, OS/VS1 Release 3.1 or earlier, or OS/VS2 Release 3 or earlier.

System Action: Processing of the command is terminated. Nothing has been imported.

Programmer Action: Specify the VOLUMES parameter for the cluster name or the data and index names comprising the cluster. Rerun the command.

IDC3610I SPECIFICATION OF DEVICE TYPES, VOLUMES REQUIRED FOR CONNECT

Cause: When connecting a user catalog, the DEVICETYPES and VOLUMES parameters, as well as the catalog name, are required.

System Action: Processing of the command is terminated. Nothing has been imported.

Programmer Action: Specify device type, volume, and catalog name as OBJECTS subparameters of the IMPORT command, and rerun the command.

IDC3612I DELETE UNSUCCESSFUL - NOT A CLUSTER OR AIX

Cause: An attempt to delete a duplicate entry in the catalog has failed because that entry was not a cluster or alternate index. The duplicate entry caused the failure of a catalog definition for the import of a cluster or alternate index.

System Action: Processing of the command is terminated. Nothing has been imported or deleted.

Programmer Action: Check to ensure that you are importing into the correct catalog. Do a LISTCAT to see what you really have; what you are trying to import has a conflicting name in the catalog. Delete or rename the conflicting object in the catalog, or specify a different target catalog (and if necessary, VOLUMES), or use the NEWNAME parameter to change the name of the cluster or alternate index you are attempting to import. Then rerun the command.

IDC3613I ERROR ENCOUNTERED OPENING PORTABLE DATA SET

Cause: The portable file could not be opened.

System Action: Processing of the command is terminated. Nothing has been imported.

Programmer Action: See the preceding message in the listing. That message explains why the file that is to be imported could not be opened. If possible, obtain the job SYSLOG output for any messages issued by OPEN.

IDC3617I ATTRIBUTES OF PREDEFINED ENTRY INCOMPATIBLE WITH THOSE EXPORTED

Cause: The predefined file being imported into the system is not consistent with the one originally exported. One or more of the following is wrong:

- The files are not of the same type (key-sequenced, VSAM entry-sequenced, SAM entry-sequenced, or relative record).
- The key lengths are not the same (KEYS parameter).
- The relative key positions (offset) are not the same (KEYS parameter).
- The maximum record size of the predefined file is less than that of the file originally exported (RECORDSIZE parameter).
- Both files are SAM ESDSs, and their RECORDFORMAT parameters do not match.

System Action: Processing of the command is terminated. Nothing has been imported.

Programmer Action: Delete and redefine the predefined file with proper attributes. Then rerun the command.

IDC3619I ALTER NEWNAME FOR IMPORTRA FAILED

Cause: An ALTER to rename the object being imported has failed. Preceding message(s) indicate the cause of failure. The IMPORTRA command alters each VSAM object that it defines so that it may be opened for loading. The name is changed to that specified on the job control statements and then changed back to the original name after loading. The affected cluster or alternate index is identified by message IDC2621I, which follows.

System Action: IMPORTRA attempts to delete the object whose ALTER NEWNAME failed (see subsequent messages). The affected object is bypassed, and processing continues with the next object on the portable file.

Programmer Action: Take the corrective action indicated by the preceding and subsequent message(s), and rerun the command.

IDC3624I UNABLE TO OBTAIN OUTPUT DATA SET NAME

Cause: IMPORTRA was unable to obtain the file-id from the DLBL statement identified by the filename given in the OUTFILE parameter.

System Action: Processing of the command is terminated. Nothing has been imported.

Programmer Action: Remove the OUTFILE parameter, because it is no longer needed, then rerun the command.

IDC3641I file-id NOT A BASE CLUSTER

Cause: The file identified by file-id is not a base cluster or a path over a base cluster. The file-id was specified in the INDATASET parameter or in the DLBL statement identified via the INFILE dname subparameter.

System Action: Processing of the command is terminated. The alternate index remains empty.

Programmer Action: The file-id must be a defined, non-empty base cluster or a path over a base cluster. Correct the file-id in the INDATASET parameter or in the DLBL statement identified via the INFILE subparameter, and rerun the command. You may have to run the LISTCAT command to obtain a listing of the contents of the applicable catalog and the catalog entries for the applicable objects and any related objects.

IDC3643I file-id IS EMPTY

Cause: The base cluster identified by file-id contains no records. In order to build an alternate index, the base cluster must contain at least one record.

System Action: Processing of the command is terminated. The alternate index remains empty.

Programmer Action: Load the base cluster with at least one record via a user program (or the REPRO command). Then rerun the BLDINDEX command.

IDC3883I ERROR COUNT EXCEEDED UPPER LIMIT, FUNCTION TERMINATED

Cause: A LISTCRA command encountered more than 50 I/O errors.

System Action: Processing of the LISTCRA command is terminated.

Programmer Action: Determine the cause of the I/O errors, correct the problem, and rerun the command. Catalog or volume recovery may be required.

IDC4227I AN 'ELSE' COMMAND APPEARS IMPROPERLY

Cause: An ELSE modal command appears without a matching IF-THEN modal command. Modal command continuation may be incorrect.

System Action: The remainder of the command input stream in the jobstep is ignored, and the condition code (MAXCC) is set to 16.

Programmer Action: Correct the usage. Rerun those commands still requiring execution.

IDC4228I AN 'END' COMMAND IS INVALID

Cause: An END modal command occurs without a matching DO modal command.

System Action: The remainder of the command input stream in the jobstep is ignored, and the condition code (MAXCC) is set to 16.

Programmer Action: Correct the DO-END usage. Rerun those commands still requiring execution.

IDC4229I 'IF' COMMAND HAS INVALID RELATIONAL EXPRESSION

Cause: An IF modal command has an invalid relational expression.

System Action: The remainder of the command input stream in the jobstep is ignored, and the condition code (MAXCC) is set to 16.

Programmer Action: Check the syntax requirements of the IF command, and correct the usage. Rerun those commands still requiring execution.

IDC4230I 'SET' COMMAND HAS INVALID ASSIGNMENT EXPRESSION

Cause: A SET modal command has an invalid assignment expression.

System Action: The remainder of the command input stream in the jobstep is ignored, and the condition code (MAXCC) is set to 16.

Programmer Action: Check the syntax restrictions on the SET command, and correct the usage. Rerun those commands still requiring execution.

IDC4232I IMPROPER OR MISSING 'THEN' KEYWORD

Cause: The THEN portion of an IF modal command is misspelled or missing. Modal command continuation may be incorrect.

System Action: The remainder of the command input stream in the jobstep is ignored, and the condition code (MAXCC) is set to 16.

Programmer Action: Correct the usage and rerun those commands still requiring execution.

IDC4236I INPUT STREAM END-OF-FILE FOUND BEFORE END-OF-COMMAND

Cause: Command input stream end-of-file exists while scanning a command. There may be input records missing, or there may be an erroneous continuation character on the last command line.

System Action: The current command is not processed.

Programmer Action: Add the missing data or remove the erroneous continuation character, and rerun the command(s).

IDC4237I TOO MANY LEVELS OF 'IF' COMMAND NESTING

Cause: IF modal commands have been nested to a level that cannot be handled.

System Action: The remainder of the command input stream in the jobstep is ignored, and the condition code (MAXCC) is set to 16.

Programmer Action: Restructure the modal commands to conform to the restriction of 10 levels of nesting. Rerun those commands still requiring execution.

IDC4999I UABORT CODE nn

Cause: This termination error caused the IDCAMS processor to abort. The code number (nn), which indicates the nature of the error, is provided to facilitate problem determination. Code nn can be one of the following:

24 = The text processor's print control table address is not set in the GDT (global data table).

28 = No virtual storage available for one of the following:

- Text processor's translate table
- Initialization of the I/O adapter
- Automatic (dynamic) storage of a module
- Text processor dynamic storage
- Backup/Restore Block (during execution of a BACKUP or RESTORE command).

See the in-virtual-storage trace tables to determine which is the correct condition.

32 = There was a request to access an unopened file.

36 = The processor was unable to open SYSLST (or whichever name denotes the processor's standard listing output file).

40 = An invalid U-macro argument list was found.

52 = An attempt was made to load a phase, but the phase was not found in the libraries.

64 = CDLOAD failed for one of the following reasons:

- An error occurred while loading IDCSA04, which contains the phase table
- The partition GETVIS space is zero K
- A negative phase size was requested
- A storage failure occurred in the real GETVIS area.

68 = The partition does not contain enough GETVIS area to satisfy the initial GETVIS issued by IDCAMS to obtain working storage. The most commmon cause of this failure is omission of the SIZE parameter on the EXEC statement.

72 = An internal RESETCAT error occurred.

76 = CANCEL command was executed.

80 = Backup/Restore Block phase not found in system libraries (during execution of a BACKUP or RESTORE command).

All codes except 28 and 68 are probably system errors.

System Action: Processing is terminated, and a dump is produced on SYSDMP for all codes except 28, 68, and 76.

Programmer Action: For codes 28 and 68, ensure that the EXEC statement includes the SIZE=AUTO parameter. If SIZE=AUTO was specified, rerun the command(s) in a larger partition.

Code 76 is user initiated and the programmer action depends on the reason the CANCEL command was executed.

For all codes other than 28 and 76, VSAM issues an IDUMP with output directed to SYSDMP. Make the SYSDMP output associated with the job available for problem determination. (You must have created a SYSDMP file to obtain the SYSDMP output.) See *VSE/VSAM Programmer's Reference* for information about SYSDMP.

IDC01002I RESETCAT CATALOG catname VOL volser LEVEL timestamp

Cause: This is an information message indicating the catalog to be reset and its volume serial number and creation timestamp.

System Action: Processing continues.

Programmer Action: None.

IDC01011I CRA CHOSEN FOR RESET - VOL volser LEVEL timestamp

Cause: This is an information message indicating the catalog recovery area (CRA) being used to reset the catalog and the CRA creation timestamp on the volume.

System Action: Processing continues.

Programmer Action: None.

IDC01037I catname HAS BEEN RESET

Cause: This is an information message indicating that RESETCAT processing has been completed for the indicated catalog.

System Action: Processing continues.

Programmer Action: None.

IDC01300I BACKUP FILE CREATED ON date AT hh:mm:ss

Cause: The backup file created by the BACKUP command has been successfully created and allows restoration of the objects listed in the Backup Object Cross-Reference (BOCR).

System Action: The condition code (LASTCC) is set to 0 and processing continues.

Programmer Action: None.

IDC01301I RESTORE'S BACKUP FILE CREATED ON date AT hh:mm:ss

Cause: The backup file used for the restoration of the objects specified in the RESTORE command was created on the named date at the given time.

System Action: The condition code (LASTCC) is set to 0 and processing continues.

Programmer Action: None.

IDC01302I SUCCESSFUL RESTORATION OF file-id

Cause: The named object was restored successfully.

System Action: The condition code (LASTCC) is set to 0 and processing continues.

Programmer Action: None.

IDC01303I SUCCESSFUL DELETION OF file-id – ENTRY TYPE=x

Cause: The named object was deleted successfully during the restoration process. File-id specifies the name of the object deleted from the VSAM catalog. X indicates the type of entry:

A = nonVSAM	G = alternate index	R = path
C = cluster	I = index	U = user catalog
D = data	M = master catalog	V = volume

This message is intended to indicate the progress of the restoration and to allow easier backout in case of an error later during the restoration of the object.

System Action: The condition code (LASTCC) is set to 0 and processing continues.

Programmer Action: None.

IDC01304I SUCCESSFUL DEFINITION OF file-id

Cause: The named object was successfully defined during the restoration process. This message is intended to indicate the progress of the restoration and to allow for easier backout in case of an error later during the restoration of the object.

System Action: The condition code (LASTCC) is set to 0 and processing continues.

Programmer Action: None.

IDC01305I PASSWORDS SUPPRESSED FOR file-id

Cause: The password specified for an object in the BACKUP command was not the master password of the object or of the catalog.

System Action: The object is backed up without passwords. The condition code (LASTCC) is set to 0 and processing continues.

Programmer Action: If passwords are not desired, no programmer action is needed. If passwords are desired, then backup the object again, now specifying the object's or the catalog's master password.

IDC11003I CONTROL INTERVAL nnnnnn BYPASSED IN CRA volser

Cause: IGNORE was specified and an I/O error was encountered. The record is ignored. This message is preceded by IDC3351I, which indicates the nature of the error. nnnnnn is the control interval number (in hexadecimal) of the record in the catalog recovery area (CRA).

System Action: Processing continues.

Programmer Action: This may cause errors to be detected in objects on the volume specified, or objects on the volume may be totally lost without notification. Any catalog files that cannot be reset as a result of this error are marked unuseable, and their space may be deallocated. Perform a LISTCAT to determine which objects still exist after the reset operation, and if any files are flagged with the UNUSEABLE attribute. You may have to restore the volume(s) and rerun RESETCAT.

IDC11015I CONTROL INTERVAL nnnnnn BYPASSED IN CATALOG

Cause: IGNORE was specified and an I/O error was encountered. The record is ignored. Message IDC3351I precedes this message indicating the nature of the error. nnnnnn is the control interval number (in hexadecimal) of the record in the catalog.

System Action: Processing continues.

Programmer Action: The record noted in the catalog is inaccessible. If it contained a corresponding reset catalog recovery area (CRA) entry, the entry will be recovered. If it contained a non-reset CRA entry, the entry remains inaccessible. A LISTCAT may reveal whether the error is of any consequence. You may have to restore the participating volumes and rerun RESETCAT.

IDC11022I entryname, type1 CONTAINS A CONNECTOR TO INVALID RECORD nnnnnn, type2

Cause: The object entryname of type1 contains a dependency on a record that is invalid. The dependent record which is invalid is noted by its expected catalog control interval number (hexadecimal nnnnnn) and record type (type2).

Type of entry:

A = nonVSAM	G = alternate index	R = path
C = cluster	I = index	U = user catalog
D = data	M = master catalog	V = volume

System Action: The reference to the invalid record is deleted. Message IDC21024I, IDC21025I, or IDC21026I will follow to indicate the other action taken as a result of this error. Processing continues.

Programmer Action: See the subsequent message on SYSLST (one of those mentioned under "system action") to determine what action to take.

IDC11023I entryname, type1 ERROR FOR ASSOCIATION [nnnnnn,] type2

Cause: entryname, which is a type1 record, is chained to a record of a type different than anticipated, or the object noted consists of an incomplete set of records. nnnnnn is the control interval number (in hexadecimal) of the record in the catalog; type is the entry type of the record. If the control interval number of the expected association is not given, then no association for that object exists in the base record; an association for type2 is required for the entryname noted.

Type of entry:

A = nonVSAM	G = alternate index	R = path
C = cluster	I = index	U = user catalog
D = data	M = master catalog	V = volume

System Action: Message IDC21026I follows, noting that the entry has been deleted. Processing continues.

Programmer Action: See message IDC21026I.

IDC11029I SPACE MAP FOR VOLUME volser CORRECTED

Cause: The catalog-suballocated VSAM data space map has been corrected to reflect what is on the indicated volume. This correction occurs if entries are deleted by RESETCAT, or if space stated as suballocated is not suballocated (that is, the space map is incorrect on entry to RESETCAT).

System Action: Processing continues.

Programmer Action: This message indicates a correction of some state of error. The error may be specifically noted in a preceding error message or not at all. In the latter case, space was suballocated from available suballocation space, but no entry can be found that claims this space. No corrective action by the programmer is required.

IDC11031I UNIQUE DATA SET file-id HAS FEWER EXTENTS THAN THE DATA SPACE

Cause: This message is given to inform you that space (extents) allocated to a unique file exists, but it is not in use. If the file is extended, this space will be used.

System Action: Processing continues.

Programmer Action: None.

IDC11033I file-id, volser NOT DELETED

Cause: A unique file on a volume not being reset has no corresponding DATA and/or INDEX component. The catalog indicates a unique file exists on a volume not being reset. The catalog recovery area (CRA) being reset indicates that this unique file does not exist on the volume being reset. The catalog is reset with the CRA description; however, the file will not be scratched from the VTOC.

System Action: Processing continues.

Programmer Action: If the file is no longer valid, then scratch it from the VTOC. VTOC entries (both VSAM and nonVSAM) can be scratched using the VSAM utility program IKQVDU. The procedures for using IKQVDU are described in the Diagnostic Aids section of *VSE/VSAM VSAM Logic*, Volume 1 or 2.

IDC11036I file-id, type OUT-OF-SYNC ON volser

Note: This message is provided only for reasons of compatibility with VSAM usage under OS/VS2.

Cause: The file or component named may have invalid space information. The extents occupied by the named file or component are not in conflict with any other VSAM file or with the system; however, a self-checking field failed to check. The file or component itself may be correct.

Type of entry:

C = cluster	G = alternate index
D = data	I = index

System Action: Processing continues.

Programmer Action: List the file (LISTCAT and if necessary, PRINT) and ensure that it is correct and accessible.

IDC11041I dataspacename SPACE CORRECTED

Cause: The extents in the catalog volume record for the indicated data space were not identical to the extents in the corresponding VTOC format-1 and (if present) format-3 label. The extents in the data space group occurrence entry were corrected using the extents in the VTOC format-1 label and (if present) VTOC format-3 label.

The data space is not for a unique file. The data space name (file-id field in the VTOC format-1 label) is always of the form "Z9999992.VSAMDSPC.Txxxxxxx.Txxxxxxx". The 14 x's are the timestamp (excluding the two low-order characters) indicating when the data space was created; they correspond to the timestamp field in the catalog volume record data space group occurrence. (See *Using VSE/VSAM Commands and Macros* for LISTCAT output for the data space group.)

System Action: Processing continues.

Programmer Action: Later messages may indicate whether files were marked unusable, perhaps as a result of this condition if fewer extents existed in the file entry (data or index record volume entry) than the data space group occurrence entry. Watch for message IDC21027I or IDC21030I.

IDC11042I dataspacename SPACE DELETED

Cause: The catalog volume record data space group occurrence entry referred to a nonexistent VTOC format-1 label. The data space group occurrence entry was deleted. This message may be caused by some previous system error.

The data space is not for a unique file. The data space name (file-id field in the VTOC format-1 label) is always of the form "Z9999992.VSAMDSPC.Txxxxxxx.Txxxxxxx". The 14 x's are the timestamp (excluding the two low-order characters) indicating when the data space was created; they correspond to the timestamp field in the catalog volume record data space group occurrence. (See *Using VSE/VSAM Commands and Macros* for LISTCAT output for the data space group.)

System Action: Processing continues.

Programmer Action: A later message may indicate whether file components were marked unusable, perhaps as a result of this condition. Watch for message IDC21027I or IDC21030I.

IDC11043I TIMESTAMP FOR VOLUME RECORD ON VOL volser WAS CORRECTED

Cause: The timestamp for the catalog volume record did not match the VSAM timestamp in the VTOC format-4 label. This may have resulted from a failure in VSAM catalog management of updating one timestamp and not the other.

System Action: Processing continues. The catalog record timestamp is updated to match the timestamp in the VTOC format-4 label.

Programmer Action: None.

IDC11306I NO OBJECT FOR entryname

Cause: During backup, no object was backed up under the specified name because none was found or because of errors indicated by earlier messages.

During restoration, no object of the backup file was found for the specified entryname.

System Action: The condition code (LASTCC) is set to 4 and processing continues.

Programmer Action: Check if the wrong entryname was specified on the BACKUP or RESTORE comand or if a previous error caused this message.

For the RESTORE command, the Backup Object Cross-Reference (BOCR) can be used to determine if an incorrect entryname was specified.

IDC11307I SKIPPING RESTORATION OF file-id

Cause: As the consequence of an error that occurred during restoration of a base cluster or alternate index, the alternate indexes or paths associated with the base cluster or alternate index in error cannot be restored and their restoration is skipped. This message names an object whose restoration is skipped due to such a condition.

System Action: The condition code (LASTCC) is set to 4 and processing continues with the next object to be restored.

Programmer Action: Correct the error for the base cluster or path entry alternate index and restore it again. This will also cause the restoration of its associations.

Alternatively, explicitly name the object whose restoration was skipped (not for paths), and restore it separately (via the RESTORE command).

IDC11345I CANNOT CONVERT ALLOCATION UNITS FOR file-id

Cause: During backup, it was impossible to convert allocation information (tracks, cylinders, or blocks) to device-independent units (records). This should be of no concern if you plan to restore the object to the same volume or to a volume of the same device type. If ypu plan to restore the object to a volume of different device type, however, too much or too little space may be allocated.

System Action: The condition code (LASTCC) is set to 4; the specified object is backed up.

Programmer Action: If you plan to restore the object to a volume of a different device type, specify DATARECORDS on the RESTORE command. If you plan to restore to a volume of the same device type, no action is necessary.

IDC21009I componentname, type DOES NOT EXIST ON VOLUME volser

Cause: A multivolume file component existed on volser prior to reset. The file component is not on this volume after reset. The type of entry is either D for a data entry, or I for an index entry.

System Action: Processing continues. The file component is marked unuseable in its catalog entries.

Programmer Action: The file on valid volumes may be removed via EXPORTRA or REPRO, prior to deleting it. A file marked unuseable cannot be opened for output, nor can it be accessed via the EXPORT command.

IDC21020I UNABLE TO ALLOCATE volser

Cause: A volume needed for the catalog reset operation was not specified in the CRAVOLUMES or CRAFILES parameter. volser contains part of a multivolume file whose primary data extent is on a volume being reset by RESETCAT.

System Action: Processing continues. Space allocation for the extent(s) on volser is not reset.

Programmer Action: Make the indicated volume available via CRAVOLUMES or CRAFILES using the NONE option, and rerun the command.

IDC21024I entryname, type CONTAINS AN INVALID ALIAS CHAIN

Note: This message is provided only for reasons of compatibility with VSAM usage under OS/VS2. Aliases cannot be defined or used by VSE.

Cause: The alias chain for a USERCATALOG or NONVSAM entry is invalid. The entry type is A for a nonVSAM file or U for a user catalog.

System Action: Processing continues. The alias chain is corrected; however, some alias entries may be lost.

Programmer Action: Run a LISTCAT to determine which aliases may be lost. The deleted aliases can only be redefined on an OS/VS2 system.

IDC21025I gdgentryname, type HAS AN INVALID GDG DATA SET ASSOCIATION

Note: This message is provided only for reasons of compatibility with VSAM usage under OS/VS2. GDG data sets and bases cannot be defined or used by VSE.

Cause: The records associating the GDG data set with the GDG base are in error. The GDG base has been recovered; however, the generation data set string associated with this base has been altered to reflect only those data set descriptions which can be located.

Type B indicates a generation data group; type A indicates an associated generation data set (nonVSAM).

System Action: Processing continues.

Programmer Action: Perform a LISTCAT for the GDG base, and determine which entries no longer exist. Though entries do not exist, RESETCAT has not altered/scratched the data sets. (They are nonVSAM files that still exist with VTOC format-1 entries.)

IDC21026I entryname, type DELETED

Cause: A previous message indicates an error which resulted in this entry's being deleted from the catalog. Type of entry:

A = nonVSAM	G = alternate index	R = path
C = cluster	I = index	U = user catalog
D = data		

System Action: Processing continues.

Programmer Action: Any space that the deleted entry occupied has been returned for suballocation if it was a VSAM object. If the entry is needed, it must be redefined and loaded, or imported. Note that any objects dependent on this object are also deleted, but no message is given for them. For instance, if a cluster is deleted, all paths, alternate indexes, and upgrade sets are also deleted.

IDC21027I {CRA|CATALOG} SPACE ON VOLUME volser NOT OWNED BY CATALOG

Cause: The catalog recovery area (CRA) extents or catalog extents have no matching extents in any VSAM data space VTOC format-1 entry.

System Action: Processing continues.

Programmer Action: The resultant catalog is vulnerable because there are conflicting space ownership requests between the VTOC and the catalog. After the RESETCAT, use EXPORT to transfer all files on the volume noted. After EXPORT, PRINT the files to ensure that they contain reasonable data, and do a DELETE SPACE FORCE to delete all data spaces and remove VSAM ownership from the volume. Then DEFINE desired space(s) on the volume (the catalog again owns the volume), and use IMPORT to reestablish the files.

IDC21030I componentname, type HAS INVALID SPACE DESCRIPTION FOR volser

Cause: The file component noted claims space on volser. That space is not allocated to this component. Specifically, the component catalog record has a volume group occurrence for volser that is not reflected in the volume record data space group occurrences.

The type of entry is D for data or I for index.

System Action: Processing continues. The file component is marked as unusable, and its volume group occurrence description for volser is invalidated.

Programmer Action: LISTCAT may be run to determine the invalid extents. Delete the file. Redefine and reload it, or import it.

IDC21032I type1 DELETED FROM entryname, type2

Cause: A type1 object was defined as being associated with entryname, type2. However, the records describing the entry type1 could not be found. Therefore, a type1 entry was deleted from the given entryname's description. No name for the deleted entry is given because the record with its name cannot be found.

Type of entry:

A = nonVSAM	D = data	R = path
B = GDG Base (OS/VS2 MVS)	G = alternate index	U = user catalog
C = Cluster	I = index	X = alias (OS/VS2 MVS)

System Action: Processing continues.

Programmer Action: Perform a LISTCAT for the entryname noted, try to determine which associated entry was deleted, and redefine it.

IDC21034I SPACE MAP ERROR FOR volser

Cause: The catalog volume record space map, which indicates what space is available for suballocation on a volume, is not the correct length in the catalog. This may be due to a damaged catalog or catalog recovery area (CRA). This situation is not correctable by RESETCAT.

System Action: Processing continues.

Programmer Action: If volser is *not* a catalog volume:

- EXPORT or EXPORTRA all files on the volume;
- DELETE SPACE FORCE on the volume;
- DEFINE desired data spaces on the volume; and
- IMPORT or IMPORTRA all the files back to the volume.

If volser *is* a catalog volume:

- EXPORTRA all objects on the volume (CRAVOLUMES(...ALL)) or (CRA(...ALL));
- DELETE all objects on the volume except data space entries and the catalog;
- DELETE {MASTER|USER} CATALOG on the volume;
- DEFINE {MASTER|USER} CATALOG on the volume;
- DEFINE desired data spaces on the volume; and
- IMPORTRA all the objects to the volume/catalog.

If the damage prevents deletions, you must revert to recovery via volume restore, then use RESETCAT to get the volumes in synchronization, if required.

IDC21045I entryname1, type ON cravol RENAMED entryname2

Cause: An attempt was made to reset an object of the same name as some object in the catalog. The object was renamed as noted in the message. entryname1 was its old name, and entryname2 is its new name. Only the indicated entry was renamed, not its subordinate or associated entries (if any).

Type of entry:

A = nonVSAM
B = GDG Base (OS/VS2 MVS)
C = cluster
D = data
G = alternate index
I = index
R = path
U = user catalog
X = alias (OS/VS2 MVS)

System Action: Processing continues.

Programmer Action: For VSE-supported entries, the naming conflict can be resolved by using ALTER NEWNAME and/or by moving objects to a different catalog. If the renamed entry was a nonVSAM entry, the associated VTOC format-1 label has not been renamed. The entry may be deleted (NOSCRATCH), the conflict resolved, and the entry redefined on an appropriate OS/VS2 system.

If a GDG base or GDG data set has been renamed, the base and its associated data sets should be deleted (NOSCRATCH) and redefined on an appropriate OS/VS2 system, after resolving the conflict.

If a catalog connector was renamed, that catalog may be exported (using the DISCONNECT option), the conflict resolved, and the catalog connector entry imported.

If an ALIAS was renamed, the conflict may be resolved, and ALTER issued to rename the entry back on an appropriate OS/VS2 system.

Note that the nonVSAM and GDG data set will be inaccessible via this new name, because the VTOC format-1 label name does not correspond to the catalog name. The catalog entry is accessible.

IDC21046I componentname, type ON cravol RENAMED componentname

Cause: An attempt was made to catalog a unique data or index component, and the catalog already contained the entries for an object of the same name. The unique component has been renamed along with its corresponding VTOC format-1 label on all volumes.

The type of entry is D for data or I for index.

System Action: Processing continues.

Programmer Action: The renamed object is accessible. If desired, the object with the conflicting name in the catalog can be moved to be accessible under control of a different catalog, or that object can be renamed (via ALTER). Subsequently, the unique object renamed during the RESETCAT run can be renamed (via ALTER) to its original name.

IDC21047I componentname, type ON cravol MAY NOT BE ACCESSED BY NAME

Cause: An attempt was made to catalog a unique object during a RESETCAT run, and the catalog already contained the entries for an object of the same name. RESETCAT attempted to rename the unique object but failed, either because all volumes were not available or the NEWNAME function failed.

The type of entry is D for data or I for index.

System Action: Processing continues. No CRA entries or VTOC format-1 labels have been renamed as a result of the rename attempt. RESETCAT attempts to rename the existing catalog object with the duplicate name. This will be indicated by a following "rename message" (for example, IDC21045I).

Programmer Action: The object noted may be accessed via the cluster name, but it may or may not be accessible via the noted data or index name. Perform a LISTCAT to determine whether a naming conflict exists for the indicated component name. The file may be exported and then imported again after resolving the name conflict in order to gain accessibility via the data or index component name.

