

SYSTEM 2000[®] Messages and Codes

Version 1
First Edition

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Changes and Enhancements

Overview

Here are the changes that were made for Version 1 messages and codes. This information is for users who have previous experience using SYSTEM 2000.

Additions

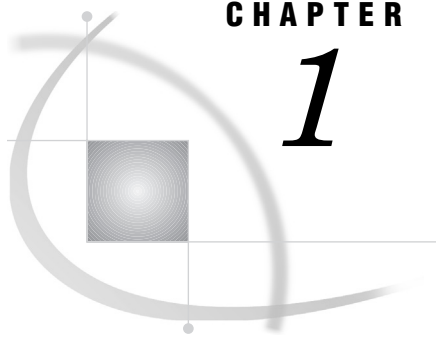
The following features were added:

- many new messages and codes
 - several SYSTEM 2000 messages for VSAM processing (these are in addition to the VSAM messages produced by IBM)
 - all CICS messages and codes are documented
 - messages for the Version 1 conversion utility CVRTV1.
-

Changes

The following changes were made:

- IBM has changed the name of the MVS operating environment. MVS is now called the OS/390 operating environment.
- The accounting files S2KMANX and S2KMANY are now QSAM files.
- The utility program ACTUTIL is no longer needed to pre-allocate accounting files.
- The overlay structure has been removed because OS/390 paging is more efficient than overlay I/O.
- PRELNK was removed because memory concerns, as they relate to load modules, are no longer an issue.



CHAPTER

1

Self-Contained Facility (SCF) Messages

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Overview

The Self-Contained Facility (SCF) messages

- tell you the status of your SYSTEM 2000 session.
- notify you when a command is in error.
- provide information about normal processing and actions that are initiated internally.

Types of SCF Messages

An SCF message can be any of the following:

informative message

appears during normal processing and informs you of procedures performed by SYSTEM 2000. Informative messages are never fatal to the session and are never destructive to a database.

warning message

tells you that SYSTEM 2000 executed a syntactically acceptable command that may produce undesirable consequences. A warning can indicate that the database was damaged before the current command was issued. If the current command is a request to update the database, the update is not allowed.

error message

tells you that a command contains an error.

Errors in a session

The following errors are categorized according to their effects on a session.

nonfatal error

prevents the command from executing, but the session continues. Unless otherwise stated, a nonfatal error terminates scanning of the current command.

batch fatal error

prevents the command from executing and, if the command is part of a batch job, the SYSTEM 2000 session terminates. However, if the job is interactive, the SYSTEM 2000 session continues.

fatal error

prevents the command from executing, and the SYSTEM 2000 session terminates regardless of whether the job is batch or interactive.

Effect of Errors on a database

The following errors are categorized according to their effects on databases:

nondestructive error

never causes an exit or a damaged database.

possibly destructive error

can cause an exit from the SYSTEM 2000 session with the damage flag set for the database, but the exit occurs only under specific circumstances.

destructive error

always causes an exit from the SYSTEM 2000 session with the damage flag set for the database.

Contents of Output

Numbers

Each SCF message begins with a number. These numbers group the messages by a specific processor or by a specific part of SYSTEM 2000, as shown in Table 1.1.

Table 1.1 Explanation of Numbers That Precede SCF Messages

Numbers	Processor	SYSTEM 2000
100-150	DEFINE	
200-270	QUEUE (in the QUEST processor)	
271-399	QUEST	
400-499	REPORT (in the QUEST processor)	
500-699	CONTROL	
700-798		Operating system or SYSTEM 2000 interface
799-899		System-wide and Multi-User
900-999		Special zaps and user exits.

Cursor Code

SYSTEM 2000 displays a cursor code for a syntax error. In addition to an SCF error message, SYSTEM 2000 displays a cursor code when there is a syntax error. The cursor code appears on the line between the echo of your input command and the accompanying error message, and marks the point of error in the input. The cursor code can be any of the following::

- C indicates an error in the Command File.
- D indicates an error in the Data File.
- 1 through 9 and E through Z indicates a string expansion error. The integer shows the level of string nesting at which SYSTEM 2000 found the error. There are 31 possible levels.

Format

Each SCF message has the following format:

-nnn- message text -

where *nnn* is an assigned message number, and *message text* is the content of the message.

Destination

SCF messages are written to the Message File (S2KMSG), which is set to OUTPUT at the beginning of each session. OUTPUT designates a printer or another device, such as your terminal. Because the Report File is also set to OUTPUT (by default), messages for the Message File are interleaved with results of commands that are written to the Report File, unless one of these files is set to an alternate file. For more information about the Message File and the Report File, see *QUEST Language and System-Wide Commands, Version 12*.

Examples

- 1 In this example, the cursor code is the letter C, which indicates that the error occurred in a command (Command File) rather than in a nested string or in the data in the Data File. Also, message number -355- indicates a QUEST language error.

```
PR LAST NAME WH EMPLOYEE NUMBER HAS C1 FAILS:
.....C
-355- RECORD LABEL MUST PRECEDE 'HAS' -
```

- 2 In this example, notice that two commands, DESCRIBE and FUNCTIONS, are specified on one input line. SYSTEM 2000 echoes both commands, but processes the commands one at a time. The first command, DESCRIBE, contains no errors. The DESCRIBE output is displayed before SYSTEM 2000 scans the second command, FUNCTIONS, which is an invalid command. Therefore, the cursor code and an error message appear after the output of the first command, but the cursor code refers to the input line that contains both commands.

```
DESCRIBE C2: FUNCTIONS:
2* ITEM (INTEGER NUMBER 9(7))
.....C
-100- SYNTAX ERROR -
```

- 3 In this example, notice the syntax error. This error message was displayed because the first command has no command terminator. After finding a syntax error, SYSTEM 2000 scans the Command File until it finds a command terminator, usually a colon (:).

The command that contains the syntax error and any subsequent commands are ignored until the software finds a colon. At that point, SYSTEM 2000 proceeds with normal processing.

```
PRINT C1 XYZ WHERE C1 EXISTS
.....C
-100- SYNTAX ERROR
PRINT C2: /* ignored as part of the invalid command */
PRINT COUNT C1: /* processed if no errors were found */
```

Note: The system does not recognize command terminators within strings because strings are not expanded during error processing. \triangle

Job Start/Stop Messages

When SYSTEM 2000 initializes SCF jobs, it writes the following message to the Message File (with a page eject in batch):

```
date time BEGIN SYSTEM 2000 - VERSION nnnnnn
COPYRIGHT (C) year SAS INSTITUTE INC., CARY, NC USA
```

When the job terminates, SYSTEM 2000 writes the following message to the Message File:

```
time date END SYSTEM 2000 - VERSION nnnnn
COPYRIGHT (C) year SAS INSTITUTE INC., CARY, NC USA -
```

These messages are standard for all releases of SYSTEM 2000. The BEGIN SYSTEM 2000 and END SYSTEM 2000 messages do not have numbers.

When an EXIT command is processed under CICS, the following message is issued and control returns to CICS:

```
TERMINAL EXIT PROCESSED
```

DEFINE Processor Messages

Messages numbered -100- through -150- are issued by the DEFINE processor.

-100- SYNTAX ERROR -

is a *nonfatal, nondestructive* syntax error, for example, a misspelled keyword. The message might be followed by additional messages that describe the syntax error in greater detail. Any command not acceptable to the processor that is in use produces a message.

-102- COMPONENT NAME CONTAINS RESERVED WORD -

is a *nonfatal, nondestructive* error in a component specification. A component name contained a word (surrounded by blanks or special characters) that is exclusively reserved for SYSTEM 2000.

-103- COMPONENT NAME MISSING OR CONTAINS LEFT PARENTHESIS -

is a *nonfatal, nondestructive* error in a component specification. Either the component name was missing, or it contained a left parenthesis.

-104- KEY/NON-KEY ONLY FOR ITEMS -

is a *nonfatal, nondestructive* error in specifying a schema record, a string, or a function. Only a schema item can be key or non-key.

-105- DUPLICATE COMPONENT NUMBER -

is a *nonfatal, nondestructive* error in assigning a component number. The component number already exists in the database definition.

-106- DUPLICATE COMPONENT NAME -

is a *nonfatal, nondestructive* error in assigning a component name. The component name already exists in the database definition.

-107- 'MAP' NOT PERFORMED DUE TO 'DISABLE EXECUTION' -

is an *informative* message that tells you that you gave a DISABLE EXECUTION command before the MAP command so the MAP command was ignored. The database definition remains unchanged, and the QUEST processor becomes available for use. To change the database definition, issue an ENABLE EXECUTION command, return to the DEFINE processor, and re-enter your DEFINE language commands.

-108- INVALID STRING/FUNCTION MARKER -

is a *nonfatal, nondestructive* error. The character that marks the beginning and end of a string or function description must be one of the following:

symbol	hex	symbol	hex	symbol	hex
¢	4A	\$	5B	>	6E
.	4B	*	5C	?	6F
<	4C)	5D	#	7B
(4D	;	5E	@	7C
+	4E	^	5F	'	7D
	4F	-	60	=	7E
&	50	/	61	"	7F
!	5A	%	6C		

-109- WHERE-CLAUSE ALLOWED ONLY WHEN CHANGES CAUSE RESTRUCTURING -

is a *nonfatal, nondestructive* error. Your DEFINE commands were not processed. The DEFINE/MAP session terminated because SYSTEM 2000 found a MAP command with a where-clause, which is allowable only when the database needs to be restructured. None of the DEFINE language commands you gave caused restructuring; therefore, you must issue a simple MAP command. The QUEST processor becomes available.

-110- MORE THAN ONE 'IN' NOT ALLOWED -

is a *nonfatal, nondestructive* error. A component can be a member of only one schema record. You either duplicated an IN specification or declared two different IN specifications for the same component.

-111- SCHEMA RECORD NOT VALID -

is a *nonfatal, nondestructive* error in the IN SR phrase of a component specification. The SR number did not refer to a schema record. Either the record was not declared yet, or the number identified a schema item, a function, or a string.

-112- CANNOT EXCEED 32 LEVELS -

is a *nonfatal, nondestructive* error in a record specification. Schema records cannot be defined any deeper than 32 levels, including level 0.

-113- CHANGE IN RECORD INCLUSION NOT ALLOWED -

is a *nonfatal, nondestructive* error. The record membership of an item or a record cannot be changed by the DEFINE processor. See *SYSTEM 2000 Software: DEFINE Language*.

-114- NUMBER OF COMPONENTS EXCEEDS MAXIMUM PREVIOUSLY SPECIFIED -

is a *nonfatal, nondestructive* error. Too many components were specified for the database. The maximum number of components for a database is set when the

database is named. The default is 430. See the NEW DATA BASE command in *SYSTEM 2000 CONTROL Language, Version 12, First Edition*.

-115- COMPONENT REQUESTED NOT FOUND -

is a *nonfatal, nondestructive* error in a DELETE or a CHANGE command. The error occurred for one of the following reasons:

- A word was misspelled.
- An item, record, or function was specified in a DELETE STRING command.
- A string or function was specified in a DELETE SCHEMA COMPONENT command.
- A string, item, or record was specified in a DELETE FUNCTION command.

-117- PADDING FOR NON-KEY SCHEMA ITEM IS INVALID -

is a *nonfatal, nondestructive* error. Only key items can have padding.

-118- INCOMPATIBLE NUMBERS IN DELETE REQUEST -

is a *nonfatal, nondestructive* error in a DELETE component command. You incorrectly specified the component or the component list in the DELETE command. For example, in n1 THROUGH n2, the n1 must precede n2 in DESCRIBE order. Components are stored in the following order: schema components, functions, and strings.

-119- 'MAP' NOT PERFORMED DUE TO 'STOP IF ERRORS' -

is an *informative* message. SYSTEM 2000 ignores the MAP command if an error occurs after you have issued a STOP AFTER SCAN IF ERRORS OCCUR command. The database definition remains unchanged. The QUEST processor becomes available.

-120- CHANGE IN PICTURE NOT ALLOWED -

is a *nonfatal, nondestructive* error. SYSTEM 2000 does not allow you

- to change the overall picture size for an INTEGER, a DECIMAL, a MONEY, or an UNDEFINED item.

Note: This message does not apply to REAL and DOUBLE items because they have no associated pictures; REAL is always a single word, and DOUBLE is always a double word. Δ

- to change the size of a CHARACTER or a TEXT item to less than four characters, (X(4)). A four-character picture allows values to overflow.

-121- CHANGE IN TYPE NOT ALLOWED -

is a *nonfatal, nondestructive* error. After a data record exists for an item, you can change an item from one type to another only if the new type is compatible with the old. No item can be changed to a DATE type. You cannot change CHARACTER and TEXT items to a numeric type, nor can you change INTEGER, DECIMAL, or MONEY types to a text type. No change of type is allowed for the REAL, DOUBLE, and UNDEFINED types.

-122- COMPONENT NUMBER MUST RANGE FROM 1 TO 9999 -

is a *nonfatal, nondestructive* error. You either tried to change C0 to another number, or a component number in the command was less than 1 or greater than 9999. Only the component name for C0 can be changed, not the C-number. Component numbers must be in the range of 1 through 9999.

-124- WARNING- DEFINITION DID NOT CHANGE -

is an *informative* message. The MAP command had no effect on the database. This message appears either because no commands were issued or SYSTEM 2000 rejected all DEFINE commands due to errors.

-128- 'DEFINE' COMMAND {WILL CAUSE|HAS CAUSED} DATABASE RESTRUCTURING -

is an *informative* message.

- WILL CAUSE is a warning issued immediately after SYSTEM 2000 finds a command that will cause restructuring at MAP time if no STOP AFTER command was issued. If you are in an interactive session and you do not want to rebuild the database, you can exit before issuing the MAP command, or you can issue the STOP AFTER command.
- HAS CAUSED means the database has been reloaded; this informative message appears after the MAP command finishes processing. When restructuring completes, you are specified the QUEST processor.

-130- ZERO INCREMENT NOT ALLOWED -

is a *nonfatal, nondestructive* error. An increment of 0 is meaningless for the RENUMBER command.

-131- NO COMPONENTS IN DEFINITION -

is a *warning* that there are no components in the database. Redefinition emptied the database. Only C0 exists (by default), and there are no data records. The QUEST processor becomes available.

-132- GETMAIN FAILED FOR MAP, OR MAP CAUSED BY RELOAD -

is a *batch fatal, nondestructive* error. When you create a database by using the NDB command, maximum items defaults to 430. You can override the default and specify any value up to 10,000 (for example, NDB IS EMPLOYEE/3000:). The size of the GETMAIN area for MAP or for RELOAD is ((maximum items)/2) + 8. Allocate more memory to the region in which SYSTEM 2000 is executing.

QUEUE Processor Messages

Messages numbered -200- through -270- include QUEUE processor messages and those related to the QUEUE processor, for example, messages produced by the LOAD command.

-201- 'REPEAT' COMMANDS CANNOT BE NESTED -

is a *nonfatal, nondestructive* error. The command stream contained a REPEAT command within a REPEAT command.

-202- QUEUE MODE REQUESTS CANCELLED BY DAMAGED DATABASE -

is a *batch fatal, nondestructive* error. The current user did not damage the database. SYSTEM 2000 issues this message in a Multi-User environment when a user is in the queue waiting for update permission at TERMINATE time and another user update damages the database. If you are an interactive user, your queued commands are cancelled. The QUEST processor becomes available.

-203- UNRECOVERABLE DATA FILE ERROR -

is a *fatal, nondestructive* error that occurred during a read operation. SYSTEM 2000 could not read a Data File record because of an operating system error or a hardware error. The commands between the QUEUE command and the command that is being scanned when the error occurred were not processed.

-204- PARENT DATA RECORD IS MISSING -

is a *nonfatal, nondestructive* error in the input data structure. The data record (indicated by the cursor code) did not have a complete line of ancestor data records up to level 0. All ancestors of the data record must precede the data record in logical order in the input data.

-205- ITEM DOES NOT BELONG IN CURRENT RECORD -

is a *nonfatal, nondestructive* error in the input data structure. The cursor code identifies the item that did not belong to the last specified schema record. Either the item number was incorrect or a schema record number was missing.

-206- 'REPEAT' COUNT MUST BE GREATER THAN 1 -

is a *nonfatal, nondestructive* error in a REPEAT command that contained an *n* TIMES specification. The value of *n* must be equal to or greater than 2.

-207- QUEUE MODE REQUESTS CANCELLED BY USER -

is an *informative* message. A CANCEL QUEUE command completed processing. The QUEST processor becomes available.

-208- TREE OPERATION REQUIRES RECORD LABEL -

is a *nonfatal, nondestructive* error in a command that requires a tree operation. The component label in an APPEND TREE, PRINT TREE, or REMOVE TREE must be for a schema record.

-209- UNEXPECTED END-OF-DATA ON DATA FILE -

is a *nonfatal, nondestructive* error. SYSTEM 2000 found a pair of system separators (asterisks (*), by default), which indicates the end of the data. This error usually occurs because a component number or data value was omitted, but the system separator was there. If this error occurs while processing a REPEAT command, SYSTEM 2000 terminates the entire REPEAT command stream and executes the first command that follows the REPEAT command.

-210- UNEXPECTED END OF VALUE STREAM -

is a *nonfatal, nondestructive* error. SYSTEM 2000 found an unexpected entry terminator (default is END*) in a value stream. The entry terminator followed an item number instead of a value. If the error terminates an operation that is also controlled by the REPEAT command, SYSTEM 2000 terminates the entire REPEAT command stream and executes the first command that follows the REPEAT command.

-211- CANNOT EXCEED TWO LEVELS OF NESTING -

is a *nonfatal, nondestructive* error in an any-of-expression or all-of-expression. Only one any-of-expression or all-of-expression can be nested inside another any-of-expression or all-of-expression. Deeper nesting of the expressions is not allowed.

-212- INVALID HEX VALUE SPECIFIED -

is a *nonfatal, nondestructive* error. A value in HEX notation contains one or more display characters that cannot be translated to hexadecimal. Valid characters are A through F and 0 through 9.

-214- DISJOINT CONDITIONS ENCOUNTERED -

is a *nonfatal, nondestructive* error. A where-clause can refer only to items from related records unless you include a has-clause.

-215- ALL ITEMS IN IF-CLAUSE MUST BE IN SAME RECORD -

is a *nonfatal, nondestructive* error. An if-clause can refer only to items from the same record.

-216- TOO MANY CONDITIONS OR SUBEXPRESSIONS -

is a *nonfatal, nondestructive* error. In a QUEUE where-clause or if-clause, a conditional expression can contain a maximum of seven parts. Each part can be a condition or an expression, and each expression can contain a maximum of seven conditions. Deeper nesting is not allowed.

-217- INSUFFICIENT CONDITIONS OR SUBEXPRESSIONS -

is a *nonfatal, nondestructive* error in an any-of-expression. In a QUEUE if-clause or where-clause, the specified integer for the ANY *n* OF expression was greater than the number of conditions in the expression.

-219- COMMAND TOO LONG -

is a *nonfatal, nondestructive* error. This error is not a syntax error. The command contained more than 500 if-conditions. Try to break the command into several less complex commands.

-220- QUEUE MODE HAS-EXPRESSION ITEMS MUST BE DESCENDANTS OF 'HAS' RECORD -

is a *nonfatal, nondestructive* error in an expression that follows the HAS operator. The expression must contain only descendants of the schema record specified before the HAS operator.

-222- END-OF-FILE ON DATA FILE -

is a *fatal, nondestructive* error in the Data File. When seeking a value for a where-clause condition from the Data File, SYSTEM 2000 found the physical limit of the file.

-223- 'REPEAT' COMMAND STREAM MISSING -

is a *nonfatal, nondestructive* error. There was no executable command between the delimiters that enclosed the REPEAT command stream.

-224- 'REPEAT' COMMAND STREAM MUST END WITH *command-terminator* -

is a *nonfatal, nondestructive* error. Usually this error occurs because the REPEAT delimiter was also used in a command inside the REPEAT command stream. The final character in the REPEAT command stream must be the command terminator, which is a colon (:). The command terminator must immediately precede the second occurrence of the REPEAT delimiter.

-225- INVALID 'REPEAT' DELIMITER -

is a *nonfatal, nondestructive* error. The REPEAT delimiter must be a valid special character, acceptable to SYSTEM 2000. (See message -108- for a list of valid characters.)

-226- ERROR LIMIT EXCEEDED -

is a *nonfatal, nondestructive* error. In your QUEUE/TERMINATE session, the number of errors exceeded the maximum that was set by a STOP AFTER SCAN command. The queued updates were discarded, and the QUEST processor becomes available.

-227- ITEM VALUED TWICE IN ONE RECORD -

is a *nonfatal, nondestructive* error. Within one data record, the value pointed out by the cursor code is the second value for one item. One of the component numbers was incorrect, an entry terminator was missing from the Data File, or a record component number was missing.

-230- ALL OPERATIONS MUST ACT ON THE SAME RECORD -

is a *nonfatal, nondestructive* error. A QUEUE action-clause must refer to only one record (or items in that record). The action-clause specified two different schema record numbers or contained items from two different schema records. This error can also occur for an if-clause that referred to a different record (or items in a different record) than the action-clause record.

-231- 'EXIT' CANCELLED QUEUE PROCESSING -

is an *informative* message. An EXIT command was honored. The EXIT occurred after QUEUE (but before TERMINATE). It caused the entire QUEUE command stream (except the EXIT) to be ignored.

- 232- **TYPES OR PICTURES DO NOT CORRESPOND -**
is a *nonfatal, nondestructive* error. An if-clause contained a condition that compared values for two items that have incompatible types or different picture specifications.
- 233- **ITEM IN WHERE-CLAUSE CANNOT BE NON-KEY -**
is a *nonfatal, nondestructive* error. A QUEUE where-clause cannot contain a non-key item.
- 238- **MORE THAN ONE RECORD SPECIFIED -**
is a *nonfatal, nondestructive* error. Only one data record can be specified in a QUEUE update command, unless the command specifies a tree operation, for example, APPEND TREE.
- 239- **hh:mm:ss - SCANNING VALUE NO. n -**
is an *informative* message. During a LOAD operation, SYSTEM 2000 scanned *n* data values for errors. The scanning continues. This message appears for each 10,000 values scanned.
- 240- **hh:mm:ss - SCAN COMPLETE -**
is an *informative* message. It appears during a LOAD operation after all data values have been scanned for format errors, at *hh:mm:ss* (hour, minutes, seconds).
- 241- **hh:mm:ss - BEGIN LOADING -**
is an *informative* message. SYSTEM 2000 began execution of a LOAD command at *hh:mm:ss* (hour, minutes, seconds) and is ready to scan the data.
- 242- **hh:mm:ss - HIERARCHICAL STRUCTURE UPDATING COMPLETE -**
is an *informative* message. It appears during loading, reloading, and restructuring. The hierarchical structure modifications are complete, and Scratch File 6 contains data for data record modifications.
- 243- **hh:mm:ss - BEGIN SORT OF RECORD UPDATES -**
is an *informative* message. It appears during loading, reloading, and restructuring, but only if Scratch File 6 is not already in order by data record address.
- 244- **hh:mm:ss - SORT OF RECORD UPDATES COMPLETE -**
is an *informative* message. It appears during loading, reloading, and restructuring when the Scratch File 6 sort, if any, is complete.
- 245- **hh:mm:ss - RECORD UPDATING COMPLETE -**
is an *informative* message. It appears during loading, reloading, and restructuring. The Data Table modifications are complete, and Scratch File 2 contains key data values, if any, for the index modifications.
- 246- **hh:mm:ss - BEGIN KEY VALUE SORT -**
is an *informative* message. It appears during loading, reloading, and restructuring if any index modifications need to be performed.
- 247- **hh:mm:ss - KEY VALUE SORT COMPLETE -**
is an *informative* message. It appears during loading, reloading, and restructuring when the Scratch File 2 sort, if any, completes and updating of the index begins.
- 248- **hh:mm:ss - BEGIN LONG VALUE SORT -**
is an *informative* message. It appears during loading, reloading, and restructuring if updating added any key values that exceeded their pictures.
- 249- **hh:mm:ss - LONG VALUE SORT COMPLETE -**
is an *informative* message. It appears during loading, reloading, and restructuring after the Scratch File 6 sort, if any, is complete.

- 250- hh:mm:ss - LONG VALUE UPDATE COMPLETE -**
is an *informative* message. It appears during loading, reloading, and restructuring. The second pass of updating the Data Table is complete.
- 251- hh:mm:ss - LOADING COMPLETE -**
is an *informative* message. SYSTEM 2000 completed loading, reloading, or restructuring the database. You are specified the QUEST processor.
- 252- 3,8 MDUP=1 ON LOCO CHG: word-number.. -**
-253- 3,8 MDUP=1 ON VALUE CHG: word-number.. -
-254- 3,8 MDUP=0 ON NO CHG: word-number.. -
-255- 3,8 MIS-ORDER ON LOCO: word-number.. -
-256- 3,8 MIS-ORDER ON VALUE: word-number.. -
 These *nonfatal* messages (-252- through -256-) indicate a sorting problem. At the indicated word-position, the key value sort output was not in order. If the sort retained all records from the input file, the only problem was in their order, and the database index is good. However, if the sort replaced, lost, or duplicated records, the index is bad. That is, the error is destructive. If you receive these messages, contact SYSTEM 2000 Technical Support.
- 258- UPDATE CYCLE = n -**
is an *informative* message. It appears after an SCF update is complete for a database that has active update logging.
- 260- ERROR IN DATA FILE a, CARD NO. n, ENTRY NO. m -**
is a *nonfatal, nondestructive* error. This message helps you determine the exact location of the error. The error was on the n^{th} line image that was scanned in the Data File named *a*. The faulty value was for an item in a data record in the m^{th} logical entry that was scanned.

QUEST Processor Messages

Messages numbered -271- through -399- are issued by the QUEST processor. Some of these messages are general, such as -303- or -373-; they can also occur for the other SCF processors.

- 271- INVALID STRING DELIMITER -**
is a *nonfatal, nondestructive* error. The delimiter for the ECHO string command was not one of the characters in the set of valid characters for delimiters. See the list under SCF message -108-.
- 272- 'TO' MISSING AFTER FIRST WHERE-CLAUSE, OR SECOND WHERE-CLAUSE OR TRACE MISSING -**
is a *nonfatal, nondestructive* error. The word TO must follow the first where-clause, and you must also specify a second where-clause (or trace).
- 273- COLLECT FILE DOES NOT EXIST -**
is a *nonfatal, nondestructive* error. It occurs if you request an unload of a Collect File, but the Collect File does not exist. The Collect File is a scratch file, which means that the unload must be done in the same SYSTEM 2000 session in which you specify the COLLECT command.
- 274- MOVE TREE WITH CF WHERE-CLAUSE NOT ALLOWED -**
is a *nonfatal, nondestructive* error. You cannot specify Collect File items in either where-clause of a MOVE TREE or a COPY TREE command.

- 275- ONLY THE COMMAND TERMINATOR CAN FOLLOW OPTIONS IF 'CF' SELECTED -**
 is a *nonfatal, nondestructive* error. When you unload a Collect File, you cannot use a retrieval-clause, an ordering-clause, or a where-clause. The entire Collect File is always unloaded. A colon (:) (that is, the command terminator) is the only valid character that can follow the second slash. For example, UNLOAD/CF/: is an acceptable command.
- 276- COLLECT FILE NAME CONTAINS RESERVED WORD -**
 is a *nonfatal, nondestructive* error. A Collect File item name cannot begin with a SYSTEM 2000 reserved word.
- 277- INVALID USE OF DATABASE ITEM -**
 is a *nonfatal, nondestructive* error. You cannot specify a database item in a DESCRIBE command that specifies COLLECT FILE.
- 278- COLLECT FILE ITEM IN WHERE-CLAUSE INVALID WITH INTERMEDIATE LIMIT -**
 is a *nonfatal, nondestructive* error. If the intermediate limit is set, you cannot use a Collect File where-clause in any LIST or PRINT command.
- 279- UPDATE WITH CF WHERE-CLAUSE NOT ALLOWED WITH LIMIT -**
 is a *nonfatal, nondestructive* error. If limits are set, you cannot use Collect File items in the where-clause of an update command.
- 280- ORDERING-CLAUSE INCOMPATIBLE WITH RETRIEVAL-CLAUSE -**
 is a *nonfatal, nondestructive* error. The ordering-clause cannot contain only database items when the retrieval-clause contains only Collect File items.
- 281- m1 TRUNCATED COLLECT FILE LIST(S) -**
 is an *informative* message. The integer *m1* specifies the total number of Collect File where-clause lists that were truncated because SYSTEM 2000 applied your specified limits.
- 282- m2 CANCELLED COLLECT FILE LIST(S) -**
 is an *informative* message. The integer *m2* specifies the total number of Collect File where-clause lists that were cancelled because SYSTEM 2000 applied your specified limits.
- 283- RETRIEVAL-CLAUSE REQUIRES COLLECT FILE CONDITION IN WHERE-CLAUSE -**
 is a *nonfatal, nondestructive* error. If you specify both schema items and Collect File items in a retrieval-clause, you must specify at least one Collect File condition in the where-clause in order to relate the Collect File to a database. If there is no where-clause, the retrieval-clause must contain either all schema items (or records) or all Collect File items, but not both.
- 284- WHERE-CLAUSE MEANINGLESS FOR RETRIEVAL-CLAUSE -**
 is a *nonfatal, nondestructive* error. The retrieval-clause cannot contain only Collect File items when you specify a where-clause.
- 285- UNRECOGNIZED COLLECT FILE ITEM NAME -**
 is a *nonfatal, nondestructive* error. A command contained an item name followed by (CF), and the item name was not on the list of defined Collect File items.
- 286- COLLECT FILE ITEM NAME MUST BE SPECIFIED -**
 is a *nonfatal, nondestructive* error. The COLLECT command contained a retrieval object that was not a simple retrieval object. Because SYSTEM 2000 can create the Collect File name only for simple retrieval objects, you need to specify the Collect File name for this retrieval object.

-287- DUPLICATE COLLECT FILE ITEM NAME SPECIFIED -

is a *nonfatal, nondestructive* error. Collect File item names must be unique. The COLLECT command contained the same name for more than one retrieval object.

-288- n COLLECTED RECORDS -

is an *informative* message. The integer *n* is the number of records written to the Collect File after the software processed a COLLECT command successfully.

-289- ONLY COMMAND TERMINATOR CAN FOLLOW OPTIONS IN FORMOP COMMAND -

is a *nonfatal, nondestructive* error. Only the command terminator, which is the colon (:) by default, can follow the delimiter that ends the list of format options.

-290- DATA VALUE CONTAINS CURRENT SYSTEM SEPARATOR -

is a *nonfatal, nondestructive* error. For an UNLOAD command, one or more unloaded values contains the current system separator, which could cause problems later when the system tries to read the unloaded Data File. If the value for the OPT000 execution parameter is YES, message -291- appears after message -290-. For details about the OPT000 execution parameter, see the *SYSTEM 2000 Software: Product Support Manual, Version 1, First Edition*.

-291- THESE SYSTEM SEPARATORS ARE AVAILABLE *special-characters* -

is a *nonfatal, nondestructive* message. It follows message -290- if the value for the OPT000 execution parameter is YES. The characters displayed in message -291- did not occur in any unloaded value and, therefore, can be used as the system separator during the unload. Lines 2 and 3 in message -291- show the hexadecimal values of the characters. You can safely change the current system separator to any of the displayed characters and execute the UNLOAD command again to produce acceptable UNLOAD output.

The following example assumes that OPT000=YES and the current system separator is the asterisk (*). If a value being unloaded for C1 produces the following value stream:

```
1*AAA!<+*)"*
```

AAA is acceptable. The other characters in the value contain the asterisk (*) and other characters that could create problems if they become the system separator. This is how the messages appear

```
-290- DATA VALUE CONTAINS CURRENT SYSTEM SEPARATOR -
-291- THESE SYSTEM SEPARATORS ARE AVAILABLE ¢. ( |& $ ; -/%_>?#@' = -
-291-                                     44 4 45 5 5 6666667777 -
-291-                                     AB D F0 B E 01CDEFBCDE -
```

-296- SPECIFIED PAGE WIDTH EXCEEDS REPORT FILE PAGE WIDTH -

is an *informative* message. The page width specified for a LIST command exceeds the Report File page width. LIST command output may be truncated to the Report File logical record length (LRECL).

-300- INVALID USE OF NON-KEY INDICATOR -

is a *nonfatal, nondestructive* error. In a where-clause, NON-KEY or NK cannot precede schema-record HAS. The NON-KEY option is allowed only before an item.

-301- END OF DATA FILE FOUND -

is a *warning* message for a *nondestructive* error in the data in the Data File. When SYSTEM 2000 looked for another line from the Data File, it found the physical limit of the file. The data must end with an entry terminator word, followed by two system separators, that is, END** by default. A subsequent message might indicate that this error is fatal.

-302- NO PRIOR VALID COMMAND -

is a *warning* message. DITTO did not follow an acceptable command. DITTO re-executes the action-clause in the previous update or retrieval command. This error can also occur if you did not issue a LOCK command.

-303- INCORRECT NUMBER OF PARAMETERS SPECIFIED -

is a *nonfatal, nondestructive* error. A parametric string was called with more or fewer parameters than were specified in the string definition. This message also occurs when a string is invoked improperly. For example, if you specified *70* instead of *C70*.

-304- UNPRINTABLE CHARACTER(S) TRANSLATED TO PERIOD(S) -

is an *informative* message. With HEX OFF, unprintable characters for UNDEFINED values are displayed as periods in TALLY, LIST, and REPORT output.

-305- ERROR IN DATE FORMAT REQUEST -

is a *nonfatal, nondestructive* error. A DATE FORMAT command contained an unacceptable date format specification. The following date format specifications are valid:

MM/DD/YYYY (default)

DD/MM/YY

MM/DD/YY

YY/MM/DD

DD/MM/YYYY

YYYY/MM/DD

-307- VALUE EXCEEDS PICTURE WIDTH -

is a *nonfatal, nondestructive* error. A value was larger than its picture. The only items whose values can overflow are CHARACTER and TEXT items that have pictures equal to or greater than X(4). Notice that UNDEFINED data values, while basically treated as text, cannot overflow. Also, numeric values cannot exceed the item picture.

-308- ERROR IN DATE OR NUMERIC VALUE -

is a *nonfatal, nondestructive* error. A numeric data value or a constant contained a nonnumeric character, exceeded the allowed size, or had an incorrect format.

-309- TOO MANY VALUED COLUMNS SPECIFIED -

is a *nonfatal, nondestructive* error in the retrieval-clause of a LIST command. The retrieval-clause referred to more than the maximum of 59 items.

-310- SPECIFIED PAGE WIDTH OUT OF RANGE -

is a *nonfatal, nondestructive* error in the description of the page width for a LIST command. The minimum width is 4 characters. The maximum width is 256 characters.

-311- FIRST LIMIT GREATER THAN SECOND -

is a *batch fatal, nondestructive* error in the specification of the LIMIT *min, max...* command. The *min* value must be less than or equal to the *max* value, except when *max* is infinite 0).

-312- FIRST COMPONENT OCCURS AFTER SECOND -

is a *nonfatal, nondestructive* error in a DESCRIBE *Cm THROUGH Cn* command. The component *Cm* must occur earlier in the definition than component *Cn*. That is, *Cm* is displayed before *Cn* in the DESCRIBE output.

-314- ORDERING KEY TRUNCATED AT LEAST ONCE -

is a *warning* message. An ordering-clause contained a list of sort items whose values exceeded 364 characters in length. SYSTEM 2000 used the first 364 characters from the specified items to sort the retrieved data records for processing. Sort characters from values beyond the 364th character were ignored.

-315- TOO MANY ROWS SPECIFIED IN HEADINGS -

is a *nonfatal, nondestructive* error in the rows designation of a LIST command. You gave more than five S-specifications in the TITLE, or SYSTEM 2000 was unable to fit one or more column headings into 5 rows. If you used the default layouts, you can do one of the following to correct the error:

- If the TITLE option set the page width, increase the page width up to 256 characters for batch output devices and up to 71 characters for interactive devices.
- Reduce the size of the headings.

-316- TOO MANY SPECIFICATIONS IN RETRIEVAL-CLAUSE -

is a *nonfatal, nondestructive* error in the retrieval-clause for a PRINT, an UNLOAD, a TALLY, a LIST, or a CREATE/REMOVE INDEX command. The error is batch fatal for CREATE/REMOVE INDEX. In an interactive session, the CONTROL processor and the session continues. To correct this error, divide the command into several smaller commands and use the SAME operator if applicable. This error occurred because the retrieval-clause

- was too complex.
- referred to too many components.
- referred to functions, system functions, or arithmetic expressions that had too many operators or operands for a PRINT, a LIST, or an UNLOAD command.

-317- ITEM MUST BE NUMERIC DATA TYPE -

is a *nonfatal, nondestructive* error. Functions, system functions, and arithmetic expressions require numeric or DATE type items. CHARACTER, TEXT, and UNDEFINED type items cannot be used with SUM, AVG, SIGMA, or in any arithmetic expression. This error pertains to Collect File items as well as schema items.

-318- BOTH TERMS IN ITEM-TO-ITEM COMPARE MUST BE NUMERIC OR TEXTUAL -

is a *nonfatal, nondestructive* error. In an item-to-item comparison, both the left and the right terms must be numeric or character. REAL and DOUBLE are numeric types. UNDEFINED is treated as character, that is, the same as CHARACTER and TEXT types. This error message pertains to Collect File items, as well as to schema items.

-319- INVALID USE OF RECORD LABEL -

is a *nonfatal, nondestructive* error. A subschema record label occurred where the command required an item label. In a where-clause, schema records can occur only before HAS, HAVE, or HAVING. The only system function that allows a schema record is COUNT. Also, a schema record cannot be used with TALLY, LIST, or CREATE/REMOVE INDEX. For CREATE/REMOVE INDEX, this error is batch fatal. An interactive session continues, and the CONTROL processor becomes available.

-320- INVALID LINE SPACING REQUESTED IN S-OPTION -

is a *nonfatal, nondestructive* error in specifying the number of blank lines to be included in LIST output. The LIST command

- specified more blank lines than the software could display on a single page of LIST output. The total number of blank lines is represented by the sum of all *hs* and *vs* for all $S(h)$ and $S(h,v)$ specifications. This occurs only if you used the F-specification to specify the page length. You can increase the page length to a maximum of 60 lines. If the page length is not specified, all output is displayed on a single page of unlimited length.
- contained 0 or a negative number for an *h* or *v* in an $S(h)$ or $S(h,v)$ specification.

-321- RECORD LABEL REQUIRED -

is a *nonfatal, nondestructive* error. Only a schema record can be specified before the EQ operator in an INSERT TREE, ASSIGN TREE, COPY TREE, MOVE TREE, or REMOVE TREE command. Also, the by-clause requires a schema record.

-322- COMPONENTS MUST BE DESCENDANTS OF BY-PHRASE RECORD -

is a *nonfatal, nondestructive* error in a by-phrase. The correct by-phrase format is BY schema-record, component [*component*]..., where the records for all components are descendants of the specified schema record. Also, a system function with a by-phrase requires records that are descendants of the by-phrase record.

-323- DISJOINT ITEMS IN CONDITION -

is a *nonfatal, nondestructive* error. In an item-to-item comparison, the items cannot belong to records in different schema paths.

-324- ACTION-CLAUSE COMPONENTS MUST BE IN TARGET RECORD PATH -

is a *nonfatal, nondestructive* error in an update command that computes the value for one item based on another. The item on the left of the equal sign must be in the same path (related records) as the item on the right, and the left item must be in the same schema record or a descendant record. Consider the update command CHANGE C25=C15 WHERE C1 EXISTS. C25 and C15 must either be in the same schema record or C25 must belong to a schema record that is a descendant of the record associated with C15. Also, consider the more complex command CHANGE C135 = SUM C122 BY C100 WHERE..., where C100 is at level 1 and C135 and C122 are items in disjoint records that are descendants of C100. Schema record C100 in the by-phrase must be in the path of the target record C120, but items in the system function need not be in the same path.

-325- DATA TYPE IN EXPRESSION NOT COMPATIBLE WITH TARGET DATA TYPE -

is a *nonfatal, nondestructive* error in an update command that computes an item value based on a user-supplied value or on a value of another item. The items or values on both sides of the equals sign must be dates or numeric, or both must be CHARACTER, TEXT, or UNDEFINED type.

-326- ACTION-CLAUSE COMPONENTS MUST BE IN ONE PATH -

is a *nonfatal, nondestructive* error. The action-clause cannot refer to components in disjoint schema records. When a retrieval command contains a where-clause, the following action-clause components must lie along a single path: all components referenced directly, all by-phrase records, and all ordering-clause components. A retrieval-clause can contain disjoint schema records only if the command does not contain a where-clause.

-327- FUNCTION COMPONENTS MUST BE IN ONE PATH -

is a *nonfatal, nondestructive* error. All items in a function, arithmetic expression, or system function must belong to schema records that lie along a single path.

- 328- INVALID USE OF NON-KEY ITEM -**
is a *nonfatal, nondestructive* error in a component reference. You cannot use a non-key item in a TALLY command or a REMOVE INDEX command. For REMOVE INDEX, the error is batch fatal. An interactive session continues, and the CONTROL processor becomes available.
- 329- ITEM LABEL REQUIRED -**
is a *nonfatal, nondestructive* error. SYSTEM 2000 found a record label where the syntax required an item label.
- 330- ERROR IN TEXT, CHARACTER, OR UNDEFINED VALUE -**
is a *nonfatal, nondestructive* error. An invalid character was encountered in an alphanumeric value.
- 331- ORDERING-CLAUSE RESTRICTED TO LEVEL-0 COMPONENTS -**
is a *nonfatal, nondestructive* error. Ordering in a RELOAD command is allowed only at level 0.
- 332- ENTRY KEY VALUE MUST BE UNIQUE -**
is a *nonfatal, nondestructive* error. Security by Entry was denied. The value for the Entry Key item was not unique, or it was missing.
- 333- 'TALLY' IS INVALID FOR CURRENT PASSWORD -**
is a *nonfatal, nondestructive* error. The TALLY command cannot be used by a secondary password when Security by Entry is in effect.
- 334- IMPROPER 'SECURITY BY ENTRY' QUALIFICATION -**
is a *nonfatal, nondestructive* error. Security by Entry was denied. The Entry Key condition must contain the EQ operator with a single value, must be the first (or only) condition, and cannot be joined to another expression by using the OR operator.
- 335- INVALID 'REORGANIZE' SYNTAX -**
is a *batch fatal, nondestructive* error. The reorganize parameter must be DVT, MOT, or ALL. If you are an interactive user, the CONTROL processor becomes available.
- 336- COMMAND REQUIRES A REPORT FILE WITH AN LRECL OF 44 OR GREATER -**
is a *nonfatal, nondestructive* error. The command issued requires a Report File page width of 44 or more.
- 337- DISJOINT CONDITIONS ENCOUNTERED -**
is a *nonfatal, nondestructive* error. The where-clause referred to unrelated schema records that produced no qualified records. You can use the HAS operator to alleviate this problem if the unrelated schema records have a common parent.
- 338- INVALID USE OF KEY ITEM -**
is a *batch fatal, nondestructive* error. The items in a CREATE INDEX command must be non-key. If you are an interactive user, the CONTROL processor becomes available.
- 339- WARNING- ORDERING-CLAUSE COMPONENTS BELOW RETRIEVAL COMPONENTS -**
is a *warning* message. The specified PRINT, LIST, or UNLOAD command might produce an unexpected volume of output because the ordering-clause contained components at a level below the level of the retrieval-clause. This can cause duplicate output.

- 340- $n1$ TOTAL SELECTED RECORD(S) -**
is an *informative* message. The integer $n1$ specifies the number of selected records from the where-clause. For Collect File records, $n1$ is the total number of records selected from all m Collect File records before the limits (if any) are applied. For a MOVE TREE or COPY TREE command, the integer $n1$ is 1, unless the command was rejected.
- 341- n DUPLICATE RECORD(S) EXCLUDED -**
is an *informative* message. The integer n is the number of duplicate Collect File records eliminated during the qualification process.
- 342- $n3$ SELECTED RECORD(S) -**
is an *informative* message. The integer $n3$ specifies the final count of selected records resulting from the where-clause. Notice that for Collect File records, $n3$ equals $n1$ in message -340- minus $n2$ of message -343-.
- 343- $n2$ RECORD(S) CANCELLED OR TRUNCATED -**
is an *informative* message. The integer $n2$ is the total number of records that were either cancelled or truncated due to previously specified limits. For Collect File records, $n2$ equals $m1$ of message -281- plus $m2$ in message -282-.
- 344- TYPE OF WHERE-CLAUSE DIFFERS FROM LAST USE -**
is a *nonfatal, nondestructive* error. To use the keyword WHERE with DITTO, the previous command must have a where-clause. Also, to use DITTO with AFTER or BEFORE, the previous command must have an after-clause or a before-clause, respectively.
- 345- WHERE-CLAUSE REQUIRED WITH ORDERING -**
is a *nonfatal, nondestructive* error. Ordering uses the data records selected by the where-clause.
- 346- WHERE-CLAUSE REQUIRED WITH TALLY OF NON-KEY ITEMS -**
is a *nonfatal, nondestructive* syntax error. A TALLY of non-key items requires the use of a where-clause.
- 347- 'BEFORE/AFTER' REQUIRED WHEN NO TRACE PROVIDED -**
is a *nonfatal, nondestructive* error. An INSERT TREE, a MOVE TREE, or a COPY TREE command without a trace requires BEFORE or AFTER instead of WHERE. Use the keyword WHERE only for an INSERT TREE, a MOVE TREE, or a COPY TREE command with a partial trace.
- 348- INVALID USE OF 'BEFORE/AFTER' -**
is a *nonfatal, nondestructive* error. You can use BEFORE and AFTER only in an INSERT TREE, a MOVE TREE, or a COPY TREE command. See also message -347-.
- 349- WHERE-CLAUSE INVALID WITH FULL TRACE -**
is a *nonfatal, nondestructive* error. An update command cannot have both a full trace and a where-clause. That is, the trace cannot go up to level 0 if the command contains a where-clause.
- 350- TOO MANY LINES SPECIFIED IN HEADING -**
is a *nonfatal, nondestructive* error. A column heading in a LIST command cannot contain more than two plus signs (+) because column headings cannot have more than three lines.
- 351- COLUMN WIDTH EXCEEDS PAGE WIDTH -**
is a *nonfatal, nondestructive* error in the output specifications for a single item in a LIST command. The number of columns cannot be wider than the output page. Try to alter the page width or the column width of the item.

- 353- REPETITION OF TITLE OR FOOTING NOT ALLOWED -**
is a *nonfatal, nondestructive* error. A TITLE description in a LIST command contained two title specifications [D(*n*),...,D(*m*)] or two footing specifications [F(*n*),...,F(*m*)]. You can specify only one of each.
- 354- 'F' OR 'D' SPECIFICATION IS OUT OF VALID RANGE -**
is a *nonfatal, nondestructive* error. In the TITLE description of a LIST command, an integer for a D- or F-specification was either less than 1 or greater than the specified page width or default page width.
- 355- RECORD LABEL MUST PRECEDE 'HAS' -**
is a *nonfatal, nondestructive* error. A schema record name or C-number is required immediately to the left of the HAS operator.
- 356- TOO MANY LEVELS SPECIFIED IN TRACE -**
is a *nonfatal, nondestructive* error in a trace. The trace specified more levels than there were between the target record and level 0.
- 357- MISSING VALUE STREAM -**
is a *nonfatal, nondestructive* error in an update command. A CHANGE, an ADD, an ASSIGN, an INSERT TREE, and an ASSIGN TREE command require data values.
- 358- VALUE STREAM INVALID WITH 'REMOVE' -**
is a *nonfatal, nondestructive* error. A REMOVE or a REMOVE TREE command cannot contain data values.
- 359- NO PRIOR ACCEPTABLE VALUE STREAM -**
is a *nonfatal, nondestructive* error in using EQ PREVIOUS. PREVIOUS refers to the value, the data record, or the data tree that follows the EQ operator in the action-clause of the last update command. Either no update command preceded the command that contains EQ PREVIOUS, or the previous update command contained a faulty value stream.
- 360- 'PREVIOUS' IS VALID ONLY WHEN SAME COMPONENT IS USED -**
is a *nonfatal, nondestructive* error. PREVIOUS refers to the value stream in the action-clause of the last update command. Both commands must refer to the same component and the same data structure.
- 361- ITEM DOES NOT BELONG IN CURRENT RECORD -**
is a *nonfatal, nondestructive* error in the input data structure. The cursor code points to an item that did not belong to the last specified schema record.
- 362- ITEM VALUED TWICE IN ONE RECORD -**
is a *nonfatal, nondestructive* error. The cursor code points to a value that is the second value for an item within one data record. A component number was incorrect, an entry terminator was missing, or a record component number was missing.
- 363- PARENT DATA RECORD IS MISSING -**
is a *nonfatal, nondestructive* error in the structured data value stream for an update command. The cursor code points to a data record that has no parent data record.
- 364- MORE THAN ONE RECORD SPECIFIED -**
is a *nonfatal, nondestructive* error. Only one data record can be specified in an update command, unless the command specifies a tree operation, such as INSERT TREE.

-367- NO PRIOR VALID WHERE-CLAUSE -

is a *nonfatal, nondestructive* error involving the SAME operator. Any of the following situations might have occurred:

- The command with the SAME operator was not preceded by a command with a where-clause.
- The previous where-clause contained an error.
- Between issuing the command with a where-clause and issuing the command with the SAME operator, you called a different processor.

-368- SAME NOT VALID WITH DYNAMIC WHERE -

is a *nonfatal, nondestructive* message that can be issued to PLEX programs. The SAME operator is not supported in a PLEX DYNAMIC where-clause.

-370- ERROR LIMIT EXCEEDED -

is a *warning* message. The command stream contained STOP IF *n* COMMANDS REJECTED command. The number of commands with nonfatal errors equals *n*, so the SYSTEM 2000 session terminated.