IDC21308I CANNOT CLOSE file-id

Cause: An error occurred when closing the named object. This message is always followed by message IDC21309I.

System Action: The condition code (LASTCC) is set to 4. Backup or restoration of the named object is completed and continues with the next object.

Programmer Action: For backup, no action need be taken. The object was successfully backed up. For restoration, the object was restored completely. However, the catalog information for the named object does not contain the correct high-used RBA, the correct high-key RBAs, or index information. The execution of a VERIFY command may solve the problem. Otherwise, analyze the VSAM Close error code specified in continuation message IDC21309I, correct the cause of error, and restore the object again.

IDC21309I **VSAM CLOSE ERROR IS nnn

Cause: An error was encountered during VSAM close, as indicated in the text of the preceding message. In the message, nnn is the error code (in decimal) returned by VSAM. A complete listing of error codes, with an explanation for each of the codes, is given in Appendix A.

System Action: The action depends on the function being executed. See the condition code for the preceding message in the listing.

Programmer Action: Correct the error according to the information in Appendix A.

IDC31000I CATALOG NOT A RECOVERABLE CATALOG

Cause: The catalog specified for reset was not defined with the RECOVERABLE attribute. RESETCAT can reset only recoverable catalogs.

System Action: The command is terminated. The catalog and CRA entries have not been altered. The workfile has not been defined.

Programmer Action: To recover a non-recoverable catalog and its volumes, you must do a synchronized volume restore of all volumes owned by the catalog. If you have incorrectly specified the CATALOG parameter, correct the parameter and, if CATALOG dname was specified, the associated DLBL catname. Rerun the command.

IDC31004I DEFINE OF WORKFILE FAILED

Cause: A DEFINE for a workfile failed. Message IDC30071 or IDC30091 precedes this message naming the catalog management return and reason codes that indicate the reason for failure.

System Action: The command is terminated. The catalog and CRA entries have not been altered.

Programmer Action: Take corrective action as indicated by the return and reason codes in message IDC30071 or IDC30091. Refer to Appendix B for an explanation of the return and reason codes.

IDC31005I WORKFILE DEFINED IN THE CATALOG TO BE RESET

Cause: A workfile was specified to be in the catalog to be reset. The WORKCAT catname was not a different catalog than CATALOG catname.

System Action: The command is terminated. The catalog and CRA entries have not been altered. The workfile has not been defined.

Programmer Action: Specify a catalog other than the one being reset (that is, do not specify CATALOG catname) via the WORKCAT parameter.

IDC31006I PHYSICAL I/O ERROR - VSAM ACTION CODE nn

Cause: A physical I/O error was encountered while extending the catalog.

System Action: The contents of R15=X'0C'. The command is terminated. The catalog and CRA entries have not been altered. The workfile is deleted.

Programmer Action: Correct the error (this may require restoring the volume in error) and reissue RESETCAT. The decimal code returned by the VSAM Request macro can be found in Appendix A. The catalog and CRA entries have not been altered and are recoverable in their current state, depending on the type of I/O error. If the error cannot be corrected, define a larger catalog of the same name, followed by a RESETCAT run for this larger catalog. All volumes owned by the catalog must be saved before the catalog redefinition. Those being reset must be restored before rerunning RESETCAT.

IDC31007I LOGICAL I/O ERROR - VSAM ACTION CODE (nn)

Cause: While extending the catalog, a logical I/O error was encountered. This caused insufficient free records in the catalog being reset.

System Action: The command is terminated. The catalog and CRA entries have not been altered. The workfile is deleted.

Programmer Action: Correct the error. The decimal code returned by the VSAM Request macro can be found in Appendix A. If the catalog has reached 16 extents and cannot be extended any further, define a new, larger catalog of the same name, followed by a RESETCAT run for this larger catalog. All volumes owned by the catalog must be saved before the catalog redefinition. Those being reset must be restored before rerunning RESETCAT.

IDC31008I ERROR ACCESSING THE CATALOG

Cause: RESETCAT encountered an error while trying to access the file specified by the CATALOG parameter. Message IDC3007I or IDC3009I precedes this message identifying the specific error.

System Action: The command is terminated. The catalog and CRA entries have not been altered. The workfile is deleted.

Programmer Action: Correct the error and rerun the command. Refer to Appendix B for return and reason codes. If the error cannot be corrected, a new catalog of the same name may be defined into which all of the volumes owned by the failing catalog may be reset using RESETCAT. All volumes owned by the catalog will have to be saved before the catalog redefinition. Those being reset must be restored before rerunning RESETCAT.

IDC31010I CRA DOES NOT BELONG TO CATALOG - VOL volser

Cause: The catalog recovery area (CRA) was specified for reset (that is, included in the CRAVOLUMES or CRAFILES parameter list), but it does not belong to the catalog that is to be reset.

System Action: The command is terminated. The catalog and CRA entries have not been altered. The workfile is deleted.

Programmer Action: Respecify the correct volume or catalog to be reset, and rerun the command.

IDC31012I MAXIMUM RELATIVE RECORD NUMBER EXCEEDED IN WORKFILE

Cause: The workfile relative record number limit has been exceeded. No more records can be written to the workfile. The combined number of catalog and CRA entries is too large for RESETCAT to handle in one run.

System Action: The command is terminated. The catalog and CRA entries have not been altered. The workfile is deleted.

Programmer Action: Respecify subsets of the CRA volumes specified for reset, and rerun multiple RESETCAT commands.

IDC31013I COULD NOT MERGE ONE OR MORE CRAS

Note: The file-id of a CRA is always of the form "CATALOG.RECOVERY.AREA.VOL.volser".

Cause: See the message preceding this one. It is one of the following: IDC3300I, IDC3301I, or IDC31010I.

System Action: The command is terminated. The catalog and CRA entries have not been altered. The workfile is deleted.

Programmer Action: Correct the error in the referenced message, and rerun the command.

IDC31014I DELETE OF WORKFILE FAILED

Cause: DELETE failed for the specified workfile. Message IDC3007I or IDC3009I, which precedes this one, identifies the specific error.

System Action: The command is terminated. Unless a previous message indicates a terminating error, the RESETCAT operation has been completed.

Programmer Action: Delete the workfile using the DELETE command, after correcting the error indicated in message IDC3007I or IDC3009I. Refer to Appendix B for return and reason codes. Check previous messages for any other programmer actions.

IDC31016I NO CRA SPECIFIED FOR RESET

Cause: The CRAVOLUMES or CRAFILES parameter specified all CRAs with the NONE option; hence no volume was specified for reset.

System Action: The command is terminated. The catalog and CRA entries have not been altered. The workfile has not been defined.

Programmer Action: Specify the correct volumes for reset by specifying ALL or omitting NONE, and rerun the command.

IDC31017I UNABLE TO GET EXCLUSIVE USE OF THE CATALOG

Cause: Another program has opened the catalog requested to be reset. The reset operaton is unable to reset a catalog without exclusive use.

System Action: The command is terminated. The catalog and CRA entries have not been altered. The workfile has not been defined.

Programmer Action: Rerun the command when no other partition is using the catalog being reset.

IDC31018I CRA UNAVAILABLE

Cause: A volume needed for the catalog reset operation was not specified in the CRAVOLUMES or CRAFILES parameter. volser contains part of a multivolume file whose primary data extent is on a volume being reset by RESETCAT.

System Action: The command is terminated. The catalog and CRA entries have not been altered. The workfile has been deleted. VSAM VTOC entries may have been deleted. Check for messages IDC11040I and IDC11044I.

Programmer Action: The required volume(s) has been previously identified by message IDC21020I. Specify the volume(s):

- via DLBL and EXTENT statement(s), and include the filename(s) of the DLBL statement(s) in the CRAFILES parameter on the command indicating NONE, or
- via volser in the CRAVOLUMES parameter on the command indicating NONE.

Rerun the command.

IDC31019I CRA volser SPECIFIED FOR RESET MORE THAN ONCE

Cause: The CRAVOLUMES or CRAFILES parameter specified the same volser more than once.

System Action: The command is terminated. The catalog and CRA entries have not been altered. The workfile has not been defined.

Programmer Action: Specify the correct volumes for reset, and rerun the command.

IDC31035I BAD VOLUME RECORDS FOR volser

Cause: In a catalog recovery area (CRA), either the volume record for the indicated volser does not exist, or one of its associated records does not exist (see message IDC11022I).

System Action: If IGNORE was specified (or defaulted), the reset will occur. This may mean that all files allocated on this volser will be marked unusable. If NOIGNORE was specified or defaulted to, RESETCAT operation deletes the workfile and terminates before updating the catalog or CRA(s). VSAM VTOC entries may have been deleted. Check for messages IDC11040I and IDC11044I.

Programmer Action: If IGNORE was specified, no error exists in the catalog; accompanying messages will indicate any system action taken (and programmer action required) on individual files as a result of this system action. If NOIGNORE was specified, then:

- use EXPORTRA to export all VSAM files on this volser;
- execute a DELETE SPACE FORCE on the volser;
- redefine all required data spaces for volser; and
- do an IMPORTRA to recover all files.

IDC31038I COULD NOT UPDATE ONE OR MORE CRAS

Cause: See the message preceding this one. It is either IDC33001 or IDC33011 (could not OPEN or CLOSE one or more CRAs for reset updating).

System Action: Processing continues. The catalog entries have been updated; CRA entries have been updated unless OPEN failed for that CRA (see message IDC33001). VSAM VTOC entries may have been deleted. Check for messages IDC11040I and IDC11044I.

Programmer Action: Correct the error in the preceding message, and rerun the command.

IDC31039I UNABLE TO RETRIEVE DLBL/EXTENT PARMS FOR dname

Cause: The DLBL job control statement named in a CATALOG, CRAFILES, WORKCAT, or WORKFILES parameter cannot be found.

System Action: The command is terminated. The catalog and CRA entries have not been altered. The workfile has not been defined.

Programmer Action: Check for incorrectly spelled dnames, or for missing DLBL/EXTENT statements or parameters. Note that CATALOG and WORKCAT dnames (and DLBLs) can be omitted and that CRAFILES and WORKFILES can be replaced by CRAVOLUMES and WORKVOLUMES. Correct the error, and rerun the command.

IDC31048I VTOC ERROR ON volser - DADSM RETURN CODE IS nn

Cause: Access Method Services was unable to successfuly access the VTOC on the specified volume. In the message, nn is the return code (in decimal) issued by the VSE common VTOC handler. Refer to the return codes for the common VTOC handler in *VSE/Advanced Functions messages.*

System Action: The command is terminated. The catalog and CRA entries have not been altered. The workfile is deleted. VSAM VTOC entries may have been deleted. Check for messages IDC11040I and IDC11044I.

Programmer Action: If you cannot correct the error condition by yourself, save the job stream and system output (SYSLST) associated with the job for problem determination, and contact your IBM Support Center.

For further information about the common VTOC handler, refer to *VSE/Advanced Functions Diagnosis Reference: LIOCS Volume 4, SAM for DASD.*

IDC31310I INVALID GENERIC NAME file-id

Cause: During analysis of the BACKUP or RESTORE command, a generic name was found that has more than one "*" or in which the "*" is not the last character.

System Action: Processing of the command is terminated after analysis of the remaining entrynames. No backup or restoration has taken place. The condition code (LASTCC) is set to 12.

Programmer Action: Correct the invalid generic names and rerun the command.

IDC31311I ERROR EXPANDING GENERIC NAME entryname

Cause: During the expansion of a generic name of the BACKUP command, a physical error (indicated in message IDC31312I, which always follows this message) occurred for the job or master catalog that resulted in an incomplete expansion of the generic name.

System Action: The condition code (LASTCC) is set to 8. The BACKUP function tries to expand the generic name as much as possible and then continues with the next entryname of the BACKUP command.

Programmer Action: Check the Backup Object Cross Reference (BOCR) to determine which objects were backed up under the specified generic name and which were not. Perform corrective action for the objects that could not be backed up and for the catalog. Then backup all objects that were not backed up.

IDC31312I **VSAM PHYSICAL ERROR RETURN CODE IS nnn

Cause: A physical error occurred during the expansion of a generic name of the BACKUP command, as indicated in the preceding message IDC31311I.

nnn is the error code (in decimal). The contents of R15=X'0C'. A complete list of error codes issued by VSAM request macros, with an explanation for each, is given in Appendix A.

System Action: See the preceding message (IDC31311I) in the listing for the system action.

Programmer Action: Correct the error, according to the information in Appendix A.

IDC31313I PASSWORD CONFLICT FOR file-id

Cause: The password of the specified object is in conflict with the password of the object specified in the following message (IDC31314I). The two entrynames are not exclusive but have different passwords.

System Action: The condition code (LASTCC) is set to 12, and the command is terminated after analysis of the other entrynames of the BACKUP command.

Programmer Action: Correct the password in error and rerun the command.

IDC31314I **CONFLICTING OBJECT IS file-id

Cause: The password of the specified object is in conflict with the password of the object specified in the preceding message (IDC31313I). The two entrynames are not exclusive but have different passwords.

System Action: The condition code (LASTCC) is the same as for the preceding message. The command is terminated after analysis of the other entrynames of the BACKUP command.

Programmer Action: Correct the password in error and rerun the command.

IDC31315I CANNOT LOCATE CATALOG

Cause: A locate in order to determine the catalog for the BACKUP or RESTORE command failed. This message is always followed by message IDC31316I.

System Action: The condition code (LASTCC) is set to 12, and processing of the BACKUP or RESTORE command is terminated.

Programmer Action: Analyze the return and reason codes given in message IDC31316I and correct the error.

IDC31316I **VSAM CATALOG RETURN CODE IS nnn - REASON CODE IS IGG0CLxx - mmm

Cause: The return code (nnn) and reason code (mmm) were returned by catalog management module IGG0CLxx as a result of a catalog error or exceptional condition. The preceding primary message provides a verbal description of the catalog error. Appendix B contains a description of the cause for this particular return code and reason code.

System Action: The condition code (LASTCC) NS "system action" are the same as for the preceding message.

Programmer Action: See the specific return and reason codes. A complete list of return and reason codes, with an explanation for each including the possible user response, is given in Appendix B.

IDC31317I CANNOT OPEN VSAM CATALOG

Cause: The VSAM job or master catalog for the BACKUP command could not be opened for the expansion of generic names. This message is always followed by message IDC31325I.

System Action: The condition code (LASTCC) is set to 12 and processing of the BACKUP command is terminated.

Programmer Action: Analyze the VSAM Open error code specified in continuation message IDC31325I and take the appropriate corrective action.

IDC31318I CATALOG VOLUME ERROR

Cause: The catalog volume could not be mounted successfully due to a VSAM internal error condition.

System Action: The condition code (LASTCC) is set to 12 and the BACKUP or RESTORE command execution is terminated.

Programmer Action: Save the job stream and system output (SYSLST) associated with the job for problem determination, and contact your IBM Support Center.

IDC31319I CATALOG EXTENT ERROR

Cause: An extent for the catalog could not be located.

System Action: The condition code (LASTCC) is set to 12, and BACKUP or RESTORE command execution is terminated.

Programmer Action: Execute the LISTCAT command in order to determine if the catalog extents are correct. If they are correct, rerun the BACKUP or RESTORE command. If the problem persists, most likely your catalog is defective and you should perform the appropriate catalog recovery activities.

IDC31320I CATALOG I/O ERROR

Cause: An I/O error occurred during the opening of the catalog.

System Action: The condition code (LASTCC) is set to 12 and the BACKUP command is terminated. No objects have been backed up.

Programmer Action: Restore the catalog to a non-defective volume and rerun the job.

IDC31321I CANNOT RETRIEVE CATALOG INFORMATION FOR file-id

Cause: The backup operation for the named object failed because its catalog information could not be retrieved successfully. This message is always followed by message IDC31316I.

System Action: The condition code (LASTCC) is set to 8 and the specified object is not backed up. Backup continues with the next object.

Programmer Action: Analyze the return and reason codes given in message IDC31316I. It may be necessary to go back to an earlier backup copy for further processing of the file.

IDC31322I CANNOT LOCATE ASSOCIATION OF file-id

Cause: An error occurred during determination of which alternate indexes or paths are to be backed up automatically for the specified object. This message is always followed by message IDC31316I.

System Action: The condition code (LASTCC) is set to 8, and the association in error and all objects based upon it are not backed up. Backup continues with the next association for the specified object or with the next object.

Programmer Action: Check the Backup Object Cross Reference (BOCR) to determine which objects were not backed up. Analyze the catalog return code and reason code given in message IDC31316I and refer to Appendix B for appropriate corrective action.

IDC31323I CANNOT LOCATE BASE CLUSTER OF file-id

Cause: A catalog I/O error occurred during retrieval of the file-id of the base cluster of the named alternate index.

System Action: The condition code (LASTCC) is set to 8 and the named alternate index and its path associations are not backed up. Backup continues with the next object.

Programmer Action: Check the Backup Object Cross Reference (BOCR) in order to determine which alternate index was not backed up. Correct the catalog and backup the alternate index again.

IDC31324I CANNOT OPEN file-id

Cause: An error occurred during opening of the named object for backup or restoration. This message is always followed by message IDC31325I.

System Action: The condition code (LASTCC) is set to 8. The backup or restoration of the named object is not performed, and backup or restoration continues with the next object. For restoration, the specified object is already defined in the catalog and deletion will be attempted. The success of the deletion can be determined by subsequent messages.

Programmer Action: Analyze the VSAM Open error code specified in continuation message IDC31325I, correct the cause of the error, and backup or restore the object again.

IDC31325I **VSAM OPEN ERROR IS nnn

Cause: An error was encountered during VSAM open, as indicated in the text of the preceding message. In the message, nnn is the error code (in decimal) returned by VSAM. A complete list of error codes, with an explanation for each of the codes, is given in Appendix A.

System Action: The condition code (LASTCC) is the same as for the previous message, and the action depends on the function being executed. See the preceding message in the listing.

Programmer Action: Correct the error, according to the information in Appendix A.

IDC31326I NO BACKUP OF file-id – CANNOT BE RESTORED

Cause: The named object was created by a release prior to VSE/VSAM Release 1 or under OS/VS and has physical file characteristics (physical record size) that do not allow it to be processed by the RESTORE command.

System Action: The condition code (LASTCC) is set to 8 and the named object is not backed up. Backup continues with the next object.

Programmer Action: Use the Access Method Services EXPORT command to backup the named object.

IDC31327I EXTENT ERROR FOR file-id

Cause: An extent for the specified file could not be located in the catalog.

System Action: The condition code (LASTCC) is set to 8, and the backup or restoration of the object identified in the message is terminated. Backup or restoration continues with the next object.

Programmer Action: Execute the LISTCAT command in order to determine if the catalog information for the named object is correct. If it is, try to backup the object again. If the error persists, most likely the file structure of the specified object is incorrect. To correct this, go back to an earlier backup copy.

IDC31328I VOLUME ERROR FOR file-id

Cause: A volume of the named object could not be mounted successfully due to a VSAM internal error condition.

System Action: The condition code (LASTCC) is set to 8 and backup or restoration of the named object is terminated. Backup or restoration continues with the next object.

Programmer Action: Save the job stream and system output (SYSLST) associated with the job for problem determination and call your IBM Support Center.

IDC31329I DISK I/O ERROR FOR file-id

Cause: A disk I/O error occurred during the backup or restoration of the named object.

System Action: The condition code (LASTCC) is set to 8 and backup or restoration of the named object is terminated. Processing continues with the next object.

Programmer Action: If the error occurred during the execution of the BACKUP command, the object cannot be backed up and you must go back to an earlier backup copy if you want to restore the object.

If the error occurred during the execution of the RESTORE command, you should restore the object to a different set of volumes. You can achieve this via the VOLUMES, DATAVOLUMES, and INDEXVOLUMES parameters of the RESTORE command.

IDC31330I BACKUP FILE I/O ERROR

Cause : An irrecoverable I/O error for the backup file occurred during the execution of the BACKUP or RESTORE command.

System Action: The condition code (LASTCC) is set to 12 and execution of the BACKUP or RESTORE command is terminated.

Programmer Action: If the error occurred during execution of the BACKUP command, take a new set of tapes and rerun the command. The erroneous backup file can be used for the restoration of all objects that were backed up without error and are named in the Backup Object Cross Reference (BOCR).

If the error occurred during the execution of the RESTORE command, all objects for which a successsful restoration message was issued are restored correctly. For the remaining objects of the backup file you must go back to an earlier backup copy.

IDC31331I USECLASS ERROR FOR file-id

Cause: An incorrect secondary space class was specified in the USECLASS, DATAUSECLASS, or INDEXUSECLASS parameter for the named object, or a nonzero space class was specified for a UNIQUE component.

System Action: The condition code (LASTCC) is set to 8 and the named object is not restored. An existing old version of it may, however, already have been deleted. Restoration continues with the next object.

Programmer Action: Correct the space class specification and restore the object again.

IDC31332I NO DNAME FOR UNIQUE COMPONENT OF file-id

Cause: Neither the FILE, DATAFILE, nor INDEXFILE parameter has been specified for a UNIQUE component of the named object.

System Action: The condition code (LASTCC) is set to 8 and the named object is not restored. An existing old version of it may, however, already have been deleted. Restoration continues with the next object.

Programmer Action: Restore the object again, this time providing the missing FILE, DATAFILE, or INDEXFILE parameter.

IDC31333I CANNOT FIND OBJECT file-id

Cause: During the execution of the RESTORE command, an attempt was made to restore an object for which an entry is contained in the directory of the backup file, but which itself is not contained on the backup file. This is because the construction of the backup file was prematurely terminated during the BACKUP command processing, or the object was not backed up successfully.

System Action: The condition code (LASTCC) is set to 8 and processing continues with the next object to be restored.

Programmer Action: You must use the previous (correct) backup copy of the file.

IDC31334I CANNOT FIND OLD VERSION OR ASSOCIATION OF file-id

Cause: An error occurred during an attempt to delete an existing version of or an association of the named object. This message is always followed by message IDC31316I.

System Action: The condition code (LASTCC) is set to 8 and the named object or an association of it is not restored. Any alternate indexes or paths based upon this object are also not restored unless explicitly requested. Restoration continues with the next object.

Programmer Action: Analyze the catalog return and reason codes given in message IDC31316I, take corrective action, and restore the object again. A DELETE FORCE may solve the problem.

IDC31335I CANNOT DEFINE file-id

Cause: An error occurred during definition of the named object before its restoration. This message is always followed by message IDC31316I.

System Action: The condition code (LASTCC) is set to 8 and the named object is not restored. An existing old version of it may, however, already have been deleted. Restoration continues with the next object.

Programmer Action: Analyze the catalog return and reason codes given in message IDC31316I, correct the error, and restore the object again.

IDC31336I CANNOT RESTORE SAM ESDS file-id

Cause: You are attempting to restore a SAM ESDS on a system that does not have the VSE/VSAM Space Management for SAM Feature installed.

System Action: The condition code (LASTCC) is set to 8 and restoration continues with the next object.

Programmer Action: Restore the file on a system with the VSE/VSAM Space Management for SAM Feature installed.

IDC31337I CANNOT RESTORE file-id WITH SPECIFIED MODIFICATIONS

Cause: You attempt to change the space allocation information of an object you are restoring. Either you specified restoration to a different device type than the one from which the backup code was made, or you specified the DATARECORDS or INDEXCISIZE parameter on the RESTORE command. Your modification would cause one of the following object characteristics to change; these file characteristics cannot change from BACKUP to RESTORE:

- Data component control area size (spanned ESDS only)
- Data component control interval size (any file)

System Action: The condition code (LASTCC) is set to 8 and restoration of the named object is terminated. The object is, however, already defined in the catalog. VSAM will try to delete the object from the catalog. Subsequent messages will inform you about the success of the deletion. Restoration continues with the next object.

Programmer Action: Use EXPORT RECORDMODE and IMPORT to move your object to the new volume, or restore the object without attempting to change its characteristics.

IDC31338I CANNOT EXTEND file-id

Cause: During the restoration of the named object, a secondary space allocation was attempted but failed. Possible reasons are:

- No more space defined;
- No secondary allocation allowed;
- Space not large enough for a UNIQUE component.

System Action: The condition code (LASTCC) is set to 8. The named object is partially restored but is unusable. An existing old version of it may already have been deleted. The new object has already been defined. Deletion of the new object is attempted. Subsequent messages will inform you about the success of the deletion. Restoration continues with the next object.

Programmer Action: Provide sufficient DASD space and restore the object again.

IDC31339I MORE THAN 255 LEVELS FOR file-id

Cause: Index reconstruction of the object required more than 255 index levels, which is caused by an insufficient index control interval size of 512 bytes.

System Action: The condition code (LASTCC) is set to 8. The named object, which has been partially restored, is unusable. An old version of it may have already been deleted. The new object has already been defined. Deletion of the new object will be attempted. Subsequent messages will inform you about the success of the deletion. Restoration continues with the next object.

Programmer Action: The file must be restored from other resources. Redefine it with a larger index control interval size.

IDC31340I BACKUP FILE IN ERROR

Cause: The mounted tape file is not a backup file, or it contains incorrect data.

System Action: The condition code (LASTCC) is set to 12 and processing of the RESTORE command is terminated.

Programmer Action: Provide the correct backup file and rerun the command.

IDC31341I INCOMPLETE BACKUP COPY OF file-id

Cause: An unexpected end-of-the-object on the backup file was encountered during restoration of the named object. This is caused either by a tape file that is not a backup file or by an object whose backup was prematurely terminated.

System Action: The condition code (LASTCC) is set to 8. The named object is partially restored but is unusable. An existing old version of it may already have been deleted. The new object has already been defined. Deletion of the new object will be attempted. Subsequent messages will inform you of the success of the deletion. Restoration of the next object is attempted.

Programmer Action: Check if the correct backup file was used. If not, restore the object with the correct backup file. Otherwise, restore an older backup copy of the object.

IDC31342I RESTORE TERMINATED. FAILURE TO MOUNT BACKUP VOLUME

Cause: When asked to mount a volume of the backup file, the operator responded CANCEL.

System Action: The condition code is set to 12 and processing of the RESTORE command is terminated.

Programmer Action: Determine cause of cancel by operator.

IDC31343I FUNCTION TERMINATED. MAXIMUM NUMBER OF ERRORS EXCEEDED

Cause: The maximum number of 32 object-specific errors has been exceeded during execution of a BACKUP or RESTORE command.

System Action: The condition code (LASTCC) is set to 12 and processing continues with the next command.

Programmer Action: Correct the errors and rerun the command.

IDC31344I CANNOT DEFINE file-id WITH SPECIFIED MODIFICATION

Cause: An error occurred during definition of the named object such that VSAM could not restore it. You attempted to restore an object to a volume of a different device type than the one from which the backup copy was made, or you specified the DATARECORDS or INDEXCISIZE parameter on the RESTORE command.

Changing any of these attributes may require VSAM to change the file's control area size. The new control area size depends on the following:

- The new device type
- Space allocation quantities specified for the backup file (overridden if DATARECORDS is specified on RESTORE).

If the resulting control area size would be smaller than the file's maximum logical record size, the define fails.

This message is always followed by message IDC31316I with return code 96 and reason code 4.

System Action: The condition code (LASTCC) is set to 8 and the named object is not restored. An existing old version of it may, however, already have been deleted. Restoration continues with the next object.

Programmer Action: Analyze the catalog return and reason codes given in message IDC31316I, correct the error, and restore the object again. If the problem persists, use EXPORT RECORDMODE and IMPORT to move your object, or restore the object without attempting to change its space allocation information.

IDC31346I NO BACKUP OF file-id - CANNOT RESTORE INHIBITED COMPONENT

Cause: During BACKUP the named object was found to have at least one update-inhibited component. Components become update-inhibited through the use of the INHIBITSOURCE or INHIBITTARGET keywords in the EXPORT command or the INHIBIT keyword in the ALTER command. It is impossible to RESTORE update-inhibited components.

System Action: The condition code (LASTCC) is set to 8. The named object is not backed up. Backup continues with the next object.

Programmer Action: Use the Access Method Services ALTER command to UNINHIBIT the components of the named object and then backup the object.

Catalog Check Service Aid Messages (SYSLST)

The Catalog Check Service Aid helps determine if catalog damage has occurred and the type and extent of the damage. *VSE/VSAM Programmer's Reference* describes how to use the service aid and shows samples of the output it produces. Figure 3 shows the format of Catalog Check error messages.

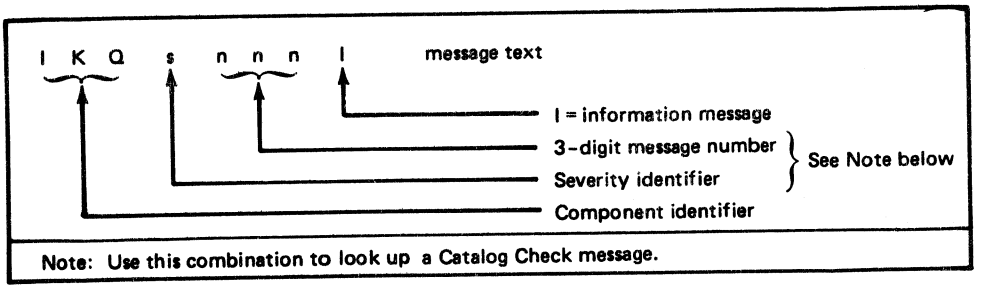

Figure 3. Format of the Catalog Check Service Aid Message.