-371- FULL DATABASE PASS NOT ALLOWED -

is a *nonfatal, nondestructive* error. Your where-clause required a full pass of the database hierarchical structure, but full passes are not allowed currently at your site. See your Database Administrator.

-372- 'SAME' NOT ALLOWED IN NON-INDEXED SUBEXPRESSION -

is a *nonfatal, nondestructive* error. The SAME operator cannot be used in a where-clause expression that is to be processed as non-key. For example, NK-condition OR SAME and NK-condition AND NOT SAME are invalid where-clauses.

-373- DATABASE UNALTERED -

is a *warning* message. The last update command or set of QUEUE-mode commands had no effect on the database. Usually, this warning means that you tried to change a value for an item to a new value, but the new value was the same as the existing value.

-374- ENTRY KEY MUST BE USED AS KEY -

is a *nonfatal, nondestructive* error in a where-clause. The Entry Key item cannot be used as NON-KEY (NK).

-375- INVALID OPERATOR OR ITEM LABEL IN ITEM-TO-ITEM COMPARE -

is a *nonfatal, nondestructive* error in a where-clause condition with an item-to-item comparison. The condition included an invalid component label, a ternary (range) operator, or an EXISTS, a FAILS, or a CONTAINS operator.

-378- NOT ALL RECORDS WERE UPDATED -

is a *nonfatal, nondestructive* error in an update command. The command updates data records according to the contents of other data records. However, items in some data records were null, and updates were not performed for those records.

-379- *n* EXPRESSION VALUES WERE NULL, UNDEFINED OR OUT OF RANGE -

is a *nonfatal, nondestructive* error in an arithmetic expression or system function. Computing the expression produced an unacceptable result. For example, division by 0 is not allowed. This error also occurs if you try to assign a numeric value that is too large for the item type.

-380- TOO MANY LEVELS OF 'HAS' NESTING -

is a *nonfatal, nondestructive* error in a where-clause. A maximum of 14 levels of has-clause nesting is allowed.

- 381- WHERE-CLAUSE REQUIRED WITH PARTIAL TRACE -**
is a *nonfatal, nondestructive* error in trace notation. Either the trace needs to go to level 0 (full trace) to select one data record or a where-clause is needed to supplement the partial trace.
- 382- ENTRY KEY NOT ALLOWED IN NON-KEY CONTEXT -**
is a *nonfatal, nondestructive* error. You cannot use an Entry Key condition in a where-clause that requires a full pass of the database. In a prior command, establish the Entry Key in a where-clause, then issue the command that requires a full pass of the database.
- 383- 'BEFORE/AFTER' INVALID WITH TRACE -**
is a *nonfatal, nondestructive* error. Trace notation is not allowed in an update command that contains a before-clause or after-clause.
- 384- SYSTEM FUNCTION LEVEL ABOVE TARGET LEVEL, RESULTS MAY BE INCONSISTENT -**
is a *warning* message. A PRINT, a LIST, or an UNLOAD command might have produced incorrect values for a system function. The target record for the PRINT, the LIST, or the UNLOAD command was below the lowest level component in the system function. If logical order and physical order are not identical, a data record might be treated as if it occurs more than once in the system function. To correct the error, issue the PRINT, the LIST, or the UNLOAD command with REPEAT SUPPRESS and an ordering-clause that refers to the target component of the system function. Also, REPEAT SUPPRESS and a freshly loaded database (no updates) produces correct results.
- 385- A USER-CODED COLUMN HEADING MUST PRECEDE EACH S-OPTION -**
is a *nonfatal, nondestructive* error. In a LIST command, each S-specification must immediately follow a user-coded column heading. The S-specification cannot initiate a title specification or follow another S-specification.
- 387- ACTION-CLAUSE COMPONENTS MUST BE IN WHERE-CLAUSE PATH -**
is a *nonfatal, nondestructive* error. Components in the action-clause cannot be disjoint from the where-clause components. Use a by-clause or a has-clause, or omit the where-clause.
- 388- UNABLE TO FOLD WITHIN MULTI-LINE COLUMN HEADING -**
is a *nonfatal, nondestructive* error. In a LIST command, the first column heading line for a row was equal to or less than the page width, but the second or third was greater than the page width.
- 390- 'AT' COUNT INVALID -**
is a *nonfatal, nondestructive* error in a where-clause. The number that follows AT exceeded the maximum of 16,777,216.
- 391- INVALID HEADING-CONTROL VALUE -**
is a *nonfatal, nondestructive* error. A LIST command contained one or more S(*h,v,H-list*) specifications. The *H-list* entries can be valued only with P, N, blank, or a maximum of five *ns*, separated by commas, with each *n* being a numeric value of 1, 2, 3, 4, or 5.
- 392- MAXIMUM OF 5 HEADING-CONTROL NUMBERS ALLOWED -**
is a *nonfatal, nondestructive* error. The command contained one or more S(*h,v,H-list*) specifications. You can specify a maximum of five *ns* in the *H-list* for each S. The *H-list* entries can be valued only with P, N, blank, or a maximum of five *ns*, separated by commas with each *n* being a numeric value of 1, 2, 3, 4, or 5.
- 393- WARNING- ROLLBACK SUSPENDED -**
is a *warning* message. The Rollback Log was suspended because of a request to reorganize, index, or reload the database. If the reorganize, indexing, or reload

process completed successfully, rollback went into effect again. If not, the database is damaged and must be restored with the RESTORE command and, perhaps, the APPLY command. The RELEASE command also suspends the Rollback Log.

-394- 'END FRAME' NOT ACCEPTED WHEN FRAME NOT IN EFFECT -

is an *informative* message. You gave an END FRAME command to end a logical unit of work or to release a global hold on the database, but you did not specify a FRAME command to begin the logical unit of work or to create the global hold. Therefore, the END FRAME command was ignored.

-395- 'P' OR 'N' NOT IN FIRST S-SPECIFICATION -

is a *nonfatal, nondestructive* error. A LIST command contained more than one S(*h,v,H-list*) specification. The only place you can specify the P- or N-option is in the *H-list* of the first S-specification.

-396- ITEMS MUST BE TYPE CHAR OR TEXT -

is a *nonfatal, nondestructive* error in a where-clause. A text search condition is not allowed for a DATE, an INTEGER, a DECIMAL, or a MONEY type item. Only CHARACTER or TEXT items can be specified for text search (using the CONTAINS operator).

-397- SEARCH RANGE INVALID -

is a *nonfatal, nondestructive* error. It occurred because of one of the following situations:

- The search range (FROM ... THROUGH) was too narrow to contain the specified data pattern.
- A position or character count was greater than 250.

-398- COMMAND NOT ACCEPTABLE INSIDE A FRAME -

is a *fatal* error. A CONTROL, a DEFINE, a COMPOSE, or a REPORT command cannot be specified in a logical unit of work begun by a FRAME command. Close the frame with an END FRAME before giving these commands. The database is damaged, the updates performed within the logical unit of work were removed, and the SYSTEM 2000 session terminated.

-399- DATE FORMAT HAS A 2-DIGIT YEAR -

is an *informative* message displayed for the UNLOAD command if a two-digit year format is in effect. Any DATE values in the unloaded data will contain two-digit years. See *QUEST Language and System-Wide Commands, Version 12* for an explanation of the DATE FORMAT IS command.

REPORT Processor Messages

Messages numbered -400- through -499- are issued by the REPORT processor. The REPORT processor treats each report composition as a single command. Therefore, one error in a report composition prevents execution of that entire report; that is, the error is *report fatal*. If other reports in a REPORT/GENERATE session are error-free, they will produce results as described for message -477-.

Errors in a report composition never damage a database because the REPORT processor never updates a database. That is, all errors are *nondestructive*. Also, errors in a report composition are always *nonfatal*. However, *batch fatal* errors can occur in a GENERATE command or as a result of too many report compositions in a REPORT/GENERATE session.

- 401- **REPORT name REQUIRES CF WHERE-CLAUSE IN GENERATE COMMAND -**
is a *nonfatal, nondestructive* error. A report that contains both Collect File items and database items requires a where-clause that references both kinds of items in the GENERATE command. The report was cancelled.
- 402- **'OCCURS' WITH A COLLECT FILE ITEM IS NOT ALLOWED -**
is a *report fatal, nondestructive* error. The OCCURS verb cannot be used with a Collect File item.
- 403- **REPORT PAGE WIDTH EXCEEDS REPORT FILE PAGE WIDTH -**
is an *informative* message. The page width for a report exceeds the Report File page width and data truncation may occur.
- 405- **REPORT PROCESSOR REQUIRES SCRATCH PADS -**
is a *nonfatal, nondestructive* error. Most of the processors do not require scratch pads, but REPORT does. You are specified the QUEST processor. For information about scratch pads, see the *SYSTEM 2000 Software: Product Support Manual*.
- 406- **GENERATE WITH COLLECT FILE WHERE-CLAUSE NOT ALLOWED WITH LIMIT -**
is a *nonfatal, nondestructive, report fatal* error. If the LIMIT command is in effect, you cannot issue a GENERATE command with a where-clause that contains a Collect File item.
- 407- **EDIT PICTURE WIDTH RANGE 8 TO 14 CHARACTERS FOR ITEM TYPE REAL -**
is a *nonfatal, nondestructive, report fatal* error. For REAL type items, the edit picture must contain 8 to 14 characters.
- 408- **EDIT PICTURE WIDTH RANGE 8 TO 24 CHARACTERS FOR ITEM TYPE DOUBLE -**
is a *nonfatal, nondestructive, report fatal* error. For DOUBLE type items, the edit picture must contain 8 to 24 characters.
- 410- **CONSECUTIVE 'END REPORT' STATEMENT IGNORED -**
is a *warning* message. The system ignored an END REPORT statement because no FOR REPORT block occurred between two END REPORT statements.
- 411- **REPORT NAME TOO LONG OR MISSING -**
is a *nonfatal, nondestructive, report fatal* error in the FOR REPORT block. The report name was missing, or it was not 1 to 8 characters long.
- 412- **NO MORE THAN 100 REPORTS MAY BE COMPOSED IN ONE SESSION -**
is a *batch fatal, nondestructive* error. A single REPORT/GENERATE session cannot contain more than 100 reports.

- 415- **ONLY ONE 'FOR RECORD' OR 'FOR PAGE' STATEMENT PER REPORT -**
is a *nonfatal, nondestructive, report fatal* error in a report composition. A single report cannot have more than one FOR RECORD or FOR PAGE block specification. All action-clauses that are to be performed at every breakpoint must follow a single FOR RECORD and all action-clauses for each new page of a report must follow a single FOR PAGE block specification.
- 416- **DUPLICATE BREAKPOINT COMPONENTS -**
is a *nonfatal, nondestructive, report fatal* error. Two FOR component block specifications cannot refer to the same component. However, a single report can have multiple FOR component block specifications that designate different breakpoints. All action-clauses that depend on the same breakpoint must follow a single FOR component block specification or the corresponding AT END block specification.
- 417- **MAXIMUM OF 20 SORT KEYS ALLOWED -**
is a *nonfatal, nondestructive, report fatal* error. An ordering-clause cannot have more than 20 components.
- 418- **EXCEEDED 63 BREAKPOINTS -**
is a *nonfatal, nondestructive, report fatal* error. A report composition cannot have more than 63 FOR block specifications, including FOR REPORT and FOR RECORD, but not FOR PAGE.
- 419- **MISSING 'END REPORT' STATEMENT SUPPLIED BY SYSTEM 2000 -**
is an *informative* message. An END REPORT statement was missing for a report; SYSTEM 2000 supplied the statement for you.
- 420- **INVALID LITERAL MARKER OR MISSING 'L' OR 'R' -**
is a *nonfatal, nondestructive, report fatal* error. You probably specified display columns without specifying alignment. The REPORT processor attempted to parse the input as a literal.
- 421- **MISSING RIGHT PARENTHESIS -**
is a *nonfatal, nondestructive, report fatal* error. The number of right parentheses was less than the number of left parentheses.
- 422- **MISSING LEFT PARENTHESIS -**
is a *nonfatal, nondestructive, report fatal* error. The number of left parentheses was less than the number of right parentheses.
- 423- **TOO MANY 'SUM', 'RSUM' 'CNT' OR 'RCNT' FUNCTIONS -**
is a *nonfatal, nondestructive, report fatal* error in a FOR REPORT block. A single report cannot refer to more than 64 system functions. Sample uses of system functions are: SUM OF C1, RSUM OF C2, CNT OF C3, RCNT OF C62.
- 424- **NO MORE THAN 500 DATABASE COMPONENTS CAN BE REFERENCED -**
is a *nonfatal, nondestructive, report fatal* error. One report cannot reference more than 500 database components.
- 425- **NO MORE THAN 1000 SPECIFIED COMPONENTS AND DECLARED VARIABLES ALLOWED -**
is a *nonfatal, nondestructive, report fatal* error. One report cannot reference more than a total of 1000 database components and declared variables.
- 426- **ENTRY POINT NOT FOUND -**
is a *nonfatal, nondestructive, report fatal* error. The system could not locate an external user subroutine. The subroutine name was either misspelled or missing, or it was not compiled and stored properly.

- 427- **NO MORE THAN 20 EXTERNAL ROUTINES MAY BE CALLED -**
is a *nonfatal, nondestructive, report fatal* error. External variables cannot call more than 20 subroutines or entry points in one REPORT/GENERATE session.
- 428- **VARIABLE MUST BE NUMERIC -**
is a *nonfatal, nondestructive, report fatal* error in a FOR REPORT block. You can use only CHARACTER or TEXT type variables to receive data from external subroutines.
- 429- **FUNCTION RESTRICTED TO NUMERIC ITEMS -**
is a *nonfatal, nondestructive, report fatal* error in a DECLARE statement. A system function cannot perform a numeric calculation on a CHARACTER, a TEXT, or an UNDEFINED item type variable.
- 430- **NUMBER OF CONCURRENT SKIPS CANNOT EXCEED PAGE LENGTH -**
is a *nonfatal, nondestructive, report fatal* error in one or more SKIP *n* LINES. The sum of the *ns* was larger than the page size. The report contained too many concurrent line skips that have no intervening PRINT statements.
- 432- **LINE SPECIFICATIONS EXCEED PAGE WIDTH -**
is a *nonfatal, nondestructive, report fatal* error in a PRINT statement. The number of characters in a line specification exceeded the page width. Page width is determined by a LOGICAL PAGE IS statement, a PHYSICAL PAGE IS statement, or by the default setting. The maximum page width is 256 characters. The logical page width cannot be greater than the physical page width. To correct the error, try to divide the PRINT statement into two or more PRINT statements. Each statement should produce a line small enough to fit on a page.
- 433- **PRINT FIELDS OVERLAP -**
is a *nonfatal, nondestructive, report fatal* error. The starting position of the flagged picture was within the previous picture. An item or variable cannot be displayed over another value in the same PRINT statement. If you want to produce overstriking, use the SKIP 0 LINES command.
- 434- **PICTURE REQUIRED FOR DECLARED VARIABLE -**
is a *nonfatal, nondestructive, report fatal* error in a PRINT statement. A PRINT statement must describe the picture for the declared variable each time it is printed.
- 435- **NUMERIC EDIT PICTURE CANNOT EXCEED 15 DIGITS -**
is a *nonfatal, nondestructive, report fatal* error. An edit picture cannot contain more than 15 digits.
- 436- **MAXIMUM OF 20 'RSUM' AND 'RCNT' FUNCTIONS ALLOWED -**
is a *nonfatal, nondestructive, report fatal* error. An action-clause cannot contain more than 20 automatically reset functions (RSUM or RCNT).
- 437- **PICTURE EXCEEDS 30 CHARACTERS -**
is a *nonfatal, nondestructive, report fatal* error. A print picture cannot contain more than 30 characters.
- 438- **'COMPUTE' CAN REFER ONLY TO SUMMARY FUNCTIONS OR EXTERNAL SUBROUTINES -**
is a *nonfatal, nondestructive, report fatal* error. A COMPUTE statement can refer only to summary functions and external subroutines. This error usually occurs when you try to compute an arithmetic function. An arithmetic function cannot be the object of a COMPUTE statement. Arithmetic functions are computed automatically when the declared variable for the function is printed.

-440- INVALID CHARACTER IN PICTURE -

is a *nonfatal, nondestructive, report fatal* error in a print picture. The picture contained a descriptive character that was not defined for the type of data to be displayed. For example, a picture containing M or Y is valid only for a DATE item. Or, you specified an 'E' for an item that is not type REAL or DOUBLE, or you attempted to use a picture type other than 'E' for a type REAL or DOUBLE item.

-441- TWO SIGNS OR DECIMAL POINTS IN PICTURE -

is a *nonfatal, nondestructive, report fatal* error in the print picture for a numeric value. The picture contained two plus signs, two minus signs, or two decimal points. For REAL and DOUBLE type items, one decimal point is implied.

-442- FLOATING CHARACTER BEGINS AFTER DECIMAL IN PICTURE -

is a *nonfatal, nondestructive, report fatal* error in the print picture for a numeric item. The decimal point in the picture was on the left side of all suppression characters. At least two suppression characters normally precede the decimal point.

-443- FIELD TOO WIDE IN DATE PICTURE -

is a *nonfatal, nondestructive, report fatal* error in the print picture for a DATE type declared variable or database item. The description specified more than 3 characters (MMM) for the month, more than 2 characters (DD) for the day, or more than 4 characters (YYYY) for the year.

-444- MISPLACED SUPPRESSION/SIGN CHARACTER IN PICTURE -

is a *nonfatal, nondestructive, report fatal* error in the print picture for a numeric item.

- A CR, DB, or insertion character must be the last special character in a picture.
- Only one suppression character can be used in a picture. Suppression characters cannot be mixed.
- An insertion character can precede but cannot follow a suppression character in a picture.

-449- COMPUTATION EXCEEDED INTERNAL TABLE SPACE -

is a *warning* message. A computation produced an overflow situation. The processing of an arithmetic or a summary function produced an operand list that overflowed the stack of locations assigned. The declared variable field was filled with Xs to indicate an undefined value. The Xs will remain through any further action-clauses, until the declared variable is reset. This message occurs while the report is being generated, not at report composition time.

-450- NESTED IF-THEN-ELSE CLAUSES NOT ALLOWED -

is a *nonfatal, nondestructive, report fatal* error. You cannot nest if-then-else clauses.

-451- IF-CLAUSE MUST PRECEDE ELSE-CLAUSE -

is a *nonfatal, nondestructive, report fatal* error. Either the statement had no if-clause, or it had more than one else-clause.

-452- IF-CLAUSE REQUIRES A THEN-CLAUSE -

is a *nonfatal, nondestructive, report fatal* error. An if-clause must be followed by a then-clause.

-453- CANNOT EXCEED TWO LEVELS OF NESTING -

is a *nonfatal, nondestructive, report fatal* error in an if-then-clause or a SELECT RECORD IF statement. Any-of-expressions or all-of-expressions can be nested to only two levels in an if-condition.

-454- INVALID TERM IN IF-CONDITION -

is a *nonfatal, nondestructive, report fatal* error in an if-clause. Some condition could not be processed for one of the following reasons:

- A derived CHARACTER or TEXT term appeared on the left of the operation.
- A schema record was specified by using FAILS, EXISTS, or the derived name OCCURS.
- The parser could not scan the correct term successfully.

-455- UNBALANCED PARENTHESES IN IF-CLAUSE -

is a *nonfatal, nondestructive, report fatal* error. The number of right parentheses did not equal the number of left parentheses in the if-clause.

-456- CANNOT EXCEED SEVEN CONDITIONS OR SUBEXPRESSIONS -

is a *nonfatal, nondestructive, report fatal* error. An if-clause can contain a maximum of seven parts. Each part can be a condition or an expression, and each expression can contain a maximum of seven conditions. No further nesting is allowed.

-457- FEWER CONDITIONS OR SUBEXPRESSIONS THAN 'ANY n OF' SPECIFIED -

is a *nonfatal, nondestructive, report fatal* error. An any-*n*-of-expression must have at least *n* conditions.

-458- TERMS OF IF-CONDITION NOT COMPATIBLE -

is a *nonfatal, nondestructive, report fatal* error. An if-condition contained a binary operator that referred to two items or declared variables. Both must be either numeric or nonnumeric.

-459- UNEXPECTED EOD ON DATA FILE -

is a *nonfatal, nondestructive, report fatal* error. SYSTEM 2000 found a pair of system separators, which indicate end of data, in an inappropriate place. This error usually occurs because you omitted a component number or data value.

-460- STATEMENT OUT OF ORDER -

is a *nonfatal, nondestructive, report fatal* error in the placement of a statement. Either a statement that should appear in one block (such as, FOR REPORT) actually appeared in another block, or a statement in a FOR REPORT block was not in the proper order within the block.

-461- INVALID NUMERIC SPECIFICATION -

is a *nonfatal, nondestructive, report fatal* error in the number displayed by the cursor code. For example, if the error was for a SKIP *n* LINES statement, *n* lines exceeded the logical page length, or *n* was alphabetic.

-463- DUPLICATE REPORT OR DECLARED NAME -

is a *nonfatal, nondestructive, report fatal* error. Either the same name was used for two reports in the same REPORT/GENERATE session, or the same name was used to the left of the equal sign (=) in two different DECLARE or DECLARE EXTERNAL statements in the same report.

-464- INVALID DECLARED NAME -

is a *nonfatal, nondestructive, report fatal* error. A declared name must have 1 to 6 alphanumeric characters and must begin with an alphabetic character.

-465- 'SUM', 'RSUM', 'CNT', OR 'RCNT' INVALID IN ORDERING- OR SELECT-CLAUSE -

is a *nonfatal, nondestructive, report fatal* error. You cannot use a summary expression or an arithmetic expression that references a summary expression in an ordering-clause or a select-clause. Only component identifiers and arithmetic expressions that reference no summary expression in a previous DECLARE statement are allowed. (Also, an external subroutine name can be the object of an ordering-clause.)

-467- DECLARED VARIABLE NESTING TOO COMPLEX -

is a *nonfatal, nondestructive, report fatal* error. Nesting of declared variable names within declared variable names cannot exceed 76 levels.

-468- MISSING 'FOR REPORT' STATEMENT -

is a *nonfatal, nondestructive, report fatal* error in the arrangement of statements. The system did not find a FOR REPORT statement between the last END REPORT and the misplaced statement.

-469- EXCEEDED MAX ADDRESS TABLE n -

is a *nonfatal, nondestructive, report fatal* error in the size of a report composition. The report contained too many pieces of syntax.

- If $n = 1$, the IF statements and DECLARE statements contained too many characters.
- If $n = 2$, the report contained too many statements.
- If $n = 3$, the print pictures and literals contained too many characters.
- If $n = 4$, the PRINT statements contained too many items.
- If $n = 5$, the report contained too many declared variables.

-470- COMMAND INVALID WITH 'INFINITE' PAGE -

is a *nonfatal, nondestructive, report fatal* error in a page action. The FOR REPORT block designated an infinite page length with a PHYSICAL PAGE IS n BY 0 statement, and it did not contain a LOGICAL PAGE statement. Therefore, the report composition must not contain a FOR PAGE block or a SKIP PAGE command.

-472- n ERRORS HAVE OCCURRED -

is a *nonfatal, nondestructive, report fatal* error that indicates that the last report processed contained errors. The report cannot be generated until it is error-free.

-473- NO ERRORS HAVE OCCURRED -

is an *informative* message. The report specifications were error-free. The report can be generated.

-474- UNDEFINED ITEM TYPE ENCOUNTERED IN REPORT DEFINITION -

is a *nonfatal, nondestructive* error. This message is followed by SCF message -304-, which indicates that unprintable characters are translated into periods (.) in REPORT output.

-475- ... OR UNDECLARED VARIABLE -

is a *nonfatal, nondestructive, report fatal* error. A clause in a report composition referred to a value by name, but the name was not a recognizable component or string name for a system function or an external subroutine. This REPORT processor message always follows message -808-, which indicates an unrecognized component name.

-477- n REPORT(S) CONTAIN(S) ERRORS -

is an *informative* message that indicates how many reports listed in a GENERATE command had errors. If *n* is ALL, the error is *batch fatal*. If *n* is an integer (indicating that some report compositions had errors), the error is *batch fatal* if you specified GENERATE reports. However, if you specified GENERATE ALL, the error is *nonfatal*, which allows the execution of report compositions that were error-free. If *n* is NO, all reports specified in the GENERATE command were error-free, and they are produced.

-478- WARNING- NUMERIC FIELD WILL ALWAYS BE RIGHT-JUSTIFIED -

is a *warning* message. The description of a numeric value specified that the value should be left-justified. However, numeric values require right justification. If the report had no other errors, the software right-justifies the values automatically.

-479- LOWEST SELECTED RECORD COMMON TO ALL REPORTS IS n -

is an *informative* message that identifies the lowest common schema record among all reports. If reports referred to different schema paths, the selectivity of the where-clause might be lost.

-480- UNRECOGNIZED REPORT NAME -

is a *nonfatal, nondestructive* error. The GENERATE command referred to some report that could not be executed. Either the report composition contained errors, or the report name was misspelled. (See message -477- for fatality details.)