Severity Identifier
This can be one of the following:

0 = information - no effect on execution
4 = terminating error - successful execution is impossible

3-Digit Message Number
Use this number together with the severity identifier to locate the message in this section of the manual.

Action Indicator
I indicates an information message. For Catalog Check messages there is no operator communication with the system. Because these messages are not printed at the operator console, there is no "operator action," consequently this item is omitted from the descriptions of these messages.

Catalog errors are, by their nature, difficult to understand because they involve internal catalog records, data, and control blocks that most users have no contact with. To be useful in problem analysis, the message and the description of its cause must be very specific. The programmer action associated with each message, however, does not require a full knowledge of the error condition.

A dump of one or more 512-byte catalog records follows many messages. You do not have to understand the dump in order to perform the programmer action for the message. You may need to supply the dump to IBM Programming Support personnel, however, to aid in problem solving.

Catalog Check also produces a list of the different types of catalog records it finds. You should also provide this list to IBM Programming Support if necessary. This list is not produced if Catalog Check terminates abnormally (indicated by a severity-4 message).

Catalog Check Recovery Procedures

Several Catalog Check Service Aid messages (IKQnnnnI) recommend the following recovery procedures for removing defective records from a VSAM catalog.

Recovery Procedure A - Volume Records

The NAME= field in the ASSOCIATED HKR RECORD FOLLOWS submessage (following the main IKQnnnnI message) identifies the volume record to be removed from the catalog and recreated. To correct the error, take the following steps:

1. Use the VSE Fast Copy Disk utility program to back up the catalog volume, the volume identified by NAME=, and (for multivolume files) any other volumes containing parts of objects that reside on the NAME= volume. Refer to *VSE/Advanced Functions Utilities* for additional information about Fast Copy Disk.
2. You must delete files having data on the volume before you can remove the damaged volume record from the catalog. Run a LISTCAT command to determine which files own space on the volume. If you do not have an acceptable backup copy of these files and you want to save their contents, run either BACKUP or REPRO. The BACKUP command is preferable because it automatically saves any alternate indexes associated with the cluster being backed up. (If REPRO is used, you must rebuild these AIXes at restoration.)

   Then issue a DELETE command for each file owning space on the volume. (AIXes and paths associated with the file are automatically deleted.)
3. Issue a DELETE SPACE command to remove the damaged volume record (identified by NAME=) from the catalog.
4. Issue a DEFINE SPACE command to redefine the volume into the catalog.
5. If any files (and associated AIXes or paths) were deleted in step 2, reintroduce them into the catalog in one of the following ways:
   - If you used BACKUP in step 2, use the RESTORE command to define and restore objects saved in step 2. It will restore associated AIXes and paths automatically.
   - Otherwise, DEFINE each object that was deleted in step 3. Then use REPRO to restore any objects saved in step 2. Also DEFINE any AIXes or paths deleted in step 3. Recreate any associated AIXes using the BLDINDEX command.

Recovery Procedure B - Records that do not Affect Volume Records

The NAME= field in the ASSOCIATED HKR RECORD FOLLOWS submessage (following the main IKQnnnnI message) identifies the object to be removed from the catalog and recreated. To correct the error, take the following steps:

1. Use the VSE Fast Copy Disk utility program to back up both the catalog volume and any volumes containing the objects to be deleted. Refer to *VSE/Advanced Functions Utilities* for additional information about Fast Copy Disk.
2. If the damaged object is a cluster, you might want to save its contents before removing the catalog record. You can do this by either BACKUP or RESTORE.

   The BACKUP command is preferable because it automatically saves any alternate indexes built over the cluster being backed up. (If REPRO is used, you must rebuild these AIXes at restoration.) If BACKUP or REPRO fails because OPEN detected a catalog error, you must rely on a backlevel copy of the file.
3. Remove the damaged object (identified by NAME=) from the catalog by issuing the DELETE command with the IGNOREERROR and NOERASE options. If the deleted object is a cluster, any AIXes or paths associated with it are automatically deleted.

   DELETE IGNOREERROR automatically calls the Catalog Check Service Aid to verify catalog records. If it produces a Catalog Check status report stating that the catalog has no errors, proceed to step 4. Otherwise take action as described by the Catalog Check messages that are issued; then proceed to step 4.
4. If any files (and associated AIXes or paths) were deleted in step 3, reintroduce them into the catalog in one of the following ways:

- If you used BACKUP in step 2, use the RESTORE command to define and restore objects saved in step 2. It will restore associated AIXes and paths automatically.
- Otherwise, DEFINE each object that was deleted in step 3. Then use REPRO to restore the objects saved in step 2. Also DEFINE any AIXes or paths deleted in step 3. Recreate any associated AIXes using the BLDINDEX command.

IKQ0004I READ FAILED FOR CI X'nnnnnn', RPL RETURN CODE aaa (X'bb'), RPL REASON CODE ccc (X'dd')

Cause: A request to read the record in CI X'nnnnnn' failed. VSAM set a return code (X'bb') in register 15 and a reason code (X'dd') in the RPL. These codes are described in Appendix A of this book.

System Action: Catalog Check Service Aid processing continues.

Programmer Action: Rerun the job. If the problem persists, refer to the messages that follow, providing details of the error. Take the action specified in those messages.

IKQ0006I LAST FORMATTED CI NOT LOW KEY RANGE RECORD

SUPPOSED LAST FORMATTED REC:
dump*of*catalog*record
CCR RECORD FOLLOWS:
dump*of*catalog*record

Cause: The catalog control record (CCR) dump that follows this message contains a pointer at displacement of X'30' to the unformatted section of the catalog. The record one CI less than this record should be the last formatted record in the catalog and should be a low-key-range record. This record was read and was not a low-key-range record.

System Action: Catalog Check Service Aid will search the catalog to find the last formatted record. Additional messages will inform you of the success or failure of that search.

Programmer Action: Dependent upon subsequent error messages.

IKQ0007I READ FAILED FOR FIRST HIGH KEY RANGE RECORD, RPL RETURN CODE aaa(X'bb'), RPL REASON CODE ccc (X'dd')

REC PREVIOUSLY READ FOLLOWS:
dump*of*catalog*record
CCR RECORD FOLLOWS:
dump*of*catalog*record

Cause: The high-key-range section of the catalog was not in the expected place. This may be due to an error in the unformatted pointer in the catalog. The unformatted pointer is at displacement X'30' in the catalog control record (CCR) dump that follows this message.

System Action: The Catalog Check Service Aid will search the catalog to find the beginning of the high-key range. Additional messages will inform you of the success or failure of that search.

Programmer Action: Dependent upon subsequent error messages.

IKQ0008I CCR UNFORMATTED RECORD POINTER DOES NOT POINT TO FIRST UNFORMATTED RECORD

LKR REC WITH INVALID DATA:
dump*of*catalog*record
CCR RECORD FOLLOWS:
dump*of*catalog*record

Cause: The catalog control record (CCR) dump contains a pointer at displacement X'30' to the unformatted section of the catalog. The record one CI less than this is the last formatted record in the catalog and is a low-key-range (LKR) record. A read-by-key for the next record should return the first record in the catalog high-key range. The record returned by this read was not a high-key-range record. The pointer to the unformatted recrod is incorrect.

System Action: The Catalog Check Service Aid will search the catalog to find the last formatted record. Additional messages will inform you of the success or failure of that search.

Programmer Action: Dependent upon subsequent error messages.

IKQ00091 INVALID TYPE IN LOW KEY RANGE RECORD

LKR RECORD WITH INVALID DATA:
dump*of*catalog*record
ASSOCIATED HKR RECORD FOLLOWS:
NAME=aa..aa CI=bbbbbb

Cause: A name in the high-key-range portion of the catalog points to a low-key-range record that does not contain one of the following VSAM record types (C, G, D, I, R, V, A, U, B or X).

System Action: Catalog Check Service Aid processing continues.

Programmer Action: This message is followed by a hexadecimal print of the erroneous low-key-range record and the name of the associated high-key-range record. Run the DELETE command with the IGNOREERROR option for the name specified by NAME=aa..aa. This action may result in some fragments being left in the catalog. The output from the DELETE command (which calls the Catalog Check Service Aid) will tell you if the catalog contains additional fragments.

If you delete a cluster or AIX, you may also have to delete its data and index components. In this case, you may have to perform the DELETE step several times until the catalog report provided at the end of DELETE IGNOREERROR states that the catalog contains no errors.

IKQ00101 HIGH KEY RANGE RECORD CONTAINS INVALID CI NUMBER

ASSOCIATED HKR REC FOLLOWS:
NAME=aa..aa CI=bbbbbb

Cause: A catalog high-key-range (HKR) record contains an invalid CI number (one outside the formatted section of the catalog). NAME=aa..aa identifies the damaged record. CI number bbbbbb is invalid.

System Action: Catalog Check Service Aid processing continues.

Programmer Action: Remove the damaged record from the catalog. Run the DELETE command with the IGNOREERROR option for the name specified in NAME=aa..aa.

IKQ00121 CCR UNFORMATTED RECORD POINTER CORRECTED

CCR RECORD FOLLOWS:
dump*of*catalog*record

Cause: The catalog control record (CCR) contains a pointer to the unformatted section of the catalog. This pointer was found to be in error and has been corrected. The CCR dump that follows this message shows the corrected pointer at displacement X'30'.

System Action: Catalog Check Service Aid processing continues.

Programmer Action: None. VSAM found an error in the CCR and corrected it.

IKQ00131 CCR DELETED FREE CHAIN CORRECTED

CCR RECORD FOLLOWS:
dump*of*catalog*record

Cause: The catalog control record (CCR) contains a pointer to the first deleted CI in a chain of deleted CIs. This pointer or an element on the chain it points to is incorrect. VSAM fixed the problem by truncating the chain at the point of the error. Several free records may now be unavailable for use, but the truncated free chain is correct because the questionable records have been removed. The CCR dump that follows this message shows the correct pointer.

System Action: Catalog Check Service Aid processing continues.

Programmer Action: None. VSAM found an error in the CCR and corrected it.

IKQ00141 READ FAILED FOR LAST FORMATTED RECORD, CI X'nnnnnn', RPL RETURN CODE aaa (X'bb'), RPL REASON CODE ccc (X'dd')

CCR RECORD FOLLOWS:
dump*of*catalog*record

Cause: The catalog control record (CCR) contains a pointer to the unformatted section of the catalog. The pointer is invalid because a request to read the record prior to this one failed. The RPL return and reason codes explain why the read attempt failed. These codes are documented in Appendix A.

The CCR dump that follows this message shows the invalid pointer at displacement X'30'.

System Action: The Catalog Check Service Aid will search the catalog to find the last formatted record. Additional messages will inform you about the success or failure of that search.

Programmer Action: Dependent upon subsequent error messages.

IKQ00161 DATA SET NAME NOT SAME IN HIGH AND LOW KEY RANGE RECORDS

LKR REC WITH INVALID DATA:
dump*of*catalog*record
ASSOCIATED HKR REC FOLLOWS:
NAME=aa..aa CI=bbbbbb

Cause: A name in the high-key-range (HKR) portion of the catalog points to a low-key-range (LKR) record that does not contain the same name. The dump that follows this message shows the low-key-range record; the mismatched name is at displacement X'31'. NAME=aa..aa identifies the damaged record; it is contained in CI number bbbbbb.

System Action: Catalog Check Service Aid processing continues.

Programmer Action: This message is followed by a hexadecimal print of the erroneous low-key-range record and the name of the associated high-key-range record. Run the DELETE command with the IGNOREERROR option for the name specified in NAME=aa..aa. This action may result in some fragments being left in the catalog. The output from the DELETE command (which calls the Catalog Check Service Aid) will tell you if the catalog contains additional fragments.

If you delete a cluster or AIX, you may also have to delete its data and index components. In this case, you may have to perform the DELETE step several times until the catalog report provided at the end of DELETE IGNOREERROR states that the catalog contains no errors.

IKQ00181 GROUP OCCURRENCE POINTER (GOP) VERTICAL EXTENSION CHAIN BROKEN, INITIAL GOP AT DISPLACEMENT nnn(X'mmm')

REC WITH BROKEN VERT EXT CHAIN
dump*of*catalog*record
ASSOCIATED HKR REC FOLLOWS:
NAME=aa..aa CI=bbbbbb

Cause: The catalog contains a vertical extension chain of group occurrence pointers (GOP) to a group occurrence. The chain is broken; the data in the group occurrence is lost. The dump that follows this message shows the invalid GOP at displacement X'mmm'. NAME=*aa..aa* identifies the damaged cluster, AIX, path, user catalog, volume, nonVSAM object, generation data group (OS/VS), or alias (OS/VS). CI *bbbbbb* is the first low-key-range record for *aa..aa*.

System Action: Catalog Check Service Aid processing continues.

Programmer Action: If the object identified by the NAME=aa..aa submessage is a volume, perform recovery procedure A; otherwise perform recovery procedure B. Procedures A and B are documented at the beginning of this chapter.

IKQ00191 INVALID CI IN GROUP OCCURRENCE POINTER AT DISPLACEMENT nnn (X'mmm')

REC WITH ERRONEOUS GOP FOLLOWS
dump*of*catalog*record
ASSOCIATED HKR REC FOLLOWS:
NAME=aa..aa CI=bbbbbb

Cause: The catalog contains a vertical chain of group occurrence pointers (GOP) to a group occurrence. One of the GOPs references a CI outside the formatted section of the catalog. Because the chain is broken, the data in the group occurrence is lost. The dump that follows this message shows the invalid GOP at displacement X'mmm'. NAME=*aa..aa* identifies the damaged cluster, AIX, path, user catalog, volume, nonVSAM object, generation data group (OS/VS), or alias (OS/VS). CI *bbbbbb* is the first low-key-range record for *aa..aa*.

System Action: Catalog Check Service Aid processing continues.

Programmer Action: If the object identified by the NAME=aa..aa submessage is a volume, perform recovery procedure A; otherwise perform recovery procedure B. Procedures A and B are documented at the beginning of this chapter.

IKQ00201 RECORD SHOULD BE TYPE a
IKQ00181 and associated text
REC WITH BROKEN VERT EXT CHAIN
dump*of*catalog*record

QUESTIONAL VERT EXT REC:
dump*of*catalog*record
ASSOCIATED HKR REC FOLLOWS:
NAME=aa..aa CI=bbbbbb

Cause: The chain of group occurrence pointers (GOP) has been broken. A record in the chain should be type W (volume) or E (other), but it is not. Because the group occurrence cannot be reached, its information is lost. Following this message is a dump of the invalid GOP. NAME=*aa..aa* identifies the damaged cluster, AIX, path, user catalog, volume, nonVSAM object, generation data group (OS/VS), or alias (OS/VS). CI *bbbbbb* is the first low-key-range record for *aa..aa*.

This message is always issued with message IKQ00181, which gives the location of the invalid GOP.

System Action: Catalog Check Service Aid processing continues.

Programmer Action: If the object identified by the NAME=aa..aa submessage is a volume, perform recovery procedure A; otherwise perform recovery procedure B. Procedures A and B are documented at the beginning of this chapter.

IKQ00211 INVALID GROUP OCCURRENCE POINTER TYPE FOR THIS RECORD, DISPLACEMENT nnn (X'mmm')

REC WITH ERRONEOUS GOP FOLLOWS
dump*of*catalog*record
ASSOCIATED HKR REC FOLLOWS:
NAME=aa..aa CI=bbbbbb

Cause: The dumped record contains a group occurrence type that is invalid for this type of catalog record. For example, cluster records (type 'C') cannot contain data space group occurrences (group code '6'). The invalid pointer is at displacement X'mmm' in the dump that follows this message. NAME=*aa..aa* identifies the damaged cluster, AIX, path, user catalog, volume, nonVSAM object, generation data group (OS/VS), or alias (OS/VS). CI *bbbbbb* is the first low-key-range record for *aa..aa*.

System Action: Catalog Check Service Aid processing continues.

Programmer Action: If the object identified by the NAME=aa..aa submessage is a volume, perform recovery procedure A; otherwise perform recovery procedure B. Procedures A and B are documented at the beginning of this chapter.

IKQ0022I PSEUDO HORIZONTAL EXTENSION RECORD NOT CORRECT TYPE

PSEUDO HORIZ EXT BASE RECORD:
dump*of*catalog*record
REC WITH BROKEN PSEUDO HRZ CHN
dump*of*catalog*record
ASSOCIATED HKR REC FOLLOWS:
NAME=aa..aa CI=bbbbbb

Cause: A group occurrence was too large to fit into one catalog record. Its information had to span two or more catalog records (called a pseudo-horizontal chain). One of the records in the chain is not of the correct record type. The chain has been broken, thus losing part of the information in the group occurrence.

NAME=*aa..aa* identifies the damaged cluster, AIX, path, user catalog, volume, nonVSAM object, generation data group (OS/VS), or alias (OS/VS). CI *bbbbbb* is the first low-key-range record for *aa..aa*.

System Action: Catalog Check Service Aid processing continues.

Programmer Action: If the object identified by the NAME=aa..aa submessage is a volume, perform recovery procedure A; otherwise perform recovery procedure B. Procedures A and B are documented at the beginning of this chapter.

IKQ0023I HORIZONTAL EXTENSION RECORD NOT CORRECT TYPE

REC WITH HORIZ PTR FOLLOWS:
dump*of*catalog*record
QUESTIONABLE HORIZ EXT REC:
dump*of*catalog*record
ASSOCIATED HKR REC FOLLOWS:
NAME=aa..aa CI=bbbbbb

Cause: The horizontal chain of catalog records used to hold group occurrence pointer information is broken. One of the records in the chain is the wrong type (should be W for volume records, E for all others). Because the chain is invalid, the data is lost.

The dump that follows the first part of the message shows the last valid catalog record in the chain. Field X'2C' indicates which type of catalog record it is. The dump that follows the second part of the message shows the invalid horizontal extension record. Field X'2C' indicates which type of catalog record it is.

NAME=*aa..aa* identifies the damaged cluster, AIX, path, user catalog, volume, nonVSAM object, generation data group (OS/VS), or alias (OS/VS). CI *bbbbbb* is the first low-key-range record for *aa..aa*.

System Action: Catalog Check Service Aid processing continues.

Programmer Action: If the object identified by the NAME=aa..aa submessage is a volume, perform recovery procedure A; otherwise perform recovery procedure B. Procedures A and B are documented at the beginning of this chapter.

IKQ0024I AFFECTED CI IN RECORD HORIZONTAL EXTENSION POINTER

REC WITH HORIZ PTR FOLLOWS:
dump*of*catalog*record
ASSOCIATED HKR REC FOLLOWS:
NAME=aa..aa CI=bbbbbb

Cause: This message is always preceded by message IKQ0004I. The horizontal chain of catalog records used to hold group occurrence pointer information has been broken. A read operation failed for one of the records in the chain. The information in the lost part of the chain cannot be recovered. Following this message is a dump of the invalid pointer. NAME=*aa..aa* identifies the damaged cluster, AIX, path, user catalog, volume, nonVSAM object, generation data group (OS/VS), or alias (OS/VS). CI *bbbbbb* is the first low-key-range record for *aa..aa*.

System Action: Catalog Check Service Aid processing continues.

Programmer Action: If the object identified by the NAME=aa..aa submessage is a volume, perform recovery procedure A; otherwise perform recovery procedure B. Procedures A and B are documented at the beginning of this chapter.

IKQ00251 INVALID CI NUMBER IN HORIZONTAL EXTENSION POINTER

REC WITH HORIZ PTR FOLLOWS:
dump*of*catalog*record
ASSOCIATED HKR REC FOLLOWS:
NAME=aa..aa CI=bbbbbb

Cause: The horizontal chain of catalog records used to hold group occurrence pointer information is broken. One of the records in the chain references an invalid CI number (outside the formatted section of the catalog) as a pointer to the next record in the chain. Because the chain is broken, the information in the lost part of the chain cannot be recovered.

NAME=*aa..aa* identifies the damaged cluster, AIX, path, user catalog, volume, nonVSAM object, generation data group (OS/VS), or alias (OS/VS). CI *bbbbbb* is the first low-key-range record for *aa..aa*.

System Action: Catalog Check Service Aid processing continues.

Programmer Action: If the object identified by the NAME=aa..aa submessage is a volume, perform recovery procedure A; otherwise perform recovery procedure B. Procedures A and B are documented at the beginning of this chapter.

IKQ00261 INVALID RECORD TYPE IN ASSOCIATION GROUP OCCURRENCE AT DISPLACEMENT nnn (X'mmm')

REC WITH ERRONEOUS GO FOLLOWS:
dump*of*catalog*record
ASSOCIATED HKR REC FOLLOWS:
NAME=aa..aa CI=bbbbbb

Cause: The type field in the association group occurrence (GO) at the indicated displacement is not valid for this catalog record. NAME=*aa..aa* identifies the damaged cluster, AIX, or path. CI *bbbbbb* is the first low-key-range record for *aa..aa*.

System Action: Catalog Check Service Aid processing continues.

Programmer Action: Perform recovery procedure B (documented at the beginning of this chapter) to remove the damaged record from the catalog.

IKQ00271 RECORD TYPE IN ASSOCIATION GROUP OCCURRENCE NOT EQUAL TO RECORD TYPE IN RECORD IT REFERENCES

Cause: The type field in the association group occurrence differs from the type field in the record that it points to. Message IKQ00281, which follows, indicates the location of the association group occurrence, followed by the record it points to.

System Action: Catalog Check Service Aid processing continues.

Programmer Action: Perform recovery procedure B to remove the damaged record (identified by NAME=aa..aa in message IKQ00281) from the catalog. Procedure B is documented at the beginning of this chapter.

IKQ00281 AFFECTED GROUP OCCURRENCE AT DISPLACEMENT nnn (X'mmm')

REC WITH ERRONEOUS GO FOLLOWS:
dump*of*catalog*record
ASSOCIATED HKR REC FOLLOWS:
NAME=aa..aa CI=bbbbbb

Cause: This is a secondary message; it only appears in combination with other error messages. In the dump that follows this message, the erroneous group occurrence (GO) is at displacement X'mmm'. NAME=*aa..aa* identifies the damaged cluster, AIX, path, user catalog, volume, nonVSAM object, generation data group (OS/VS), or alias (OS/VS). CI *bbbbbb* is the first low-key-range record for *aa..aa*.

System Action: Catalog Check Service Aid processing continues.

Programmer Action: Follow the instructions for the message that was issued immediately preceding message IKQ00281.

IKQ00291 AFFECTED GROUP OCCURRENCE POINTER AT DISPLACEMENT nnn (X'mmm')

REC WITH ERRONEOUS GOP FOLLOWS
dump*of*catalog*record
ASSOCIATED HKR REC FOLLOWS:
NAME=aa..aa CI=bbbbbb

Cause: This message is always preceded by message IKQ00041. The vertical chain of group occurrence pointers (GOP) has been broken. A GOP in the chain contains a CI number that could not be read. Because the group occurrence cannot be reached, its information is lost. NAME=*aa..aa* identifies the damaged cluster, AIX, path, user catalog, volume, nonVSAM object, generation data group (OS/VS), or alias (OS/VS). CI *bbbbbb* is the first low-key-range record for *aa..aa*.

System Action: Catalog Check Service Aid processing continues.

Programmer Action: If the object identified by the NAME=aa..aa submessage is a volume, perform recovery procedure A; otherwise perform recovery procedure B. Procedures A and B are documented at the beginning of this chapter.

IKQ00301 ASSOCIATION GROUP OCCURRENCE AT DISPLACEMENT nnn (X'mmm') HAS NO RETURN POINTER

REC WITH ASSOC GO FOLLOWS:
dump*of*catalog*record
ASSOCIATED HKR REC FOLLOWS:
NAME=aa..aa CI=bbbbbb

Cause: Two catalog records associated with each other require that each contain an association group occurrence with the other's CI in it. The association group occurrence at X'mmm' contains the CI number of a record which should point back to the printed record, but it does not.

Following this message is a dump of the record for which there is no return pointer. NAME=*aa..aa* identifies the damaged cluster, AIX, or path. CI *bbbbbb* is the first low-key-range record for *aa..aa*.

System Action: Catalog Check Service Aid processing continues.

Programmer Action: Remove the damaged record from the catalog using recovery procedure B. Procedure B is documented at the beginning of this chapter.

IKQ00311 DSDIR AT DISPLACEMENT nnn (X'mmm') POINTS TO INVALID COMPONENT TYPE

REC WITH ERRONEOUS GO FOLLOWS:
dump*of*catalog*record
ASSOC REC WITH UNEQUAL TYPE:
dump*of*catalog*record
ASSOCIATED HKR REC FOLLOWS:
NAME=aaaaaa CI=bbbbbb

Cause: A volume record's data set directory (DSDIR) group occurrence points to a record that is not a data (type D) or index (type I) component. The DSDIR contains invalid information.

The DSDIR is at displacement X'mmm' in the first dump that follows this message. The second dump shows the record with the invalid record type. NAME=*aaaaaa* identifies the damaged volume. CI *bbbbbb* is the first low-key-range record for the volume.

System Action: Catalog Check Service Aid processing continues.

Programmer Action: Remove the damaged record from the catalog using recovery procedure A. Procedure A is documented at the beginning of this chapter.

IKQ0032I NO VIGO FOUND FOR DSDIR AT DISPLACEMENT nnn (X'mmm')

REC WITH PROBLEM DSDIR FOLLOWS
dump*of*catalog*record
ASSOCIATED HKR REC FOLLOWS:
NAME=aaaaaa CI=bbbbbb

Cause: The volume record (identified by NAME=aaaaaa) indicates that a data or index component owns space on the volume, or that the component has listed the volume as a candidate volume. The volume information group occurrences (VIGO) for the component do not show the volume to be either in use or a candidate volume.

The dump that follows this message shows the invalid data set directory (DSDIR) at displacement X'mmm'. NAME=*aaaaaa* identifies the damaged volume. CI *bbbbbb* is the first low-key-range record for the volume.

System Action: Catalog Check Service Aid processing continues.

Programmer Action: Perform recovery procedure A to remove the damaged record from the catalog. Procedure A is documented at the beginning of this chapter.

IKQ0033I VIGO AT DISPLACEMENT nnn (X'mmm') DOES NOT POINT TO VOLUME RECORD

REC WITH ERRONEOUS GO FOLLOWS:
dump*of*catalog*record
LKR REC WITH INVALID DATA:
dump*of*catalog*record
ASSOCIATED HKR REC FOLLOWS:
NAME=aa..aa CI=bbbbbb

Cause: While verifying a volume information group occurrence (VIGO), VSAM read a "volume" record that was not type V. The pointer relationship between the component and the correct volume record has been broken.

The first dump following this message shows the record with the name of the volume record at X'mmm' in the VIGO. The second dump shows the record that was actually read, but it is not a volume record. NAME=*aa..aa* identifies the damaged cluster or AIX. CI *bbbbbb* is the first low-key-range record for *aa..aa*.

System Action: Catalog Check Service Aid processing continues.

Programmer Action: If the object identified by the NAME=aa..aa submessage is a volume, perform recovery procedure A; otherwise perform recovery procedure B. Procedures A and B are documented at the beginning of this chapter.

IKQ0034I READ FAILED FOR KEY nnnnnn

IKQ0042I and associated text
***IKQ0028I and associated text ***
REC WITH PROBLEM VIGO FOLLOWS:
dump*of*catalog*record
ASSOCIATED HKR REC FOLLOWS:
NAME=aa..aa CI=bbbbbb

Cause: While verifying a volume information group occurrence (VIGO) in the record identified by message IKQ0028I, a read-by-key was issued for volume nnnnnn specified in message IKQ0034I. The read failed due to RPL return and reason codes specified in message IKQ0042I. NAME=*aa..aa* identifies the damaged cluster or AIX. CI *bbbbbb* is the first low-key-range record for *aa..aa*.

System Action: Catalog Check Service Aid processing continues.

Programmer Action: Rerun the job. If the problem persists, perform recovery procedure B. Procedure B is documented at the beginning of this chapter.

IKQ0035I NO DSDIR FOUND FOR VIGO AT DISPLACEMENT nnn (X'mmm')

REC WITH PROBLEM VIGO FOLLOWS:
dump*of*catalog*record
ASSOCIATED HKR REC FOLLOWS:
NAME=aa..aa CI=bbbbbb

Cause: While verifying a volume information group occurrence (VIGO) in the record printed above, no corresponding data set directory (DSDIR) information could be found. A component believes it has (or is a candidate for) space on a volume, but the volume contains no information about the component. NAME=aa..aa identifies the damaged cluster or AIX. CI *bbbbbb* is the first low-key-range record for *aa..aa*.

System Action: Catalog Check Service Aid processing continues.

Programmer Action: Perform recovery procedure B. Procedure B is documented at the beginning of this chapter.

IKQ0036I THE FOLLOWING RECORD IS UNAVAILABLE
dump*of*catalog*record

Cause: The printed record is inaccessible because no catalog high-key-range or low-key-range records point to it. For NOIMBED catalogs, CIs 6 and 8 always appear as unavailable records.