-481- CONSECUTIVE 'AT END' IGNORED -

is a *warning* message. The system ignored an AT END block. A FOR block specification did not exist between two AT END statements.

-482- PARENT OF DISJOINT SR MUST BE ON PRIMARY PATH -

is a *nonfatal, nondestructive, report fatal* error. A REPEAT FOR command specified an item or schema record whose parent was not in the primary path.

-483- DISJOINT ITEM OR SR CANNOT APPEAR IN 'ORDER BY' STATEMENT -

is a *nonfatal, nondestructive, report fatal* error. The items and schema records in the ORDER BY statement must be in the path determined by the END PATH WITH statement.

-484- DISJOINT ITEM OR SR CANNOT APPEAR IN 'SELECT RECORD IF' STATEMENT -

is a *nonfatal, nondestructive, report fatal* error. The items and schema records in the SELECT RECORD IF statement must be in the path determined by the END PATH WITH statement.

-485- DISJOINT ITEM OR SR CANNOT BE THE OBJECT OF A FOR STATEMENT -

is a *nonfatal, nondestructive, report fatal* error. The items or schema records of the FOR statement must be in the path determined by the END PATH WITH statement.

-487- 'REPEAT FOR' STATEMENT MUST SPECIFY A DISJOINT SR -

is a *nonfatal, nondestructive, report fatal* error. The REPEAT FOR command should be used for disjoint schema records. Items, primary path records, or unrecognized names are not allowed.

-488- 'CYCLE' MUST BE WITHIN A 'REPEAT FOR' BLOCK -

is a *nonfatal, nondestructive, report fatal* error. A CYCLE command in an IF statement was outside the REPEAT FOR block.

-489- 'END PATH WITH' MUST SPECIFY AN SR -

is a *nonfatal, nondestructive, report fatal* error. An END PATH WITH statement contains a component that is not a schema record.

- 490- NO MORE THAN 100 DISJOINT ITEMS ALLOWED PER REPEAT BLOCK -**
is a *nonfatal, nondestructive, report fatal* error. A REPEAT BLOCK cannot contain more than 100 secondary items.
- 492- NO MORE THAN 100 SECONDARY RECORDS ALLOWED IN A 'REPEAT FOR' STATEMENT -**
is a *nonfatal, nondestructive, report fatal* error. A REPEAT FOR statement cannot contain more than 100 secondary record identifiers.
- 493- ONLY ONE 'END PATH WITH' STATEMENT ALLOWED IN A REPORT -**
is a *nonfatal, nondestructive, report fatal* error. Each report can contain only one END PATH WITH statement.
- 494- 'END PATH WITH' STATEMENT MUST IMMEDIATELY FOLLOW 'FOR REPORT' STATEMENT -**
is a *nonfatal, nondestructive, report fatal* error. The END PATH WITH statement must occur in the FOR REPORT block and must be specified before any DECLARE statements.
- 495- INVALID SYNTAX TO ACCESS DISJOINT ITEM -**
is a *nonfatal, nondestructive, report fatal* error. Items from disjoint records must be preceded by an END PATH WITH statement, which designates the primary path.
- 496- 'CYCLE' MUST BE WITHIN 'IF' CLAUSE -**
is a *nonfatal, nondestructive, report fatal* error. A CYCLE command occurred outside the range of an IF statement.
- 497- REPEAT BLOCK MUST NOT CONTAIN 'FOR' OR 'AT END' STATEMENTS -**
is a *nonfatal, nondestructive, report fatal* error. A REPEAT block cannot contain a FOR or an AT END statement.
- 498- 'END REPEAT' INVALID WITHOUT PRIOR 'REPEAT FOR' STATEMENT -**
is a *nonfatal, nondestructive, report fatal* error. An END REPEAT statement must be preceded by a REPEAT FOR statement.

CONTROL Processor Messages

Messages numbered -500- through -699- are issued by the CONTROL processor. This section also includes warnings about difficulties at the interface with the operating system.

- 500- YOUR SERVICE AGREEMENT FOR THIS PRODUCT HAS EXPIRED. PLEASE CONTACT YOUR DBA -**
is a *warning* message. The current release of SYSTEM 2000 expires on the date specified in the licensing agreement. After that date, SYSTEM 2000 does not accept input.
- 502- DATABASE DOES NOT EXIST -**
is a *batch fatal, nondestructive* error. SYSTEM 2000 could not find the requested database.
- 503- DATABASE NOT ON SPECIFIED SAVEFILE -**
is a *batch fatal, nondestructive* error in locating a database to be transferred from Savefile to disk. The database name in the command was not the same as the database name in File 1 on the Savefile.

-504- SITE SPECIFIED - SCF UPDATE NOT ALLOWED -

is a *fatal* error. When you try to update a database, this message is issued in response to a return code from EXIT44. The return code implies the user exit did not allow the current SCF update. Contact your Database Administrator (DBA) for more information about the use of EXIT44 at your site.

-505- INVALID AUTHORITY SYMBOL, MUST BE 'R, U, W' OR 'N' -

is a *nonfatal, nondestructive* error in assigning one or more authorities to components and secondary passwords. The R-, U-, and W-authorities can be used in any combination. The N-authority must be specified alone.

-507- INVALID PASSWORD -

is a *batch fatal, nondestructive* error. The password you specified was not among the valid passwords for the requested database.

-508- PASSWORD MUST BE 1 TO 4 CHARACTERS LONG -

is a *nonfatal, nondestructive* error. Passwords must be one to four alphanumeric characters or a single special character. If the password is a string of letters or numbers, it cannot contain special characters or internal blanks.

-509- EXCEEDED MAXIMUM OF 200 PASSWORDS -

is a *nonfatal, nondestructive* error. The maximum number of secondary passwords allowed for a database is 200. This number does not include the master password or the DBA password.

-510- PASSWORD NOT FOUND -

is a *nonfatal, nondestructive* error. The password you specified was not in the list of valid passwords for the database.

-511- PASSWORD ALREADY EXISTS -

is a *nonfatal, nondestructive* error. The master password holder tried to assign a new password to a database, but the password already exists for the database.

-513- AN EXIT AT YOUR INSTALLATION DOES NOT ALLOW YOU TO ACCESS THE DATABASE -

is a *nonfatal, nondestructive* error. Your installation is using EXIT45 to limit access to one or more databases. If you need access, the person who installed EXIT45 must determine why you do not have it. This message results from an action code of 36 from the exit. The exit itself may have issued a message that specifies more detail. Message numbers -950- through -999- are reserved for this purpose.

-514- NO UPDATE LOG. COMMAND CANNOT BE EXECUTED -

is a *batch fatal, nondestructive* error. An APPLY command cannot be executed because

- update logging was not activated.
- update logging was suspended.
- the database was updated.
- KEEP was issued since the most recent RESTORE.

Also, the KEEP command and the CLEAR UPDATE LOG command cannot be executed when update logging is not currently active. For a CLEAR command, the clearing mode is changed to the mode specified in the command.

-515- DATABASE DAMAGED, 'APPLY' NOT ALLOWED -

is a *batch fatal* error. The system cannot process an APPLY command for a damaged database. The damage flag remains set.

-516- UPDATE LOG SUSPENDED -

is an *informative* message. Update logging was suspended by a SUSPEND command, a database reload, or restructuring.

-518- 'APPLY' WAS NOT PERFORMED -

is a *batch fatal, nondestructive* error. The name of the currently attached database must match the database name on the Keepfile. Also, the database cycle number in the Keepfile label must be the same as the cycle number of the disk database. The Keepfile failed to satisfy one of these checks, some permanent storage facility error occurred, or an APPLY command requested the application of a previously applied cycle.

-519- 'KEEP' WAS NOT PERFORMED -

is a *batch fatal, nondestructive* error in referencing the proper tape for executing a KEEP command. The database name and cycle in the label of the Keepfile must match the name and cycle in database File 1. (A permanent storage facility error might have occurred.)

-520- NO PASSWORDS -

is an *informative* message. A LIST PASSWORDS or a LIST PASSWORDS AND AUTHORITIES command receives this response when no secondary passwords exist for the database.

-521- DUPLICATE ITEMS NOT ALLOWED -

is a *batch fatal, nondestructive* error. A CREATE or a REMOVE INDEX command contained two or more component labels for the same item. If you are an interactive user, the CONTROL processor becomes available.

-522- ENTRY KEY MUST BE AT LEVEL 0 -

is a *batch fatal, nondestructive* error. The Entry Key must be a level 0 key item.

-523- AVAILABLE TO MASTER PASSWORD ONLY -

is a *nonfatal or batch fatal, nondestructive* error. Some SYSTEM 2000 commands are restricted for use by the master password holder only. Contact the Database Administrator for the correct password procedures.

-524- ENTRY KEY MUST BE A KEY ITEM -

is a *batch fatal, nondestructive* error. The Entry Key must be a key item, not a non-key item or a record.

-528- DATABASE IN USE -

is a TP-only message. A frame (logical unit of work) could not begin for an SCF TP user because the database was in use; the rest of the SCF TP segment is ignored. Usually, all users wait until all databases for a frame are available. The exception is this message for SCF TP users.

-529- YOU ARE EXECUTING A SAS INSTITUTE PRODUCT ON A PROCESSOR (CPU) WHICH IS NOT INCLUDED IN THE SETINIT DATA. THIS IS PERMITTED ONLY IF THIS CPU IS A DESIGNATED BACKUP CPU FOR AN INOPERATIVE CPU -

is an *informative* message. The CPU ID specified to SAS Institute prior to installation is not the same as the CPU ID you are using to execute a SAS Institute program product.

-534- 'N' MAY NOT BE USED WITH OTHER AUTHORITIES -

is a *nonfatal, nondestructive* error in assigning password authorities. An ASSIGN command contained a list of authorities to be assigned to one or more secondary passwords for access to one or more components. The N-authority symbol was in the list. Because N represents the removal of all access authorities, SYSTEM 2000 cannot assign both N-authority and R-, W-, or U-authority simultaneously. To remove one or more access authorities, but allow one or more other authorities to remain in effect, specify only those authorities that are to remain in effect.

- 535- **RANGE SPECIFIED IS INVALID -**
is a *nonfatal, nondestructive* error. In an ASSIGN *authorities* TO *Ci* THROUGH *Cn* command, either *Ci* or *Cn* was an invalid component, or *Cn* preceded *Ci* in DESCRIBE output order.
- 536- **ALLOCATION CISIZE IS INVALID -**
is a *nonfatal, nondestructive* error. The value you specified for CISIZE in an ALLOC command was not a valid SYSTEM 2000 CISIZE.
- 537- **ALLOCATION VOLUME IS A REQUIRED FIELD -**
is a *nonfatal, nondestructive* error. The ALLOC command requires a value for the VOL parameter.
- 538- **ALLOCATION VOLUME MUST BE 1 TO 6 CHARACTERS -**
is a *nonfatal, nondestructive* error. The value you specified for the volume in an ALLOC command was more than 6 characters long.
- 539- **ALLOCATION SIZE MUST BE LARGE OR SMALL -**
is a *nonfatal, nondestructive* error. The value you specified for the SIZE option in an ALLOC command was not LARGE or SMALL.
- 540- **ALLOCATION DISP MUST BE OLD, SHR, OR NEW -**
is a *nonfatal, nondestructive* error. The disposition you specified in an ALLOC command was not OLD, SHR, or NEW.
- 541- **OPEN REQUEST EXCEEDED OPENED-DATABASES MAXIMUM -**
is an *informative* message in both SCF and PLEX for a Multi-User environment. This means that Multi-User has the maximum number of 63 databases open, and you just requested the 64th. For SCF, the error is *batch fatal*. For PLEX, the return code is 93.
- 542- **UNABLE TO OPEN MORE THAN 63 DATABASES -**
is a *nonfatal, nondestructive* error in a Multi-User environment. A PLEX program attempted to have more than 63 databases open simultaneously. The PLEX return code is 92.
- 543- **UNABLE TO GRANT 'EXCLUSIVE' USE WHEN ANOTHER DATABASE IS OPEN -**
is a *nonfatal, nondestructive* error in PLEX Multi-User environment. A PLEX program has a database open and tried to open another database exclusively. The PLEX return code is 95.
- 544- **UNABLE TO OPEN DATABASE WHEN ONE DATABASE IS UNDER EXCLUSIVE USE -**
is a *nonfatal, nondestructive* error in a PLEX Multi-User environment. A PLEX program had exclusive use of one database and tried to open another database. The PLEX return code is 96.
- 545- **REQUESTED DATABASE IS UNDER EXCLUSIVE USE BY ANOTHER USER -**
is a *nonfatal, nondestructive* error in a Multi-User environment. For interactive users, a DATA BASE NAME command is rejected if the database is under exclusive use by another user. Batch jobs do not receive this message because they wait until the session with exclusive use relinquishes the database. The PLEX return code is 94 for OPENR or FRAME/CONDITIONAL/.
- 546- **NO USER SPECIFICATION -**
is a *batch fatal, nondestructive* error. After calling SYSTEM 2000, the USER command must be issued prior to issuing any other SYSTEM 2000 command. The password must be 1 to 4 alphanumeric characters or 1 special character. When creating a new database, the password becomes the master password for the new

database. When accessing an old database, the USER command must specify a valid password previously assigned to the database.

If you are an SCF TP user, the console operator can cancel your job without notice. The database is detached from your session, and you exit from SYSTEM 2000. Even so, the next command signs you on to a SYSTEM 2000 session again. As a result, you receive this message when you enter the next command. After checking with operations to see if the job was recently cancelled, you can proceed only by entering EXIT: or USER, *password:* followed by a DATABASE NAME IS command.

-547- BAD LABEL ON KEEPFILE -

is an *informative* message. The database name, cycle, date, and time in the Keepfile label do not match those stored in database File 1. This message is followed by *batch fatal* error -518- or -519-, which indicates rejection of a KEEP or an APPLY command.

-548- DYNAMIC ALLOCATION/UNALLOCATION IS NOT PERMITTED -

is a *nonfatal, nondestructive* error. You cannot issue the ALLOC or FREE commands when the ALLOC execution parameter equals NO or TBL.

-549- UNABLE TO ALLOCATE ROLLBACK LOG -

is a *batch fatal, nondestructive* error. The Rollback Log (database File 8) failed to open when you enabled rollback for the database.

-550- ALLOCATION PREFIX MUST BE 1 TO 35 CHARACTERS -

is a *nonfatal, nondestructive* error. One of the prefixes specified in the ALLOC command (for the DSN option) was longer than 35 characters.

-551- ALLOCATION DBN MUST BE 1 TO 16 CHARACTERS -

is a *nonfatal, nondestructive* error. The database name specified in an ALLOC command was longer than 16 characters.

-552- DYNAMIC ALLOCATION/UNALLOCATION FAILED FOR FILE - DDname -

is a *nonfatal, nondestructive* error. The message can occur for one of these reasons:

- A VARY OFFLINE or a VARY ONLINE operator console command failed for the database indicated by *DDname*.
- An ALLOC command was issued but not all the database files could be allocated.
- A DATABASE NAME IS, a NEW DATABASE IS, or a RESTORE command was issued but not all the database files could be allocated.
- Either the database files do not exist, or they are allocated to another job.

The IBM SVC 99 allocation error message precedes the -552- error message to explain it.

-553- DATABASE ALREADY EXISTS -

is a *batch fatal, nondestructive* error. It can occur when you are restoring a database or creating a new database. A database with the same name already exists. Either release the existing database, or choose another name for the new database.

-554- n CYCLES APPLIED -

is an *informative* message. SYSTEM 2000 successfully processed an APPLY command. The command applied *n* update cycles to the database.

-555- RELEASED ...database-definition-number cycle-number date time -

is an *informative* message. The listed database was released. The database was last updated at time *hh:mm:ss* on the indicated date (displayed under date format control).

- 556- **OPENED ...database-definition-number cycle-number date time -**
is an *informative* message. The listed database is attached to SYSTEM 2000. Your job can access the database, and the QUEST processor becomes available. The database was last updated at time *hh:mm:ss* on the indicated date (displayed under date format control).
- 557- **RESTORED ...database-definition-number cycle-number date time -**
is an *informative* message. SYSTEM 2000 transferred the listed database from a Savefile (disk or tape) to disk. You can now access the database. It was last updated at time *hh:mm:ss* on the indicated date (displayed under date format control). The QUEST processor becomes available.
- 558- **CREATED ...database-definition-number cycle-number date time -**
is an *informative* message. SYSTEM 2000 sets up the new database files, and the database is assigned to your job. It was created at time *hh:mm:ss* on the indicated date (displayed under date format control). The DEFINE processor becomes available so you can enter your database definition.
- 559- **SAVED ...database-definition-number cycle-number date time -**
is an *informative* message. SYSTEM 2000 copied the database to a Savefile (disk or tape). The database was last updated at time *hh:mm:ss* on the indicated date (displayed under date format control). The original copy of the database remains on disk; it is still attached to your job. The CONTROL processor becomes available.
- 560- **UPDATED ...database-definition-number cycle-number date time -**
is an *informative* message. An APPLY command was executed. The date (displayed under date format control) and time (*hh:mm:ss*) are the original date and time for the applied cycle. Subtracting the previous database cycle number from the current one specifies the number of immediate mode update commands and QUEUE/TERMINATE sessions that were executed by the APPLY command.
- 561- **USER NOW HAS 'CONTROL' PROCESSOR -**
is an *informative* message for an interactive SYSTEM 2000 session. You can now use the CONTROL processor. For example, if you tried to call the DEFINE processor by using a secondary password, SYSTEM 2000 transferred you to the CONTROL processor to correct the situation without terminating your job.
- 562- **ALLOCATION FAILED - THE S2KDBCNT FILE CANNOT BE ACCESSED -**
is a *nonfatal, nondestructive* error. The ALLOC execution parameter equals TBL, but the S2KDBCNT file was not allocated, or SYSTEM 2000 could not allocate the *prefix.S2KDBCNT* file.
- 563- **ALLOCATION FAILED - THE DATABASE COULD NOT BE FOUND IN THE S2KDBCNT FILE -**
is a *nonfatal, nondestructive* error. The ALLOC execution parameter is set to TBL, but SYSTEM 2000 could not find the specified database in the S2KDBCNT table.
- 564- **REQUESTED DATABASE IS BUSY - 'OPEN/EXCLUSIVE' CANNOT BE ACCEPTED -**
is a *nonfatal, nondestructive* error in a Multi-User environment. Interactive users receive this message when they try to attach a database that is already being used by another user. Batch jobs do not receive this message because they wait until all other users relinquish the database. The PLEX return code is 94 for OPENR/LOCK.
- 565- **ALLOCATION FAILED - THE DATABASE HAS BEEN TAKEN OFFLINE -**
is a *nonfatal, nondestructive* error. SYSTEM 2000 could not allocate the database specified in a NEW DATA BASE IS or a DATA BASE NAME IS command. The database was taken offline by using a VARY console operator command or a FREE command.

-566- NO MORE THAN 10 VOLUMES ALLOWED -

is a *nonfatal, nondestructive* error. A RESTORE or a SAVE command cannot contain more than 10 Savefile volumes or 1 Keepfile volume.

-567- VOL SER MUST NOT EXCEED 6 CHARACTERS -

is a *nonfatal, nondestructive* error. A volume serial number in a RESTORE or a SAVE command cannot contain more than 6 characters.

-568- USER-SUPPLIED INFORMATION MUST NOT EXCEED 20 CHARACTERS -

is a *nonfatal, nondestructive* error. A RESTORE or a SAVE command specified that a user exit would supply information for a data set name. The information exceeded the 20-character limit.

-569- 'DSN' MUST NOT EXCEED 44 CHARACTERS -

is a *nonfatal, nondestructive* error. Data set names in RESTORE or SAVE commands cannot contain more than 44 characters.

-570- KEPT ...database nnnn mmmm date time -

is an *informative* message. The database definition number is *nnnn* and the data cycle is *mmmm*. It was last updated at time *hh:mm:ss* on the indicated date (displayed under date format control).

-571- SAVEFILE DSN=data-set-name, VOL SER=reel-no., ... reel-no., DS=n -

is an *informative* message that appears after a successful SAVE command. *data-set-name* is the Savefile data set name. *reel-no.* is a volume assigned to the file, and *n* is the data set sequence number for the file if it is greater than 1.

-572- KEEPFILE DSN=data-set-name, VOL SER=reel-no., ... reel-no., DS=n -

is an *informative* message that appears after the first opening of the Keepfile. *data-set-name* is the Keepfile data set name. *reel-no.* is the volume assigned to the file. *n* is the data set sequence number for the file if it is greater than 1.

-573- MULTI-VOLUME KEEPFILE NOT ALLOWED, UPDATE LOG IS NOW SUSPENDED, 'SAVE' DB AND REACTIVATE UPDATE LOG AT ONCE -

is an *informative* message. When SYSTEM 2000 tried to close the Keepfile, the file went into multiple volumes. The Update Log records were kept, and an APPLY can be performed, but no additional KEEP operations are allowed. The database must be saved at this point to activate update logging again.

-579- KEEPFILE BLKSIZE DOES NOT MATCH CURRENT POOL SPECIFICATION -

is a *fatal, nondestructive* error. This message means POOL7 is not the same size as it was during the first KEEP. The Keepfile block size is set by SYSTEM 2000 when the first KEEP after a SAVE command is invoked. The block size is set to the POOL7 size minus 8. Subsequent KEEPs must use a POOL7 size the same size as for the first KEEP. You can correct this error by using either of the following:

- Change POOL7 size to the Keepfile block size plus 8. This allows you to preserve existing data in the Keepfile. If you are using an existing PAD00 that is incompatible with POOL7, POOL7 is changed to match the existing PAD00 file. A WTO message informing you of the new size is written to the job log.
- Save the database. The SAVE command resets the Keepfile pointer to 0. The next KEEP that follows the SAVE command will set the Keepfile block size to POOL7 minus 8.

-580- FREE COMMAND IS INVALID, ONLY CURRENT DATABASE CAN BE FREED -

is a *nonfatal, nondestructive* error. A FREE command may be issued only against the database you currently have open.

- 581- **ALLOCATION/DEALLOCATION FAILED, S2KDBCNT TABLE IS FULL -**
is a *nonfatal, nondestructive* error. The S2KDBCNT table has reached its capacity. Contact SYSTEM 2000 Technical Support.
- 582- **FREE COMMAND IS INVALID, DATABASE IS OFFLINE/FREE -**
is a *nonfatal, nondestructive* error. The database has already been freed or taken offline.
- 583- **ALLOC COMMAND IS INVALID, EXCESSIVE PARMS -**
is a *nonfatal, nondestructive* error. The options CISZ, VOL, FILES, and SPACE are for DISP=NEW only.
- 584- **ALLOC COMMAND IS INVALID, CANNOT ALTER DSN -**
is a *nonfatal, nondestructive* error. The S2KDBCNT table already has an entry for this database; only the database name is allowed in the ALLOC command. The ALLOC command cannot override information specified in S2KDBCNT.
- 586- **WARNING- ROLLBACK NOT ENABLED -**
is a *warning* message. A FRAME command was specified for a database that did not have rollback enabled. In this situation, the FRAME command puts a global hold on the specified database, but it does not perform any before-image logging for the database.
- 587- **'FRAME/IMMEDIATE/' CANNOT BE GRANTED -**
is a *batch fatal, nondestructive* error. A FRAME command with the IMMEDIATE syntax requires a previous (logical unit of work) to be in effect.
- 588- **ROLLBACK LOG MUST BE FORMATTED -**
is a *batch fatal, nondestructive* error. You tried to open a database that had rollback enabled, but the Rollback Log was not formatted. The database was not opened. Usually this error occurs because you supplied the wrong Rollback Log. If you cannot supply the correct Rollback Log, you must do a deferred disable of rollback before you try to open the database again.
- 591- **WARNING- ACTION DEFERRED UNTIL DATABASE OPENED -**
is a *warning* message. A DISABLE ROLLBACK command was specified before the database was attached to your job. Rollback will be disabled for the next database that is opened in the session. The database will be opened for exclusive use. This is called *deferred disable* of rollback.
- 593- **DATABASE NOT AVAILABLE - ROLLBACK IN PROGRESS -**
is an *informative* message for SCF TP users. Before rollback can re-instate a damaged database, all user jobs that have the database attached must be waiting for a FRAME command. SCF TP users receive this message because they should never be in a wait state. If the database is damaged and another user has it open, the SCF TP job is detached from the database. Also, this message appears if an SCF TP user specifies a DBN command for a damaged database that another user has open.
- 595- **DATABASE NAME CHANGE NOT ALLOWED WITH UPDATE LOG ACTIVATED -**
is a *batch fatal, nondestructive* error. You cannot change the database name and activate update logging in the same command.
- 598- **'KEEP' IGNORED BECAUSE NO UPDATES WERE LOGGED -**
is an *informative* message. The Update Log was empty when you issued KEEP.
- 599- **ROLLBACK LOG CFSIZE IS INCORRECT, IT SHOULD BE XXXXX -**
is a *batch fatal, nondestructive* error. You tried to open a database that had rollback enabled, and the Rollback Log did not have a CFSIZE equal to the largest CFSIZE for database Files 1 through 6. The database was not opened. Create your

Rollback Log (File 8) with a CISIZE equal to the largest database file and try again.

- 618- DATABASE *database-name* HAS BEEN ROLLED BACK TO CYCLE *n* BY -
- 619- JOB *job-name* STEP *step-name* PGM *pgm-name* TERMINAL *terminal-id* -
are *informative* messages. A damaged database was rolled back during the auto-recovery process. *database-name* is the name of the database being recovered. *n* is the cycle to which the database was rolled back (the Rollback Log was last reset). *job-name*, *step-name*, *pgm-name*, and *terminal-id* identify the user who triggered auto-recovery.
- 620- CYCLES *k* THRU *m* HAVE NOT BEEN APPLIED FOR -
- 621- JOB *job-name* STEP *step-name* PGM *pgm-name* TERMINAL *terminal-id* -
are *informative* messages. During the roll-forward process of auto-recovery, SYSTEM 2000 purposely ignored update cycles recorded on the Update Log. These cycles were skipped because they belonged to a logical unit of work that failed to commit properly. *k* and *m* are the beginning and ending database cycles of a contiguous set of update cycles that you performed. They were not necessarily all of the update cycles performed with your uncommitted logical unit of work. If they were, no further messages are displayed for your user job. If *k* through *m* are not all of the update cycles performed by this logical unit of work, additional sets of messages -620- and -621- appear for each contiguous set of update cycles that are yours. *job-name*, *step-name*, *pgm-name*, and *terminal-id* identify the job or user whose updates were not rolled forward. Sometimes *k* and *m* are the same cycle number, for example, if you had only one contiguous update cycle on the Update Log.
- 622- DATABASE *database-name* NOW AT CYCLE *n* -
is an *informative* message. Auto-recovery successfully recovered the database. *database-name* identifies the database that was recovered successfully. *n* is the database cycle number at the conclusion of auto-recovery.
During the actual auto-recovery process, SYSTEM 2000 does not issue any -618-, -619-, -620-, -621- messages until auto-recovery is complete. After auto-recovery is complete, these messages are transmitted to you, along with message -622-.
- 623- DATABASE *database1* REQUIRES *database2* TO RECOVER -
is an *informative* message. *database1* was involved in an uncommitted logical unit of work with *database2*. However, SYSTEM 2000 could not open *database2*, so *database1* was not recovered and remains damaged. If *database1* really requires recovery and you cannot supply *database2*, specify CORECOV=NO in the SYSTEM 2000 execution parameters. This instructs SYSTEM 2000 not to require *database2* for the recovery of *database1*.
- 624- ROLLBACK'S RESET PERCENTAGE MUST BE FROM 0 THRU 100 -
is a *batch fatal, nondestructive* error. A RESET ROLLBACK command contained an invalid percentage. The PERCENTAGE keyword must be preceded by a number in the range of 0 through 100.
- 625- ROLLBACK'S RESET SYNCHPOINT NUMBER MUST BE FROM 1 THRU 999999 -
is a *batch fatal, nondestructive* error. A RESET ROLLBACK command contained an invalid number of synchpoints. The SYNCHPOINT keyword must be preceded by a number in the range of 1 through 999999.
- 628- AVAILABLE TO MASTER PASSWORD HOLDER OR DBA PASSWORD HOLDER -
is a *batch fatal, nondestructive* error. The command you issued is not available to a secondary password. It can be issued only by the master password holder or by a DBA password holder who was specified authority to issue the command.

- 629- **SPECIFIED DBA PASSWORD NOT AUTHORIZED FOR COMMAND -**
is a *batch fatal, nondestructive* error. The DBA password holder tried to specify a command that was not authorized for the DBA password.
- 630- **DBA PASSWORD ALREADY DEFINED -**
is a *batch fatal, nondestructive* error. You tried to assign a DBA password, but one already exists for the database. If you want to change the DBA password, use the CHANGE PASSWORD command.
- 631- **NO DBA PASSWORD DEFINED -**
is a *batch fatal, nondestructive* error. You tried to enable or disable commands for use by the DBA password, or you tried to list the DBA password and its authorized commands. No DBA password has been assigned to the database.
- 632- **AT LEAST ONE FILE IS OUT OF SYNC FOR DATABASE -**
is an *informative* message. The sync markers on the database files were read and compared. Differences were found, which indicates that the database is out of sync. The -633- messages that follow this message display the sync markers from each file. This condition turns on the damaged flag in memory, and database updates are not allowed.
- 633- **FILE *n* - YYDD HH:MM:SS.SS 999999999999 -**
is a *warning* message. It follows message -632- and displays the sync marker values for each database file. When doing value-to-value compares for the 6 database files, one or more were out of sync.
- 640- **OPT054=YES, SAVEFILE CREATION SUPPRESSED BY OPTION SETTING -**
is an *informative* message. With OPT054 set to YES, creation of a Savefile is suppressed. The return codes may indicate a successful SAVE, but no Savefile was created.
- 641- **OPT054=YES, KEEPFILE INFORMATION PROCESSED, SAVE SUPPRESSED -**
is an *informative* message. Even though OPT054 suppresses the SAVE process, any information entered about the Keepfile is kept as though the SAVE did take place. This message is issued only when the SAVE command enables update logging.

SCF 651-699 Messages

The 651-699 message numbers are currently unassigned.

SYSTEM 2000 Interface Messages

Messages numbered -700- through -798- are issued by SYSTEM 2000 to inform you about communications with the operating environment. To interpret these errors you might need to consult other manuals, such as the *SYSTEM 2000 Software: Product Support Manual*. Some messages refer to a problem you can control, for example, file allocation, JCL, file extension, or buffer allocation.

- 700- VSAM RC=XXX, CODE=XXX FILE XXXXXXXX FOR GENCB ACB -
- 701- VSAM RC=XXX, CODE=XXX FILE XXXXXXXX FOR GENCB RPL -
- 702- VSAM RC=XXX, CODE=XXX FILE XXXXXXXX FOR SHOWCB -
- 703- VSAM RC=XXX, CODE=XXX FILE XXXXXXXX FOR GET REQUEST -
- 704- VSAM RC=XXX, CODE=XXX FILE XXXXXXXX FOR PUT REQUEST -
- 705- VSAM RC=XXX, CODE=XXX FILE XXXXXXXX FOR OPEN -
- 706- VSAM RC=XXX, CODE=XXX FILE XXXXXXXX FOR CLOSE -
- 707- VSAM RC=XXX, CODE=XXX FILE XXXXXXXX FOR MODCB -

are all *batch fatal, nondestructive* errors. An unexpected error occurred during a VSAM request. See your VSAM manual for VSAM Macro Return and Reason Codes.

- 729- DDname OUT OF SPACE -

is a *batch fatal, nondestructive* error. This message is issued in the following situations: during a save operation if the Savefile is not large enough or if any X37 error occurs, during a restore operation if one of the database files is not large enough, or during formatting of a scratch pad or a database file if it runs out of space. You must allocate more space to the appropriate file. If this error occurs during a restore operation, release the disk database files before you execute the RESTORE command again.

- 730- DDname PAGE LIMIT REACHED -

is a *fatal, destructive* error. The maximum file sizes are

File 1 - 10,000 components

File 2 - 1,073,741,823 bytes

File 3 - 268,435,455 characters

File 4 - 1,073,741,823 bytes

File 5 - 119,304,647 data records

File 6 - 4,294,967,295 non-numeric characters or 8,589,934,588 if extended

This message is followed by SYSTEM 2000 Error Code 71 (see "SYSTEM 2000 Error Codes" on page 83).

- 731- DDname OUT OF SPACE, WILL EXTEND -

is an *informative* message. It appears when a database file extension is required.

- 732- DDname HAS NO USABLE SECONDARY ALLOCATION -

is a *fatal, destructive* error. You must provide more secondary space for the specified database file. Either you did not specify a secondary allocation, or the maximum allowable number of extents was exceeded. This message is followed by SYSTEM 2000 Error Code 813. (See "SYSTEM 2000 Error Codes" on page 83.)

- 735- DDname EXTENSION SUCCESSFUL -

is an *informative* message. The extension operation completed. That is, SYSTEM 2000 extended the database file successfully.

- 743- DATABASE EXTENSION CANNOT BE ATTEMPTED -

is a *fatal, destructive* error. SYSTEM 2000 could not acquire information from the operating environment before it started the extension process. This message is followed by SYSTEM 2000 Error Code 813 (see "SYSTEM 2000 Error Codes" on page 83).

- 766- DATABASE OPEN FAILED FOR DDname -

is a *batch fatal, nondestructive* error. The database file was not properly allocated, or database File 1 was not or cannot be properly formatted. If Rollback is enabled, File 7 (Update Log) and File 8 (Rollback Log) are required and must open correctly.

If you are an interactive user, you are specified the CONTROL processor. If dynamic allocation was being used, the SVC 99 error message precedes the -766-error message to explain the problem.

-767- NO MAIN MEMORY AVAILABLE -

is a *batch fatal, nondestructive* error. No small or large database areas were available, and the software attempted a GETMAIN but failed to obtain an additional one. If you are an interactive user, you are specified the CONTROL processor.

-768- DATABASE CONTAINS MORE COMPONENTS THAN 'LDBSIZE' EXECUTION PARAMETER REQUESTED -

is a *batch fatal, nondestructive* error. The number of database components exceeded LDBSIZE. The LDBSIZE parameter, which is provided during system initialization, indicates the maximum number of components that can be contained in a large database. If you are an interactive user, you are specified the CONTROL processor.

-769- NO BUFFER POOL ALLOCATED FOR DDname -

is a *batch fatal, nondestructive* error. The error occurred in one of the following situations:

- An invalid CISIZE was specified.
- No pool with D usage had a size equal to or greater than the CISIZE of the named file.

If you are an interactive user, you are specified the CONTROL processor.

-770- OPEN FAILED FOR REQUESTED DATA SET -

is a *warning* message for a *nondestructive* error. The Data File, the Command File, the Message File, or the Report File was not opened because a file name was misspelled or a DD statement was missing. A subsequent message might indicate that this is a fatal error.

-771- ERROR IN SAVEFILE DCB OPEN -

is a *nondestructive* error. Either you omitted the DD statement for the Savefile associated with the SAVE/RESTORE command, or you did not properly allocate the file. This error is *batch fatal* in SCF and *nonfatal* in PLEX (with return code 93). If dynamic allocation was being used, the SVC 99 error message precedes the -771- error message to explain the problem.

-772- OPEN FAILED FOR KEEPFILE -

is an *informative* message. The Keepfile was not properly allocated. This message is followed by batch fatal error -518- or -519- indicating rejection of a KEEP or an APPLY command. If dynamic allocation was being used, the SVC 99 error message precedes the -772- message to explain the problem.

-773- DATABASE ACB OPEN FAILED FOR DDname -

is a *nonfatal, nondestructive* error for a RESTORE command. The database was not restored. Opening a database file failed either prior to restoring, the file or after restoring but prior to formatting the remainder of the file. If dynamic allocation was being used, the SVC 99 error message precedes the -773- error message to explain the problem.

-774- ERROR IN FORMATTING DDname -

is a *nonfatal, nondestructive* error for a RESTORE command. The database was not restored. Formatting an extent failed for one of the database files.

-775- INSUFFICIENT BUFFER SPACE AVAILABLE FOR 'SAVE/RESTORE' -

is a *nonfatal, nondestructive* error message for a RESTORE command. The database was not restored. The first record on the Savefile specified block sizes for which no buffers exist.

-776- ERROR IN PHYSICAL OPEN -

is a *batch fatal* error for both SCF and PLEX in a Multi-User environment. An error occurred in the routine that physically opens a database file. A previous message explains the problem precisely. If dynamic allocation was being used, the IBM SVC 99 error message is displayed to explain the problem.

-777- COLLECT FILES REQUIRE THE PRESENCE OF SCRATCH PADS -

is a *batch fatal, nondestructive* error. Collect Files require scratch pads via the PADnn execution parameter. A Collect File is treated as a scratch file, and it is not an accessible user file. See the *SYSTEM 2000 Software: Product Support Manual* for information about scratch pads and execution parameters.

-778- ERROR IN SAVE/RESTORE FOR Savefile -

is a *batch fatal, nondestructive* error. This is a general error caused by something other than OPEN errors, memory errors, or space errors while trying to save or restore a database. The DDname of the Savefile is displayed in the message.

-787- WARNING- LAST PAGE OF DATABASE database FILE n ACCESSED -

is an *informative* message. The last page of the current allocation for database file *n* was accessed for the first time.

-791- INCORRECT ROLLBACK LOG SPECIFIED -

is a *batch fatal, nondestructive* error. When trying to open a database with rollback enabled, the database name on the Rollback Log did not match the database name recorded in database File 1. The database cannot be opened for use. This error usually means that you specified the wrong Rollback Log. If the correct Rollback Log cannot be found, do a deferred disable of rollback before opening the database; then you can enable rollback.

System-Wide and Multi-User Messages

Messages numbered -799- through -899- can be issued from any SYSTEM 2000 processor or from the Multi-User environment.

-799- SYSTEM COMP CODE nnn -

is a *fatal* error. *nnn* is a system completion code, for example, 0C4.

-800- SYSTEM 2000 ERROR CODE n -

is a *fatal* error that is possibly destructive to the database. (See “SYSTEM 2000 Error Codes” on page 83.) Take note of the SYSTEM 2000 Error Code number *n*, and contact SYSTEM 2000 Technical Support.

-801- MISSING STRING OR DATA TERMINATOR -

is a *nonfatal, nondestructive* error in the use of a system separator, an entry terminator, or a command terminator. The error occurred in one of the following situations:

- An unexpected command terminator (the colon (:), by default) or entry terminator occurred. Colons are permissible in a Data File but not in a Command File.
- A required system separator (the asterisk (*), by default) was missing, for example, after a data value or component number in a value stream. Also, a system separator must follow each value in a QUEUE where-clause condition. And string and function identifiers, including *DATA*, *NOW*, *TODAY*, and *FTODAY*, must be enclosed by the separator, unless you specify parameters.

-802- COMMAND OR DATA FILE CANNOT EQUAL MESSAGE OR REPORT FILE -
 is a *batch fatal, nondestructive* error in file definition. An input file (the Command File or Data File) and an output file (the Message File or Report File) cannot be the same file.

-803- UNEXPECTED END OF COMMAND FILE -
 is a *fatal, nondestructive* error. An end-of-file occurred in the Command File. Usually, this error occurs because the command terminator (colon) is missing at the end of the last command in an SCF TP segment or a batch Command File.

-804- TOO MANY CHARACTERS IN VALUE OR NAME -
 is a *nonfatal, nondestructive* syntax error. The maximum number of characters for any data value or component name is 250. The maximum number of characters for the command stream in a string, a function, or a REPEAT command is 250.

-805- TOO MANY LEVELS OF STRING/FUNCTION NESTING -
 is a *nonfatal, nondestructive* error. One of the following limits for strings and functions was exceeded:

- a maximum of 1200 characters of string expansion and/or parameters
- a maximum of 31 levels of nesting or 31 parameters or any combination of the two that yields a total of 31.

The call to a string is one level. A LOAD command takes one level. A REPEAT takes one level. Calling a string that refers to another string adds one level. For example, a REPEAT (one level) that contains a string (one level) that refers to a LOAD command (one level) has three levels.

-808- UNRECOGNIZED COMPONENT LABEL -
 is a *nonfatal, nondestructive* syntax error. SYSTEM 2000 parsed a syntactic unit that should have been a component label, but it was not a valid component. The component either did not exist or was not the proper type to fulfill this syntactic role. Or the units in the command were improperly arranged, and the system misinterpreted a syntactic unit as a component. If the invalid component identifier appears in an input value stream, it should be a number rather than a label, that is, *nn* rather than *C-nn*.

This error may also occur when you have a floating point value whose magnitude is outside the acceptable range of approximately $5.4^{-79} \leq M \text{ (magnitude)} \leq 7.2^{+75}$.

-809- SYNTAX ERROR IN COMPONENT NUMBER -
 is a *nonfatal, nondestructive* syntax error. Component numbers in an input value stream must be positive integers. Special characters, alphabetic characters, and internal blanks are not allowed..

-810- WARNING- DATABASE DAMAGED. NO UPDATES PERMITTED -
 indicates that the damage flag is set for the database. This message is

- a *warning* message if you just opened the database. The database was damaged by a previous job or the database is out of sync (see message -632-).
- a *warning* message displayed when you close the database.
- a *batch fatal* error if you gave a REORGANIZE, a CREATE/REMOVE INDEX, or a DEFINE command. If you are an interactive user, the CONTROL processor becomes available.
- a *nonfatal* error if you gave an update command. Updates are not allowed for a damaged database. You are still in the same processor.

- a *warning* message if you gave a QUEUE or a LOAD command.
 - a *batch fatal error* if you tried to enable or disable rollback.
 - a *warning* message if you gave a FRAME command to begin a logical unit of work, rollback was enabled, and one of the following events took place in a batch job: an SCF job or SCF TP segment terminated, or you gave an SCF DEFINE, a CONTROL, an EXIT, a COMPOSE, or a REPORT command.
- 811- SYSTEM SEPARATOR INVALID -**
is a *nonfatal, nondestructive* error. A SEPARATOR IS command specified an invalid special character, or the character was the same as the entry terminator. (See the list of valid characters listed under message -108-.)
- 812- ENTRY TERMINATOR INVALID -**
is a *nonfatal, nondestructive* error. The entry terminator can be any group of 1-to-4 alphanumeric characters. If it is a single character, it cannot be the same as the current system separator.
- 813- SYSTEM SEPARATOR IN DATABASE CONFLICTS WITH COMMAND TERMINATOR -**
is a *nondestructive, batch fatal* error. When opening a database for an SCF job, SYSTEM 2000 found that both the command terminator and the system separator were set to the same character. For example, the database was created by using PROC S2K (in which the command terminator is a semicolon), and the system separator was set to a colon. You receive this message when you access the database by using SYSTEM 2000, in which the command terminator is a colon.
- 814- SPECIFIED DATABASE IS NOT COMPATIBLE WITH CURRENT SOFTWARE -**
is a *batch fatal, nondestructive* error. You have specified a database that requires conversion before it can be attached and processed by the current version of software that you are running. See the *SYSTEM 2000 Software: Product Support Manual* for information about conversion processes.
- 815- COMMAND INVALID, NO DATABASE OPENED -**
is a *nonfatal, nondestructive* error. No database was attached to your job. Before requesting any action on a database, issue a DATA BASE NAME IS command or create a new database with the NEW DATA BASE command.
- 816- INSUFFICIENT AUTHORITY FOR COMPONENT -**
is a *nonfatal, nondestructive* error. The current password does not have appropriate authority for some component specified in the command.
- 817- I/O ERROR ENCOUNTERED -**
is a *fatal, possibly destructive* permanent I/O error. This message is followed by a SYNAD error analysis message as described in the IBM publication, *Supervisor and Data Management Macro Instructions* under the SYNADAF macro description (followed by SYSTEM 2000 Error Code 817). See "SYSTEM 2000 Error Codes" on page 83.
- 818- WHERE-CLAUSE DELIMITER CANNOT BE SAME AS SYSTEM SEPARATOR -**
is a *nonfatal, nondestructive* error. You gave either a DELIMITER IS command or a SEPARATOR IS command that tried to change the system separator and the where-clause delimiter to the same character.
- 819- WHERE-CLAUSE DELIMITER INVALID -**
is a *nonfatal, nondestructive* error. The where-clause delimiter you specified is not allowed as a where-clause delimiter. (See characters listed under message -108-.)

-820- NON-NEGATIVE INTEGER REQUIRED -

The command contained a negative number or a special character instead of a positive integer. For example, a positive integer *n* is required for the AT operator (AT *n*) and for an any-of-expression of the form ANY *n* OF.

This message is a *nonfatal, nondestructive* error, unless you gave a LIMIT command that contained a negative number. In that situation, the error is *batch fatal*.

-829- INVALID 'IF' CONDITION -

is a *fatal, nondestructive* error. SYSTEM 2000 processed an IF condition, and it

- could not identify an IF expression where the expression is the completion code, the message number, the number of selected records, the password, or the database cycle number.
- could not identify a binary operator: LT, LE, NE, EQ, GE, or GT.
- could not identify a ternary operator: NE, EQ, or SPANS.
- expected a keyword or symbol following the IF expression. Possible keywords are AND, OR, or THEN. Possible symbols are the system separator or a right parenthesis.

SYSTEM 2000 ignores the IF condition and skips commands until it finds the ENDIF that corresponds to the IF. The skipped commands are not validated. This message appears only when the software skips a nested IF and finds IF, ELSE, ENDIF, or a command terminator before finding a THEN.

-830- NO PRIOR 'IF' CONDITION -

is a *fatal, nondestructive* error. SYSTEM 2000 found a THEN, but no previous IF. The software tries to skip commands until it finds the ENDIF that corresponded to the missing IF.

-831- NO PRIOR 'IF' MATCHES THIS 'ELSE' -

is a *fatal, nondestructive* error. An ELSE occurred with no prior IF in either a single expression or a nested expression. SYSTEM 2000 tries to skip commands until it finds the ENDIF that corresponds to the ELSE.

-832- SYSTEM VARIABLE VALUES ARE AS FOLLOWS -

COMPLETION CODE = *x*

DATABASE CYCLE = *nnnnnnnnnnnn*

MESSAGE NUMBER = *nnn*

SELECTED RECORDS = *nnnnn*

REPORT FILE LRECL = *nnn*

YEARCUTOFF = *yyyy*

DATE FORMAT = *MM/DD/YYYY*

SYSTEM SEPARATOR = *x*

ENTRY TERMINATOR = *xxx*

COMMAND TERMINATOR = *x*

WHERE-CLAUSE DELIMITER = *x*

is an *informative* message issued in response to the SCF command SHOW SYSTEM VARIABLES. The displayed values are called system variables because they are in effect system-wide instead of only for a specified database.

COMPLETION CODE is the highest condition code encountered in this SCF session.

DATABASE CYCLE is the current update cycle of the current database.

MESSAGE NUMBER is the identifier of the most recent message issued during this SCF session.

SELECTED RECORDS is the most recent count of selected records from an SCF where-clause. REPORT FILE LRECL is the logical record length of the current Report File.

YEARCUTOFF is the year that begins the current century window. The default is 1920. You can change it by using the YEARCUTOFF IS command.

DATE FORMAT is the current date format in use. The default is MM/DD/YYYY. You can change it by using the DATE FORMAT IS command.

SYSTEM SEPARATOR is the special character that is used to separate fields in DEFINE, LOAD, DESCRIBE, and UNLOAD output. The default is an asterisk (*). You can change it by using the SEPARATOR IS command.

ENTRY TERMINATOR is the data value that is used to terminate entries in either LOAD input or UNLOAD output. The default is END. You can change it by using the ENTRY TERMINATOR IS command.

COMMAND TERMINATOR is the special character that is used to end an SCF command. The value is either a colon (:) or a semi-colon (;).

WHERE-CLAUSE DELIMITER is the special character that is used to delimit where-clause values. The default is a slash (/). You can change it by using the DELIMITER IS command.

-833- LEVEL nn -keyword- PATH WILL EXECUTE -

is an *informative* message. *nn* is the numeric level of IF-condition nesting. *keyword* is either THEN or ELSE. SYSTEM 2000 found

- a THEN, and the corresponding IF condition was true.
- an ELSE, and the corresponding IF condition was false.

-834- LEVEL nn -keyword- PATH WILL NOT EXECUTE -

is an *informative* message. *nn* is the numeric level of IF-condition nesting. *keyword* is either THEN or ELSE. SYSTEM 2000 found

- a THEN, and the matching IF-condition was false.
- an ELSE, and the matching IF-condition was true.

-835- MAXIMUM IF-THEN-ELSE NESTING CAPACITY EXCEEDED -

is a *nonfatal, nondestructive* error. The maximum number of levels for nesting IF conditions is 32. SYSTEM 2000 tries to skip commands until it finds the corresponding IF.

-836- TOO MANY OPERANDS -

is a *nonfatal, nondestructive* error. SYSTEM 2000 found

- that the values in a where-clause required more than the available 368 computer words. CHARACTER and TEXT values store 4 characters per word, aligned on a word boundary. For UNDEFINED values, the entire picture length is used, instead of the length of the value specified in the where-clause. Numeric values are converted to the schema item picture and are stored as packed decimal, aligned on a word boundary. Divide the command into smaller commands that have fewer operands. You might use WHERE SAME, WHERE SAME AND, or WHERE SAME OR.
- more than 55 operands in an IF expression. Try to break the IF expression into several IF...THEN...ELSE commands. SYSTEM 2000 tries to skip commands until it finds an ENDIF that corresponds to the IF.

-837- TOO MANY OPERATORS -

is a *nonfatal, nondestructive* error. SYSTEM 2000 found

- that the specified operators in a where-clause required more than the available 400 computer words. Unary, binary, and ternary operators require 10 words each. AT and HAS use 10 words each. One word is required for each parenthesis, SAME, NOT, AND, and OR. Commas (,) do not count as operators. Try to divide the command into smaller commands with fewer operators. You might use WHERE SAME, WHERE SAME AND, or WHERE SAME OR.
- more than 55 operators in an IF expression. Try to break the IF expression into several IF...THEN...ELSE commands. SYSTEM 2000 tries to skip commands until it finds the ENDIF that corresponds to the IF.