System Action: Catalog Check Service Aid processing continues.

Programmer Action: No action required. The printed record cannot be reused (unless the catalog is rebuilt), but it has no effect on other catalog records.

IKQ0039I INVALID CI IN GROUP OCCURRENCE AT DISPLACEMENT nnn (X'mmm')

REC WITH ERRONEOUS GO FOLLOWS:
dump*of*catalog*record
ASSOCIATED HKR REC FOLLOWS:
NAME=aa..aa CI=bbbbbb

Cause: In the dump that follows this message, the group occurrence (GO) at displacement X'mmm' contains an invalid CI number. That CI number is outside the formatted section of the catalog. NAME=*aa..aa* identifies the damaged cluster, AIX, path, user catalog, volume, nonVSAM object, generation data group (OS/VS), or alias (OS/VS). CI *bbbbbb* is the first low-key-range record for *aa..aa*.

System Action: Catalog Check Service Aid processing continues.

Programmer Action: If the object identified by the NAME=aa..aa submessage is a volume, perform recovery procedure A; otherwise perform recovery procedure B. Procedures A and B are documented at the beginning of this chapter.

IKQ0042I RPL RETURN CODE aaa (X'bb'), RPL REASON CODE ccc (X'dd')

PREVIOUS RECORD READ FOLLOWS:
dump*of*catalog*record

Cause: This is a secondary message; it is always preceded by another message and further explains the cause of the I/O failure described in the previous message.

System Action: Catalog Check Service Aid processing continues.

Programmer Action: Take action as described by the previous message.

IKQ0043I INVALID CI NUMBER IN PSEUDO HORIZONTAL EXTENSION CHAIN

REC WITH HORIZ PTR FOLLOWS:
dump*of*catalog*record
ASSOCIATED HKR REC FOLLOWS:
NAME=aa..aa CI=bbbbbb

Cause: A group occurrence was too large to fit into one catalog record. Its information had to span two or more catalog records (called a pseudo-horizontal chain). One of the pointers in the chain contained an invalid CI number (one outside the formatted section of the catalog). The chain has been broken, thus losing part of the information in the group occurrence.

Name=*aa..aa* identifies the damaged cluster, AIX, path, user catalog, volume, nonVSAM object, generation data group (OS/VS), or alias (OS/VS). CI *bbbbbb* is the first low-key-record for *aa..aa*.

System Action: Catalog Check Service Aid processing continues.

Programmer Action: If the object identified by the NAME=aa..aa submessage is a volume, perform recovery procedure A; otherwise perform recovery procedure B. Procedures A and B are documented at the beginning of this chapter.

IKQ0044I AFFECTED CI IN RECORD HORIZONTAL EXTENSION POINTER, PART OF PSEUDO HORIZONTAL EXTENSION CHAIN

REC WITH HORIZ PTR FOLLOWS:
dump*of*catalog*record
ASSOCIATED HKR REC FOLLOWS:
NAME=aa..aa CI=bbbbbb

Cause: This message is always preceded by message IKQ0004I. A group occurrence was too large to fit in one catalog record. Its information had to span two or more catalog records (called a pseudo-horizontal chain). A read failed for one of the CIs in the chain. The chain has been broken, thus losing part of the information in the group occurrence.

Name=aa..aa identifies the damaged cluster, AIX, path, user catalog, volume, nonVSAM object, generation data group (OS/VS), or alias (OS/VS). CI *bbbbbb* is the first low-key-range record for *aa..aa*.

System Action: Catalog Check Service Aid processing continues.

Programmer Action: Rerun the job. If the problem persists, and if the object identified by the NAME=aa..aa submessage is a volume, perform recovery procedure A; otherwise perform recovery procedure B. Procedures A and B are documented at the beginning of this chapter.

IKQ0045I PSEUDO HORIZONTAL EXTENSION CHAIN BROKEN

REC WITH BROKEN PSEUDO HRZ CHN
dump*of*catalog*record
ASSOCIATED HKR REC FOLLOWS:
NAME=aa..aa CI=bbbbbb

Cause: A group occurrence was too large to fit into one catalog record. Its information had to span two or more catalog records (called a pseudo-horizontal chain). One of the records believed to be in the chain contained unrelated data. The chain has been broken, thus losing part of the information in the group occurrence.

NAME=*aa..aa* identifies the damaged cluster, AIX, path, user catalog, volume, nonVSAM object, generation data group (OS/VS), or alias (OS/VS). CI *bbbbbb* is the first low-key-range record for *aa..aa*.

System Action: Catalog Check Service Aid processing continues.

Programmer Action: If the object identified by the NAME=aa..aa submessage is a volume, perform recovery procedure A; otherwise perform recovery procedure B. Procedures A and B are documented at the beginning of this chapter.

IKQ40001I CATALOG OPEN FAILURE, ACB RETURN CODE aaa (X'bb'), ACB REASON CODE ccc (X'dd'), IKQVCHK TERMINATED

Cause: VSAM could not open the catalog. The catalog name was specified in the EXEC PARM='xx..x' statement, or the default catalog was used. VSAM set a return code (X'bb') in register 15 and a reason code (X'dd') in the ACB. These codes are identified in Appendix A of this book.

System Action: The Catalog Check Service Aid stops processing.

Programmer Action: See the specified return and reason code. A complete list of return and reason codes with an explanation for each of these codes, including the possible user response, is given in Appendix A. Correct the error and rerun the job. If the error cannot be corrected, the catalog is unusable and must be rebuilt. Refer to "Rebuilding a Catalog" in *VSE/VSAM Programmer's Reference.*

IKQ40021 CATALOG LOCK FAILURE, LOCK RETURN CODE aa (X'bb'), IKQVCHK TERMINATED

Cause: The Catalog Check Service Aid attempted to set the catalog update/locate lock. The LOCK macro returned the code in the message.

System Action: The Catalog Check Service Aid stops processing.

Programmer Action: Refer to *VSE/Advanced Functions Messages* for a description of the LOCK return code. Correct the problem and rerun the job.

IKQ40031 RECORD TYPE CODE NOT 'L' IN CCR, IKQVCHK'TERMINATED

CCR RECORD FOLLOWS:
dump*of*catalog*record

Cause: The catalog control record (CI 3) was found to have a type other than 'L'. Following this message is a dump of the invalid catalog control record.

System Action: The Catalog Check Service Aid stops processing.

Programmer Action: The CCR record is a very important part of the self-describing part of the catalog. Because the contents of this record are in question, the entire catalog is suspect. The catalog must be rebuilt. Refer to "Rebuilding a Catalog" in *VSE/VSAM Programmer's Reference.*

IKQ40051 WRITE FAILED FOR CI X'000003', RPL RETURN CODE aaa (X'bb'), RPL REASON CODE ccc (X'dd'), IKQVCHK TERMINATED

Cause: VSAM corrected an error in the catalog control record, (see previous message for error), but it cannot write the new record into the catalog. The RPL return and reason codes explain when the write attempt failed. VSAM set a return code (X'bb') in register 15 and a reason code (X'dd') in the RPL. These codes are documented in Appendix A.

System Action: The Catalog Check Service Aid stops processing.

Programmer Action: Refer to the description of the RPL reason and return codes in Appendix A. Follow the programmer action for the code you received. Then rerun the job. If the error occurs again, the catalog must be rebuilt. Refer to "Rebuilding a Catalog" in *VSE/VSAM Programmer's Reference.*

IKQ40111 READ NEXT FAILED WHILE SEARCHING FOR HIGH KEY RANGE START, IKQVCHK TERMATED

PREVIOUS RECORD READ FOLLOWS:
dump*of*catalog*record

Cause: The beginning of the high-key-range section of the catalog could not be found.

System Action: The Catalog Check Service Aid stops processing.

Programmer Action: The catalog is damaged; it must be rebuilt. Refer to "Rebuilding a Catalog" in *VSE/VSAM Programmer's Reference.*

IKQ4015I READ NEXT FAILED WHILE STEPPING THROUGH HIGH KEY RANGE, IKQVCHK TERMINATED

IKQ0042I and associated text
PREVIOUS RECORD READ FOLLOWS:
dump*of*catalog*record

Cause: The Catalog Check Service Aid steps through the high-key-range section of the catalog, mapping names to records in the low-key-range section of the catalog. While performing this function, a read for a high-key-range record failed. Message IKQ0042I explains why the read attempt failed.

System Action: The Catalog Check Service Aid stops processing.

Programmer Action: Rerun the job to make sure that the problem is not due to a hardware read error. If the problem persists, the high-key-range or the index portion of the catalog is damaged.

For *nonrecoverable* catalogs, REPRO the catalog out and back in again. In the process, the index will be rebuilt. Then run Catalog Check (as documented in *VSE/VSAM Programmer's Reference).* If there are still errors, the catalog must be rebuilt.

For *recoverable* catalogs, the catalog must be rebuilt. Refer to "Rebuilding a Catalog" in *VSE/VSAM Programmer's Reference* for further information.

IKQ4017I GETVIS FAILURE, GETVIS RETURN CODE aa (X'bb'), IKQVCHK TERMINATED

Cause: The Catalog Check Service Aid attempted to get virtual storage for control blocks and work space. The GETVIS macro returned the code specified above.

System Action: The Catalog Check Service Aid stops processing.

Programmer Action: Refer to *VSE/Advanced Functions Messages* for a description of the GETVIS return code. Correct the problem and rerun the job.

IKQ4037I READ FAILED FOR CCR RECORD (CI 3), RPL RETURN CODE aaa (X'bb'), RPL REASON CODE ccc (X'dd'), IKQVCHK TERMINATED

Cause: The catalog control record (CI 3) could not be read due to the RPL return and reason codes specified. These codes are described in Appendix A of this book.

System Action: The Catalog Check Service Aid stops processing.

Programmer Action: Rerun the job. If the problem persists, the catalog must be rebuilt. Refer to "Rebuilding a Catalog" in *VSE/VSAM Programmer's Reference.*

IKQ4038I READ FOR CATALOG DLBL 'xxxxxxx' FAILED, LABEL RETURN CODE aa (X'bb'), IKQVCHK TERMINATED

Cause: The Catalog Check Service Aid attempted to read the specified DLBL statement. The LABEL macro issued return code X'bb'.

System Action: The Catalog Check Service Aid stops processing.

Programmer Action: Refer to *VSE/Advanced Functions Messages* for an explanation of LABEL return codes. Correct the problem and rerun the job.

IKQ4040I EOF OCCURRED WHILE SEARCHING FOR HIGH KEY RANGE START, IKQVCHK TERMINATED

Cause: The beginning of the high-key-range section of the catalog could not be found.

System Action: The Catalog Check Service Aid stops processing.

Programmer Action: Rerun the job. If the problem persists, the catalog must be rebuilt. Refer to "Rebuilding a Catalog" in *VSE/VSAM Programmer's Reference.*

IKQ4041I INVALID DATA IN INPUT PARAMETERS, IKQVCHK TERMINATED

Cause: The data specified in the PARM parameter of the EXEC statement does not conform to the following format:

PARM='aa..a/bbbbbbbb'
Where aa..a is the name of the catalog (must not exceed 44 characters, no imbedded blanks),

bbbbbbbb is the password (not to exceed 8 characters, no imbedded blanks),

/ is the delimiter separating catalog name from password.

The password is optional and, if not specified, the / is not required.

System Action: The Catalog Check Service Aid stops processing.

Programmer Action: Correct the erroneous catalog and/or password and rerun the job.

Appendix A: VSAM Return and Error Codes

When VSAM returns control after it processed a VSAM macro (other than ACB, RPL, or EXLST), register 15 contains a return code indicating success or failure of the requested operation. The requested operation was completed successfully if that register contains X'00'.

If register 15 indicates that the requested operation failed, VSAM also provides an error code. All error codes are explained in the table below, listed in numerical order.

An explanation of the error codes is included in this manual because they are displayed in some of the system messages that may be originated by VSAM.

To examine VSAM error codes during execution of your problem program:

- Use keyword ERROR of the SHOWCB or TESTCB macro for OPEN, CLOSE, and TCLOSE.[1]
- Use keyword FDBK of the SHOWCB or TESTCB macro for a request macro. GET, PUT, POINT, ERASE, ENDREQ, and WRTBFR are request macros.
- Test register 0 for a control block manipulating macro (CBMM).

Unless explicitly provided as part of the explanation for a reason code, programmer and operator actions are:

Programmer Action: Correct your program and rerun the job.

Operator Action: None.

The following discriptions of the values in register 15 pertain to the OPEN, CLOSE and Request Macros. See the "Error Code Issued By" column for the error codes listed in this appendix.

The value in register 15 has the following meaning for OPEN:

X'00' All ACBs were opened successfully; OPEN processing continues.

X'04' All ACBs were opened successfully, but one or more ACBs had a warning message.

X'08' One or more ACBs were not opened successfully. The OPEN for this file is terminated. The ACB has not been updated, and the catalog OPEN indicator has not been set on.

The value in Register 15 has the following meaning for CLOSE:

X'04' One or more ACBs was not closed successfully.

X'08' One or more CLOSE routines could not be loaded because there is not enough virtual storage space, or because the modules could not be found.

The request macros are GET, PUT, POINT, ERASE, ENDREQ, and WRTBFR.

The value in register 15 has the following meanings for the request macros.

X'00' The request completed successfully; the error code is issued for information purposes only.

X'04' The request was not accepted because another request using the same RPL has not completed.

X'08' An error occurred during file processing; the request is terminated.

X'0C' Uncorrectable I/O error; the request is terminated.

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[1] CLOSE and TCLOSE produce the same error codes described in this appendix.

Error Code Dec	Hex	Reg 15=	Error Code Issued By	Explanation
		X'08'	CBMM	The execute form of MODCB, SHOWCB, or TESTCB was issued in an attempt to change a non-existent entry in the macro's parameter list.
		X'0C'	CBMM	The GENCB, MODCB, SHOWCB, or TESTCB request was not executed because an error occurred while a VSAM phase was being loaded. Register 0 contains the return code from CDLOAD.
1	X'01'	X'04'	CBMM	GENCB/MODCB/SHOWCB/TESTCB request is invalid.
2	X'02'	Not zero	CLOSE	CLOSE or TCLOSE found an invalid control block structure for this ACB. **Programmer Action:** Ensure that your program provides a properly generated ACB and does not inadvertenly overlay the ACB, AMBL, AMDSB(s), or OAL before closing the ACB.
		X'04'	CBMM	The GENCB BLK = operand does not specify an ACB, RPL, or EXXLST, or the operand has been omitted from MODCB, SHOWCB, or TESTCB. The operand must be specified.
		X'08'	OPEN	OPEN found an invalid control block structure for this ACB. **Programmer Action:** Ensure that your program provides a properly generated ACB and does not inadvertenly overlay the ACB before opening it.
3	X'03'	X'04'	CBMM	An invalid keyword has been specified for GENCB/MODCB/SHOWCB/TESTCB.
4	X'04'	Not zero	CLOSE	The ACB was already closed. **Programmer Action:** Change your application program to avoid attempts to close an ACB that was never opened, has already been closed, or was erroneously modified to to appear closed.
		X'00'	Request Macros	VSAM detected an end-of-volume condition.
		X'04'	CBMM	The block or list at the indicated address is not of the type specified in MODCB, SHOWCB, or TESTCB.
		X'08'	OPEN	This ACB is already open. **Programmer Action:** Change your application program to avoid attempts to open an ACB that is already open.
		X'08'	Request Macros	VSAM encountered end of file (during sequential retrieval), or the search argument is greater than the highest existing key (or relative record number) in the file.
		X'0C'	Request Macros	VSAM failed to read data as requested. The error may be caused by such conditions as VSAM finding an unformatted record when expecting a formatted record, a volume containing data other than expected, or an I/O error. **Programmer Action:** Ensure that in the SYNAD exit routine your program issues a DUMP macro. Save the dump you obtain and the SYSLOG output for later problem determination.
5	X'05'	X'04'	CBMM	SHOWCB or TESTCB tried to access a closed ACB; the ACB must be open.
6	X'06'	X'04'	CBMM	The SHOWCB or TESTCB OBJECT operand refers to a non-existent index.
7	X'07'	X'04'	CBMM	The referenced EXLST does not contain an entry for the exit you specified in MODCB or SHOWCB.

Error Code Dec	Error Code Hex	Reg 15=	Error Code Issued By	Explanation
8	X'08'	X'00'	Request Macros	VSAM detected a non-unique key in the alternate index.
		X'04'	CBMM	Virtual storage available in the partition is insufficient to generate the requested block(s) or list(s) for GENCB. **Programmer Action:** Rerun the job in a larger virtual partition.
		X'08'	Request Macros	An attempt was made to store a record with a duplicate key, or a duplicate record was found for an alternate index with the UNIQUEKEY option, or a record already exists at the accessed record location.
		X'0C'	Request Macros	VSAM failed to read index-set records of an index. The error may be caused by such conditions as VSAM finding an unformatted record when expecting a formatted record, a volume containing data other than that expected, or an I/O error. **Programmer Action:** Ensure that in the SYNAD exit routine your program issues a DUMP macro. Save the dump you obtain and the SYSLOG output for later problem determination.
9	X'09'	X'04'	CBMM	The work area provided in the program is too small to generate the requested block(s) or list(s) for GENCB or SHOWCB. **Programmer Action:** Recompile the program with a larger work area specified.
10	X'0A'	X'04'	CBMM	One of your EXLST operands specifies the L subparameter, but does not provide a new address, or the operand specifies neither an address nor one of the subparameters A and N (GENCB or MODCB only).
11	X'0B'	X'04'	CBMM	MODCB tried to modify an active RPL; the RPL must be inactive.
12	X'0C'	X'00'	Request Macros	Issue a WRTBFR macro because there are no more unmodified buffers into which to read the contents of a control interval (shared resources only).
		X'04'	CBMM	MODCB tried to modify an open ACB; the ACB must be closed.
		X'08'	Request Macros	VSAM detected a record out of sequence in a key-sequenced or relative-record file (possibly a duplicate key or record number).
		X'0C'	Request Macros	VSAM failed to read sequence-set records of an index. The error may be caused by such conditions as VSAM finding an unformatted record when expecting a formatted record, a volume containing data other than that expected, or an I/O error.
13	X'0D'	X'04'	CBMM	The address in the EXLST field to be activated is 0 (MODCB only).
14	X'0E'	X'04'	CBMM	The specified parameters are inconsistent (GENCB, MODCB, SHOWCB, or TESTCB).
		X'08'	OPEN	The symbolic unit in the EXTENT statement is invalid. **Programmer Action:** Change your job control EXTENT statement(s) to specify logical unit(s) which are valid for the partition and rerun the job, or remove the logical unit specification from the EXTENT statement(s) to allow VSAM to automatically assign available logical units and rerun the job.
15	X'0F'	X'04'	CBMM	The work area provided in your program does not being on a fullword boundary (GENCB or SHOWCB).
		X'08'	OPEN	Extent block processing failed. **Programmer Action:** Restructure your program so that fewer files are open concurrently. In a multiprogramming environment, rerun the job together with other jobs that require fewer extent blocks. If the problem persists, save the job stream and take a system dump before contacting your IBM Support Center.

Error Code Dec	Error Code Hex	Reg 15=	Error Code Issued By	Explanation
16	X'10'	X'00'	Request Macros	A control-area split occurred because there was not enough space to make an index entry in a sequence set record. Some data control intervals could not be used in the control area that was split.
		X'04'	CBMM	An invalid control block address was specified in the {ACB|EXLST|RPL} = address parameter.
		X'08'	Request Macros	No record found. If a relative-record file was being accessed, VSAM may have detected a deleted or invalid record (empty slot) at the accessed record location. This code can be issued for a file being accessed through a path if the pointer to the record is missing from the alternate index. Although the record is in the base cluster, VSAM cannot find it because the pointer to it is missing. This situation should only result from a system failure during UPGRADE processing.
		X'0C'	Request Macros	VSAM failed to write data as requested. The error may be caused by such conditions as VSAM finding an unformatted record when expecting a formatted record, a volume containing data other than that expected, or an I/O error. **Programmer Action:** Ensure that in the SYNAD exit routine your program issues a DUMP macro. Save the dump you obtain and the SYSLOG output for later problem determination.
17	X'11'	X'08'	OPEN	The address in an ASSGN statement for a VSAM volume was set to IGN. **Programmer Action:** Change the device address in the ASSGN statement to that of the VSAM volume being opened.
18	X'12'	X'08'	OPEN	The address in an ASSGN statement for a VSAM volume was set to UA. **Programmer Action:** Change the device address in the ASSGN statement to that of the VSAM volume being opened.
19	X'13'	X'08'	OPEN	Unable to assign a logical unit for the device on which the required volume is mounted. Either: • A programmer logical unit is not available in this partition (available programmer logical units have been used by ASSGN job control statements, or VSAM automatic assignments for files, catalogs or catalog recovery areas (CRA). For recoverable catalogs, VSAM always assigns a programmer logical unit for each CRA.) • An extent block is not available in the system (temporary assignments use these) • The device on which the volume is mounted is reserved (Attention Routine VOLUME command), • The device on which the volume is mounted "down" (Job Control command DVCDN). **Programmer Action:** The automatic assign function failed because the device with the required volume is in "down" status, reserve status, or because no programmer logical units were available. Make sure that programmer logical units are available and rerun the job. If this is a multi-step job, separate it into several jobs. Instruct the operator to ensure that the device on which the volume mounting is done is in "up" status and unreserved before replying 'NEWPAC'.
20	X'14'	X'04'	CBMM	STRMAX or TRANSID were specified, but LSR was not specified in the ACB.
		X'08'	Request Macros	The requested record is contained in a control interval that is already held in exclusive control by another request.
		X'0C'	Request Macros	VSAM failed to write index-set records of an index. The error may be caused by such conditions as VSAM finding an unformatted record when expecting a formatted record, a volume containing data other than that expected, or an I/O error. **Programmer Action:** Ensure that in the SYNAD exit routine your program issues a DUMP macro. Save the dump you obtain and the SYSLOG output for later problem determination.

Error Code Dec	Error Code Hex	Reg 15=	Error Code Issued By	Explanation
24	X'18'	X'08'	Request Macros	The requested record is on a volume or extent that cannot be accessed because no extent blocks are available. **Programmer Action:** Try to find the reason for the nonavailability of the volume or extent. If circumstances indicate that no more extent blocks are available, rerun the job together with other jobs that require a smaller number of extent blocks (in a multiprogramming environment), or restructure your program so that it requires fewer extent blocks (in a 1-partition environment) and rerun the job. If you cannot correct the error situation, contact your IBM Support Center.
		X'0C'	Request Macros	VSAM failed to write sequence-set records of an index. The error may be caused by such conditions as VSAM finding an unformatted record when expecting a formatted record, a volume containing data other than that expected, or an I/O error. **Programmer Action:** Ensure that in the SYNAD exit routine your program issues a DUMP macro. Save the dump you obtain and the SYSLOG output for later problem determination.
28	X'1C'	X'00'	Request Macros	The record retrieved by a GET-with-no-update may be a duplicate of a record in another CI. Eliminate duplicate records by processing the data using keyed access with update. For sequential processing, this error code is set on for only the first record of the CI.
		X'08'	Request Macros	All extents of the file are full, and VSAM cannot suballocate any additional extents to the file for one of following reasons: • No secondary allocation was specified and no space of the required class was found to be available for primary space suballocation on an additional volume (if one was specified). • The maximum number of extensions for the file has been exceeded. • No space of the required class is available for additional secondary allocations.
32	X'20'	X'00'	Request Macros	For a SAM ESDS with variable length records, a POINT or direct GET was issued that specified an RBA of zero. Positioning has been done to the first record of the file, which is actually at RBA 8.
		X'08'	OPEN	The OPEN disposition specified for the file conflicts with other file characteristics. • DISP=NEW was specified for an input file. • DISP=NEW was specified for a file using local shared resources. **Programmer Action:** Change your DLBL statement to specify DISP=OLD or change the ACB to specify MARCF=(OUT,NRS). Rerun the job.
		X'08'	Request Macros	An invalid RBA has been specified.
34	X'22'	X'08'	OPEN	The volume serial number(s) specified in the EXTENT statement(s) do not match those recorded in the catalog entry. An EXTENT statement is required for each volume to be accessed; for example, for each volume on which your base cluster and alternate index(es) reside. **Programmer Action:** Change your job control statements to either use simplified job control or to correctly describe the volumes required to access your base cluster and its alternate indexes. To use simplified job control, eliminate EXTENT statements and ASSGN statements describing your VSAM clusters. The information about volumes is retrieved from the catalog, and programmer logical units are automatically assigned by VSAM. If you do not use simplified job control, use LISTCAT output to determine which volumes must be described in the EXTENT statements. Rerun the job.
36	X'24'	X'08'	Request Macros	The key of the record to be inserted does not fall into an existing key range in the file.

Error Code Dec	Error Code Hex	Reg 15=	Error Code Issued By	Explanation
40	X'28'	X'08'	OPEN	No space is available on any volume for primary allocation of a dynamic file. **Programmer Action:** Use LISTCAT to determine the volumes allocated to the file's primary allocation value, the file's USECLASS specification, and the space allocation status of these volumes. Either: • Delete obsolete files occupying data space with matching classes (CLASS, USECLASS parameters) • Define additional data space(s) of the required class on any of the volumes • Using the ALTER command ADDVOLUMES parameter, add volume(s) to the file that contains sufficient unallocated space of the required class to satisfy the file's primary allocation value. Then rerun your job.
		X'08'	Request Macros	VSAM could not obtain a sufficiently large contiguous area of virtual storage. **Programmer Action:** Rerun the job in a larger partition.
44	X'2C'	X'08'	Request Macros	The work area you have supplied (in the AREA = *addr* operand for the RPL) is not large enough for the requested data record.
48	X'30'	X'08'	OPEN	An attempt was made to open a NOALLOCATION file which is not reusable (REUSE). Such a file is really a model and may not be opened. **Programmer Action:** Make sure the *file-id* in your DLBL statement does not specify the name of a default model.
		X'08'	Request Macros	One or more VSAM processing phases cannot be loaded because the virtual partition being used is too small. **Programmer Action:** Rerun the job in a larger virtual partition.
50	X'32'	X'08'	OPEN	One or more VSAM processing modules cannot be loaded because either the GETVIS area or the partition is too small. **Programmer Action:** Specify SIZE = AUTO on the EXEC statement to increase the size of the GETVIS area. If this does not work, rerun the job in a larger partition.
52	X'34'	X'08'	Request Macros	An internal error occured in a VSAM routine. **Note:** VSAM produces an IDUMP of the region containing the VSAM control blocks, provided the SYSDMP is created and assigned. **Programmer Action:** Print the dump from SYSDMP. (Refer to *VSE/VSAM Programmer's Reference* for interpretation of the IDUMP output.) Contact your IBM Support Center, and make the program listing, console log, and the dump available for problem determination.
56	X'38'	X'08'	Request Macros	An error occurred during dynamic assignment of a volume. Either: • A programmer logical unit is not available in this partition (assignment statements for SYSnnn use these) • An extent block is not available in the system (temporary assignments use these) • The device on which the volume is mounted is "down" (job control command DVCDN).
64	X'40'	X'08'	OPEN	An attempt was made to open a NOCIFORMAT file using an ACB. Non-CI format files are supported only by SAM access (DTF).
		X'08'	Request Macros	As many requests are active as the number specified in the STRNO = *n* operand for the ACB or BLDVRP macro; therefore, another request cannot be started. **Programmer Action:** Change your program to use managed SAM to access the file, or change the DLBL statement to specify a file other than SAM ESDS. Rerun the job.
65	X'41'	X'08'	OPEN	An attempt was made to open a SAM ESDS but the VSE/VSAM Space Management for SAM Feature is not installed on the system. **Programmer Action:** Install the VSE/VSAM Space Management for SAM Feature in your system and rerun the job. If you do not want to install the VSE/VSAM Space Management for SAM Feature, change the DLBL statment to specify a file other than SAM ESDS and rerun your job.