-838- TOO MANY OPERANDS FOR OPERATOR -

is a *nonfatal, nondestructive* error. You specified one of the following:

- a value in a where-clause condition with a unary operator (FAILS or EXISTS)
- a range of values in a where-clause condition with a binary operator (GE, GT, LE, or LT)
- a binary operator in an IF condition with more than one operand
- a ternary operator in an IF condition with more than two operands.

If the error occurs in an IF condition, SYSTEM 2000 tries to skip commands until it finds an ENDIF.

-839- UNBALANCED PARENTHESES -

is a *nonfatal, nondestructive* error. The error occurs in one of the following situations:

- A where-clause did not contain an equal number of left parentheses and right parentheses.
- An IF condition had an error in the use of parentheses. SYSTEM 2000 tries to skip commands until it finds an ENDIF.

-840- SECOND VALUE MUST BE GREATER THAN FIRST -

is a *nonfatal, nondestructive* error. This error occurs in one of the following situations:

- The first value was greater than the second value in a where-clause condition that contained a ternary operator (SPANS, EQ, or NE).
- The second operand was less than the first operand in an IF condition. SYSTEM 2000 tries to skip commands until it finds an ENDIF.

-842- 'IF' NOT FOLLOWED BY MATCHING 'ENDIF' IN SAME TP SEGMENT -

is a *nonfatal, nondestructive* error. An SCF TP segment ended without completing all outstanding IF-ENDIF blocks. SYSTEM 2000 supplied the necessary matching ENDIF commands in order to complete the IF-ENDIF blocks in the SCF TP segment.

-852- INVALID USE OF COLLECT FILE ITEM -

is a *nonfatal, nondestructive* error. Collect File items cannot be used in the action-clause of an update command, in an ordering-clause, or in the where-clause of a MAP or a RELOAD command. It can be used in other where-clauses, but only as the right term item in an item-to-item comparison. Also, a Collect File item is invalid in the DESCRIBE command for a database schema and in all QUEUE, CONTROL, or DEFINE language commands.

-853- DATA FILE CANNOT EQUAL COMMAND FILE -

is a *batch fatal, nondestructive* error. The Data File and the Command File cannot be set to the same file. The file is still assigned as it was before the rejected command.

- 854- NOW IN CONTACT WITH SYSTEM 2000 -**
is an *informative* message in a PLEX Multi-User environment. The START S2K command just established contact with SYSTEM 2000.
- 855- NO LONGER IN CONTACT WITH SYSTEM 2000 -**
is an *informative* message in a PLEX Multi-User environment. Your PLEX job is no longer active under Multi-User because of normal termination or an abend.
- 856- INVALID MULTI-VOLUME POSITIONING ATTEMPTED ON DDNAME *name* -**
is a *fatal, nondestructive* error. You cannot force multi-volume positioning on a file that must be a single volume. The Keepfile and multiple condition where-clauses are all processed with the IBM macro POINT, which works poorly for multi-volume files. The error message (followed by SYSTEM 2000 Error Code 809) states which file caused the problem (usually, S2KSYS03). The only solution is to change the file allocation so that the file will fit on one volume. To make the file fit on one volume, you can increase the primary and/or secondary space quantities for disk or use a device with more bytes per volume.
- 862- UNSUPPORTED LRECL VALUE -**
is a *warning* message for a *nondestructive* error. The rejected logical record length was greater than 256 characters. The Data File, Command File, Message File, or Report File was not opened. A subsequent message might indicate that this is a fatal error.
- 868- DATABASE MUST BE UNDER EXCLUSIVE USE -**
is a *batch fatal, nondestructive* error in a Multi-User environment. A command that requires exclusive use of the database, such as DEFINE or RELEASE, was issued for a database that was not opened with exclusive use. If you are an interactive user, you are specified the CONTROL processor so you can correct the situation without exiting from your SYSTEM 2000 session. Call the CONTROL processor and attach the database with exclusive use; that is, specify CONTROL: EXCL DBN IS *database-name*.
- 870- ERROR IN YEAR - VALID RANGE IS 1500 to 9900**
is a *nonfatal, nondestructive* error for the YEARCUTOFF command. The year specified is not a valid year.
- 871- UNABLE TO CHANGE YEARCUTOFF**
is a *nonfatal, nondestructive* error for the YEARCUTOFF command. The YEARCUTOFF command was not successfully completed.
- 872- YEARS IN RANGE *y1* TO *y2* WILL BE PREFIXED WITH *cc* AT TIME OF UPDATE -**
is an *informative* message for the YEARCUTOFF command. Any 2-digit years falling in the range *y1* to *y2* is treated as if they were preceded by *cc* and entered as 4-digit years. This message is issued once if the year specified in the YEARCUTOFF command is evenly divisible by 100. Otherwise, is issued twice, one time for each century.
- 881- SYSTEM 2000 ABEND PROCESSING INVOKED -**
is a *fatal, possibly destructive* error. A machine interrupt occurred. This message is followed by another message that indicates whether the ESTAE work area is available.
- 882- STAE WORK AREA FOLLOWS -**
is an *informative* message. It appears after message -881- and is followed by a display of the ESTAE work area upon entry to an abend.
- 883- STAE WORK AREA NOT AVAILABLE FOR FORMATTING -**
is an *informative* message. It can appear after message -881-. The ESTAE work area was unavailable when an abend occurred.

-884- SNAP DCB NOT OPEN OR SNAP UNSUCCESSFUL - NO SNAP DUMP PROVIDED -

is an *informative* message. It appears after message -881-. A snap dump is not provided because the JCL was missing or the supervisor was unable to produce the snap.

-894- LOCAL FILE REQUEST IS NOT VALID IN THIS ENVIRONMENT -

is a *nonfatal, nondestructive* error. Local alternate files are valid only in CMS and TSO environments. This error does not affect jobs in other environments.

-895- OPEN FAILED FOR INTERMEDIATE OUTPUT FILE S2KOUTP -

is a *nonfatal, nondestructive* error. If the S2KOUTP file does not exist, and the interface needs to write to it, message -896- appears at the end of the one 4K block.

-896- OUTPUT PURGED DUE TO MISSING S2KOUTP FILE -

is a *nonfatal, nondestructive* error. The S2KOUTP file was missing, and the output (beyond one 4K buffer) was purged.

-897- OUTPUT PURGED DUE TO S2KOUTP FILE LIMITATIONS -

is a *nonfatal, nondestructive* error. This message appears at the end of the display if the S2KOUTP file existed but was not large enough to hold all the output for one segment.

-898- PRECEDING ERROR IS BATCH-FATAL FOR CURRENT COMMAND -

indicates the preceding error was *batch fatal* if the command specified was RELOAD, REORGANIZE, INDEX, or REMOVE INDEX. This message (-898-) appears after error messages that are usually nonfatal.

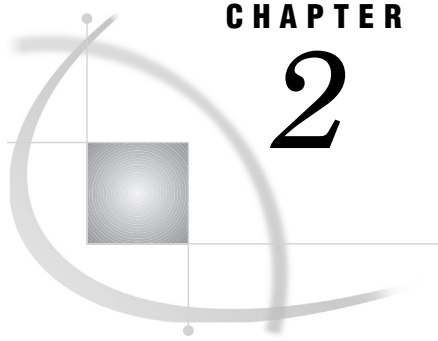
-899- USER NOW HAS -xxxxxxx- PROCESSOR -

is an *informative* message. It is issued if the prompt is the standard three dashes and the software switches processors. *xxxxxxx* is the name of the processor that was invoked. If PROMPT IS PROCESSOR is in effect, you receive the new processor name as a prompt. If the software cannot switch processors, an appropriate error message appears.

Special Zap and User Exit Messages

Messages numbered -900- through -999- are issued by special zaps and user exits. The numbers -900- through -949- are reserved for use by SAS Institute. The numbers -950- through -999- are available for user-supplied messages that are related to user exits.

- 900- NUMBER OF QUALIFIED RECORDS EXCEEDS DBA-SPECIFIED LIMIT -**
is a *nonfatal, nondestructive* error. Your system was zapped to establish a limit for the number of pages (blocks) that can be created by any user on the primary scratch file used for where-clause processing. The current command exceeded that limit. The QUEST processor becomes available.
- 901- USER EXITS NOT SUPPORTED FOR THIS EXECUTION OF SYSTEM 2000 -**
is a *fatal, nondestructive* error. Using SCF or PLEX syntax, you tried to change user-exit specifications, but the user-exit routine S2EXIT was not loaded.
- 902- USER EXIT 'EXIT01' IS NOT ENABLED -**
is a *fatal, nondestructive* error. Using SCF or PLEX syntax, you tried to change user-exit specifications, but the user-exit routine EXIT01 was not available to process the changes.
- 933- QAEXIT DDCARD LIMIT EXCEEDED -**
is issued by either a QAEXIT or a QASTAT call if the maximum 256 DD limit is exceeded. Only the first 256 files will be reported.
- 934- QAEXIT TIMING DISABLED UNDER MULTI-USER -**
is issued after an SCF QAEXIT call only if that call was issued in a Multi-User environment. I/O counts are provided, but all timing information equals 0.
- 950- through -999-**
are available for user-supplied messages that are related to user exits.



CHAPTER

2

Programming Facility (PLEX) Messages

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Introduction

The SYSTEM 2000 Programming Facility (PLEX) consists of the PLEX processor, which is used for preprocessing PLEX programs, and the Program Service Processor, which is the interface between the PLEX program and SYSTEM 2000. The following three types of messages and codes are issued when you are using the Programming Facility:

- messages from the PLEX processor when it is preprocessing a PLEX program
- PLEX return codes sent to the PLEX program while it is executing
- SCF messages sent to the S2KMSG file associated with the PLEX program during program execution.

If the PLEX program ends abnormally, a SYSTEM 2000 Error Code or an IBM user abend can occur. See Chapter 3, “Abnormal Job Termination Messages and Codes,” on page 81 for details.

PLEX Processor Messages

PLEX processor messages result from errors in PLEX directives or PLEX command syntax. These messages appear during the preprocessing of a PLEX program, not during program execution. They are sent to the SYSPRINT file. This section lists all PLEX processor messages and their meanings. Each message description includes the number, severity level, short form, and suggested corrective action.

Format of Long and Short Messages

The format of a PLEX processor message varies for short and long forms. The long-form message is the default; its format is

```
PLXnnnnn PLXmmm message-text
```

where

nnnnn is the program line number where an error occurs.

mmm is the message number.

The first digit of the three-digit message number indicates the category of the error.

100s	operation problem
200s	information about processing
300s	improper techniques
400s	improper syntax

The short-form message is intended for use at a terminal. You can request the short form by specifying the PLEX processor execution option TERM, which is discussed in the *SYSTEM 2000 PLEX Manual*. The short-form message format is

```
PLXnnnnn PLXmmm short message AT col
```

where

nnnnn is the program line number where an error occurs.

mmm is the message number.

col is the character position (within the line) where an error occurs.

The message summary is followed by two messages:

```
NUMBER OF DIAGNOSTICS GENERATED IS k
HIGHEST SEVERITY CODE IS j
```

where

k indicates the number of messages generated.

j is an integer that indicates the highest severity code that occurred. Table 2.1 on page 55 shows the codes and their meanings.

Table 2.1 Codes and Their Meanings

Code	Severity: Condition
4	Warning: proper execution likely
8	Error: proper execution unlikely
12	Severe error: execution impossible
16	Terminal: execution impossible; PLEX processor unable to proceed

Sample Short-Form Messages

The last two lines in this example pertain to memory use. See “Memory Use during the PLEX Processor Step” on page 56 for more information.

```

SYSTEM 2000 - PLEX PROCESSOR - 1.0

PLX00029 PLX202 LEVELS INCREASED   AT 12
PLX00047 PLX202 LEVELS INCREASED   AT 12
PLX00050 PLX202 LEVELS INCREASED   AT 12
PLX00054 PLX202 LEVELS INCREASED   AT 12
PLX00062 PLX202 LEVELS INCREASED   AT 12
PLX00072 PLX202 LEVELS INCREASED   AT 12
PLX00237 PLX407 SSR NOT FOUND      AT 12
PLX00254 PLX362 ITEM NOT IN SSR DEF AT 40
NUMBER OF DIAGNOSTICS GENERATED IS  8
HIGHEST SEVERITY CODE IS  8
498K WAS NOT USED FOR SSR=004 AND ITEM=005
498K WOULD BE FREE IF SSR=005 AND ITEM=005

```

Destination

PLEX processor messages are written to the SYSPRINT file.

Cursor Code in Program Listing

If an error occurs, the code letter C appears in the PLEX program listing immediately below the command that contains the error. A message (in long or short form) appears below the cursor code. The position of the cursor code corresponds to the position in the command line where the error occurred.

For example, if subschema record L8 was not declared or was coded incorrectly, the cursor code and message appear in the program. PLX407 is the message number. The message is also repeated in the error summary at the end of the program listing. Here is an example:

```

      *GET1 L8 FIRST.
.....C
          PLX407 SSR NOT FOUND

```

Memory Use during the PLEX Processor Step

The PLEX processor issues the following two messages that appear in the SYSPRINT file after all other messages:

```
X1K WAS NOT USED FOR SSR=00N1 AND ITEM=00M1
X2K WOULD BE FREE IF SSR=00N2 AND ITEM=00M2
```

The *X1*, *N1*, *M1*, *X2*, *N2*, and *M2* variables are replaced in the message text with information about memory use during the PLEX processing step. By altering the PLEX processor execution options SSR and ITEM, you can sometimes use this information to reduce the amount of memory required by the PLEX processor. These execution options do not affect run-time memory requirements of PLEX programs. For information about altering processor execution options, see the *SYSTEM 2000 PLEX Manual*.

Operating Problems (100s)

PLX100 INVALID ERROR NUMBER—CONTACT SAS INSTITUTE INC.

short form: **INVALID ERROR NUMBER**

severity code: **12** (severe error)

The PLEX processor found an internal error. This message should not occur. Contact SYSTEM 2000 Technical Support for assistance.

PLX101 THE MINIMUM AMOUNT OF MAIN MEMORY IS NOT AVAILABLE

short form: **NOT ENOUGH MEMORY**

severity code: **16** (terminal)

The PLEX processor was not specified enough main memory to open all required files and to build minimum-sized internal tables. Provide more memory and resubmit the job.

PLX102 LOCALLY DEFINED SUBSCHEMA RECORDS ARE NOT PERMITTED

short form: **LOCAL SSR NOT ALLOWD**

severity code: **08** (error)

The installation specified that all subschema record declarations were to be generated using a \$COPY directive. The subschema record declaration must be placed in SYSLIB and retrieved with a \$COPY directive.

PLX110 PARAMETER TO PLEX PROCESSOR CONTAINS INVALID SYMBOL

short form: **INVALID PARAMETER**

severity code: **04** (warning)

A value specified at PLEX processor execution time could not be interpreted and was ignored.

PLX111 INVALID LANGUAGE SPECIFIED

short form: **INVALID LANGUAGE**

severity code: **16** (terminal)

The language specified is not supported for this PLEX processor. The PLEX facility supports FORTRAN, PL/I, COBOL, and Assembler language programs.

PLX112 MARGINS HAVE BEEN SET INCORRECTLY

short form: **MARGINS INCORRECT**

severity code: **16** (terminal)

Margin settings were inconsistent. The following must be true: $1 \leq a \leq b \leq c \leq 80$.

PLX113 COPY NOT PERMITTED—COPY PARM NOT SPECIFIED OR DD CARD IS MISSINGshort form: **COPY NOT PERMITTED**severity code: **08** (error)

A \$COPY directive could not be processed. Specify a COPY execution option, and provide a SYSLIB DD statement before submitting the job.

PLX114 COPY MEMBER NOT FOUND IN COPY LIBRARYshort form: **MEMBER NOT FOUND**severity code: **04** (warning)

The member specified by a \$COPY directive could not be located.

PLX115 NUMBER OF NESTED COPY DIRECTIVES EXCEEDS 10short form: **EXCESSIVE NESTED CPY**severity code: **04** (warning)

The number of nested \$COPY directives exceeded 10 levels.

PLX120 REQUIRED DD CARD IS MISSINGshort form: **DD CARD MISSING**severity code: **12** (severe error)

A required file could not be opened because the DD statement for it was not provided. The JCL listing shows which file is missing. If SYSPUNCH, SYSGO, or SYSLIB was missing, that option was disabled to continue the processing.

PLX121 PERMANENT READ ERROR ON SYSLIBshort form: **READ ERROR ON SYSLIB**severity code: **16** (terminal)

A permanent read error occurred while trying to find the requested member specified by a \$COPY directive. Verify that the hardware is working properly before resubmitting the job.

PLX122 BLOCKSIZE FOR WORK FILE MUST BE GREATER THAN 83short form: **BLOCKSIZE TOO SMALL**severity code: **16** (terminal)

Work file (SYSUT1 or SYSUT2) block size must be 84 or larger. Provide a larger block size before you resubmit the job.

PLX130 COMMBLOCK TABLE IS FULLshort form: **COMMBLOCK TABLE FULL**severity code: **08** (error)

The number of COMMBLOCKS in the program could not be stored with the specified main memory and execution options SSR and ITEM. Provide more memory or appropriate values for SSR and ITEM (PLEX execution parameters).

PLX131 SUBSCHEMA TABLE IS FULLshort form: **SUBSCHEMA TABLE FULL**severity code: **08** (error)

The number of subschema records in the program or generated by the PLEX processor could not be stored using the specified memory and execution options SSR and ITEM. Provide more memory or appropriate values for SSR and ITEM (PLEX execution parameters).

PLX132 ITEM TABLE IS FULLshort form: **ITEM TABLE FULL**severity code: **08** (error)

The number of items defined by the program or generated by the PLEX processor could not be stored using the specified memory and execution options SSR and ITEM. Provide more memory or appropriate values for SSR and ITEM (PLEX execution parameters).

PLX140 PROCESSOR HAS GENERATED TOO MANY LOCAL VARIABLESshort form: **TOO MANY VARIABLES**severity code: **08** (error)

A PLEX program cannot contain more than 999 local variables. These variables are generated by the PLEX processor for FOR statements, where-clauses, and other command types. Try to split the program into smaller run-units.

Information about Processing (200s)**PLX200 'START S2K' STATEMENT WAS NOT SPECIFIED**short form: **NO START S2K ISSUED**severity code: **04** (warning)

A START S2K command was not specified. This PLEX program could not be executed by itself. This is only a warning.

PLX201 SLACK BYTES HAVE BEEN GENERATED TO FORCE ALIGNMENTshort form: **EXTRA SLACK BYTES**severity code: **04** (warning)

Unused space was left in the subschema record I/O area in order to place item names on appropriate memory boundaries. This is only a warning.

PLX202 ALL LOWER LEVEL NUMBERS HAVE BEEN INCREASED BY ONEshort form: **LEVELS INCREASED**severity code: **04** (warning)

To create a proper minor structure for a subschema record or for a COBOL or PL/I COMMBLOCK, lower level numbers were increased to accommodate the control block. This is only a warning.

Improper Techniques (300s)**PLX300 UNEXPECTED END-OF-FILE ENCOUNTERED**short form: **UNEXPECTED EOF**severity code: **08** (error)

An end-of-file occurred without the appropriate end-of-program designation.

PLX301 \$BLOCKS(END SCHEMAS) STATEMENT WAS NOT FOUND OR WAS FOUND TWICEshort form: **\$BLOCKS INVALID**severity code: **08** (error)

An end-of-program occurred before finding \$BLOCKS, or the program called for duplicate blocks. Note: \$BLOCKS is a synonym for END SCHEMAS, which was available in earlier releases.

PLX302 CHARACTER STRING MUST NOT EXCEED 30 CHARACTERSshort form: **STRING TOO LONG**severity code: **08** (error)

Variable names cannot exceed 30 characters for any PLEX statement.

PLX303 VARIABLE NAME TOO LONGshort form: **VARIABLE TOO LONG**severity code: **08** (error)

A variable name exceeded the SYSTEM 2000 name restriction or exceeded the limit according to the program language being used.

PLX304 INVALID USE OF KEY WORDshort form: **INVALID USE-KEY WORD**severity code: **08** (error)

A keyword appeared in the wrong context.

PLX305 ONLY EQ AND NE ACCEPTED WITH SPANSshort form: **INVALID OPERATOR**severity code: **08** (error)

When checking a range of return codes, the PLEX processor allows only the boolean operators EQ and NE or their equivalents.

PLX306 FOR / GO TO INVALID FOR CICS OR COBOL IIshort form: **GO TO INVALID CICS**severity code: **08** (error)

FOR...GO TO does not work with CICS and COBOL II.

PLX307 ONLY ONE NE ALLOWED PER \$FOR STATEMENTshort form: **ONLY ONE NE ALLOWED**severity code: **08** (error)

Only one NE boolean operator is allowed with each \$FOR statement.

PLX308 ONLY ONE \$CFOR NE ALLOWED PER PLEX COMMANDshort form: **ONLY ONE NE ALLOWED**severity code: **08** (error)

Only one NE boolean operator is allowed with \$CFOR for each PLEX statement.

PLX311 DUPLICATE COMMBLOCKshort form: **DUPLICATE COMMBLOCK**severity code: **08** (error)

COMMBLOCK aliases must be unique in a program.

PLX312 COMMBLOCK MUST CONTAIN 14 OR 15 VARIABLESshort form: **INCORRECT NUMBER**severity code: **12** (severe error)

Each COMMBLOCK must contain either 14 or (optionally) 15 fields.

PLX313 OUT OF SPACE IN \$FOR BLOCKshort form: **\$FOR BLOCK FULL**severity code: **08** (error)

The PLEX processor has reached the maximum number of allowed \$FOR or \$CFOR statements or conditions.

PLX314 INVALID LEVEL FOUNDshort form: **INVALID LEVEL FOUND**severity code: **08**(error)

In each declaration, all level numbers for COMMBLOCK fields or subschema items (excluding REDEFINES variables) must be the same. In the program, a level number differed from the rest.

PLX315 IMPROPER USE OF INITIAL VALUESshort form: **IMPROPER INITIAL VAL**severity code: **08** (error)

Only the third field (USER) and the fifth field (PASSWORD) of a COMMBLOCK can contain initial values assigned before execution.

PLX320 DUPLICATE SUBSCHEMA RECORDshort form: **DUPLICATE SSR**severity code: **08** (error)

Subschema record names must be unique in a program.

PLX321 NO MORE THAN 1000 COMPONENTS ALLOWED IN SSR DEFINITIONshort form: **TOO MANY COMPONENTS**severity code: **12**(severe error)

The number of components assigned to any specific subschema record must not exceed 1000.

PLX322 DUPLICATE COMPONENTshort form: **DUPLICATE COMPONENT**severity code: **12** (severe error)

The subschema record cannot refer to the same database item twice by specifying the same alias, component name, or C-number twice. Also, FORTRAN aliases must be unique for the entire subprogram.

PLX323 NAME OF SSR MUST MATCH NAME IN SSR STATEMENTshort form: **SSR NAME INVALID**severity code: **12** (severe error)

(COBOL, PL/I) The two subschema record names in the declaration did not match.

PLX330 EXPECTED VARIABLE NAME NOT FOUNDshort form: **VARIABLE NOT FOUND**severity code: **08** (error)

A required variable was missing.

PLX340 USING 0 IS VALID ONLY FOR RETRIEVAL COMMANDSshort form: **INVALID USING 0**severity code: **08** (error)

'USING 0' is allowed only with retrieval commands that establish a stack entry, not with update commands.

PLX344 RETURN CODE MUST BE BETWEEN 0 AND 255short form: **RC OUT OF RANGE**severity code: **08** (error)

\$FOR and \$CFOR return codes must be between 0 and 255.

PLX345 RETURN CODE MUST BE BETWEEN 0 AND 127short form: **RC OUT OF RANGE**severity code: **08** (error)

The return code specified in a FOR statement must be in the range of 0 through 127. User-exit return codes (in the range 901 through 999) cannot be specified in a FOR statement.

PLX346 RETURN CODE VALUE FOR SECOND OPERAND LESS THAN FIRST OPERANDshort form: **RC LT PREVIOUS**severity code: **08** (error)

For return code ranges (*value1* THRU *value2*) in a FOR statement, *value2* must be greater than *value1*.

PLX351 DUPLICATE ITEMS IN ORDERING LISTshort form: **DUP IN ORDERING LIST**severity code: **08** (error)

The same item cannot be specified more than once in an ORDER BY command.

PLX360 COMPONENT CANNOT BE FROM DIFFERENT DATABASE THAN TARGET SSRshort form: **WRONG COMBLOCK**severity code: **08** (error)

The where-clause included a reference to a database other than the one for the specified subschema record.

PLX361 BOUNDARY ALIGNMENT ERRORshort form: **BOUNDARY ALIGN. ERROR**severity code: **08** (error)

The item type needed special alignment that required unused space in the subschema record I/O area. That is, the item was not specified on a halfword, doubleword, or fullword boundary as required. REAL and DOUBLE items must be properly aligned in a subschema record definition. SYSTEM 2000 does not require word alignment when moving data to or from a PLEX subschema record, but subsequent program statements that reference REAL and DOUBLE subschema items do require proper alignment. Therefore, the PLEX processor issues message 361 if you have not aligned the subschema items correctly.