Error Code Dec	Hex	Reg 15=	Error Code Issued By	Explanation
66	X'42'	X'08'	OPEN	An attempt was made to open a DTF with file characteristics that are incompatible with the file's characteristics in the VSAM catalog. Examples of these incompatibilities are: • The DTF BLKSIZE is too large to fit in the maximum RECORDSIZE defined for the file. • The DTF implies a CI format file but the file is NOCIFORMAT. Only DTFPH may be used with NOCIFORMAT files. **Note:** For DTFPH, BLKSIZE is taken to be the DTFPH CISIZE minus 7. **Programmer Action:** If the file was explicitly defined, you must change your program to be compatible with the files, change the file by explicitly deleting it and redefining it to agree with your program, or use a different file. If the file was implicitly defined, you can cause open to implicitly delete it and implicitly redefine it to agree with your program by specifying DISP = NEW. During implicity deletion, the operator will be requested to authorize deletion if the expiration date previously specified for the file has not passed.
67	X'43'	X'08'	OPEN	An attempt was made to open an unexpired file for output using a DTF. **Programmer Action:** The VSAM OPEN return code will be handled internally by the VSE/VSAM Space Management for SAM Feature by requesting operator authorization to delete the unexpired file. This message is accompanied by message 4233A. If authorization is granted, OPEN will complete successfully, assuming no other complications.
68	X'44'	X'08'	OPEN	The file to be opened has a name which begins with "DEFAULT.MODEL.". This is an invalid prefix.
		X'08'	Request Macros	The type of accessing for the request does not match the type of accessing in the ACB when the file was opened; for example: • ADR or CNV was specified, but keyed access is requested. • IN was specified (explicitly or by default), but an update request is made. • GET UPD ADR is requested but ADR was not specified on the ACB when the SHAREOPTIONS(4) KSDS was opened. **Programmer Action:** Change your DLBL statement to specify a valid *file-id* and rerun the job.
69	X'45'	X'08'	OPEN	An attempt was made to open a file which is not a SAM ESDS using a DTF. **Programmer Action:** Probable job control error. Make sure that your DLBL statement specifies a file-id which you know is a SAM ESDS.
70	X'46'	X'08'	OPEN	An invalid file-id was detected during implicit define or implicit delete. **Programmer Action:** Probable job control error. Make sure that the file-id specified in your DLBL statement meets the criteria for a valid VSAM file-id.
71	X'47'	X'08'	OPEN	Allocation specifications for implicit define conflict with the file characteristics specified in the DTF. VSAM is not able to resolve the conflict. **Programmer Action:** Probable job control error. Make the average recordsize specified in the DLBL statement no larger than the blocksize specified in your DTF.
72	X'48'	X'08'	OPEN	The file-id specified in your DLBL statement was not found in the catalog, and insufficient allocation information was specified for an implicit define. **Programmer Action:** Add space allocation parameters to your job control statements. This may be done by specifying the number of tracks and blocks in the EXTENT statement or by specifying RECORDS and RECSIZE on the DLBL statement for device independent allocation.
		X'08'	Request Macros	Keyed access is requested for an entry-sequenced file.

Error Code Dec	Error Code Hex	Reg 15=	Error Code Issued By	Explanation
76	4C	Not zero	CLOSE	Disposition processing failed during close. **System Action:** Close processing continues to successful completion, assuming no other complications. Message 4226I will be issued at end-of-job step for this file. **Programmer Action:** Be aware that a file which you expected to be deleted may still exist, or a file which you expected to be unallocated may still be using space, or a file which you expected to be reset may still have secondary allocation. Use Access Method Services commands (for example: LISTCAT, DELETE) to clean up files as required.
		X'08'	Request Macros	Addressed or control-interval insertion is requested for a key-sequenced or relative-record file.
78	X'4E'	X'08'	OPEN	A catalog management error was detected during implicit delete. Message 4A37I is issued to provide the catalog management return code and reason code which are used to diagnose the problem. **Programmer Action:** Use Appendix B to determine the cause of the error in message 4A37I and take the recommended corrective action. You can use the Access Method Services DELETE command to explicity clean up the file or you can rerun your job to retry the implicit delete. If implicit delete only deletes part of the file, you must specify DELETE IGNOREERROR to delete the rest of the file.
79	X'4F'	X'08'	OPEN	A catalog management error was detected during implicit define. Message 4A37I is issued to provide the catalog management return code and reason code which are used to diagnose the problem. **Programmer Action:** Use Appendix B to determine the cause of the error specified in message 4A37I and take the recommended action.
80	X'50'	X'08'	OPEN	An attempt was made to have two volumes mounted on the same device when direct or keyed processing is specified in the ACB, or The operator did not mount the required volume. One of the following situations may have occurred. • You requested a programmer logical unit that was not system generated (IOTAB xxPRG). • You requested a programmer logical unit that was system generated, but whose assignment has been changed to UA (unassigned) by the operator or by a previous program. • The operator specified 'NEWPAC' in response to a mount message, but did not actually mount the volume. If this error code is issued to a program using the ISAM Interface Program, the job is canceled. **Programmer Action:** Request a programmer logical unit that was specified at system generation. • Reassign the programmer logical unit (ASSGN SYSxxx cuu) or request a device that is already assigned. • Ensure that the operator mounts the correct volume.
		X'08'	Request Macros	An ERASE macro is issued for an entry-sequenced file (directly or via a path) or for a file for which control-interval processing has been specified.

Error Code Dec	Error Code Hex	Reg 15=	Error Code Issued By	Explanation
84	54	X'08'	Request Macros	Locate mode was specified for a PUT request or for processing in a user buffer.
88	X'58'	X'08'	Request Macros	Positioning error; the problem program: • Issued a sequential GET without having VSAM positioned for this GET. • Changed from addressed to keyed access without having VSAM positioned for keyed-sequential retrieval. • Issued a sequential PUT insert request for a relative-record file without having VSAM positioned for this request. • Attempted to improperly switch between forward and backward processing.
92	X'5C'	X'04'	OPEN	**Warning:** MACRF = LSR (local shared resources) is specified, but no OPEN/CLOSE/TCLOSE message area was specified. Ignore this error code if there is no ACB with the option DFR specified in the resource pool.
		X'08'	Request Macros	A PUT for update or an ERASE is issued without a preceding GET for update.
96	X'60'	X'04'	OPEN	The file to be opened for input was found to be unusable because catalog recovery for this file failed. **Programmer Action:** Either correct the situation that caused the catalog recovery operation for this file to fail, or recreate the file.
		X'08'	Request Macros	An attempt was made to change the prime key of a record that is being updated, or an attempt was made to change an alternate key that has the UNIQUEKEY attribute. A sequence error occurred during sequential updating. For example, during REPRO REPLACE, two separate updates to the same record were attempted.
100	X'64'	X'04'	OPEN	OPEN encountered an empty alternate index that is part of an upgrade set.
		X'08'	Request Macros	An attempt was made to change record length during update with addressed access or to change record length for a relative-record file.
104	X'68'	X'04'	OPEN	The timestamp of the volume on which the file is stored is lower than the system timestamp in the file's catalog entry. The extent information in the catalog entry may not agree with the extent information in the volume's VTOC. **Programmer Action:** If problems occur due to inconsistent extent information, display the VTOC and execute the Access Method Services LISTCAT command and compare the extent information. Possibly the wrong volume was mounted. If the correct volume was mounted, recover the file to make sure that the volume and catalog timestamps agree. Rerun the job.
		X'08'	Request Macros	Invalid or conflicting RPL options or parameters: • SKP together with BWD. • LRD without BWD. • CNV together with BWD. • ARG parameter was not specified when required. • For Local Shared Resources, the ACB *addr* is not the same as for a previous request that used the same RPL. For shared resources, WRTBFR was issued, but: • TRANSID was greater than 31, or • The shared resource option (LSR) was not specified, or • The LRU percentage value was not between 0 and 100.

Error Code Dec	Error Code Hex	Reg 15=	Error Code Issued By	Explanation
108	X'6C'	X'04'	OPEN	The system timestamps of the data of a file and its index do not match; this indicates that either the data or the index has been updated separately and that data integrity problems may result if the file is processed now. **Programmer Action:** If data integrity problems arise, revert to a valid backup copy of the file.
		X'08'	Request Macros	The RECLEN value specified for the RPL was one of the following: • Larger than the allowed maximum. • Equal to zero. • Smaller than key length plus relative key position. • Not equal to record (slot) size specified for a relative-record file. For alternate index upgrade processing, the alternate index contains too many duplicate keys. Increase the maximum record length to accommodate more keys.
110	X'6E'	X'08'	OPEN	You attempted to open for input only (ACB MACRF=IN) a file which was empty (no record in it) or a file that was not properly closed on initial loading. Managed-SAM will *simulate* the open of an empty file for DTFSD TYPEFLE=INPUT requests. You are allowed to process the file, and managed-SAM will pass control to the EOFADDR routine upon encountering the first GET macro. To VSAM, however, the file is not really open, so close disposition processing does not take effect when the file is closed. If you want the file deleted after close, you must delete it using the Access Method Services DELETE command. **Programmer Action:** Change your program to specify MACRF=OUT in the ACB if you want to process empty files.
112	X'70'	X'08'	Request Macros	The length of the generic key specified for the RPL is too large or is equal to zero.
113	X'71'	X'00'	OPEN	OPEN tried to execute the Catalog Check Service Aid in order to check the validity of this file's catalog records. Either the CDLOAD failed, or the service aid encountered I/O errors. The file has been opened successfully. **Programmer Action:** Run the Catalog Check Service Aid; it will identify catalog errors for you. Follow the directions for the error messages that it issues. The Catalog Check Service Aid is documented in *VSE/VSAM Programmer's Reference.*
114	X'72'	X'00'	OPEN	The Catalog Check Service Aid was invoked during OPEN processing and detected a catalog irregularity, or there was insufficient storage for Catalog Check processing. **Programmer Action:** This access to the data is allowed, but there are errors in the catalog structure that you should find. Because this information was collected during OPEN processing, it cannot be printed. Run the Catalog Check Service Aid against the entire catalog; it will identify catalog errors for you. Follow the directions for the error messages that it issues. The Catalog Check Service Aid is documented in *VSE/VSAM Programmer's Reference.* If Catalog Check finds *no* errors, the problem was due to insufficient storage. Rerun the original job.
115	X'73'	X'08'	OPEN	The Catalog Check Service Aid was invoked during OPEN processing and detected a severe catalog error. You cannot open the file for output because catalog errors might be propagated. You may, however, open the file for input. The problem may be due to insufficient storage for Catalog Check processing. **Programmer Action:** Because this information was collected during OPEN processing, it cannot be printed. Run the Catalog Check Service Aid against the entire catalog; it will identify catalog errors for you. Follow the directions for the error messages it issues. The Catalog Check Service Aid is documented in *VSE/VSAM Programmer's Reference.* After correcting errors, rerun the original job. If Catalog Check finds *no* errors, the problem was due to insufficient storage. Rerun the original job.

Error Code Dec	Error Code Hex	Reg 15=	Error Code Issued By	Explanation
116	X'74'	X'04'	OPEN	You tried to open a file that was not successfully closed the last time it was opened for output. One of the following has happened: • OPEN tried to verify the catalog records for the file but did not complete verification. • The file is a SAM ESDS in nonCI format, so OPEN did not try to verify its catalog records. • The file is an ESDS being opened in CNV mode. There are two ways this could happen: - Your job stream contains a VERIFY command. (VERIFY opens files in CNV mode.) The verification is successful; ignore this error code. - You requested CNV mode on the RPL. Open did not try to verify the file's catalog records. • The previous time the file was opened was the initial load of the file, and SPEED was specified. OPEN did not try to verify its catalog records. **Programmer Action:** Depends on the processing done during the preceding run. If records were only retrieved no programmer action is required. If records were added, deleted, or updated, consult the explanation to message 4225I.
		X'08'	Request Macros	A request other than sequential or skip sequential PUT to insert records was issued during initial loading of the file, or a request other than PUT insert was issued during initial loading of a relative-record file. Possibly an attempt was made to read an empty file. This code can also indicate that you attempted to load an empty file (using REPRO REPLACE) when the input file contained duplicate records. Do not specify REPLACE under these circumstances.
117	X'75'	X'08'	OPEN	The logical unit specified in the EXTENT statement is not assigned to a valid device type, or invalid extents are specified. **Programmer Action:** Change your job control statements to either use simplified job control or to correctly assign devices to accommodate the volumes required for the cluster and its associated alternate indexes. To use simplifed job control, eliminate EXTENT statements and ASSGN statements describing your VSAM clusters. The information about volumes is retrieved from the catalog, and programmer logical units are automatically assigned by VSAM. If you do not use simplified job control, use LISTCAT output to determine which volumes must be described in the EXTENT statements. Rerun the job.
118	X'76'	X'00'	OPEN	You opened a file that was not closed on a previous open for output. OPEN verified the file's catalog records, and the catalog RBA values have been validated. The file has been opened successfully. **Programmer Action:** No action required. This information message indicates that the catalog records for this file are correct, but its catalog statistics may be incorrect. These statistics cannot cause any processing errors, but be aware that LISTCAT output may contain erroneous information.

Error Code Dec	Error Code Hex	Reg 15=	Error Code Issued By	Explanation
128	X'80'	X'08'	OPEN	The DLBL statement for the file or catalog is missing, or the file name specified in that statement does not match the name of the ACB. **Programmer Action:** Compare your program's requirements and your job control statements to ensure that you have provided a corresponding DLBL statement for each ACB DDNAME. Make corrections to the DLBL statement and rerun the job.
		X'08'	Request Macros	The VSAM catalog was accessed during processing of a request, and an error occurred during this catalog access. An example is GETVIS failure. **Programmer Action:** If a recoverable catalog was used, check whether all of the required EXTENT statements were provided; if a recoverable catalog was not used, provide a larger virtual partition. Rerun the job. If the rerun fails, contact your IBM Support Center. You may wish to use the following for problem determination: • program listing • SYSLOG output • program dump, if available.
132	X'84'	X'08'	OPEN	A permanent I/O error occurred while VSAM was reading label information from the label information area. **Programmer Action:** Retry. If the problem persists, instruct your operator to issue the ROD command and to run EREP (see *VSE/Advanced Functions SADP*); contact your IBM Support Center, and have EREP and SYSLOG output available for problem determination.
		X'08'	Request Macros	An attempt was made to retrieve a spanned record in locate mode.
136	88	Not zero	CLOSE	VSAM could not obtain a contiguous area of virtual storage large enough for the work area needed by the CLOSE routine. **Programmer Action:** Have your program executed in a larger virtual partition.
		X'08	OPEN	VSAM could not obtain a contiguous area of virtual storage large enough to accommodate work areas, control blocks, and buffers needed by VSAM. **Programmer Action:** Provide a larger GETVIS area for VSAM by *one* of the following actions: • Specify the SIZE parameter in the EXEC statement (if missing), or • Allocate more virtual storage to the partition.
		X'08'	Request Macros	An attempt was made to retrieve a spanned record of a keyed-sequenced file with addressed access.
140	X'8C'	X'08'	Request Macros	VSAM encountered an inconsistent spanned record (that is, one or more segments were incompletely updated or destroyed). If the request was a GET, the record (or as much of it as possible) was moved to the user's work area. The record may contain segments at different update levels. The RECLEN field of the RPL shows the length actually moved to the work area. If the request was sequential or skip-sequential (but not direct), the file remains positioned for update or subsequent sequential retrieval. An update of the record will update the status of all segments to a consistent level. If the error was in the AIX during path access (RPL FTNCD=X'02'), the base cluster is not accessed, and no record is moved to the work area. During sequential or skip-sequential access, a subsequent request will access records with a higher alternate key than the one in error.

Error Code Dec	Error Code Hex	Reg 15=	Error Code Issued By	Explanation
144	X'90'	Not zero	CLOSE	One of the following has occurred: • VSAM could not obtain a sufficiently large area of contiguous storage needed by the catalog routines for CLOSE processing. • An error occurred when the catalog was accessed during the processing of a CLOSE request. For example, a permanent I/O error may have occurred when VSAM was reading or writing a catalog entry or catalog recovery area record. • A GETVIS failure, or a failure to load a VSAM phase occurred. • Not enough extent blocks were available to open the catalog recovery area if DASDFP has been specified at system generation. • Not enough programmer logical units were available. Increase the number of programmer logical units (IOTAB xxPGR sysgen macro) or, if this is a multi-step job, separate the job into several jobs. **Programmer Action:** Retry. If the problem persists, instruct your operator to issue the ROD command and to run EREP (see *VSE/Advanced Functions SADP*): contact your IBM Support Center.
		X'08'	OPEN	An error occurred when the catalog was accessed during the processing of an OPEN request. For example, a permanent I/O error may have occurred when VSAM was reading or writing a catalog entry or a catalog recovery area record. **Programmer Action:** Retry. If the problem persists, instruct your operator to issue the ROD command and to run EREP (see *VSE/Advanced Functions SADP*); contact your IBM Support Center, and have EREP and SYSLOG output available for problem determination.
		X'08'	Request Macros	VSAM encountered a pointer in an alternate index without an associated base record.
148	X'94'	X'08'	OPEN	No valid entry was found in the catalog for the ACB to be opened or for the alternate index structure related to this ACB. Your program may have (a) specified an incorrect cluster, alternate index, or pathname, or (b) failed to specify the correct catalog name, or to correctly assign the catalog, or (c) an Access Method Services DEFINE or DELETE may have failed. **Programmer Action:** • Verify that your program is using the correct cluster, alternate index, or path name. • Verify that your program is using the correct catalog. • Verify that the cluster, alternate index, or path was defined with the correct name and in the desired catalog, and that the catalog was correctly assigned. • Verify that a previous Access Method Services DEFINE or DELETE did not fail. Perform a LISTCAT to determine the contents of the catalog you are using.
		X'08'	Request Macros	The maximum number of pointers in the alternate index has been exceeded.
152	X'98'	X'08'	OPEN	Security verification failed: the password specified in the ACB or supplied by the operator for a specific level of access does not match the password in the catalog for that level of access. **Programmer Action:** If you expect the operator to specify the password, ensure that he has the correct password available. If you specified the password in the ACB, change the specification to the correct password. Rerun the job.
		X'08'	Request Macros	Not enough buffers are available to process the request (shared resources only). **Programmer Action:** Retry the request; additional buffers may have been freed.
156	X'9C'	X'08'	Request Macros	One or more records in this CI may contain duplicate data after an addressed GET-with-update. Any duplicates can be eliminated by processing the data set using keyed access.

Error Code Dec	Error Code Hex	Reg 15=	Error Code Issued By	Explanation
160	X'A0'	X'08'	OPEN	One of the following has occurred: • Keyed access was specified for the ACB (in the ACB or the GENCB macro), but the file is entry sequenced. • An attempt was made to load a key-sequenced file with an access type other than keyed. • An attempt was made to access a relative-record file with an access type other than keyed or control interval. • MACRF = LSR (local shared resources) has been specified together with UBF (user buffering). • MACRF = DFR (defer writes) has been specified without LSR (shared resources). • MACRF = DFR has been specified for a file that was defined with SHAREOPTIONS (4). • Both KEY and ADR/CNV access were specified in an ACB being opened for a share option 4 output file. • An attempt was made to access a file for input with conflicting or invalid disposition specified on the job control statements. **Programmer Action:** Determine which of the error causes applies to your job. Correct the conflict and rerun the job.
161	X'A1'	X'08'	OPEN	User buffers (ACB MACRF = UBF) has been specified with keyed or addressed access; user buffers can be specified only with control interval access. **Programmer Action:** Specify ACB MACRF=NUB (no user buffers) or ACB MACRF=CNV (control interval access). Rerun the job.
165	X'A5'	Not zero	CLOSE	A permanent I/O error was detected on the system lock file. **Programmer Action:** Consult with your system programmer to correct the problem. Rerun the job after the system problem is corrected.
		X'08'	OPEN	A permanent I/O error was detected on the system lock file. **Programmer Action:** Consult with your system programmer to correct the problem. Rerun the job after the system problem is corrected.
166	X'A6'	Not zero	CLOSE	The system lock table is not large enough to accommodate the concurrent requests. **Programmer Action:** Rerun your job when there is less concurrent activity in the system.
		X'08'	OPEN	The system lock table is not large enough to accommodate the concurrent requests. **Programmer Action:** Rerun the job when there is less concurrent activity in the system.
167	X'A7'	Not zero	CLOSE	The system lock file is not large enough to accommodate the concurrent requests. **Programmer Action:** Rerun the job when there is less concurrent activity in the system. If this problem recurs often, it may be necessary for your system programmer to provide for a larger lock file using the DLF IPL command.
		X'08'	OPEN	The system lock file is not large enough to accommodate the concurrent requests. **Programmer Action:** Rerun the job when there is less concurrent activity in the system. If this problem recurs often, it may be necessary for your system programmer to move the lock file to a device type that will provide a larger lock file. (See "DLF Command" in *VSE/VSAM Advanced Functions System Control Statements.)*

Error Code Dec	Error Code Hex	Reg 15=	Error Code Issued By	Explanation
168	X'A8'	X'08'	OPEN	The file is not available for one of the following reasons: • It is being updated by and under exclusive control of another ACB. • It is being loaded by and under control of another ACB. • It is being reset by another ACB. • OPEN with RESET was specified in the ACB and the file is being accessed by another ACB. • It was exported with the TEMPORARY and INHIBITSOURCE options and updating is not permitted. • A copy of the file was exported with the INHIBITTARGET option and imported into this system. Updating is not permitted. • It was altered via the ALTER command with the INHIBIT option. • A SAM ESDS is being loaded or extended by another SAM access user (DTF). • A managed-SAM access user (DTF) has attempted to load or extend a SAM ESDS that is in use by another managed-SAM access user (DTF). • The ACB for a SHAREOPTIONS (4) KSDS indicates MACRF = ADR or MACRF = CNV but there are currently other ACBs for the KSDS open for keyed output access, or • The ACB for a SHAREOPTIONS(4) KSDS indicates MACRF = ADR, MACRF = CNV, or MACRF = KEY but there are currently other ACBs open for addressed output or control interval output access. • You attempted to open an ACB for a SHR(4) KSDS using MACRF=(KEY,CNV) or MACRF=(ADR). • The ACB for a SHAREOPTIONS(4) KSDS indicates MACRF = ADR or MACRF = CNV but the SHAREOPTIONS(4) file, which you are attempting to open for output, is already open for output from another processor. Only one processor may do output to a SHAREOPTIONS(4) file at a time. If the system which opened the file has become inoperative, the lock can be released via Attention Routine UNLOCK command. (See *VSE/Advanced Functions Systems Control Statements.)* **Programmer Action:** Determine if the file contention problem is caused within your program. If so, change your program to avoid the contention, or change the file definitions to allow your desired operations. Rerun your job. If you determine the contention is caused by other jobs (either in your system or another system) using the same files as your job, attempt to reschedule your job at a time when contending jobs will not be running.
180	X'B4'	X'08'	OPEN	An error occurred in opening a catalog or CRA. Possible causes for this error code are: • An attempt to get virtual storage failed • An I/O error occurred while VSAM was reading the VTOC • An extent block is not availabe in the system • Unable to assign a logical unit • The system lock table or system lock file is full or an I/O error was detected on the system lock file • More than one volume with the same volume identifier (volume serial number) is mounted on the system. **Programmer Action:** Specify SIZE on the EXEC statement to provide adequate GETVIS space. Ensure that the correct volume was mounted; check your job control statements defining the catalog or CRA for possible errors. Correct any errors and rerun the job. If the error occurred although the correct volume was mounted and there was no job control error, restore the catalog by using a backup copy or the catalog recovery function.
184	X'B8'	Not zero	CLOSE	An internal error occurred in a VSAM routine while VSAM was completing I/O requests. **Programmer Action:** Ensure that your program issues a DUMP macro when this type of error occurs. Save the dump you obtain for later problem determination.

Error Code Dec	Hex	Reg 15=	Error Code Issued By	Explanation
188	X'BC'	Not zero	CLOSE	The ACB to be closed is currently being used; (for example, by a SHOWCB or TESTCB macro).
		X'08'	OPEN	The ACB to be opened is already being used. **Programmer Action:** Only one OPEN, CLOSE, or Control Block Manipulation macro may use an ACB at a time. Change your program to avoid task contention for the ACB. Rerun the program.
192	X'C0'	X'08'	OPEN	The file to be opened for output was found to be unusable (catalog entry marked not usable) because (a) catalog recovery for this file failed, or (b) DELETE SPACE with FORCE has deleted a volume required by the file. **Programmer Response:** Do one of the following: • Correct the problem that caused the preceding catalog recovery operation to fail. • Use Access Method Services EXPORTRA command to export the file for subsequent reimportation. • Redefine and reload the file.
		X'08'	Request Macros	VSAM encountered an invalid relative-record number.
196	C4	X'08'	OPEN	Access to data was requested via an empty alternate index.
		X'08'	Request Macros	An addressed request was issued for a relative-record file. **Programmer Action:** Use Access Method Services BLDINDEX command to initialize the alternate index. Rerun the job.
200	X'C8'	X'08'	Request Macros	An addressed or control-interval access is attempted via a path.
204	X'CC'	X'08'	Request Macros	The program issued a PUT to insert a record while in backward mode.
208	X'D0'	X'08'	Request Macros	For SHAREOPTIONS(4), a lock required for update or insert processing is held in exclusive control by another ACB. The other ACB is not in communication with the ACB under which the current request has been processed; however, the other ACB is being executed under the same VSE task. **Programmer Action:** One of the following techniques can be used to alleviate the problem: • Allow the processing of the request under the other ACB to be completed and then retry the failed request. • Merge the processing that was two ACBs so that only one ACB is required. (However, this can result in error code X'14' when the same situation occurs.) • Run both ACBs under Local Shared Resources so that they will be in communication with each other. (However, this can result in error code X'14' when the same situation occurs.) • Run each ACB under a separate VSE task.
212	X'D4'	X'08'	OPEN	ACB MACRF = LSR (local shared resources) is specified, but the file being opened is empty (which implies that the file will be loaded).
		X'08'	Request Macros	VSAM received a return code from the LOCK macro indicating that there is no space in the lock table to make a lock entry. **Programmer Action:** Use another program to load the file or specify ACB MACRF = NSR (non-shared resources) until the file is loaded.

Error Code Dec	Error Code Hex	Reg 15=	Error Code Issued By	Explanation
216	X'D8'	X'08'	OPEN	ACB MACRF = LSR (local shared resources) is specified, but the key length of the file being opened is greater than the maximum key length specified in BLDVRP for the resource pool. **Programmer Action:** Change your program to build a resource pool that can accommodate the key length of the file being opened. Rerun the job.
		X'08'	Request Macros	For SHAREOPTIONS(4), the file size is too large for the control area size. Specifically, this condition is diagnosed under the following circumstances: • The request would cause a control area to be allocated whose RBA would be greater than 64511 multiplied by the control area size in bytes. • The request would cause a sequence set record to be allocated whose RBA (within the index component) would be greater than 64511 multiplied by the size of the index control interval. • A GET UPD or PUT NUP request is for a control area whose data RBA is greater than 64511 multiplied by the control area size in bytes, or whose sequence set RBA (within the index component) is greater than 64511 multiplied by the size of the index control interval. This circumstance could occur only if the file was built to a larger size with a sharing option other than SHAREOPTIONS(4), and then altered (via the ALTER command) to SHAREOPTIONS(4). This will not restrict files that use a max-CA for the control area size. Only if very large files were generated using a control area size significantly smaller than a max-CA would there be a danger of violating this restriction. **Programmer Action:** Regenerate the file specifying a larger primary and/or secondary allocation in the Access Method Services DEFINE command, so that a larger control area size will be used by VSAM.
220	X'DC'	X'08'	OPEN	ACB MACRF = LSR (local shared resources) is specified, but the control interval size of the file being opened is greater than the largest buffer size specified in BLDVRP for the resource pool. **Programmer Action:** Change your program to build a resource pool that can accommodate the key length of the file being opened. Rerun your job.

Error Code Dec	Error Code Hex	Reg 15=	Error Code Issued By	Explanation
228	X'E4'	Not zero	CLOSE	The VSAM shared resource table (IKQVSRT) ID is invalid. **Programmer Action:** Take a system dump, contact your IBM Support Center and have the dump output, SYSLOG output, and a copy of the job stream available for problem determination.
		X'08'	OPEN	ACB MACRF = LSR (local shared resources) is specified, but there is no resource pool defined. There may have been problems in loading the resource table. **Programmer Action:** Change your program to build the resource pool before attempting to open any ACB that uses local shared resources. Rerun your job.
232	X'E8'	X'08'	OPEN	ACB MACRF = RST (reset) was specified for a non-reusable file and that file is not empty. Reset specification can result from MACRF = RST in your ACB, open disposition of NEW, or close disposition of DELETE in your DLBL statement. **Programmer Action:** Change the reset specification and rerun your job.
248	X'F8'	X'08'	OPEN	IKQLAB or IKQSMVRJ (VSE/VSAM Space Management for SAM Feature) passed an invalid parameter list to the LABEL or EXTRACT macro. This is probably a system error. **Programmer Action:** Take a system dump, contact your IBM Support Center, and have the dump output, SYSLOG output, and a copy of the job stream available for problem determination.
252	X'FC'	Not zero	CLOSE	Automatic close of a DTF for a managed-SAM file failed.
254	X'FE'	Not zero	CLOSE	CLOSE detected an unexpected return code from the lock manager. **Note:** VSAM provides an IDUMP of the region containing the VSAM control blocks, provided the SYSDMP is created and assigned. **Programmer Action:** Rerun your job. If the problem persists print the dump from the SYSDMP. (Refer to *VSE/VSAM Programmer's Reference* for interpretation of the IDUMP output.) Contact your IBM Support Center. You may wish to have the following available for problem determination: • IDUMP output • Storage dump of the supervisor lock tables • A dump of the lock file if one was specified at IPL time • SYSLOG output • Job stream
		X'08'	OPEN	OPEN detected an unexpected return code from the lock manager. **Note:** VSAM provides an IDUMP of the region containing the VSAM control blocks, provided the SYSDMP is assigned. **Programmer Action:** Rerun your job. If the problem persists print the dump from the SYSDMP. (Refer to *VSE/VSAM Access Method Services Logic* for interpretation of the IDUMP output.) Contact your IBM Support Center. The following may be helpful for problem determination. • IDUMP output • Storage dump of the supervisor lock tables • A dump of the lock file if one was specified at IPL • SYSLOG output • Job stream

Error Code Dec	Error Code Hex	Reg 15=	Error Code Issued By	Explanation
255	X'FF'	Not zero	CLOSE	An unexpected error occurred during catalog processing. The most common problems are: 1 Not enough partition GETVIS space. 2 Not enough programmer logical units for the partition. 3 Not enough extent blocks. 4 An error may have occurred during Lock Manager processing. **Note:** VSAM provides an IDUMP of the region containing the VSAM control blocks, provided the SYSDMP is assigned. **Programmer Action:** If you are using a recoverable catalog, check that all required EXTENT statements are present and correct, and that sufficient storage is available. If you suspect the problem is one of those listed above, perform the corresponding action: 1 Specify SIZE=AUTO on the EXEC statement to increase the size of the GETVIS area. If this does not work, rerun the job in a larger partition. 2 If this is a multi-step job, either divide it into separate jobs or provide ASSGN statements instead of simplified JCL. If you cannot separate the job into smaller jobs, SYSGEN a new supervisor with more programmer logical units (IOTAB xxPRG SYSGEN macro). 3 Specify the SYS EXTENT= command to increase the amount of space allocated for extent blocks. 4 Refer to Appendix B, return code 246, reason codes 8, 28, and 36. If the problem persists print the dump from the SYSDMP. (Refer to *VSE/VSAM Access Method Services Logic* for interpretation of the IDUMP output.) Contact your IBM Support Center and make IDUMP output, the SYSLOG output, and job stream available for problem determination. To assist in problem diagnosis, you might wish to run a SNAP dump 0001, as described in the "Diagnostic Aids" section of *VSE/VSAM VSAM Logic*, Volume 1 or Volume 2.
		X'08'	OPEN	Same explanation as for CLOSE.

Appendix B: Access Method Services Return and Reason Codes

This appendix lists and explains all Access Method Services return and reason codes that may be displayed as part of messages IDC0508I - IDC0511I, IDC3007I, and IDC3323I (return codes only) or IDC3009I and IDC3324I. These messages always display the return and reason codes in decimal. These return and reason codes are the result of an Access Method Services request to VSAM catalog management (that is, define, alter, delete, locate, and catalog open).

This appendix recommends a programmer action, except when the reason code indicates a system error. In this case, a reference to the paragraph below is given. Unless the description indicates otherwise, the catalog management request was not performed.

The module names where the error codes are issued are listed in the explanation column. You may ignore these names as they are included here for the convenience of the programming support representative in debugging.

System Errors

If DELETE processing fails, issue a DELETE IGNOREERROR command to remove any partial catalog data that remains from the interrupted DELETE job.

If DEFINE processing fails, issue a DELETE IGNOREERROR command to remove any partial catalog data that remains from the interrupted DEFINE job. Then resubmit the DEFINE job.

If the error persists, or if the failure did not occur during DELETE or DEFINE, do the following (unless explicitly stated otherwise):

1. Save the failing job or job-step input (cards or listing).
2. Save the SYSLST output and, if at all possible, the SYSLOG output for problem determination.
3. If standard (permanent) label information was used, execute LSERV and save the SYSLST output.
4. If message 11511 appears on a SYSLOG or SYSLST, print the identified dump from SYSDMP. A dump is only generated for errors that refer to this step and if SYSDMP is assigned.
5. Contact your IBM Support Center.

Return Code Decimal	Reason Code	Explanation
0	4	**System Error:** See "System Errors" at the front of this appendix. This is a warning. A record was read from the deleted free chain, but it was not a free (type 'F') record. VSAM assumed that the free chain was damaged and removed it. The records on that chain are lost. The deleted free chain is now empty but useable. Records will be added to it in the normal manner. This kind of breakage usually results from a system failure during catalog operations. **Module Where Issued:** IGGOCLAG
	8	**System Error:** See "System Errors" at the front of this appendix. This is a warning. The unallocated free chain pointed to a record that already existed (for example, was not allocated). Recovery was performed and this record was bypassed. This kind of problem usually results from a system failure during catalog operations. **Module Where Issued:** IGGOCLAG
4	2	**Cause:** An error occurred while a catalog was being opened. **Programmer Action:** Check the SYSLOG output for the error code given in message 4228I. This error code is issued by VSAM OPEN, and is explained in Appendix A. **Module Where Issued:** IGGOCLAC, IGGOCLAD , IGGOCLAE, IGGOCLAH
	4	**Cause:** An error occurred while a catalog was being closed. **Programmer Action:** Check the SYSLOG output for the error code given in message 4228I. This error code is issued by VSAM CLOSE, and is explained in Appendix A. **Module Where Issued:** IGGOCLAE, IGGOCLCS
	8	System error; see "System Errors" at the front of this appendix. (Note step 4.) This is an internal error; an ACB was supplied to catalog management but its ID was not X'A0'. An IDUMP was issued. This error can also occur when a problem program overlays storage it does not own. **Module Where Issued:** IGGOCLAH
	10	**Cause:** The user catalog entry in the master catalog cannot be found. **Programmer Action:** Check the following possible causes for the error, make the necessary corrections, and rerun the job: • If you have more than one more master catalog, check whether the correct one was used during IPL. • Make sure that the spelling of the catalog name is correct. • Use the LISTCAT command to check whether the user catalog has been exported or otherwise deleted. **Module Where Issued:** IGGOCLAH
8	2	System error; see "System Errors" at the front of this appendix. (Note step 4.) During catalog DELETE, the cluster record for the catalog could not be found at its normal location (third self-describing record). An IDUMP was issued. **Module Where Issued:** IGGOCLAF

Return Code Decimal	Reason Code	Explanation
	4	**Cause:** The catalog I/O routine has read a free record from the catalog. **Programmer Action:** This error may result when an uncompleted Access Method Services delete operation leaves partial structures in the catalog. Add IGNOREERROR to the DELETE command, and resubmit it. If the error did not result from a delete operation, contact your IBM Support Center. If message 11511 appears on SYSLOG or SYSLST, print the identified dump from SYSDMP before calling your IBM Support Center. **Module Where Issued:** IGGOCLEG
	6	**Cause:** A request to read a record produced a no-record-found condition in VSAM. For IMPORT or IMPORTRA, you attempted to import a cluster or alternate index into a catalog when the data or index component name is already in the catalog. **Programmer Action:** Check the following possible causes for the error, make the necessary corrections, and rerun the job: • The entry name may be incorrectly spelled. • An incorrect entry type may have been specified for a DELETE command. • The catalog being searched may not contain the name you specified. The catalog being searched is determined by the CAT parameter in the DLBL statement, by the CATALOG parameter in an Access Method Services command, or by the specification of a job catalog (IJSYSUC filename in DLBL). The master catalog (filename IJSYSCT) is the default if none of the above is specified. Execute LISTCAT ENTRIES (entryname) to determine if the object and its object type are in the catalog. The only Access Method Services commands that use the DLBL CAT operand to specify a private user catalog are the PRINT, REPRO, VERIFY, and DELETE ERASE commands. • If this error occurred on an IMPORT or IMPORTRA command, take appropriate action to ensure that the imported data and index component names do not match existing catalog entry names. **Module Where Issued:** IGGOCLCG, IGGOCLAN, IGGOCLBG, IGGOCLBN
	8	**Cause:** A request to place a record by key into a catalog resulted in a duplicate key error. **Programmer Action:** Check that the spelling of the entryname is correct, and that you are using the correct catalog. Make sure that a data or index component does not have the same entryname as a cluster. Execute LISTCAT ENTRIES (entryname) to determine if the object and its object type are in the catalog. **Module Where Issued:** IGGOCLAL, IGGOCLAT, IGGOCLBD, IGGOCLCA, IGGOCLCG
	12	System error; see "System Errors" at the front of this appendix. (Note step 4.) This internal error indicates that a record thought to be on the buffer chain is not present. An IDUMP was issued. **Module Where Issued:** IGGOCLCB
	14	**Cause:** A free record was read during an Access Method Services DELETE operation. **Programmer Action:** A partial structure in the catalog caused the error. An example of a partial structure is a cluster for which no cluster-level records exist, even though data and index records are present. This can happen if a system failure occurs during catalog update for a DEFINE or DELETE command. Specify IGNOREERROR on the DELETE command and ISSUE the DELETE. If the failing command is DEFINE, rerun the DEFINE. **Module Where Issued:** IGGOCLCB

Return Code Decimal	Reason Code	Explanation
16	0	**Cause:** The CYLINDER parameter was specified in the Access Method Services DEFINE command or in an internal define for an IMPORT(RA) command (for a unique file), but (a) the ORIGIN parameter value does not begin on a cylinder boundary or (b) for the file parameter the extents found on the corresponding DLBL and EXTENT statements either do not start or do not end on a cylinder boundary. During processing of a DEFINE command, this error can only occur for a master catalog, a user catalog, a VSAM data space, or a cluster or alternate index with the UNIQUE attribute. **Programmer Action:** Correct the ORIGIN parameter or the EXTENT statement(s) to reflect cylinder boundaries for the device type identified by the volume serial number parameter, or, for define space or catalog, use the TRACKS or RECORDS parameter to specify space allocation. Then rerun the command. Note that the extents for components with unique allocation must be on cylinder boundaries. **Module Where Issued:** IGGOCLET, IGGOCLFF
20	all	**Cause:** The catalog or the catalog recovery area is full. There is insufficient VSAM space of the required class to allow secondary allocation on the volume in which the catalog or CRA resides, or the maximum number of extents (16) has been reached. **Programmer Action:** The decimal reason code in the secondary message is from a VSAM request macro. Refer to "Appendix A: Error Codes from Request Macros." Scratch nonVSAM files no longer needed from the volume, then submit a DEFINE SPACE command to make additional VSAM data space of the required class available; and/or delete VSAM files, path entries, or nonVSAM entries no longer needed; or delete and redefine an available VSAM data space, changing the class to that required for the catalog. If the catalog has reached 16 extents, EXPORT(RA) all objects in the catalog, DELETE SPACE FORCE all volumes owned by the catalog, redefine the catalog with a larger primary or secondary allocation, DEFINE SPACE(s) on all volumes, and IMPORT(RA) all objects previously exported. LISTCAT will tell you the space class of the catalog; CRAs can be suballocated into any space class. Then rerun the command. **Module Where Issued:** IGGOCLCG
24	2	**Cause:** An I/O error occurred while an attempt was being made to read (LOCATE) information from the catalog. **Programmer Action:** Check messages 4222I, 4223I, and 4224I in the output from SYSLOG. If the problem was not caused by a hardware error, you must restore or rebuild the catalog. **Module Where Issued:** IGGOCLAG, IGGOCLAZ, IGGOCLCG
	4	**Cause:** An I/O error occurred during a catalog verify operation. **Programmer Action:** Check messages 4222I, 4223I, and 4224I in the output from SYSLOG. If the problem was not caused by a hardware error, you must restore or rebuild the catalog. **Module Where Issued** IGGOCLC9

Return Code Decimal	Reason Code	Explanation
28	2	**Cause:** An I/O error occurred while an Access Method Services command that required a modification to the catalog was being processed. **Programmer Action:** Check messages 4222I, 4223I, and 4224I in the output from SYSLOG. If the error, as identified from Appendix A, indicates damaged data, you must restore or rebuild the catalog. A LISTCAT ALL of the catalog can assist you in determining what damage exists, and what entries are still accessable. **Module Where Issued:** IGGOCLAG, IGGOCLBG
	4	**Cause:** An I/O error occurred while an OPEN for an existing catalog was being executed. **Programmer Action:** Check messages 4222I, 4223I, and 4224I in the output from SYSLOG. If the problem indicates a media error, you must restore or rebuild the catalog. **Module Where Issued:** IGGOCLAG, IGGOCLCG, IGGOCLEG
32	2	System error; see "System Errors" at the front of this appendix. (Note step 4.) This internal error indicates that catalog management was unable to return the data requested in the catalog parameter list (CPL) for update extend. An IDUMP was issued. **Module Where Issued:** IGGOCLBC
36	2	**Cause:** The record type for the file name read by the ALTER command was not valid. **Programmer Action:** Check that the correct name is specified in the ALTER command, and rerun the command. **Module Where Issued:** IGGOCLBD
	4	**Cause:** The ALTER NEWNAME command for a unique data or index component could not find the old name in the volume table of contents. **Programmer Action:** Ensure that the correct volumes are mounted. Execute the LVTOC program against the volume(s). If the VTOC entry cannot be found, delete the file and reload it from a backup copy. **Module Where Issued:** IGGOCLBN
40	0	**Cause:** A request for virtual storage was made to allow VSAM catalog management to return catalog information, but insufficient storage was available. **Programmer Action:** Rerun the command in a larger partition. **Module Where Issued:** IGGOCLAL, IGGOCLBG, IGGOCLAZ, IGGOCLCX
44	2	System error; see "System Errors" at the front of this appendix. It has been detected during DELETE CATALOG that the catalog work area is too small. Access Method Services has to provide a larger area. **Module Where Issued:** IGGOCLAF

Return Code Decimal	Reason Code	Explanation
48	2	System error; see "System Errors" at the front of this appendix. (Note step 4.) An invalid catalog parameter list (CPL) has been passed to the catalog management driver. An IDUMP was issued. **Module Where Issued:** IGGOCLAB
	4	System error; see "System Errors" at the front of this appendix. (Note step 4.) During DEFINE, an incorrect master catalog ACB was found. An IDUMP was issued. **Module Where Issued:** IGGOCLET
	6	**Cause:** An attempt other than NEWNAME was made, using an Access Method Services ALTER command, to alter a nonVSAM file. **Programmer Action:** Except for NEWNAME, the Access Method Services ALTER command is not valid for nonVSAM files. Delete the entry and redefine it. **Module Where Issued:** IGGOCLBD
	8	**Cause:** An attempt was made to change a catalog name using the ALTER command. **Programmer Action:** The catalog name cannot be changed. Check that you did not specify the catalog name by mistake. If you wish to rename the catalog, delete it and redefine it with the new name. **Module Where Issued:** IGGOCLBD
	20	**Cause:** The FORCE parameter was specified in a DELETE SPACE command for a catalog volume. You cannot delete non-empty data spaces on a catalog volume. **Programmer Action:** The FORCE parameter is invalid when specified in a DELETE SPACE command for a volume containing a catalog. Delete all VSAM files on the volume that you want deleted. If you wish to delete the catalog, you must delete all entries in it first. Then issue a DELETE SPACE command without the FORCE parameter. **Module Where Issued:** IGGOCLBL, IGGOCLCL
	34	**Cause:** ERASE was specified on a DELETE request for a NOCIFORMAT SAM ESDS. DELETE was not executed. **Programmer Action:** Remove the ERASE parameter and rerun the DELETE command. **Module Where Issued:** IGGOCLGB
52	4	**Cause:** An I/O error occurred during the reading of the VOL Label. **Programmer Action:** Check the SYSLOG I/O error message. Run the Assign Alternate Track (CKD device) or Assign Alternate Block (FBA device) utility program, and restore the volume from a backup copy. **Module Where Issued:** IGGOCLA7, IGGOCLBD, IGGOCLBN, IGGOCLA6, IGGOCLFD, IGGOCLBU
	8	**Cause:** The EXTENT statement specifies a volume that is not mounted, or the SYSxxx number is not assigned. **Programmer Action:** Either mount the correct volume, or change the EXTENT statement SYSxxxx specification. **Module Where Issued:** IGGOCLA7, IGGOCLBD, IGGOCLBN, IGGOCLA6, IGGOCLFD, IGGOCLBU

Return Code Decimal	Reason Code	Explanation
	12	**Cause:** An I/O error occurred during reading or writing of a VTOC label. **Programmer Action:** Check the SYSLOG I/O error message. Run the Assign Alternate Track (CKD device) or Assign Alternate Block (FBA device) utility program, and restore the volume from a backup copy. **Module Where Issued:** IGGOCLA7, IGGOCLBD, IGGOCLBN, IGGOCLA6, IGGOCLFD, IGGOCLBU
	16	**Cause:** A duplicate name was found during a write to the VTOC. **Programmer Action:** This is a system error. Rerun the job. If the error recurs, contact your IBM Support Center. **Module Where Issued:** IGGOCLA7, IGGOCLBD, IGGOCLBN, IGGOCLA6, IGGOCLFD, IGGOCLBU
	20	**Cause:** The VTOC is full. No more VTOC labels can be written on this volume. **Programmer Action:** Perform one of the following: • Delete some nonVSAM files from this volume to free up VTOC entries. • Use another volume. • Delete some unique VSAM files from this volume to free up VTOC entries. • Reinitialize the volume, specifying a larger VTOC. **Module Where Issued:** IGGOCLA7, IGGOCLBD, IGGOCLBN, IGGOCLA6, IGGOCLFD, IGGOCLBU
	28	**Cause:** The specified extents overlap those of an unexpired file. **Programmer Action:** Do each of the following to find where the extents overlap: • Compare the ORIGIN parameter plus the space allocation parameters with the high and low extents specified on the VTOC display. • Compare the high and low extent limits defined by the FILE parameter on the EXTENT statement with the extent limits specified on the VTOC display. • If the extent limits are contained in the label area, do an LSERV to find those limits and compare them with the extent limits on the VTOC display. If the extents overlap, connect the EXTENT statement or ORIGIN parameter in error and rerun the job. **Module Where Issued:** IGGOCLA7, IGGOCLBD, IGGOCLBN, IGGOCLA6, IGGOCLFD, IGGOCLBU
	32	**Cause:** The specified extents overlap those of a protected, unexpired file. **Programmer Action:** Do each of the following to find where the extents overlap: • Compare the ORIGIN parameter plus the space allocation parameters with the high and low extents specified on the VTOC display. • Compare the high and low extent limits defined by the FILE parameter on the EXTENT statement with the extent limits specified on the VTOC display. • If the extent limits are contained in the label area, do an LSERV to find those limits and compare them with the extent limits on the VTOC display. If the extents overlap, connect the EXTENT statement or ORIGIN parameter in error and rerun the job. **Module Where Issued:** IGGOCLA7, IGGOCLBD, IGGOCLBN, IGGOCLA6, IGGOCLFD, IGGOCLBU

Return Code Decimal	Reason Code	Explanation
	36	**Cause:** The specified extents overlap those of the VTOC. **Programmer Action:** Execute LVTOC. The format-4 VTOC label (the first label in the VTOC display) contains the extent limits of the VTOC. If the program being executed uses a temporary label set and overlaps the VTOC, correct the ORIGIN parameter plus the space allocation parameters, or the FILE parameters, or the EXTENT statements that overlap. If the job uses standard or partition-standard labels, execute LSERV and use the output to correct the extents of the overlapping file, VSAM data space, or UNIQUE VSAM file. Then rebuild the appropriate label tracks. **Module Where Issued:** IGGOCLA7, IGGOCLBD, IGGOCLBN, IGGOCLA6, IGGOCLFD, IGGOCLBU
	40	**Cause:** No extents were specified, or zero extents resulted from the rounding of the FBA extent specification. **Programmer Action:** Rerun the job, specifying extents. For FBA devices, increase the extent limits. **Module Where Issued:** IGGOCLA7, IGGOCLBD, IGGOCLBN, IGGOCLA6, IGGOCLFD, IGGOCLBU
	44	**Cause:** A format-1, or the next label was not found on a VTOC read request. **Programmer Action:** This is a system error. Rerun the job. If the error recurs, contact your IBM Support Center. **Module Where Issued:** IGGOCLA7, IGGOCLBD, IGGOCLBN, IGGOCLA6, IGGOCLFD, IGGOCLBU
	48	**Cause:** An invalid label address was found during VTOC processing. **Programmer Action:** Reinitialize the VTOC, or eliminate the VTOC labels having invalid chain pointers. **Module Where Issued:** IGGOCLA7, IGGOCLBD, IGGOCLBN, IGGOCLA6, IGGOCLFD, IGGOCLBU
	56	**Cause:** The specified extents overlap those of a protected expired file. **Programmer Action:** Compare the high and low extent limits on the ORIGIN parameter plus the allocation parameter or the FILE parameters, or the high and low extent limits on the EXTENT statement or LSERV output with the file or data space limits on the VTOC display. If the extents overlap, correct the EXTENT statement in error. **Module Where Issued:** IGGOCLA7, IGGOCLBD, IGGOCLBN, IGGOCLA6, IGGOCLFD, IGGOCLBU
	64	**Cause:** A GETVIS failure occurred. **Programmer Action:** Allocate more GETVIS space,or rerun the job in a larger partition. **Module Where Issued:** IGGOCLA7, IGGOCLBD, IGGOCLBN, IGGOCLA6, IGGOCLFD, IGGOCLBU
	68	**Cause:** Security violation. **Programmer Action:** This is a system error. Rerun the job. If the error recurs, contact your IBM Support Center. **Module Where Issued:** IGGOCLA7, IGGOCLBD, IGGOCLBN, IGGOCLA6, IGGOCLFD, IGGOCLBU

Return Code Decimal	Reason Code	Explanation
	72	**Cause:** CDLOAD failed. **Programmer Action:** Rerun the job in a larger partition. If this does not work, determine if IKQVLAB is in the core image library before contacting the IBM Support Center. **Module Where Issued:** IGGOCLA7, IGGOCLBD, IGGOCLBN, IGGOCLA6, IGGOCLFD, IGGOCLBU
	76	**Cause:** Invalid VTOC share options. **Programmer Action:** This is a system error. Rerun the job. If the error recurs, contact your IBM Support Center. **Module Where Issued:** IGGOCLA7, IGGOCLBD, IGGOCLBN, IGGOCLA6, IGGOCLFD, IGGOCLBU
	80	**Cause:** The specified extents overlap each other. **Programmer Action:** If DLBL and EXTENT statements are included in the program, determine the conflicting extents and correct them. If a standard label set is being used, execute LSERV and use the output to locate and correct the conflicting file extents. Then rebuild the standard label extents. **Module Where Issued:** IGGOCLA7, IGGOCLBD, IGGOCLBN, IGGOCLA6, IGGOCLFD, IGGOCLBU
	84	**Cause:** The caller supplied a work area that is too small. **Programmer Action:** This is a system error. Rerun the job. If the error recurs, contact your IBM Support Center. **Module Where Issued:** IGGOCLA7, IGGOCLBD, IGGOCLBN, IGGOCLA6, IGGOCLFD, IGGOCLBU
	88	**Cause:** The format-4 VTOC label was not found. **Programmer Action:** Reinitialize the VTOC to create a format-4 VTOC label. **Module Where Issued:** IGGOCLA7, IGGOCLBD, IGGOCLBN, IGGOCLA6, IGGOCLFD, IGGOCLBU
	92	**Cause:** VOL 1 label not found. **Programmer Action:** Reinitialize the volume. **Module Where Issued:** IGGOCLA7, IGGOCLBD, IGGOCLBN, IGGOCLA6, IGGOCLFD, IGGOCLBU
	96	**Cause:** Extent block processing failed. **Programmer Action:** Restructure your program so that fewer files are open concurrently, and rerun the job. **Module Where Issued:** IGGOCLA7, IGGOCLBD, IGGOCLBN, IGGOCLA6, IGGOCLFD, IGGOCLBU

Return Code Decimal	Reason Code	Explanation
	104	**Cause:** A LOAD failure occurred for the common VTOC handler phase ($IJJHCVH). **Programmer Action:** Ensure that $IJJHCVH exists in the core image library and is listed in the IPL load list ($SVABAM). Then relPL to get $IJJHCVH loaded into the SVA. **Module Where Issued:** IGGOCLA7, IGGOCLBD, IGGOCLBN, IGGOCLA6, IGGOCLFD, IGGOCLBU
	108	**Cause:** Labels read are not Format-1 or Format-3 VTOC labels. **Programmer Action:** This is a system error. Rerun the job. If the error recurs, contact your IBM Support Center. **Module Where Issued:** IGGOCLA7, IGGOCLBD, IGGOCLBN, IGGOCLA6, IGGOCLFD, IGGOCLBU
	112	**Cause:** A lock request for the VTOC is inconsistent with a previous lock request. **Programmer Action:** This is a system error. Rerun the job. If the error recurs, contact your IBM Support Center. **Module Where Issued:** IGGOCLA7, IGGOCLBD, IGGOCLBN, IGGOCLA6, IGGOCLFD, IGGOCLBU
	116	**Cause:** A VTOC lock request would result in a deadlock condition. **Programmer Action:** This is a system error. Rerun the job. If the error recurs, contact your IBM Support Center. **Module Where Issued:** IGGOCLA7, IGGOCLBD, IGGOCLBN, IGGOCLA6, IGGOCLFD, IGGOCLBU
	120	**Cause:** An invalid control block was built by the common VTOC handler. **Programmer Action:** This is a system error. Rerun the job. If the error recurs, contact your IBM Support Center. **Module Where Issued:** IGGOCLA7, IGGOCLBD, IGGOCLBN, IGGOCLA6, IGGOCLFD, IGGOCLBU
	124	**Cause:** An I/O error occurred on the System Lock file. **Programmer Action:** Rerun the job. If the error recurs, refer to *VSE/Advanced Functions Diagnosis Reference: Supervisor* for lock file error recovery. **Module Where Issued:** IGGOCLA7, IGGOCLBD, IGGOCLBN, IGGOCLA6, IGGOCLFD, IGGOCLBU
56	2	**Cause:** Despite prompting with message 4221A on SYSLOG to the specified maximum number of attempts, the system operator was not able to supply the correct password. The command omitted the password. **Programmer Action:** Provide the command or operator with the correct password, and rerun the command. **Module Where Issued:** IGGOCLBM
	6	**Cause:** The Access Method Services command omitted the password or did not supply the correct password needed for access to a file or catalog, and no operator prompting was permitted. (See "DEFINE ATTEMPTS" in *Using VSE/VSAM Commands and Macros.*) **Programmer Action:** Either allow operator prompting via the DEFINE or ALTER ATTEMPTS parameter, or specify the correct password in the command. **Module Where Issued:** IGGOCLBM

Return Code Decimal	Reason Code	Explanation
	8	**Cause:** The command either omitted the password or did not specify the master password, and the user-specified verification routine did not authorize access to the file or catalog. (See "DEFINE AUTHORIZATION" in *Using VSE/VSAM Commands and Macros.*) **Programmer Action:** Provide the required password in the command, and/or check the user-specified verification routine. It must set register 15 to zero before returning control to the catalog verification routine if access to the file or catalog is to be allowed. **Module Where Issued:** IGGOCLBM
	12	**Cause:** A DELETE NONVSAM with SCRATCH option (specified or defaulted to) caused a security violation from the VSAM space management scratch routine. The file VTOC entry indicated a data-secured file. **Programmer Action:** A security-protected nonVSAM entry cannot be deleted by VSAM. Specify the NOSCRATCH option when deleting security-protected nonVSAM files. If you wish to scratch the secured file, open a DTF using the same file-ID as that of the secured file, and instruct the operator to reply DELETE to message 4n33A when it is issued. **Module Where Issued:** IGGOCLA7, IGGOCLAQ
60	all	The *programmer action* for all the reason codes listed under this return code is the same: • If the reason code does *not* indicate a system error, ensure that the name of the entry specified in the command is correct, and a valid type for the function requested. Refer to *Using VSE/VSAM Commands and Macros* for the valid entry types for ALTER parameters. Also check that the catalog entry is still valid by performing a LISTCAT run. • If the reason code indicates a system error, you should, before calling your IBM Support Center, list the catalog with the PRINT command using the DUMP option, and save the output together with the SYSLST output for problem determination.
	0	An attempt was made to delete a catalog and no entry type was specified (MASTERCATALOG or USERCATALOG). **Module Where Issued:** IGGOCLBG
	4	**Cause:** Invalid entry type (for example, CLUSTER, AIX, or NONVSAM). **Module Where Issued:** IGGOCLBG, IGGOCLBE
	6	**Cause:** An attempt was made to alter attributes using an invalid entry type (for example, AIX or CLUSTER). **Module Where Issued:** IGGOCLBD
	8	**Cause:** An attempt was made to alter the BUFFERSPACE parameter using an invalid entry (for example, CLUSTER, AIX, or INDEX). **Module Where Issued:** IGGOCLBD
	10	**Cause:** An attempt was made to alter the FREESPACE or WRITECHECK parameters using an invalid entry type (for example, CLUSTER or AIX). **Module Where Issued:** IGGOCLBD