Put items requiring alignment at the beginning of the subschema record, or adjust the lengths to correct the alignment.

PLX362 ITEM NOT FOUND IN SUBSCHEMA DEFINITIONshort form: **ITEM NOT IN SSR DEF**severity code: **12** (severe error)

PLEX item references must use the aliases assigned in a subschema record declaration. If the error occurred while scanning the item list, an item was not in the appropriate subschema record declaration. If this error occurred while scanning a where-clause, neither operand in the erroneous condition was defined in a subschema record.

PLX363 NUMBER OF OPERATORS MUST NOT EXCEED 58short form: **OPERATORS EXCEED MAX**severity code: **08** (error)

The number of operators specified in a where-clause exceeded 58, which is the maximum allowed by the PLEX processor.

PLX364 NUMBER OF OPERANDS MUST NOT EXCEED 80short form: **OPERANDS EXCEED MAX**severity code: **08** (error)

Either an ORDER BY command included too many items, or the number of operands specified in a where-clause exceeded 80 (the maximum allowed by the PLEX processor).

PLX366 COMPONENT NOT PROPERLY QUALIFIEDshort form: **COMPONENT NOT QUAL**severity code: **08** (error)

A reference to a component by alias alone was not unique. Use a properly qualified alias.

PLX367 INVALID QUALIFICATIONshort form: **INVALID QUALIFICATION**severity code: **08** (error)

An attempt to qualify an item alias by its subschema record failed.

PLX370 TOO MANY VOLUMES IN SAVE/RESTORE OPERATIONshort form: **TOO MANY VOLUMES**severity code: **08** (error)

A RESTORE or a SAVE command requested too many volumes.

PLX380 TP ALLOCATION ERROR--WAS NOT PROPERLY ALLOCATED OR INITIALIZEDshort form: **TP ALLOCATION ERROR**severity code: **08** (error)

This warning message indicates that the structure was not allocated or initialized by the PLEX processor.

Unacceptable Syntax (400s)

PLX400 MORE THAN 100 ERRORS DETECTED. SUMMARY LIST HAS BEEN TRUNCATED

short form: **ERRORS EXCEED MAX**

severity code: **04** (warning)

More than 100 errors occurred; only the first 100 were summarized at the end of the PLEX processor run.

PLX401 VARIABLE NAME IS INVALID

short form: **VARIABLE NAME ERROR**

severity code: **08** (error)

An alias must begin with a valid character symbol and must be acceptable to the host compiler.

PLX402 VALUE MUST BE NUMERIC

short form: **NUMERIC VALUE RECORD**

severity code: **08** (error)

The PLEX command syntax required a numeric value, not the alphanumeric value or variable that appeared.

PLX403 UNRECOGNIZABLE WORD APPEARS WHERE A KEYWORD IS REQUIRED

short form: **UNRECOGNIZABLE WORD**

severity code: **08** (error)

The PLEX command syntax required a keyword, which was missing.

PLX404 UNEXPECTED DATA FOLLOWS LOGICAL END-OF-STATEMENT

short form: **UNEXPECTED DATA**

severity code: **08** (error)

An input statement contained non-blank characters after the end of the PLEX command.

PLX405 UNEXPECTED END-OF-STATEMENT ENCOUNTERED

short form: **UNEXPECTED STMT END**

severity code: **08** (error)

An input statement contained an incomplete PLEX command that was unexpectedly terminated by an end-of-statement character.

PLX406 DATABASE IDENTIFIER NOT FOUND

short form: **DB ID NOT FOUND**

severity code: **08** (error)

A PLEX command specified a database that did not have a COMMBLOCK declaration.

PLX407 SUBSCHEMA RECORD NAME NOT FOUND

short form: **SSR NOT FOUND**

severity code: **08** (error)

A PLEX command specified a subschema record that did not have a SUBSCHEMA RECORD declaration.

PLX408 LABEL NAME IS INVALID

short form: **LABEL NAME ERROR**

severity code: **08** (error)

The PLEX processor expects label names to be between 0 and 63 characters long.

PLX410 UNBALANCED PARENTHESES

short form: **UNBALANCED PAREN**

severity code: **08** (error)

A PLEX command included a different number of left and right parentheses.

PLX411 INVALID USE OF PARENTHESISshort form: **INVALID PAREN USE**severity code: **08** (error)

The command syntax did not allow a parenthesis where one appeared.

PLX412 INVALID VARIABLE TYPE OR PICTURE SPECIFICATIONshort form: **INVALID TYPE**severity code: **08** (error)

A SUBSCHEMA RECORD declaration attempted to assign an invalid type or picture to an item.

PLX413 ENCLOSE \$CFOR CONDITIONS IN PARENTHESSESshort form: **\$CFOR PARENTHESSES**severity code: **08** (error)

\$CFOR conditions must be enclosed in parentheses.

PLX414 NESTED BOOLEAN OPERATORS NOT ALLOWEDshort form: **NO NESTED BOOLEANS**severity code: **08** (error)

The PLEX processor does not allow the nesting of boolean operators with \$FOR statements or conditions.

PLX415 \$CFOR - TOO MANY PARAMETERS SPECIFIEDshort form: **TOO MANY \$CFOR PARMS**severity code: **08** (error)

\$CFOR requires two fields separated by commas in each primary set of parentheses.

PLX416 SEPARATE \$CFOR CONDITION / LABEL WITH COMMAshort form: **\$CFOR SEPARATOR**severity code: **08** (error)

\$CFOR fields must be separated by commas.

PLX420 INVALID INCLUSION LISTshort form: **INVALID LIST**severity code: **08** (error)

An item list had a syntax error, such as consecutive, missing, or trailing commas.

PLX421 'USING' NOT FOLLOWED BY NAME OF INCLUSION LISTshort form: **LIST NAME NOT FOUND**severity code: **12** (severe error)

USING requires the name of a word array, a name array, a bit string, or the numeral 0 following the keyword USING.

PLX430 EXPECTED RETURN CODE VALUE NOT FOUNDshort form: **RC VALUE NOT FOUND**severity code: **08** (error)

A FOR statement requires a return code in the range of 0 through 127, and it did not appear. User-exit return codes (in the range 901 through 999) cannot be specified in a FOR statement.

PLX440 INVALID USE OPERATORshort form: **INVALID OPERATOR USE**severity code: **08** (error)

A PLEX command specified an operator outside of the acceptable context, for example, NK preceded a SAME STACK/LOCATE or GETP where-clause condition. Also, the operator in the where-clause must be valid for the GETP command. The EQ, GE, GT, LE, and LT are acceptable, but NE and the ternary EQ are not.

PLX441 'GETP' MUST HAVE ONE KEY CONDITIONshort form: **NEED ONE KEY ITEM**severity code: **08** (error)

A GETP command can have only one condition in the where-clause. It must contain a key item; it cannot be non-key or a comparison of values for two database items.

PLX442 INVALID USE OF SYSTEM SEPARATORshort form: **INVALID SYS SEP USE**severity code: **08** (error)

The system separator can appear only between range variables in a ternary condition or after each item in a where-clause condition that compares values for two items.

PLX444 SSR NAME FOR 'HAS' MUST BE SPECIFIEDshort form: **MISSING SSR NAME**severity code: **08** (error)

A PLEX command specified HAS, HAVE, or HAVING without a preceding subschema record name.

PLEX Return Codes

SYSTEM 2000 sends PLEX return codes back to a PLEX program during program execution. Each time a program executes a PLEX command, a return code reflects the success or failure of the requested operation.

When a command is ignored, stacks and Locate Files are not altered unless specifically noted in this section.

Return Code 00 means that SYSTEM 2000 completed the request successfully. Non-zero return codes indicate the status of the database, errors in data values, possible errors in navigation through the database, and other information that can be used in the program logic. Check the return code after each PLEX command.

Also, you can use FOR, \$FOR, and \$CFOR processing to test for ranges of return codes and to branch to appropriate program logic as necessary. See the *SYSTEM 2000 PLEX Manual* for more information about FOR, \$FOR, and \$CFOR processing.

Format

Each PLEX return code is a four-digit number in the range of 0000 through 0127. You can use them in FOR processing. However, Return Codes 0900 through 0999 pertain to user exits and must be checked individually.

Destination

SYSTEM 2000 sends PLEX return codes to the second field in the COMMBLOCK of the database that the PLEX command referenced. Also, some return codes are sent to the S2KRTC field in the S2KDUM array. These return codes pertain to the LINK command and general commands that do not involve a database.

For some return codes, additional information about the error is passed back to the program in various other COMMBLOCK fields (see specific return codes). Table 2.2 on page 65 shows sample return codes.

Table 2.2 Return Codes and Their Meanings

Return Code	Meaning
0000	PLEX command completed successfully
0004	End-of-data
0010	Error in data
0016	Update ignored due to damaged database

PLEX Return-Code Descriptions

- 00** The PLEX command was processed successfully.
- 01** Reserved.
- 02** An update command was ignored. REMOVE, MODIFY, REMOVE TREE, and MOVE TREE require a stack entry that indicates the record to be updated, and that stack was empty. (See Return Code 03 for wrong family.) For MOVE TREE, the eighth field (LEVEL) of the COMMBLOCK is set to 1 if the “from” stack entry was missing and is set to 2 if the “to” stack entry was missing.
- 03** The command was ignored for one of the following reasons:
- No entry existed in the stack.
 - The stack entry was not in the same family as a data record for the specified subschema record.
 - The stack entry was no longer available because a user gave a MOVE TREE command.

For GETD, no stack entry was above the level of the specified subschema record, or no stack entry was in the same path as a data record for the specified subschema record. For GETD PRESENT (or S2KCOUNT=0), the stack entry at the same or lower level was not in the same family as the target subschema record, or no stack entry was at or below the target level. For all other GETD commands, no stack entry was above the target level, or no stack entry was in the same path as the target record type.

For REMOVE, MODIFY, or REMOVE TREE, the stack entry at the level of the specified subschema record was not the address of a data record for the specified subschema record. (See Return Code 02 for no stack entry.)

For GET1 PRESENT (or S2KCOUNT equal to 0), the stack entry at the same or lower level was not in the same family as a data record for the specified subschema record. For GET1 NEXT, LAST, or S2KCOUNT greater than 0, the specified subschema record was not in the family of the primary stack entry.

For INSERT, no stack entry existed for the required parent or sibling of a data record for the specified subschema record. The stack entry was either missing or removed.

For immediate mode INSERT, if the rejected insert was at or above the top-most level of previous inserts, it ended the previous insert sequence, and the stack was altered accordingly. An insert sequence is terminated if you update any database, using any stack. This is necessary because all updates are written to scratch files, and the insert sequence must be terminated in order for the scratch files to be evicted and the next update command processed.

For MOVE TREE, the eighth field (LEVEL) of the COMMBLOCK is set to 1 if the “from” stack was invalid, and set to 2 if the “to” stack did not contain a parent of the “from” stack.

- 04** An end-of-data occurred for one of the following reasons:
- GET attempted to get a pointer beyond the beginning or end of a Locate File.
 - GET1 with a where-clause did not qualify any records.
 - GETD reached the end of all records within its region of control.
 - GETP found no equal value for an EQ where-clause condition or found no values for the component in the where-clause.
- 05** Either a GETD or an INSERT was ignored. For GETD, the level of the specified subschema record was not below the primary entry level. For an immediate mode INSERT, the insert level was above the primary entry level. Return Code 05 is never issued for queue-mode insertions. That is, the software does not check for an insert above the primary level, as long as a stack entry exists at the parent level of the specified subschema record.
- 06** A GET was ignored because the referenced Locate File was empty, or no LOCATE was specified for that Locate File.
- A linked retrieval was ignored because the via-clause did not qualify any records.
- 07** A data record for the subschema record specified in a GETA command was not an ancestor of a stack entry at a lower level, or no stack entry was below the subschema record level.
- 08** A GET selected a record that was previously removed by a REMOVE TREE operation. Although its location remains in the referenced Locate File, a REMOVE TREE removed the record from the database. The stack and the Locate File are set to point to the removed record.
- 09** A GETA, GETD, REMOVE, MODIFY, REMOVE TREE, INSERT, or a GET1 without a where-clause was ignored because the stack entry was cancelled with a REMOVE TREE or MOVE TREE operation. The cancellation could have been caused by another stack in the same program or by another user in a Multi-User environment. The eighth field (LEVEL) of the COMMBLOCK contains the database level of the removed node.
- 10** Meaning #1: A GET1, LOCATE, or GETP failed to select any record because of an incompatible item/variable combination in a where-clause condition. The value of the variable must be compatible with the database definition for the item in the condition.

Meaning #2: An INSERT (including load-mode insertions) or a MODIFY command included a value for updating that did not conform to the corresponding item definition in the database. The insert sequence did not process the rejected record. Therefore, a subsequent insert might be rejected because of a missing parent. For INSERT, if the rejected insert is at or above the topmost level of previous inserts, it ends the previous insert sequence, and the stack is altered accordingly. If the reject is below the topmost previous insert, the insert is rejected before it affects the previous insert sequence, and the stack does not change.

For REAL and DOUBLE item types, 0 means a positive 0. Negative 0 is not allowed and causes Return Code 10. If an UNDEFINED item value overflows its picture, Return Code 10 is issued because overflow is not allowed for UNDEFINED type items.

For Return Code 10, the eighth field (LEVEL) of the COMMBLOCK contains the position (in left-to-right order) of the erroneous condition or component in the where-clause, or it contains the position of the rejected item in the unopened subschema record. The alias of the unaccepted component appears in the first field (SUBSCHEMA RECORD name) of the COMMBLOCK.

11 A PLEX command was rejected because the declaration of the specified subschema record included items from different schema records. The eighth field (LEVEL) of the COMMBLOCK contains the position (in left-to-right order) of the erroneous condition or component in the where-clause, or it contains the position of the rejected item in the unopened subschema record. The alias of the unaccepted component appears in the first field (SUBSCHEMA RECORD name) of the COMMBLOCK.

12 The stack or Locate File for the where-clause SAME STACK or SAME LOCATE subscript was set for a database other than the database for the subschema record specified in the LOCATE or GET1 command, or the Locate File was empty.

The eighth field (LEVEL) of the COMMBLOCK contains the position (in left-to-right order) of the erroneous condition or component in the where-clause, or it contains the position of the rejected item in the unopened subschema record. The alias of the unaccepted component appears in the first field (SUBSCHEMA RECORD name) of the COMMBLOCK.

13 Meaning #1: The subschema record contained an item whose alias was not a component name or C-number, but the EQ option was not used to specify the component name or C-number.

Meaning #2: The name of a subschema record without items was not the component name or C-number of the corresponding schema record.

Meaning #3: The subschema record included two items referring to the same database item. This could occur if one item declaration specified the component name and another item declaration specified the C-number. It could also occur if different forms of the same C-number appear in different declarations in the same subschema record. In other cases of double item references within one subschema record, the PLEX processor issues an error message.

For Return Code 13, the eighth field (LEVEL) of the COMMBLOCK contains the position (in left-to-right order) of the erroneous condition or component in the where-clause, or it contains the position of the rejected item in the unopened subschema record. The alias of the unaccepted component appears in the first field (SUBSCHEMA RECORD name) of the COMMBLOCK.

- 14 The specified database was unavailable to the PLEX program or the database does not exist.
- 15 The command was ignored. In a Multi-User environment, another user removed the parent or sibling attachment node for the insertion. The ignored command terminated the insert sequence and cancelled it.

The COMMBLOCK associated with the current command (that tried to force the inserts) contains Return Code 15 and the level of the lost attachment node, which are related to the execution of the command. The subschema record name was cleared. The database-related values (for example, cycle, time, and system separator) are from the database for the insertions. The Locate File length, position, and flag are from the COMMBLOCK of the command that was processed before the current command.

Note: Most COMMBLOCK fields are not meaningful if the cancelled insert sequence was for a different database than the one referenced in the current command. Because the pending inserts were cancelled, you can re-issue the unprocessed command. It is then processed to produce its own return code. Δ

- 16 An update command, a TERMINATE command, a load mode INSERT command, or an ENABLE or DISABLE ROLLBACK command was ignored because the database is damaged. Check the 14th COMMBLOCK field for damage status before attempting updates. However, the database can be damaged by another user after the check.
- 17 The picture or type of a subschema item was incompatible with the item definition in the database.
- When the program first refers to the specified subschema record, if a packed-decimal subschema item did not have the same picture as the corresponding database item, the command is rejected with no change in the stack or Locate File. The subschema record was not opened. Also, the subschema is rejected if an item requires value conversion between the database and the subschema.
 - For retrieval operations with an opened subschema record,
 - the data is placed in the subschema record down to the incompatible item
 - the stack is placed in the subschema record down to the incompatible item
 - the stack is altered as if all data was transferred properly.

- If the error was in a where-clause, no retrieval was done, and the stack was not altered.
- For update operations other than the INSERT, no items were updated, and the stack is not altered.
- For INSERT, if the rejected insert was at or above the topmost level of previous inserts, it ended the previous insert sequence, and the stack was altered accordingly. If the reject was below the topmost level of the previous inserts, the insert was rejected before it affected the previous insert sequence. The previous inserts and stack did not change.

The eighth field (LEVEL) of the COMMBLOCK contains the position (in left-to-right order) of the erroneous condition or component in the where-clause, or it contains the position of the rejected item in the unopened subschema record. The alias of the unaccepted component appears in the first field (SUBSCHEMA RECORD name) of the COMMBLOCK.

- 18 The target subschema record was not acceptable for one of the following reasons:
- A GET was ignored because the records of the referenced Locate File were not for the same schema record as the target subschema record.
 - A GETP command was ignored because the item in the where-clause condition was not a member of the database schema record specified by the target subschema record.
- 19 A command was ignored because it did not contain a database name or the database name was invalid.
- 20 An update was ignored because its database has an active Keepfile. Update logging is required in order to record PLEX updates in a Multi-User environment. For a single-user job, you must issue a KEEP command to ready the Keepfile prior to updating the database.
- 21 An INSERT was ignored because it was not in logical order. That is, the previous command inserted a record that was not a sibling or a parent of the rejected insertion.
- 22 You attempted to issue a SYSTEM 2000 command after an abend had terminated communication with Multi-User. If you abend in either the dependent region or in Multi-User, all subsequent commands, including START S2K, get Return Code 22 because MUPLINT was not deleted and all flags remain set. To re-establish communication, issue a STOP S2K command (which deletes MUPLINT) before issuing START S2K.
- 23 An ORDER BY was ignored because the referenced Locate File was empty. Either the previous LOCATE was unsuccessful, or the ORDER BY removed all Locate File addresses because they were no longer in the database. If all Locate File addresses were removed, the following COMMBLOCK fields were cleared: the fourth (last record indicator), the sixth (number of records selected), and the seventh (Locate File pointer).
- 24 An ORDER BY was ignored because a sort item was not in the same path as the data records on the referenced Locate File.

- The eighth field (LEVEL) of the COMMBLOCK contains the position (in left-to-right order) of the erroneous condition or component in the where-clause or in the ORDER BY command, or it contains the position of the rejected item in the unopened subschema record. The alias of the unacceptable component appears in the first field (SUBSCHEMA RECORD name) of the COMMBLOCK.
- 25 Ordering occurred, but the least significant keys were truncated in excessively long sort values. The resulting order of addresses might have been affected by truncating the values in the ordering-clause.
- 26 A CLOSE was ignored because the specified database was not open.
- 27 A CLOSE succeeded, but queue mode updates were pending for the specified database. The updates were cancelled, and the stack was cleared.
- 28 One of the following situations occurred:
- An update command was ignored because queue mode was in effect for another database.
 - An APPLY or KEEP was ignored because queue mode was in effect for some database.
 - A RELEASE, SAVE, RESTORE, or SUSPEND was ignored because queue mode was in effect for the database specified in the command.
 - MOVE TREE was ignored because it is not valid in queue mode.
- 29 Access was denied under Security by Entry for one of the following reasons:
- The Entry Key condition either contained an operator with a single value other than EQ, was not the first (or only) condition, was joined to another expression with OR, or belonged to a non-key expression. The eighth field (LEVEL) of the COMMBLOCK contains either the position (in left-to-right order) of the erroneous condition or component in the where-clause or in the ORDER BY command, or it contains the position of the rejected item in the unopened subschema record. The alias of the unacceptable component appears in the first field (SUBSCHEMA RECORD name) of the COMMBLOCK.
 - GET1 was specified without an EQ where-clause condition. For example, FIRST or NEXT was specified, but Security by Entry was not established in an earlier where-clause.
 - GETP was specified, but Security by Entry was not established in an earlier where-clause, or the value selected by GETP was not in the required entry.
- 30 Access was denied under Security by Entry. The value supplied was not unique, not correct, or not present.
- 31 The command was ignored because S2KCOUNT was out-of-range. For GET1 and GETD, S2KCOUNT must be equal to or greater than (\geq) 0. For GET, S2KCOUNT can be any integer.
- 32 Reserved.
- 33 A RESTORE was ignored because the requested tape did not contain the specified database.

- 34 Reserved.
- 35 An APPLY or KEEP was ignored because update logging was not activated.
- 36 An APPLY was ignored because the database is damaged. The damage flag remains set.
- 37 An APPLY was ignored in one of the following situations:
- A label check indicated that the wrong tape was mounted or some secondary memory error occurred.
 - The program tried to apply a previously applied cycle, that is, some cycle that was lower than the current database cycle number.
 - An update was performed since the most recent RESTORE.
 - A KEEP was specified since the most recent RESTORE.
- 38 Reserved.
- 39 A KEEP was ignored because the correct Keepfile tape was not mounted or some secondary memory error occurred.
- 40 One of the following situations occurred:
- A LOCATE, GET, or ORDER BY was ignored because the Locate File number was either negative or greater than the maximum number of Locate Files declared in the START S2K command.
 - START S2K was ignored because the largest declared Locate File number exceeded the maximum of 15, was negative, or conflicted with those in the JCL.
 - The stack number in the PLEX command was negative or greater than 15.
 - The subscript for source in COPYS or COPYL was not used prior to the COPYS or COPYL command. There was no data to be copied.
 - For a MOVE TREE, the eighth field (LEVEL) of the COMMBLOCK is set to 1 if the “from” stack number was negative or greater than 15, and set to 2 if the “to” stack number was negative or greater than 15.
 - The subscript value in a COPYS command or a COPYL command or in a where-clause SAME STACK subscript or SAME LOCATE subscript was unacceptable.

Table 2.3 Acceptable Limits for Specific Variables

Variables	Acceptable Limits
SAME LOCATE n	$0 \leq n \leq START-S2K-max$
SAME STACK n	$0 \leq n \leq 15$
COPYS $source$ TO $target$	$source \leq 15$
$source < 0$ implies COPYS NULL	$0 \leq target \leq 15$
COPYL $source$ TO $target$	$source \leq START-S2K-max$
$source < 0$ implies COPYL NULL	$0 \leq target \leq START-S2K-max$

The position of the erroneous condition, in left-to-right order within the where-clause, appears in the eighth field (LEVEL) of the COMMBLOCK. Because no component is associated with the condition, the first COMMBLOCK field contains the specified subschema record name.

- 41 Reserved.
- 42 Under CICS, a START S2K requested a URB, but a URB already assigned to the user is in error task condition. Usually, this situation means that the prior transaction ended abnormally and recovery was not properly performed. Use LALL to confirm that transaction SCFZ and program S2KTERM are installed correctly and are working.
- 43 Under CICS, a START S2K was requested, but no URB was available in the CICS Interface. Use to see the current users of the URBs and their status. If all the URBs are assigned to active users, then you might have to activate more URBs. If some URBs have inactive users, then error recovery modules DFHPEP, DFHZNEP, and PLXTRUE might not be installed correctly.
- 44 A PLEX command was ignored because START S2K was not executed yet.
- 45 One of the following situations occurred:
- The program password lacked R-authority for retrieval of a subschema item. The values retrieved before finding the unauthorized item remain in the subschema record, but no other retrievals occurred. The stack and Locate File were altered as if all items had proper authority.
 - The password lacked R-authority for an item or record specified in an ORDER BY command. No ordering took place. The unordered Locate File is still available. The eighth field (LEVEL) of the COMMBLOCK contains the position (in left-to-right order) of the erroneous component. The alias of the unaccepted component appears in the first field (SUBSCHEMA RECORD name) in the COMMBLOCK.
- 46 A LOCATE or GET1 was ignored because the current password for the database lacked W-authority for an item or a database record specified in the where-clause. The eighth field (LEVEL) of the COMMBLOCK contains the position (in left-to-right order) of the erroneous condition or component in the where-clause, or it contains the position of the rejected item in the unopened subschema record. The alias of the unaccepted component appears in the first field (SUBSCHEMA RECORD name) in the COMMBLOCK.
- 47 A REMOVE, MODIFY, INSERT, REMOVE TREE, or MOVE TREE was ignored because the password for the database lacked U-authority for an item (or the record for MOVE TREE or REMOVE TREE). The database was not changed by the command except for one situation for INSERT: if the rejected insert was at or above the topmost level of previous inserts, it ended the previous insert sequence, and the stack was altered accordingly. However, if the reject was below the topmost previous insert, the insert was rejected before it affected the previous insert sequence, and the previous inserts and stack did not change.