Return Code Decimal	Reason Code	Explanation
	12	**Cause:** An attempt was made to alter volumes using an invalid entry type (not DATA or INDEX). **Module Where Issued:** IGGOCLBE
	14	System error; see "System Errors" at the front of this appendix. (Note step 4.) Test catalog parameter list (CPL) error during ADD volume. An IDUMP was issued. **Module Where Issued:** IGGOCLBE
	16	System error; see "System Errors" at the front of this appendix. AIX G record association is not 'D', 'I', or 'C' (AIX is not a KSDS). **Module Where Issued:** IGGOCLCA, IGGOCLCD
	18	System error; see "System Errors" at the front of this appendix. Upgrade set Y record association is not 'D' or 'I'. **Module Where Issued:** IGGOCLCA, IGGOCLCD
	20	System error; see "System Errors" at the front of this appendix. The 'Y' association in the base cluster data record does not point to a 'Y' record. **Module Where Issued:** IGGOCLCA, IGGOCLCD
	22	System error; see "System Error" at the front of this appendix. The 'D' association in the 'C' record does not point to a 'D' record. **Module Where Issued:** IGGOCLCA, IGGOCLCD
	24	**Cause:** UPGRADE or UPDATE attempted for an entry that is not an alternate index or path respectively. **Module Where Issued:** IGGOCLBD
	26	**Cause:** An attempt has been made to alter EXCEPTIONEXIT, but the entry is not a data or index component. **Module Where Issued:** IGGOCLBD
	28	**Cause:** An attempt was made to alter the average RECORDSIZE, but the entry is not a data or index component. **Module Where Issued:** IGGOCLBD
	30	**Cause:** An attempt was made to alter the expiration date, but the entry is not a cluster, alternate index, path, or catalog. **Module Where Issued:** IGGOCLBD
	32	**Cause:** An attempt was made to use a DELETE, DEFINE, or ALTER command for a nonVSAM entry in a recoverable catalog. VSE does not support nonVSAM entries in recoverable catalogs. **Module Where Issued:** IGGOCLFH
	34	**Cause:** An attempt was made to remove a volume from the list of candidate volumes associated with a NOALLOCATE data set but this volume is either the CRA volume or the last volume on the list. The system removes any volumes in the REMOVEVOLUMES list that can be validly removed. The CRA volume or last volume is not removed. **Module Where Issued:** IGGOCLBE

Return Code Decimal	Reason Code	Explanation
	36	**Cause:** An attempt was made to alter the SHAREOPTIONS value of a file, but the file was open to another user (may be in a shared DASD environment). **Programmer Action:** Rerun the job with the ALTER command specification at a later time (when the file is not in use). **Module Where Issued:** IGGOCLBD
64	2	System error; see "System Errors" at the front of this appendix. The test field name is not present in the data space group occurrence. **Module Where Issued:** IGGOCLBL
	4	System error; see "System Errors" at the front of this appendix. Association names do not exist. **Module Where Issued:** IGGOCLBE
	6	System error; see "System Errors" at the front of this appendix. A system error occurred on retrieval of the fixed block device characteristics for the 'D' or 'I' component during LOCATE of an F-field name. LOCATE issued a 0 return code, but failed to return the request information. **Module Where Issued:** IGGOCLEZ
68	2	**Cause:** An attempt was made to extend a unique VSE file. Only suballocated files (and catalogs) can be extended. **Programmer Action:** A unique file cannot be extended in VSE. Reload the file with larger or more extents, or redefine the file as non-unique and reload it. **Module Where Issued:** IGGOCLBB
	4	**Cause:** The primary allocation has overflowed, and no secondary allocation value was specified. **Programmer Action:** Reload the file, and supply either a secondary space allocation value or a larger primary space value or additional volume(s). **Module Where Issued:** IGGOCLBB
	6	**Cause:** Not enough class-0 space is available on any eligible volume to suballocate space for an existing file (extend function). **Programmer Action:** Provide class-0 space for suballocation in one of the following ways: • Define more class-0 space on the volume. • Delete unused files to make more class-0 space available. • Provide more class-0 space for the file on a new volume using the ADDVOLUMES parameter of the ALTER command. • Decrease the secondary allocation quantity for the file being allocated (or the primary allocation quantity if extending to a new volume). **Module Where Issued:** IGGOCLBB
	12	**Cause:** The limit of 16 extents per volume for a reusable file has been exceeded. **Programmer Action:** Reload the file using one or more of the following: • Larger primary allocation • Larger secondary allocation • Additional volumes. **Module Where Issued:** IGGOCLBB

Return Code Decimal	Reason Code	Explanation
	16	**Cause:** • On a DEFINE SPACE command for data space allocation, rounding of the extent(s) specified in (a) the ORIGIN parameter plus the space allocation parameter, or (b) the FILE parameters in the EXTENT statement(s) resulted in no data space being allocated. If multiple extents were provided, they all rounded to no space allocated. • On a DEFINE, IMPORT, or IMPORTRA of a cluster or alternate index with the UNIQUE attribute for data space allocation, rounding of the first (or only) extent specified in the EXTENT statement(s) caused no data space to be allocated. **Programmer Action:** Correct the relative-block-number parameter or the number-of-blocks parameter in the ORIGIN parameter, BLOCKS or RECORDS command, or the EXTENT statement(s), and rerun the command. Note that if EXTENT relative-block-number and number-of-blocks are both evenly divisible by the min-CA value for the device, no rounding will occur. **Module Where Issued:** IGGOCLAQ, IGGOCLBX
	18	**Cause:** On a data space allocation for a DEFINE catalog, rounding of the space specified in the ORIGIN parameter with the BLOCKS or RECORDS parameters, or in the first (or only) EXTENT statement resulted in no space being allocated. The first extent must be large enough to contain the catalog and the CRA if the catalog is recoverable. **Programmer Action:** Correct the relative-block-number parameter or the number-of-blocks parameter in the command (ORIGIN with BLOCKS or RECORDS), or the EXTENT statement so that the extent is at least large enough to contain the catalog, and if the catalog is recoverable, the CRA. (The CRA requires a space equal to the max-CA value for the device.) Refer to return code 140, reason code 24 for minimum catalog size requirements. Note that, if EXTENT relative-block-number and number-of-blocks are both evenly divisible by the min-CA value for the device, no rounding will occur. **Module Where Issued:** IGGOCLAP
	24	**Cause:** Not enough space of the required class (nonzero) is available on any eligible volume to suballocate space for an existing file (extend function). **Programmer Action:** Provide additional space of the required class for suballocation in one of the following ways, and reload the file: • Define more space of the required class on any eligible volume. • Delete unused files occupying space of the required class. • Provide more space of the required class on a new volume using the ADDVOLUMES parameter of the ALTER command. • Decrease the secondary allocation quantity for the file being allocated (or the primary allocation quantity if extending to a new volume). This requires redefinition of the file. **Module Where Issued:** IGGOCLBB

Return Code Decimal	Reason Code	Explanation
70	2	**Cause:** A space allocation using DEDICATE or default ORIGIN failed because no available space (or sufficiently large available space) could be found on the specified volume. **Programmer Action:** Delete any unneeded space (nonVSAM files, VSAM unique files, or VSAM data space(s)) on the volume and rerun the job. **Module Where Issued:** IGGOCLFD
	4	**Cause:** The define failed because no space was allocated on any of the specified volumes. This will be associated with either message IDC0510I or IDC0511I. **Programmer Action:** Refer to message IDC0510I or IDC0511I and check the allocation and status return code for each volume. If the allocation status return code for message IDC0511I is 70 for any particular volume(s), this means that there was no empty space on this particular volume(s) for allocation. Ensure that there is empty space on the volume(s) and rerun the command. **Module Where Issued:** IGGOCLFD
72	2	**Cause:** Suballocation failed for all of the mounted volumes (of the appropriate type) because sufficient space could not be obtained on the default volume(s) in the volume list. The default volume(s) in the volume list of the corresponding default model that were not mounted are not eligible for suballocation. **Programmer Action:** Ask the operator to mount as many of the unmounted volumes as possible and rerun the command. **Module Where Issued:** IGGOCLFB
	4	**Cause:** The automatic assignment function failed because: • no programmer logical units were available in the partition (assignment statements for SYSnnn use these) • a JIB is not available in the system (temporary assignment statements use these) • the device on which the volume is mounted is reserved (attention routine VOLUMES command) • the device on which the volume is mounted is "down" (job control command DVCDN). **Module Where Issued:** IGGOCLA6, IGGOCLA7, IGGOCLBL, IGGOCLCG
	8	**Cause:** Either an illegal symbolic unit was assigned, or no symbolic unit was assigned. **Programmer Action:** Change the ASSGN or EXTENT statement to provide correct symbolic unit information, or omit the EXTENT symbolic unit parameter. **Module Where Issued:** IGGOCLA6, IGGOCLA7, IGGOCLBL, IGGOCLCG, IGGOCLCO, IGGOCLAH, IGGOCLFQ
	12	**Cause:** The operator requested cancel because he was unable to mount the requested volume. **Module Where Issued:** IGGOCLA6, IGGOCLA7, IGGOCLBL, IGGOCLCG
	16	**Cause:** The operator replied 'NEWPAC' but the volume was not mounted. **Programmer Action:** Check to make sure that the operator has properly mounted the volume and have the operator respecify 'NEWPAC'. **Module Where Issued:** IGGOCLA6, IGGOCLA7, IGGOCLBL, IGGOCLCG, IGGOCLCO, IGGOCLAH

Return Code Decimal	Reason Code	Explanation
	20	**Cause:** Automatic unassign was unsuccessful. **Programmer Action:** None required. **Module Where Issued:** IGGOCLA6, IGGOCLA7, IGGOCLBL, IGGOCLCG, IGGOCLCO, IGGOCLAH
	24	**Cause:** During dynamic assignment, the lock table was full. **Programmer Action:** Rerun the command. If the error recurs, the size of the lock table should be increased via the NRES parameter of the IOTAB SYSGEN macro. See *VSE/Advanced Functions System Generation*. **Module Where Issued:** IGGOCLA6, IGGOCLA7, IGGOCLAH, IGGOCLBL, IGGOCLCG, IGGOCLCO, IGGOCLET, IGGOCLFD, IGGOCLFQ
	28	**Cause:** During dynamic assignment or unassignment, insufficient storage was available. **Programmer Action:** Rerun the command ensuring that sufficient GETVIS storage is available. **Module Where Issued:** IGGOCLA6, IGGOCLA7, IGGOCLAH, IGGOCLBL, IGGOCLCG, IGGOCLCO, IGGOCLET, IGGOCLFD, IGGOCLFQ
74	2	**Cause:** The maximum number of extents per volume (16), or the total number of extents per DEFINE SPACE (225) was reached before the volume was completely dedicated. These extents have been allocated as VSAM data space. **Programmer Action:** If more space is required on the volume, issue another define space with DEDICATE. **Module Where Issued:** IGGOCLFE
80	all	All the reason codes under return code 80 indicate that the object specified in the RELATE parameter of a DEFINE ALTERNATEINDEX command (or the PATHENTRY parameter of a DEFINE PATH command) does not exist, or is incorrect for the type of object being defined. In all cases, the *programmer action* is the same: correct the DEFINE command so that the entry named in the RELATE or PATHENTRY parameter is correct for the type of object being defined; or, for IMPORT(RA), correct the catalog or catalog name so that it contains the required related object for the alternate index.
	0	**Cause:** The entryname specified in the RELATE parameter is reuseable. An alternate index cannot be built over a base cluster that has the REUSE attribute. **Module Where Issed:** IGGOCLCA
	2	**Cause:** The entryname specified in the RELATE parameter is a relative-record file. An alternate index cannot be built over a base cluster that is a relative-record file. **Module Where Issued:** IGGOCLCA
	4	**Cause:** The entryname specified in the RELATE or PATHENTRY parameter does not exist. **Module Where Issued:** IGGOCLCA
	6	**Cause:** The alternate index or path cannot be built over a catalog. **Module Where Issued:** IGGOCLCA, IGGOCLCP

Return Code Decimal	Reason Code	Explanation
	8	**Cause:** The names of the alternate index or path and the related object are identical. **Module Where Issued:** IGGOCLCA
	10	**Cause:** The pointer to a related object of an alternate index or path is missing. **Module Where Issued:** IGGOCLCA, IGGOCLCP
	12	**Cause:** The alternate index is not being built over a base cluster, or the related path object is not a cluster or an alternate index. **Module Where Issued:** IGGOCLCA, IGGOCLCP
	14	**Cause:** An alternate index or path cannot be built over a SAM ESDS. **Programmer Action:** Verify that the related object name specified is correct. If not correct, change the related object name to the one required and rerun the command. **Module Where Issued:** IGGOCLCA, IGGOCLCP
84	0	**Cause:** An attempt to delete an entry failed because the expiration date of the entry has not been reached, and the DELETE or IMPORT command did not specify the PURGE option. **Programmer Action:** If the entry is to be deleted, specify the PURGE option, and rerun the command. **Module Where Issued:** IGGOCLAF, IGGOCLBG
88	0	**Cause:** A catalog recovery area could not be opened. **Programmer Action:** Check SYSLOG output for the reason code returned by VSAM OPEN in message 4228I. This reason code is explained in Appendix A. **Module Where Issued:** IGGOCLCO
	6	**Cause:** The minimum space of one cylinder (CKD device) or the max-CA value (fixed block device) for the catalog recovery area (CRA) has not been provided. **Programmer Action:** Change the DEFINE command space allocation parameters (for the master or user catalog or the VSAM data space) to allow for at least one extra cylinder (CKD device), or to allow extra blocks equal to the max-CA value (fixed block device). **Module Where Issued:** IGGOCLA6
92	0	**Cause:** An attempt was made to extend a file beyond the maximum number of extents. The VSAM file or catalog cannot be extended beyond its current space allocation because it has already reached the maximum number of extents. Sixteen extents are allowed for catalogs, catalog recovery areas, and reusable data sets. A maximum of 123 extents are allowed for all other suballocated files. **Programmer Action:** Check space fragmentation using the LISTCAT command, and use the REPRO command to reduce this fragmentation by redefining, copying, and deleting the old copies of this and other highly-fragmented files. **Module Where Issued:** IGGOCLBB

Return Code Decimal	Reason Code	Explanation
96	0	**Cause:** The key specified for a spanned record is not totally contained within a control interval. **Programmer Action:** Adjust the KEYS parameter, and rerun the command. **Module Where Issued:** IGGOCLBX, IGGOCLCA
	4	**Cause:** The maximum logical record size for spanned records exceeds the control area size. **Programmer Action:** Adjust either the RECORDSIZE parameter or the space allocation primary or secondary parameters, and rerun the command. **Module Where Issued:** IGGOCLCY
	6	**Cause:** The alternate index key for a spanned record within the base cluster is not totally contained within the control interval. **Programmer Action:** Correct the KEYS parameter specification, and rerun the command. **Module Where Issued:** IGGOCLCA
	8	**Cause:** One of the following: • An error has been made in the KEYS parameter. The alternate index key offset plus key length for a base cluster is larger than the record size. • The maximum record size for defining an alternate index is too small. The maximum record size must be at least large enough to hold the base cluster key (or RBA), the alternate index key, plus five bytes of overhead. **Programmer Action:** Correct the parameter specification, and rerun the command. **Module Where Issued:** IGGOCLCA
100	0	**Cause:** An attempt was made to define a unique file in a recoverable catalog, but the volume does not yet contain a catalog recovery area. **Programmer Action:** Verify that the correct catalog and volumes are being referenced. • Define the unique file in a non-recoverable catalog • Using the DEFINE SPACE command, allocate a minimum of one cylinder of VSAM space for the catalog recovery area (CRA) on the volume (CKD device) • Using the DEFINE SPACE command, allocate blocks equal to the VSAM max-CA value for the catalog recovery area (CRA) on the volume (fixed block device). Then rerun the command. **Module Where Issued:** IGGOCLA6
104	0	**Cause:** A DEFINE command attempted to define a master catalog when one already exists and is in use. **Programmer Action:** If you wish to define a new master catalog, either delete the original, or re-IPL with no VSAM master catalog assigned. **Module Where Issued:** IGGOCLAL
108	0	System error; see "System Errors" at the front of this appendix. (Note step 4.) Invalid field name. **Module Where Issued:** IGGOCLAY

Return Code Decimal	Reason Code	Explanation
112	2	System error; see "System Errors" at the front of this appendix. (Note step 4.) Invalid group code in the catalog field parameter list. An IDUMP was issued. **Module Where Issued:** IGGOCLAY
	6	System error; see "System Errors" at the front of this appendix. A fixed block catalog dictionary field name has been used with UPDATE or MODIFY. Fixed block names are valid only with LOCATE and only with non-test catalog field parameter lists. An IDUMP was issued. **Module Where Issued:** IGGOCLBT
120	0	System error; see "System Errors" at the front of this appendix. (Note step 4.) A non-existent field is being modified. **Module Where Issued:** IGGOCLAX
124	2	System error; see "System Errors" at the front of this appendix. Record management returned an invalid return code for RBA. **Module Where Issued:** IGGOCLAG, IGGOCLCG
	4	System error, see "System Errors" at the front of this appendix. Catalog build open processing, but the specified control interval was greater than 9. **Module Where Issued:** IGGOCLAG, IGGOCLEG
	6	System error; see "System Errors" at the front of this appendix. CCR record ('L') read by error. **Module Where Issued:** IGGOCLAG, IGGOCLEG
132	0	**Cause:** The VOLUMES parameter was omitted and an appropriate default model was not found. **Programmer Action:** Either supply a VOLUMES parameter or define the appropriate default model. Also, verify that you specified or defaulted to the correct catalog. There is no pointer to the VOLSER list and the appropriate default model was not found. **Module Where Issued:** IGGOCAL, IGGOCLFC
	2	System error; see "System Errors" at the front of this appendix. No pointer to the VOLSER list. **Module Where Issued:** IGGOCLBH
	4	System error; see "System Errors" at the front of this appendix. No catalog field parameter list to AMDSB of data. **Module Where Issued:** IGGOCLAL
	6	System error; see "System Errors" at the front of this appendix. No catalog field vector table from cluster level. **Module Where Issued;** IGGOCLAL
	8	System error; see "System Errors" at the front of this appendix. No pointer in the catalog field parameter list to the data set attribute. **Module Where Issued:** IGGOCLAL

Return Code Decimal	Reason Code	Explanation
	10	System error; see "System Errors" at the front of this appendix. No catalog field parameter list for the volume space parameters. **Module Where Issued:** IGGOCLAL
	12	System error; see "System Errors" at the front of this appendix. There is no pointer to the expiration date value. **Module Where Issued:** IGGOCLAL
	14	System error; see "System Errors" at the front of this appendix. There is no pointer to the creation date in the catalog field parameter list. **Module Where Issued:** IGGOCLAL
	16	System error; see "System Errors" at the front of this appendix. There is no pointer to the device type in the catalog field parameter list. **Module Where Issued:** IGGOCLBH
	18	System error; see "System Errors" at the front of this appendix. There is no catalog field parameter list in the catalog field vector table. **Module Where Issued:** IGGOCLBH
	20	System errors; see "System Errors" at the front of this appendix. There is no pointer to the work area. **Module Where Issued:** IGGOCLAL
	22	System error; see "System Errors" at the front of this appenix. Ther is no pointer to the password data of the related object. **Module Where Issued:** IGGOCLAL
	24	System error; see "System Errors" at the front of this appendix. Ther is no pointer to the owner ID in the catalog field parameter list. **Module Where Issued:** IGGOCLAL
	26	System error; see "System Errors" at the front of this appendix. Ther is no pointer to the cluster space parameter in the catalog field paramter list. **Module Where Issued:** IGGOCLEX
	28	System error; see "System Errors" at the front of this appendix. There is no pointer to the data space parameter in the catalog field parameter list. **Module Where Issued:** IGGOCLEX
	30	System error; see "System Errors" at the front of this appendix. There is no pointer to the index space parameter in the catalog field parameter list. **Module Where Issued:** IGGOCLEX
	32	System error; see "System Errors" at the front of this appendix. There is no buffersize catalog field parameter list in the catalog field vector table. **Module Where Issued:** IGGOCLAN

Return Code Decimal	Reason Code	Explanation
	34	System error; see "System Errors" at the front of this appendix. There is no buffersize catalog field parameter list in the cluster catalog field vector table. **Module Where Issued:** IGGOCLAN
	36	System error; see "System Errors" at the fornt of this appendix. There is no catalog field parameter list in the index catalog field vector table. **Module Where Issued:** IGGOCLAN
	38	System error; see "System Errors" at the front of this appendix. There is no logical record size catalog field parameter list in the cluster or data catalog field vector table. **Module Where Issued:** IGGOCLCY
	40	System error; see "System Errors" at the front of this appendix. There is no pointer to the data set file sequence number in the volume list catalog field parameter list. **Module Where Issued:** IGGOCLBH
136	2	System error; see "System Errors" at the front of this appendix. There is no length for the volume serial number list. **Module Where Issued:** IGGOCLAL
	4	System error; see "System Errors" at the fornt of this appendix. Missing DNAME parameter with DEFINE UNIQUE FILE. **Module Where Issued:** IGGOCLAL
	6	System error; see "System Errors" at the front of this appendix. The cluster entry name is missing **Module Where Issued:** IGGOCLAL
	8	System error; see "System Errors" at the front of this appendix. The space parameter is missing in the space catalog field vector table. **Module Where Issued:** IGGOCLAL
	10	System error; see "System Errors" at the front of this appendix. The VOLSER list pointer is missing in the space catalog field vector table. **Module Where Issued:** IGGOCLAL
	12	System error; see "System Errors" at the front of this appendix. The DNAME pointer is missing in the space catalog field vector table. **Module Where Issued:** IGGOCLAL
	14	System error; see "System Errors" at the front of this appendix. There is no length in the volume list from the cluster catalog field vector table. **Module Where Issued:** IGGOCLAL

Return Code Decimal	Reason Code	Explanation
	16	System error; see "System Errors" at the front of this appendix. There is no space parameter on the 'C' or 'D' catalog field vector table. **Module Where Issued:** IGGOCLEX
	18	System error; see "System Errors" at the front of this appendix. The average logical record size is missing. **Module Where Issued:** IGGOCLCY
	20	System error; see "System Errors" at the front of this appendix. No key was specified. **Module Where Issued:** IGGOCLAN
	24	system error; see "System Errors" at the front of this appendix. There are no entries in the volume list. **Module Where Issued:** IGGOCLBH
	26	System error; see "System Errors" at the front of this appendix. There are no entries in the device type list. **Module Where Issued:** IGGOCLBH
	28	System error; see "System Errors" at the front of this appendix. The AIX name is missing. **Module Where Issued:**IGGOCLCA
	30	System error; see "System Errors" at the front of this appendix. The path entry name is missing. **Module Where Issued:** IGGOCLCP
140	2	System error; see "System Errors" at the front of this appendix. (Note step 4.) An index catalog field vector table was found for RRDS and ESDS. **Module Where Issued:** IGGOCLAL
	4	**Cause:** The KEYRANGES parameter is invalid for one of the following reasons: • The KEYRANGES parameter is not valid for a catalog define operation. • The values specified for the KEYRANGES parameter were not specified in ascending order. **Programmer Action:** Correct the command and rerun it. **Module Where Issued:** IGGOCLAL
	6	System error; see "System Errors" at the front of this appendix. Keyranges have been found on both the data and cluster catalog field vector tables. **Module Where Issued:** IGGOCLAL
	8	System error; see "System Errors" at the front of this appendix. The work area is too small. **Module Where Issued:** IGGOCLAL

Return Code Decimal	Reason Code	Explanation
	10	System error; see "System Errors" at the front of this appendix. Space parameters have been found on both the cluster and the data catalog field vector tables. **Module Where Issued:** IGGOCLEX
	12	System error; see "System Errors" at the front of this appendix. The buffersize has been specified more than once. **Module Where Issued:** IGGOCLAN
	14	System error; see "System Errors" at the front of this appendix. Average logical record size has been specified on the index catalog field vector table. **Module Where Issued:** IGGOCLCY
	16	System error; see "System Errors" at the front of this appendix. Average logical record is not valid for DEFINE CATALOG. **Module Where Issued:** IGGOCLCY
	18	System error; see "System Errors" at the front of ths appendix. The average logical record size has been specified on the cluster and data catalog field vector tables. **Module Where Issued:** IGGOCLCY
	20	System error; see "System Errors" at the front of this appendix. The keylength specified in the 'D' and 'I' catalog field vector tables is inconsistent. **Module Where Issued:** IGGOCLAN
	22	**Cause:** One of the following errors has occurred: • Multiple lists of volume serial numbers exist, but their entries do not match. • The list of volume serial numbers does not match the list specified in the EXTENT statement. **Programmer Action:** Correct the VOLUMES parameter or the EXTENT statement(s). **Module Where Issued:** IGGOCLAP, IGGOCLAQ

Return Code Decimal	Reason Code	Explanation
	24	**Cause:** You have specified an incorrect value for primary allocation of catalog space. The number you specified is either too large or too small. The minimum space required is: • For 2314 and 3340, 15 tracks with IMBED, 12 tracks with NOIMBED. • For 3330, 3350, and 3375, 9 tracks with IMBED, 6 tracks with NOIMBED. • For 3310, 288 blocks with IMBED, 192 blocks with NOIMBED. • For 3370, 558 blocks with IMBED, 372 blocks with NOIMBED. The maximum space varies according to device, and depends on how much space is already in use on the volume. **Programmer Action:** If extents are used, verify that the first (or only) extent of the data space is large enough to contain the catalog, and that the primary allocation for data space meets the minimum catalog space requirement for the device type. If the extent is on an FBA device and not on a min-CA boundary, VSAM rounds down the allocation value. After rounding the space may not be large enough to contain the catalog. Correct the EXTENT statement or the data space allocation parameter, and rerun the command. If DEDICATE or default ORIGIN is used, verify (by doing a LISTVTOC) that there is an area of contiguous free space large enough to contain the primary size catalog. **Module Where Issued:** IGGOCLAP, IGGOCLET, IGGOCLFE
	26	System error; see "System Errors" at the front of this appendix. The space request type for catalog DEFINE Is invalid. **Module Where Issued:** IGGOCLAL
	28	**Cause:** An unequal number of VOLUMES parameters and FILESEQUENCENUMBERS parameters exist. **Programmer Action:** Correct the input, and rerun the command. **Module Where Issued:** IGGOCLBH
	30	**Cause:** More DEVICETYPES parameters entries exist than VOLUMES parameters. **Programmer Action:** Correct the input, and rerun the command. **Module Where Issued:** IGGOCLBH
	32	**Cause:** An invalid key position was specified for the CLUSTER, ALTERNATEINDEX, or DATA parameters. **Programmer Action:** Correct the key position, and rerun the command. **Module Where Issued:** IGGOCLAN
	34	System error; see "System Errors" at the front of this appendix. (Note step 4.) The space request type on DEFINE is invalid. **Module Where Issued:** IGGOCLBX

Return Code Decimal	Reason Code	Explanation
	36	**Cause:** The number of KEYRANGES and the number of volumes are not equal. For a unique data component, the number of KEYRANGES is greater than the number of volumes. **Programmer Action:** If SYSLOG is available, check for message 42xx indicating that an error occurred while trying to allocate space to one of the volumes. Correct the input, and rerun the command. **Module Where Issued:** IGGOCLAJ, IGGOCLET
	38	System error; see "System Errors" at the front of this appendix. A unique attribute is not allowed for catalog DEFINE. **Module Where Issued:** IGGOCLAL
	42	**Cause:** A relative record (NUMBERED) file has a spanned attribute. **Programmer Action:** Remove the spanned attribute, and rerun the command. **Module Where Issued:** IGGOCLAL
	44	**Cause:** A relative record file has a maximum record length which is not equal to the average record length. **Programmer Action:** Correct the RECORDSIZE parameters, and rerun the command. **Module Where Issued:** IGGOCLAL
	46	**Cause:** EXCEPTIONEXIT was specified for a VSAM entry created prior to the installation of DOS/VS Release 31. **Programmer Action:** The EXCEPTIONEXIT parameter cannot be specified in the ALTER command for VSAM file catalog entries created prior to the installation of DOS/VS Release 31. You can create a new copy of the file using REPRO or EXPORT/IMPORT, and rerun the command. **Module Where Issued:** IGGOCLBD
	48	**Cause:** TRACKS or CYLINDERS has been specified in a DEFINE command for a fixed block device. If Generate Volume List was used, the allocation unit indicated a CKD device but there were no CKD devices on the default model. **Programmer Action:** Verify that you did not select the wrong device type by specifying the wrong catalog or volume serial number. If you are using a fixed block device, you must convert TRACKS or CYLINDERS to BLOCKS or RECORDS. Make the necessary job control and/or command changes, and rerun the command. If Generate Volume List was used, insure that there are CKD devices in the Default Model Volume List and that at least one CKD device is mounted. **Module Where Issued:** IGGOCLET, IGGOCLEX, IGGOCLFB
	50	**Cause:** BLOCKS has been specified in a DEFINE command for a CKD device. BLOCKS may only be specified for fixed block devices. If Generate Volume List was used, the allocation unit indicated a FBA device but there are no FBA devices on the default model. **Programmer Action:** Verify that you did not select the wrong device type by specifying the wrong catalog or volume serial number. If CKD was intended, you must convert BLOCKS to TRACKS, CYLINDERS, or RECORDS. Make the necessary job control and/or command changes, and rerun the command. If Generate Volume List was used, insure that there are FBA devices in the Default Model Volume List and that at least one FBA device is mounted. **Module Where Issued:** IGGOCLET, IGGOCLEX, IGGOCLFB
	52	System Error; see "System Errors" at the front of this appendix. (Note step 4.) An error was returned from the EXTRACT macro. **Module Where Issued:** IGGOCLFA

Return Code Decimal	Reason Code	Explanation
144	2	**Cause:** The alternate index or path name is invalid; the first character must be alphabetic. **Programmer Action:** Correct the entryname, and rerun the command. If the entryname was correct, check for message 11511, and print the identified dump from SYSDMP. Contact your IBM Support Center. **Module Where Issued:** IGGOCLAL, IGGOCLCA
	4	**Cause:** The unique name is invalid. It uses Z999999, which is restricted. **Programmer Action:** Correct the name and rerun the command. **Module Where Issued:** IGGOCLAL
	6	**Cause:** Data and index names are not permitted for a catalog. **Programmer Action:** Remove the specification of the NAME parameter at the INDEX and DATA level of DEFINE MASTERCATALOG and DEFINE USERCATALOG, and rerun the command. If name parameter was not specified, check for message 11511 and print the identified dump from SYSDMP. Contact your IBM Support Center. **Module Where Issued:** IGGOCLAL
	8	**Cause:** An attempt was made to define a partition independent file with a file-id greater than 27 characters. **Programmer Action:** Correct the file-id and rerun the job. **Module Where Issued:** IGGOCLFA
148	4	**Cause:** Only one catalog may reside on a volume. The volume you specified already contains a catalog. **Programmer Action:** Delete the existing catalog or specify a different volume for the new catalog, and rerun the DEFINE command. **Module Where Issued:** IGGOCLBU
	8	**Cause:** Only one recoverable catalog may own space on a volume. The volume you specified already contains space owned by another recoverable catalog. **Programmer Action:** Perform one of the following actions: • Delete the space already owned by the recoverable catalog • Specify a non-recoverable catalog to own the new space • Define the new space on a different volume. **Module Where Issued:** IGGOCLBU
	12	**Cause:** During execution of a DEFINE SPACE command, a pre-existing catalog entry was found for one or more of the spaces on the specified volume. The catalog entry is known to be invalid because the corresponding Format-1 label is missing from the VTOC (Volume Table of Contents). This discrepancy could have resulted from the use of the IKQVDU service aid, which deleted the Format-1 label without updating the catalog. It could also have resulted from a system failure during the definition or deletion of a space. **Programmer Action:** Run a DELETE SPACE command to remove the definition of space(s) from the catalog, and then rerun the DEFINE SPACE command. **Module Where Issued:** IGGOCLA6

Return Code Decimal	Reason Code	Explanation
152	0	**Cause:** An attempt was made to delete a non-empty VSAM catalog. **Programmer Action:** A VSAM catalog may only be deleted when it contains no entries other than data space entries for the catalog volume. Use the LISTCAT command to determine the names of the entries still in the catalog, and delete them. Then rerun the command. **Module Where Issued:** IGGOCLAF
156	0	**Cause:** A problem was encountered during suballocation of a newly defined cluster or alternate index. There is either insufficient class-0 space in the data spaces allocated, or sufficient space exists but it spans more than five extents. **Programmer Action:** If the data space spans more than five extents, reduce the primary allocation value so that not more than five extents are required. Otherwise, increase the available data space on the volume(s) in one of the following ways: • Use the DEFINE command to create more class-0 data spaces (space occupied by expired, unsecured nonVSAM files may be used). • Delete unneeded VSAM files having useclass-0. • Change your VOLUMES specification to volume(s) with the required class-0 space. • Decrease the primary allocation quantity for the object being defined. Note that if the ORDERED option is specified, initial suballocation of the primary allocation quantity must be satisfied by the first volume in the VOLUMES parameter list. Otherwise, initial suballocation can be satisfied by any volume in the VOLUMES parameter list. **Module Where Issued:** IGGOCLAU
	2	**Cause:** On a DEFINE catalog command, a class-0 data space was specified that was not large enough to allow suballocation of the catalog recovery area (CRA). There was sufficient space for the catalog. The catalog and data space were not defined or allocated. **Programmer Action:** Increase the size of the data space, and/or decrease the size of the catalog allocation, and rerun the command. Note that the CRA requires one max-CA. On a CKD device a max-CA is equal to one cylinder; on a fixed block device, the beginning relative-block number must be evenly divisible by the max-CA value. **Module Where Issued:** IGGOCLCS
	24	**Cause:** There is insufficient space of the required class (nonzero) in the specified volume(s) to satisfy a request for suballocation of a newly-defined cluster or alternate index. **Programmer Action:** Increase the available data space of the required class on the specified volume(s) in one of the following ways: • Use the DEFINE command to create more data spaces of the required class (space occupied by expired, unsecured nonVSAM files may be used). • Delete unneeded VSAM files that have the same USECLASS. • Change your VOLUMES specification to volume(s) with free space of the required class. • Decrease the primary allocation quantity for the object being defined. • Change the USECLASS of the file (or component) to a class for which sufficient free space is available. Note that if the ORDERED option is specified, initial suballocation of the primary allocation quantity must be satisfied by the first volume in the VOLUMES parameter list. Otherwise, initial suballocation can be satisfied by any volume in the VOLUMES parameter list. **Module Where Issued:** IGGOCLAU

Return Code Decimal	Reason Code	Explanation
	26	**Cause:** On a DEFINE catalog command, a nonzero class data space was specified that was not large enough to allow suballocation of the catalog recovery area (CRA). There was sufficient space for the catalog. The catalog and data space were not defined or allocated. **Programmer Action:** Increase the size of the data space, and/or decrease the size of the catalog allocation, and rerun the command. Note that the catalog recovery area requires one max-CA. On a CKD device a max-CA is equal to one cylinder; on a fixed block device, the beginning relative-record number must be evenly divisible by the max-CA value. **Module Where Issued:** IGGOCLCS
160	0	**Cause:** Deletion of space objects did not cause the volume to be deleted. The volume contains non-deleted data spaces occupied by VSAM files and/or catalog. **Programmer Action:** None. This code is always returned when delete space is requested for a volume that contains a catalog, or when there are data space(s) occupied by VSAM file(s) and FORCE is not specified. Unless FORCE is specified, only empty data spaces are deleted. A LISTCAT SPACE ALL listing will give complete allocation status for each data space on each volume owned by a catalog. **Module Where Issued:** IGGOCLBL, IGGOCLBN
164	all	For all reason codes listed under return code 164, the *programmer action* is the same: increase the partition size, and rerun the command.
	2	**Cause:** VSAM catalog management is unable to obtain virtual storage for a work area. **Module Where Issued:** IGGOCLAB, IGGOCLAH, IGGOCLAQ, IGGOCLAT, IGGOCLBL, IGGOCLCB, IGGOCLCG, IGGOCLCO, IGGOCLCY, IGGOCLC9, IGGOCLEX, IGGOCLFA, IGGOCLFB, IGGOCLFC, IGGOCLFD, IGGOCLFQ
	8	**Cause:** VSAM record management is unable to obtain virtual storage for work areas. **Module Where Issued:** IGGOCLCG
168	2	**Cause:** Device type not supported. **Programmer Action:** The symbolic unit specified in the EXTENT statement for this file is either not assigned to a direct access device, or is not assigned at all. Correct the assignment and rerun the job. **Module Where Issued:** IGGOCLBX IGGOCLAP
	4	**Cause:** Invalid device type. **Programmer Action:** NonVSAM files can only be defined using the following device types: 2400T7, 2400T9, 2314, 2319, 3330, 3330-11, 3340, 3350, and 3375. Correct the device specification, and rerun the command. **Module Where Issued:** IGGOCLBH
	8	**Cause:** DEFINE NONVSAM has been specified for a fixed block device. Fixed block devices are not supported for cataloging nonVSAM files. **Programmer Action:** If the file is to reside on a fixed block device, it cannot be cataloged. If the file is to be on a CKD device, change the DEVICETYPE and VOLUMES parameters to CKD volume(s), and rerun the command. **Module Where Issued:** IGGOCLBH

Return Code Decimal	Reason Code	Explanation
172	4	**Cause:** A DEFINE operation, using the UNIQUE attribute, has specified the name of a file on a volume on which another nonVSAM file with the same name already exists; or a key sequenced file or alternate index with the UNIQUE attribute specifies more than one key range on the same volume. **Programmer Action:** Specify another file-id or another volume, or remove the original file-id from the volume, or place each key range on a separate volume. **Module Where Issued:** IGGOCLBD
176	0	**Cause:** During the definition of a data space, an attempt was made to perform a VSAM allocate on a volume in which a new entry was to be written, but there was insufficient space for the entry in the volume table of contents (VTOC). **Programmer Action:** Either make room for the new entries in the VTOC by deleting unneeded nonVSAM (with SCRATCH option) or VSAM unique files or data spaces from the volume, or reinitialize the volume with a larger VTOC. If none of these is immediately practical, use a different volume. **Module Where Issued:** IGGOCLAQ
184	2	**Cause:** The catalog is in use and cannot be deleted until it is not is use. **Programmer Action:** Check that no other partition is using the catalog before rerunning the DELETE command. **Module Where Issued:** IGGOCLCX
	4	**Cause:** One of the following has occurred: • A DELETE cluster or alternate index was requested, and the file or one of its components is open. The file cannot be deleted until it is closed. • A DELETE SPACE FORCE was requested and one or more of the files having space on the volume or having the volume in its candidate list is open. The volume cannot be deleted with the FORCE option until all these files are closed. **Programmer Action:** Verify that the correct file or volume is being deleted, and check that no other partition has the file(s) open. Then rerun the DELETE command. The LISTCAT command can be used to identify all file components listing a volume as a prime or candidate volume. **Module Where Issued:** IGGOCLCX
188	2	System error; see "System Errors" at the front of this appendix. (Note step 4.) No RPL is available for processing: the request is ignored. **Module Where Issued:** IGGOCLCG
	4	System error; see "System Errors" at the front of this appendix. Suballocate failure. **Module Where Issued:** IGGOCLAJ
	6	No RPL is available for processing; the request is ignored. **Module Where Issued:** IGGOCLAB
192	0	**Cause:** The maximum logical record length for a non-spanned file (32,761 bytes) has been exceeded. **Programmer Action:** Either reduce the maximum logical record length, or define the file as SPANNED, and rerun the command. **Module Where Issued:** IGGOCLBX

Return Code Decimal	Reason Code	Explanation
196	0	**Cause:** The specified data component control interval size exceeds the VSAM maximum of 32,768 bytes. **Programmer Action:** Adjust the CONTROLINTERVALSIZE parameter of the data component, and rerun the command. **Module Where Issued:** IGGOCLBX
200	0	**Cause:** The specified index component control interval size is greater than the maximum value allowed for the device type. For 2314/2319, the maximum size is 7168 bytes; for all other devices, the maximum is 8192 bytes. **Programmer Action:** Either reduce the control interval size of the index component, or use a different device with a larger maximum index control interval size, and rerun the command. **Module Where Issued:** IGGOCLBX
204	0	**Cause:** The KEYS specification extends beyond the end of the maximum logical record. **Programmer Action:** Either reduce the key length, change the key position, or increase the logical record length, and rerun the command. **Module Where Issued:** IGGOCLBX
208	0	**Cause:** The buffer space specified during a define operation is too small to contain the minimum number of control intervals for the type of VSAM file being defined. An indexed file requires enough virtual storage for two data component control intervals, plus one index component control interval; a non-indexed file requires enough virtual storage for two data component control intervals. **Programmer Action:** • For DEFINE, omit the BUFFERSPACE parameter, or increase the BUFFERSPACE parameter value, or decrease the DATA or INDEX CONTROLINTERVALSIZE value, and rerun the command. • For IMPORT(RA), you cannot import the file as defined to the device type you have chosen. For IMPORT, you can predefine an empty file to eliminate the problem. For IMPORTRA, rerun the command using a different device type, preferably the device type from which the file was exported. **Module Where Issued:** IGGOCLFX

Return Code Decimal	Reason Code	Explanation
212	all	Return code 212 is issued when VSAM catalog management is unable to compute an acceptable control interval size value from the parameters passed in the DEFINE, IMPORT, or IMPORTRA commands.
	2	System error; see "System Errors" at the front of this appendix. (Note step 4.) **Module Where Issued:** IGGOCLEX
	4	**Cause:** The specified or default values resulted in only one data control interval per control area for a key sequenced file or alternate index. These files require a minimum of two data control intervals per control area. **Programmer Action:** For DEFINE, either specify a smaller data CONTROLINTERVALSIZE value, or larger primary and/or secondary allocation values. For IMPORT(RA), this condition has occurred because you have imported a file or file component to a different device type than the one from which it was exported. For IMPORT, you can predefine the file before importing, using the DEFINE corrective action given above. Otherwise, you must specify a different device type (preferably the device type originally exported from) via the VOLUMES parameter. Then rerun the command. **Module Where Issued:** IGGOCLCY
	6	**Cause:** For a suballocated key sequenced file or alternate index, the index control interval size is too small to contain enough entries to either describe the data or to hold the key. An attempt to reduce the number of data control intervals failed. **Programmer Action:** For DEFINE, increase the index control interval size, or use the VSAM default control interval size. For IMPORT(RA), this condition has occurred because you have imported a file or file component to a different device type than the one from which it was exported. For IMPORT, you can predefine the file before importing, using the DEFINE corrective action given above. Otherwise, you must specify a different device type (preferably the device type originally exported from) via the VOLUMES parameter. Then rerun the command. **Module Where Issued:** IGGOCLCY
	8	**Cause:** For a unique key-sequenced file or alternate index, the index control interval size is too small to contain enough entries to either describe the data or to hold the key. The number of data control intervals cannot be reduced (by reducing the control area size), because the unique file is on a CKD device, thus the control area must be a cylinder. **Programmer Action:** For DEFINE, increase the index control interval size, or use the VSAM default control interval size. For IMPORT(RA), this condition has occurred because you have imported a file or file component to a different device type than the one from which it was exported. For IMPORT, you can predefine the file before importing, using the the DEFINE corrective action given above. Otherwise, you must specify a different device type (preferably the device type originally exported from) via the VOLUMES parameter. Then rerun the command. **Module Where Issued:** IGGOCLCY

Return Code Decimal	Reason Code	Explanation
	10	**Cause:** The buffer space is too small for a nonunique file. **Programmer Action:** For DEFINE, increase or omit the BUFFERSPACE parameter value. For IMPORT(RA), this condition has occurred because you have imported a file or file component to a different device type than the one from which it was exported. For IMPORT, you can predefine the file before importing, using the DEFINE corrective action given above. Otherwise, you must specify a different device type (preferably the device type originally exported from) via the VOLUMES parameter. Then rerun the command. **Module Where Issued:** IGGOCLCY
	12	**Cause:** The buffer space is too small for a unique file. **Programmer Action:** For DEFINE, increase or omit the BUFFERSPACE parameter value. For IMPORT(RA), this condition has occurred because you have imported a file or file component to a different device type than the one from which it was exported. For IMPORT, you can predefine the file before importing, using the DEFINE corrective action given above. Otherwise, you must specify a different device type (preferably the device type originally exported from) via the VOLUMES parameter. Then rerun the command. **Module Where Issued:** IGGOCLCY
	14	**Cause:** The specified or default values result in less than one CI per CA for an ESDS or RRDS. **Programmer Action:** Specify either: • a smaller CONTROLINTERVALSIZE value • a larger primary allocation value • a larger secondary allocation value • a larger primary and secondary allocation value. **Module Where Issued:** IGGOCLCY
	16	**Cause:** For a SAM ESDS with a format of FIXBLK, the maximum RECORDSIZE is not a multiple of the SAM logicalrecordsize. **Programmer Action:** For DEFINE, ensure that the SAM maximum RECORDSIZE is a multiple of the SAM logicalrecordsize. For REPRO, when the OUTFILE is implicitly defined, ensure that the ENVIRONMENT subparameters, BLOCKSIZE and RECORDSIZE, are multiples of each other. Then rerun the command. **Module Where Issued:** IGGOCLAN

Return Code Decimal	Reason Code	Explanation
216	2	**Cause:** A space allocation operation (for a define space or unique file) failed because the new extent(s) specified in the EXTENT statement(s) or the space specified by the ORIGIN and allocation parameters (BLOCKS, CYLINDERS, etc.) overlapped one or more of the following: • volume table of contents (VTOC) extent • expired, secured, nonVSAM file • unexpired, secured, nonVSAM file • unexpired, nonsecured, nonVSAM file • more than one set of extents was given, and they overlap each other. **Programmer Action:** If more than one extent was provided for the space allocation, verify that they do not overlap each other. Run the VSE LVTOC program to determine exactly what space on the volume is unused and available for space allocation. Correct the ORIGIN and space parameter (define space) or the EXTENT statement(s) (define unique file), and rerun the command. **Module Where Issued:** IGGOCLAQ
224	0	**Cause:** The capacity of a catalog volume record has been exceeded during an attempt to add volume information. **Programmer Action:** Use the LISTCAT command to determine the field that has been exceeded, and adjust the value accordingly. **Module Where Issued:** IGGOCLAW
	2	**Cause:** The number of UPGRADE alternate indexes specified for a base cluster has exceeded the system maximum of 125. The newly-defined UPGRADE alternate index was not defined. **Programmer Action:** Check whether all of the 125 UPGRADE alternate indexes are required, or whether an existing one fulfills your needs. **Module Where Issued:** IGGOCLAW
228	0	**Cause:** A hardware error has occurred with the time of day clock. **Programmer Action:** Contact your service representative. **Module Where Issued:** IGGOCLA7, IGGOCLAL, IGGOCLBL

Return Code Decimal	Reason Code	Explanation
232	all	VSAM could not load a requested program phase because of a CDLOAD failure. The VSAM reason Code corresponds to the CDLOAD return code. If the reason code you received is not listed below, refer to CDLOAD return codes in *VSE/Advanced Functions Messages* for additional information.
	4	**Cause:** No GETVIS area was allocated. **Programmer Action:** Specify SIZE=AUTO in the EXEC statement, and rerun the command. **Module Where Issued:** IGGOCLBM, IGGOCLBH, IGGOCLCX, IGGOCLCG, IGGOCLBX
	8	**Cause:** A request for virtual storage was made from a partition that has no virtual storage allocated to it. The requesting program was running in real mode. **Programmer Action:** Specify SIZE=AUTO in the EXEC statement, and rerun the command. **Module Where Issued:** IGGOCLBM, IGGOCLBH, IGGOCLCX, IGGOCLCG, IGGOCLBX
	12	**Cause:** Insufficient virtual storage was available to load the phase. **Programmer Action:** Increase the size of the virtual partition, and rerun the command. **Module Where Issued:** IGGOCLBM, IGGOCLBH, IGGOCLCX, IGGOCLCG, IGGOCLBX
238	0	An error has occurred, and all error objects have not been deleted. **Programmer Action:** Study the messages from the Catalog Check Service Aid, which will be automatically invoked. They will indicate which objects you should delete by specifying IGNOREERROR on the DELETE command. **Module Where Issued:** IGGOCLBG
240	4	**Cause:** One of the following errors has occurred during processing of the label area: • The symbolic unit found on the EXTENT statement was invalid. • The information supplied in the DLBL and EXTENT statements is inconsistent with the information supplied in the Access Method Services command. • The DLBL statement is missing, or dname or filename may have been misspelled. • No virtual storage was available for use in reading the label. **Programmer Action:** Check that the DLBL, EXTENT, and ASSGN statements are correct, and that sufficient virtual storage is allocated to the partition. Also check for correct dname parameters in the Access Method Services command. Then rerun the command. **Module Where Issued:** IGGOCLAQ, IGGOCLAF, IGGOCLAH, IGGOCLAP, IGGOCLAE, IGGOCLA7, IGGOCLBX, IGGOCLBG, IGGOCLB8, IGGOCLBL, IGGOCLBN, IGGOCLCO, IGGOCLCS, IGGOCLFD, IGGOCLCR
	6	**Cause:** • No EXTENT statements were found • The DLBL statement required more than one EXTENT statement (for example, one for each volume), and one or more EXTENT statements were missing. **Programmer Action:** Complete the DLBL information by providing an EXTENT statement for the volume(s) being processed. Then rerun the command. **Module Where Issued:** IGGOCLAQ, IGGOCLA7, IGGOCLBL, IGGOCLB8, IGGOCLET

Return Code Decimal	Reason Code	Explanation
	8	**Cause:** Either the device type is invalid, or an error has occurred on the label area during device type processing. The space allocation specified by the EXTENT statement(s) or the ORIGIN and allocation parameters might be outside the valid range for the assigned device type. The volid assigned to the symbolic unit might not match the volid specified on the EXTENT statement. **Programmer Action:** Check the DLBL, EXTENT, and ASSGN statements. Omit the symbolic unit parameter, or ensure that the symbolic unit is assigned to a direct access device, that the device type is valid for the specified extents, and that the volid of the assigned device matches the volid of the EXTENT statement. Also check the programmer actions given for reason code 4. Then rerun the command. **Module Where Issued:** IGGOCLA8, IGGOCLBL, IGGOCLET, IGGOCLFE, IGGOCLAP, IGGOCLBX
	10	**Cause:** Either too many extents or duplicate volume serial numbers have been specified. **Programmer Action:** Correct the EXTENT statements. Rerun the command. **Module Where Issued:** IGGOCLAQ, IGGOCLET
	12	**Cause:** The total space specified in the Access Method Services command exceeds the EXTENT-specified total for the volume. **Programmer Action:** Adjust the space allocation specified in either the Access Method Services command or the EXTENT statement so that the two are consistent. Rerun the command. **Module Where Issued:** IGGOCLET
	22	**Cause:** The catalog names specified in the DLBL statement and the Access Method Services command do not match. **Programmer Action:** Omit the catalog dname (as it is no longer required), or ensure that the correct catalog name is specified in both the Access Method Services command and the DLBL statement. Then rerun the command. **Module Where Issued:** IGGOCLAH
	24	**Cause:** The DLBL statement for the master catalog could not be found. **Programmer Action:** Specify IJSYSCT as filename in the DLBL statement for the master catalog. Rerun the command. **Module Where Issued:** IGGOCLAH
	26	**Cause:** One of the following could not be found: • the DLBL statement for the user catalog • the DLBL statement for the job catalog • the required job catalog. **Programmer Action:** Omit the catalog dname, as it is no longer required, or check that the catalog dname in the command and the filename and file-id operands in the DLBL statement are present and correctly specified. Then rerun the command. **Module Where Issued:** IGGOCLAH

Return Code Decimal	Reason Code	Explanation
	28	**Cause:** The catalog name is missing from the DLBL statement. **Programmer Action:** Specify the catalog name in the DLBL statement. Then rerun the command. **Module Where Issued:** IGGOCLAH
	30	**Cause:** The volume serial number for the job catalog in the EXTENT statement does not match the volume serial number found for this catalog in the master catalog. **Programmer Action:** Omit the job catalog EXTENT statement (no longer required), or correct the volume serial number on the EXTENT statement. Then rerun the command. **Module Where Issued:** IGGOCLAH
	32	**Cause:** The automatic assign function failed because: • no programmer logical units were available in the partition (assignment statements for SYSnnn use these) • a JIB is not available in the system (temporary assignment statements use these) • the device on which the volume is mounted (attention routine VOLUME command) is reserved • the device on which the volume is mounted is "down" (job control command DVCDN). **Module Where Issued:** IGGOCLCO
	34	**Cause:** The operator requested cancel because the volume containing the catalog recovery area could not be mounted. **Programmer Action:** Rerun the job ensuring that a disk device is available for the catalog recovery area volume. **Module Where Issued:** IGGOCLCO
	40	**Cause:** The automatic assign function failed because: • no programmer logical units were available in the partition (assignment statements for SYSnnn use these) • a JIB is not available in the system (temporary assignment statements use these) • the device on which the volume is mounted is reserved (attention routine VOLUME command) • the device on which the volume is mounted is "down" (job control command DVCDN). **Module Where Issued:** IGGOCLAH
	42	**Cause:** The operator requested cancel because the volume containing the user catalog could not be mounted. **Programmer Action:** Rerun the job ensuring that a spindle is available for the user catalog volume. Note that if the user catalog is not preassigned (omit the EXTENT statement), VSAM will request mounting at open time if the catalog is not mounted. **Module Where Issued:** IGGOCLAH

Return Code Decimal	Reason Code	Explanation
242	all	**Cause:** A physical I/O error occurred while data was being erased from a file by a DELETE command. The decimal reason code (nnn) issued under return code 242 is a VSAM request macro error code and indicates an error that occurred in VSAM record management. VSAM error codes are described in Appendix A. The file has been partially erased but not deleted. **Programmer Action:** If it is important that the file be erased before being deleted, look up the reason code in Appendix A, and correct the error. Otherwise, remove the erase option. Then rerun the command. **Module Where Issued:** IGGOCLGB
244	all	**Cause:** An erase operation failed because VSAM catalog management was unable to open this ACB. The decimal reason code (nnn) issued under return code 244 is a VSAM OPEN macro error code and is described in Appendix A. **Programmer Action:** If it is important that the file be erased before the catalog entry is deleted, refer to the reason code documented in Appendix A and correct the error that caused OPEN to fail. Otherwise remove the ERASE option, and rerun the command. **Module Where Issued:** IGGOCLGB
246	4	**Cause:** A system resource or user file was detected to be in use by another task. **Programmer Action:** Rerun the job. If the error recurs, and there are no VSAM jobs operating in another partition or system, refer to *VSE/Advanced Functions Diagnosis Reference: Supervisor* for recovery procedures. **Module Where Issued:** IGGOCLAB, IGGOCLAH, IGGOCLC9, IGGOCLCO, IGGOCLAC, IGGOCLCX
	8	**Cause:** The lock table is full. **Programmer Action:** Rerun the command. If the error recurs, the size of the LOCK table should be increased via the NRES parameter of the SYS IPL command. See *VSE/Advanced Functions System Generation*. **Module Where Issued:** IGGOCLAB, IGGOCLAH, IGGOCLC9, IGGOCLCO, IGGOCLAC, IGGOCLCX
	12	**Cause:** A previous request for this resource has been generated with a different share option value. **Programmer Action:** Rerun the command. If the error recurs, contact your IBM Support Center. **Module Where Issued:** IGGOCLAB, IGGOCLAH, IGGOCLC9, IGGOCLCO, IGGOCLAC, IGGOCLCX
	16	**Cause:** A deadlock situation was detected. **Programmer Action:** Rerun the command. If the error recurs, contact your IBM Support Center. **Module Where Issued:** IGGOCLAB, IGGOCLAH, IGGOCLC9, IGGOCLCO, IGGOCLAC, IGGOCLCX

Return Code Decimal	Reason Code	Explanation
	20	**Cause:** The LOCK parameter list (DTL) is invalid. **Programmer Action:** Rerun the command. If the error recurs, contact your IBM Support Center. **Module Where Issued:** IGGOCLAB, IGGOCLAH, IGGOCLC9, IGGOCLCO, IGGOCLAC, IGGOCLCX
	24	**Cause:** The resource is already exclusively owned. **Programmer Action:** Rerun the command. If the problem recurs, contact your IBM Support Center. **Module Where Issued:** IGGOCLAB, IGGOCLAH, IGGOCLC9, IGGOCLCO, IGGOCLAC, IGGOCLCX
	28	**Cause:** The DASD lock file is full. **Programmer Action:** Rerun the command. If the error recurs, the lock file is full. See *VSE/Advanced Functions Diagnosis Reference: Initial Program Load and Job Control*. **Module Where Issued:** IGGOCLAB, IGGOCLAH, IGGOCLC9, IGGOCLCO, IGGOCLAC, IGGOCLCX
	32	**Cause:** The named volume in the lock request is not on-line. **Programmer Action:** Rerun the command. If the error recurs, contact your IBM Support Center. **Module Where Issued:** IGGOCLAB, IGGOCLAH, IGGOCLC9, IGGOCLCO, IGGOCLAC, IGGOCLCX
	36	**Cause:** An I/O error occurred on the lock file. **Programmer Action:** Rerun the command. If the error recurs, refer to *VSE/Advanced Functions Diagnosis Reference: Supervisor*. **Module Where Issued:** IGGOCLAB, IGGOCLAH, IGGOCLC9, IGGOCLCO, IGGOCLAC, IGGOCLCX
248	0	**Cause:** The volume record was not found. You have referenced a volume not owned by the catalog. **Programmer Action:** Ensure that the correct volumes have been specified and that the volumes have been defined (using the DEFINE SPACE command) in the catalog against which the request is being issued. Then rerun the command. **Module Where Issued:** IGGOCLAR, IGGOCLAT, IGGOCLBX, IGGOCLBN, IGGOCLAK
250	all	**Cause:** VSAM record management has found a logical error during an erase operation. The decimal reason code (nnn) issued under return code 250 is a VSAM request macro error code indicating a record management logical error, and is described in Appendix A. The file has been partially erased but not deleted. **Programmer Action:** If it is important that the file be erased before the catalog entry is deleted, look up the reason code in Appendix A, and correct the error. Otherwise remove the erase option. Then rerun the command. **Module Where Issued:** IGGOCLGB
252	0	System error; see"System Errors" at the front of this appendix. Early exit. (Internal indicator; if found in CCACD1, it does *not* indicate an an error, but that the last O/C/EOV request for catalog open has completed.) **Module Where Issued:** IGGOCLFH

VSE/VSAM
Messages and Codes
Order No. SC24-5146-2

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