For REMOVE, MODIFY, and INSERT, the eighth field (LEVEL) of the COMMBLOCK either contains the position (in left-to-right order) of the erroneous condition or component in the where-clause, or it contains the position of the rejected item in the unopened subschema record. The alias of the unaccepted component appears in the first field (SUBSCHEMA RECORD name) in the COMMBLOCK.

- 48 A RESTORE was ignored because a database already existed on disk that has the specified database name.
- 49 An abend occurred in SAS. This return code means that SAS terminated a SAS procedure that was using a SYSTEM 2000 view descriptor.
- 50 One of the following situations occurred:
- A MOVE TREE command was ignored because no change in location would result. That is, an attempt was made to move a tree to its current position.
 - A GET1...PRESENT, GET1...S2KCOUNT (with S2KCOUNT equal to zero), GET1...LAST, or GETD...LAST succeeded, but it selected the record already indicated by the specified stack. This might indicate a program loop.
 - Within a LOAD/TERMINATE session, an INSERT succeeded, but the attempt to change orientation from BEFORE to AFTER or from AFTER to BEFORE was not allowed. The first valid INSERT at the top node in the session sets the orientation for all others at that level.
 - A GETP command retrieved a record; however, the key value in the retrieved record was less than the GT or GE value in the where-clause condition, but it was the highest in the database. Or the key value in the retrieved record was greater than the LT or LE value, but it was the lowest in the database.
- 51 Reserved.
- 52 Reserved.
- 53 An INSERT command in load mode was ignored because the specified subschema record included items that did not belong to the database indicated in the LOAD command.
- 54 An INSERT command in load mode was ignored because it attempted to add an ancestor of the first valid INSERT in the LOAD/TERMINATE session.
- 55 For load mode, one of the following situations occurred:
- A command other than INSERT, TERMINATE, CANCEL QUEUE, or CLOSE was specified. Other commands are not allowed in a LOAD/TERMINATE session.
 - An INSERT was attempted after an invalid command.
- If Return Code 55 is received in a LOAD/TERMINATE sequence of commands, every subsequent command (including INSERT) is ignored in the LOAD/TERMINATE session except the TERMINATE command.
- 56 The LOAD command cannot be specified in a QUEUE/TERMINATE session, that is, between QUEUE and TERMINATE. The LOAD command was ignored.

- 57 Reserved.
- 58 No selection was performed because the where-clause contained disjoint conditions or because the specified subschema record was not in the where-clause path.
- 59 A command was ignored because the specified name array contained an item that was not in the specified subschema record.
- 60 A where-clause was ignored because it included too many operators, operands, or levels of HAS nesting.
- The eighth field (LEVEL) of the COMMBLOCK contains the position (in left-to-right order) of the erroneous condition or component in the where-clause, or it contains the position of the rejected item in the unopened subschema record. The alias of the unaccepted component appears in the first field (SUBSCHEMA RECORD name) in the COMMBLOCK.
- 61 A where-clause was ignored because an operator and operand were incompatible. HAS must be preceded by a subschema record name. AT must be followed by a full-word binary variable or an integer constant (FORTRAN only). Aliases for items in declared subschema records must precede all unary, binary, or ternary operators.
- The eighth field (LEVEL) of the COMMBLOCK contains the position (in left-to-right order) of the erroneous condition or component in the where-clause, or it contains the position of the rejected item in the unopened subschema record. The alias of the unaccepted component appears in the first COMMBLOCK field (SUBSCHEMA RECORD name).
- 62 A where-clause was ignored because the initial scan needed a full pass of the database, and the NO FULL PASSES option was in effect.
- 63 One of the following situations occurred:
- A where-clause was ignored because it specified a comparison of values for two items from disjoint records or two items with incompatible data types.
 - A where-clause was ignored because it included a ternary condition with an invalid range; that is, the second value was less than the first value.
- The eighth field (LEVEL) of the COMMBLOCK contains the position (in left-to-right order) of the erroneous condition or component in the where-clause, or it contains the position of the rejected item in the unopened subschema record. The alias of the unaccepted component appears in the first field (SUBSCHEMA RECORD name) in the COMMBLOCK.
- 64 The Update Log disk file (database File 7) was empty, and a KEEP was specified. This situation causes no problem for SYSTEM 2000.
- 65 Reserved.
- 66 Reserved.
- 67 Reserved.

- 68 A where-clause condition must be processed as key rather than non-key in the following situations:
- The SAME LOCATE or SAME STACK condition in a where-clause was rejected because the where-clause structure forced the condition to be considered non-key.
 - The where-clause item in a GETP command must be a key item.
- 69 The COPYS command copied from a stack that contained more than 10 entries. All entries beyond the 10 shallowest levels were truncated on the stack that was being copied to.
- 70 Under CICS, a program issued a SYSTEM 2000 command, but it had addressability to another user URB. S2KSTR in S2KDUM (pointing to the URB) is set to 0.
- 71 Under CICS, more than one START S2K was attempted.
- 72 This return code is a warning set in S2KRTC of S2KDUM when a CLEAR UPDATE LOG was specified and one or more open databases do not have active update logging. The active Update Logs are cleared, and clear mode is set to the mode specified in the command.
- 73 Reserved.
- 74 Reserved.
- 75 Reserved.
- 76 Under CICS, SYSTEM 2000 Multi-User returned a bad status code to the interface. The status code (in display format) is in S2KDUM + X'2C'.
- 77 Under CICS, the transaction was cancelled by the operator (Multi-User cancel) or an alternate console.
- 78 Under CICS, the transaction abended in Multi-User. The SYSTEM 2000 Error Code (in display format) is in S2KDUM + X'30', and the system or user abend code is in S2KDUM + X'34'.
- 79 Under CICS, the transaction was terminated by Multi-User with a SYSTEM 2000 Error Code. The SYSTEM 2000 Error Code is in S2KDUM + X'30' (in display format).
- 80 Under CICS, SYSTEM 2000 is not active.
- 81 A REFRESH command was submitted, and the database was damaged on disk before the refresh. The REFRESH command completed successfully. This return code is informative only.
- 82 Under CICS, an invalid function code appeared on an initial SYSTEM 2000 call.
- 83 Under CICS, a Return Code 12 was received from the Multi-User SVC, which indicates an invalid URB or address. This situation probably indicates a processing error in either CICS or the SVC.
- 84 Under CICS, an improper activity status occurred. Either the program was already active on an initial SYSTEM 2000 call or it was inactive on subsequent calls.

- 85 A FRAME was specified for a database that did not have rollback enabled. The FRAME command holds the specified databases, but it does not log before-images for any database whose COMMBLOCK contains Return Code 85.
- 86 Under CICS, the SVC table lacked space for additional users, or a STOP S2K command was specified without a previous START S2K command.
- 87 An ENABLE ROLLBACK command was ignored because of an attempt to allocate the Rollback Log to more than one volume.
- 88 Under CICS, an unexpected return code was received from the Multi-User SVC. The return code (in display format that has leading 0's is in S2KDUM X'2C'.
- 89 CICS pseudo-conversational PLEX transactions are responsible for issuing their own STOP S2K commands because SYSTEM 2000 cannot offer any protection from the PLXTRUE. PLEX Return Code 89 is issued if the STOP S2K command was not issued appropriately.

When a START S2K command is issued, SYSTEM 2000 checks to determine whether a URB is already assigned to this user. If a URB is assigned, Return Code 89 is returned to S2KDUM, and the PLEX program has the following options:

- to issue a STOP S2K command and then return to CICS, or specify the START S2K command again.
- to continue processing.

CAUTION:

When deciding whether to continue processing, you need to know what was happening in the transaction that triggered Return Code 89. Δ

- 90 Under CICS, Multi-User posted you with an internal “abend” code, indicating some error condition within Multi-User. The “abend” code is in S2KDUM + X'30'.
- 91 An APPLY, RELEASE, LOAD, ENABLE ROLLBACK, or DISABLE ROLLBACK command was ignored because the database was not under exclusive use.
- 92 A command failed because PLEX program tried to open more than 63 databases simultaneously.
- 93 A database OPEN failed because the database files are not available to this region or the database did not match SYSTEM 2000 parameters. One of the following situations occurred:
- JCL was not provided or the DDNAME was spelled incorrectly.
 - Dynamic allocation was not able to allocate the files using S2KDBCNT or PREFIX.
 - File 7 could not be opened and the database had update logging enabled, or Files 7 and 8 could not be opened with Rollback enabled.
 - No database POOL parameters matched the CISIZE for this database.
 - The number of components in this database exceeded the LDBSIZE parameter.

- 94 One of the following situations occurred:
- An OPENR/LOCK failed because another user was using the database.
 - An OPENR or FRAME/CONDITIONAL/ failed because another user already had exclusive use of the database.
 - A FRAME/CONDITIONAL/ failed because it tried to hold a database, but the database was already held by another user.
- The rejected FRAME command cancelled all holds.
- 95 An OPENR/LOCK or OPEN/LOCK failed because the program already had one or more databases available to it.
- 96 The command (maybe FRAME) was ignored because it required opening a database while another database was open under exclusive use. The rejected FRAME command cancels all holds.
- 97 An update command resulted in no change to the database because either the specified subschema record had no items or the inclusion list specified no items.
- 98 Padding occurred when the software transferred a single- or double-precision value to or from the database. You can check for Return Code 98 if you specify YES for the OPT039 execution parameter. If both padding and truncation take place in the same subschema, Return Code 99 takes precedence. For more information about the OPT039 execution parameter, see the *SYSTEM 2000 Software: Product Support Manual*.
- 99 Truncation occurred when the software transferred a single or double precision value to or from the database. You can check for Return Code 99 if you specify YES for the OPT040 execution parameter. If both padding and truncation take place in the same subschema, Return Code 99 takes precedence. For more information about the OPT040 execution parameter, see the *SYSTEM 2000 Software: Product Support Manual*.
- 100 A FRAME/IMMEDIATE/ was rejected because it tried to obtain a new hold. Updates are permitted, but a logical unit of work with a default length is in effect; that is, the logical unit of work is equal to an update cycle. Also, if the command specified a database that was not opened previously, the database remains unopened.
- 101 A FRAME or END FRAME was rejected because the program was in queue mode. This return code appears in S2KDUM and in the COMMBLOCK of the first database listed in the FRAME command.
- 102 Rollback recovery was accomplished for OPEN or FRAME. See the eleventh COMMBLOCK field for the current database cycle number.
- 103 One of the following situations occurred:
- An update was ignored because UPDATE (the default) was not specified for the database in the previous FRAME command.
 - A retrieval command with /HOLD was ignored in a frame where UPDATE (the default) was not specified in the FRAME command.

- 105** An END FRAME command was ignored because there was no previous FRAME command. This causes no damaging effects since the modified pages are cleared for the database, but the situation indicates a possible logic error in the program.
- 106** Reserved.
- 107** When the Rollback Log (database File 8) was enabled for the database, it failed to open.
- 108** Reserved.
- 109** The PLEX program tried to open a database that had rollback enabled, and the Rollback Log was not formatted for BDAM. The database was not opened. Usually, this error indicates that you supplied the wrong Rollback Log. If you cannot supply the correct Rollback Log, you must perform a deferred disable of the Rollback Log before opening the database. After the database is opened, you can enable the Rollback Log.
- 110** One of the following situations occurred:
- A retrieval command was ignored, and all holds for this user were dropped; that is, the held records are no longer protected. This situation occurred because another user already had a local hold on the requested record, and another user is waiting for a record held by this user (in a possible deadlock).
 - The Multiple Local Holds Buffer was full.
- Return Code 110 causes an automatic rollback to occur, as though the ROLLBACK command had been specified. After Return Code 110 occurs, records that were previously held are no longer protected. For Return Code 110, you have the following options:
- You can re-process the sequences of holds to re-build the list of held records. (Because multiple holds are allowed, obtaining all the holds before updating any records would make this type of re-start easier.)
 - You can issue the ROLLBACK command to remove any updates that you performed if the databases involved have rollback enabled.
- 111** The Multi-User execution parameter LHOLD is set to YES. This specifies that, in immediate mode, an update for a record must be preceded by a local hold for that same record. The current update command was ignored because it was not preceded by a local hold specified for the same record. Also, for MOVE TREE, the “from” record must be held if LHOLD=YES.
- 112** A command inside a logical unit of work was ignored. The unacceptable command did not force pending inserts or alter the stacks or Locate Files. If the database was not opened before the command was issued, the database remains unopened. The logical unit of work remains intact. For a list of commands acceptable in a logical unit of work, see the FRAME and END FRAME commands in the *SYSTEM 2000 PLEX Manual*.
- 113** Reserved.

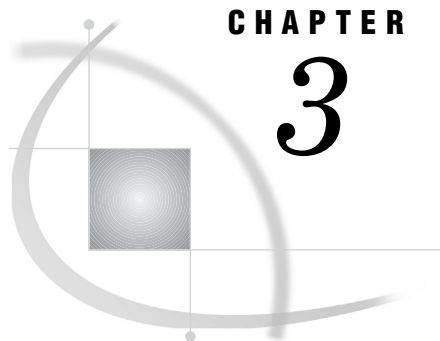
- 114 The PLEX program attempted to open a database that had rollback enabled, but the database name in the Rollback Log did not match the name in database File 1. The database was not opened. Usually, this error indicates that you specified the wrong Rollback Log. If the correct Rollback Log is unavailable, do a deferred disable of the Rollback Log before you open the database.
- 115 When SYSTEM 2000 was trying to recover *database1*, *database1* had an uncommitted logical unit of work with *database2*. However, SYSTEM 2000 was unable to open *database2*. *Database1* was not recovered and remains damaged. If you really need to recover *database1*, but you are unable to supply *database2*, specify CORECOV=NO in the SYSTEM 2000 execution parameters. This instructs SYSTEM 2000 not to require *database2* when recovering *database1*.
- 116 Reserved.
- 117 The RESET ROLLBACK command specified an invalid percentage. The PERCENTAGE keyword must be preceded by a number in the range of 0 through 100.
- 118 The RESET ROLLBACK command specified an invalid number of user synchpoints. The SYNCHPOINT keyword must be preceded by a number in the range of 1 through 999,999.
- 119 Reserved.
- 121 Reserved.
- 122 A database was opened that had rollback enabled, and the Rollback Log did not have a CISIZE that matched the largest CISIZE for database Files 1 through 6. This error usually means that you supplied the wrong Rollback Log. If you cannot supply the correct Rollback Log, specify a deferred disable of the Rollback Log before opening the database. Allocate File 8 to match the largest CISIZE of Files 1 through 6, and then enable rollback.
- 123 (FORTRAN 77-2 only) A where-clause was not processed because it contained too many operands. This differs from Return Code 60 because no fields in the COMMBLOCK are set by the erroneous condition.
- 124 A syntax error occurred in a DYNAMIC where-clause. When the return code equals 124, the NUMBER OF RECORDS field in the expanded COMMBLOCK contains the SCF error message number corresponding to the error encountered. The SCF message number represents the same error that would result from an SCF session. (Also, remember that the SAME operator and Collect File items are not allowed in a DYNAMIC where-clause.)
- 130 The date specified by the YEARCUTOFF command is unacceptable. The acceptable range is 1500 to 9900.
- 901 An attempt to change user-exit specifications was ignored because S2EXIT was not loaded. This return code cannot be included in FOR, \$FOR, or \$CFOR processing.
- 902 An attempt to change user-exit specifications was ignored because EXIT01 was not available to process the changes. This return code cannot be included in FOR, \$FOR, or \$CFOR processing.

Return Codes 903 through 949 are reserved for user exits developed by SAS Institute and cannot be included in FOR, \$FOR, or \$CFOR processing.

Return Codes 950 through 999 are available to you for your user-exit routines and cannot be included in FOR, \$FOR, or \$CFOR processing.

SCF Messages Issued during PLEX Program Execution

In addition to PLEX return codes issued during program execution, several SCF messages are sent to the S2KMSG file, which is associated with every PLEX program. These messages are described in Chapter 1, “Self-Contained Facility (SCF) Messages.”



CHAPTER

3

Abnormal Job Termination Messages and Codes

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Introduction

This chapter discusses SYSTEM 2000 Error Codes and IBM user abends that can be issued by SYSTEM 2000 software. Both types of errors indicate an abnormal end of the SYSTEM 2000 session. These errors are not directly related to SYSTEM 2000 command usage. They are caused by a problem in JCL, an internal error in SYSTEM 2000, a bad record on a database file, or the operating system encountering an unrecoverable error, such as a bad read or write. See “Guidelines for IBM Completion Codes” on page 98 for information about correcting IBM Completion Codes.

You can correct some of the errors discussed in this chapter, for example, errors in JCL. Other errors you cannot solve; contact SYSTEM 2000 Technical Support (see back cover).

Error Situations

These sections describe various error situations that might apply to your circumstances.

SYSTEM 2000 Snapshots for Unrecoverable Error Conditions

SYSTEM 2000 issues a snapshot for an unrecoverable error. When an abend occurs, an ESTAE exit provides an abbreviated dump, then a full snapshot. The abbreviated dump is accompanied by SYSTEM 2000 Error Code 820 or 826. The snapshot ID that follows the abbreviated dump is 50 for SYSTEM 2000 Error Code 820 or 51 for SYSTEM 2000 Error Code 826.

If an unrecoverable error occurred without an OS/390 abend, some SYSTEM 2000 Error Code other than 820 or 826 is issued. A snapshot may or may not be issued; if so, the snapshot ID is 60.

In addition, the following snapshot IDs can occur with operator console commands:

```
Snapshot ID = 61 for FORCE, DUMP
Snapshot ID = 62 for C S2K, N, DUMP
Snapshot ID = 63 for C jobname, DUMP
Snapshot ID = 64 for DUMP
```

One of the following SYSTEM 2000 Error Codes occurs if an attempt to take a snapshot fails: 821, 823, 825, 827, 828, 829, or 830.

Abend Settings and Condition Codes

Table 3.1 contains the abend settings and condition codes for SCF and PLEX job termination. Notice that the settings give the user control over the condition code for PLEX normal end-of-job, in both Multi-User and single-user environments. Also, when SYSTEM 2000 issues any SYSTEM 2000 Error Code (including SYSTEM 2000 Error Codes 820 and 826), user abend 550 occurs.

Table 3.1 Abend Settings and Condition Codes

Job Termination Status	Multi-User	Single User
SCF-SYSTEM 2000 Error Code	550 user abend	550 user abend
SCF normal end-of-job	condition code=0	condition code=0
PLEX SYSTEM 2000 Error Code	550 user abend	550 user abend
PLEX normal end-of-job	user choice	user choice

SVC Execution Errors for OS/390 Only

If an unrecoverable error occurs during SVC execution, the System Diagnostic Work Area (SDWA) is written to SYS1.LOGREC. To determine the cause of the SVC failure, SYSTEM 2000 Technical Support needs the SDWA in addition to whatever dumps, console messages, and other diagnostics are produced. The OS/390 SVC supplied by SAS Institute uses three logrec IDs: SVCBLEW, SRREC, and RMTRREC (see “OS/390 Error Recording” on page 132). To minimize the possibility of damaging the database, an automatic “clear” is performed when a SYSTEM 2000 Error Code occurs.

Note: Although some SYSTEM 2000 Error Codes, such as 246, 251, 252, and 253, are probably caused by faulty files, you should contact SYSTEM 2000 Technical Support before trying to reload or reorganize the database. An alternate method of isolating the true cause of the error might be available, along with suggestions for recovery methods. Δ

SYSTEM 2000 Error Codes

If a SYSTEM 2000 session terminates abnormally, a SYSTEM 2000 Error Code (SCF message -800-) is issued (sometimes followed by an IBM user abend). SYSTEM 2000 formats the ESTAE work area when an abend occurs. The formatted work area appears in the Multi-User Diagnostic Log. A System Completion Code message might also be issued; see SCF message -799-.

A SYSTEM 2000 Error Code is caused by a problem not directly related to SYSTEM 2000 command usage. (For SCF user error messages and informative messages, see Chapter 1, “Self-Contained Facility (SCF) Messages,” on page 1.) A SYSTEM 2000 Error Code can occur because of invalid JCL, operating system problems, faulty files, or malfunctioning SYSTEM 2000 code.

SYSTEM 2000 Error Codes (SCF message -800-) and System Completion Codes (SCF message -799-) are written to the S2KMSG file. The S2KSNAP file contains a complete snap dump. The DDname is hardcoded as S2KSNAP in the snapshot data control block.

Here are the descriptions of SYSTEM 2000 Error Codes, listed in numeric order.

0001	You did not allocate enough buffers for a single-user job. Specify more buffers in the S2KPARMS file or in the parameter field of the execute statement. (SYSTEM 2000 Error Codes 41 and 42 are the Multi-User equivalents of SYSTEM 2000 Error Code 0001.)
2	SYSTEM 2000 called an overlay with an invalid primary or secondary number. Contact SYSTEM 2000 Technical Support.
3-5	Reserved.
6	Entry size was 0 on a variable-length read or write. Contact SYSTEM 2000 Technical Support.
7-9	Reserved.
10	The software found a bad page header in the Distinct Values Table. Contact SYSTEM 2000 Technical Support.
11	SYSTEM 2000 tried to go beyond an end-of-file. An internal algorithmic error occurred when a scratch file I/O routine received an invalid positioning request. You cannot cause this error. Contact SYSTEM 2000 Technical Support.
12	A file was not open. This error is similar to SYSTEM 2000 Error Code 11. Generally, it is a threading problem when trying to keep the correct resources available to the correct thread. Contact SYSTEM 2000 Technical Support.
13-23	Reserved.
24	A PLEX program attempted an operation that was not allowed for the password currently in the COMMBLOCK. For example, an OPEN command was given without a valid password, a secondary password gave a CONTROL language command, or a DBA password gave an unauthorized command.
25-27	Reserved.

- 28 A thread work-area load module (RWTCOM1) was created (for the REPORT processor) that is 7K larger than the standard thread work area (TRDCOM1). The RW parameter allows you to reduce main memory requirements for sessions that do not use the REPORT processor. The default is RW=NO. Any attempt to execute the COMPOSE or REPORT command with RW=NO results in this error, regardless of the link-edit structure.
- 29-34 Reserved.
- 35 The Multiple Occurrence Table exceeded the maximum pointer range.
- 36-40 Reserved.
- 41 A buffer lockout and deadly embrace occurred in Multi-User because there were not enough buffers. You must specify more buffers at Multi-User initialization time.
- 42 Same as SYSTEM 2000 Error Code 41.
- 43 A database lockout occurred.
- 44 Reserved.
- 45 A tape lockout occurred.
- 46 The merge files were smaller than the maximum report record. Contact SYSTEM 2000 Technical Support.
- 47 Scratch pad/allocation unit lockout occurred. This is a deadly embrace situation where all users are waiting for scratch pad/allocation unit resource.
- 48 An Update Log deadly embrace occurred. Contact SYSTEM 2000 Technical Support.
- 49 Reserved.
- 50 No output buffers were available for an SCF TP user.
- 51-65 Reserved.
- 66 In user exits, a user-coded routine passed back an illogical action code. This action code is not available to this exit.
- 67 In user exits, a user-coded routine incorrectly modified an area critical to SYSTEM 2000.
- 68 A user-exit execution failed because of inconsistencies between S2EXIT/EXIT01 routines and execution parameters. This means an exit was enabled, but the address of the exit was Ø in the user exit load table.
- 69 A user-exit action code terminated your job.
- 70 A REPORT processor error occurred in handling one of your debug statements. Contact SYSTEM 2000 Technical Support if the debug feature was not being used.
- 71 A REPORT processor error occurred because
- the number of output lines exceeded the physical page length
 - the page limit was exceeded for database Files 1 through 6. Message SCF -730- precedes this error. Contact SYSTEM 2000 Technical Support.

- 72** The Definition Table entry for a key item indicates an upper-level index, but a supposedly upper-level page was flagged as a level-zero page in the Distinct Values Table. The processing that detected the error determines if this might cause the database to be damaged. Only a RELOAD command might correct the problem. Contact SYSTEM 2000 Technical Support.
- 73** A Distinct Values Table page on the re-usable space chain was not marked as belonging to re-usable space. This error sets the damage flag for the database. Only a RELOAD command might correct the problem. Contact SYSTEM 2000 Technical Support.
- 74** SYSTEM 2000 searched the table of messages and could not find an appropriate message. Contact SYSTEM 2000 Technical Support.
- 75** For either a single-user job or a Multi-User environment with only one active user, additional space was required and no more extents were available for the scratch pad. Also, if a deadly embrace situation occurs in a Multi-User environment while trying to obtain scratch pad units, this error occurs and your job terminates. SYSTEM 2000 extends the scratch pad only if
- a secondary quantity was specified in the SPACE parameter
 - it does not exceed the space on the disk volume.
- 76-149** Reserved.
- 150** SYSTEM 2000 found a bad value on File M (Scratch File 5). Contact SYSTEM 2000 Technical Support.
- 151-228** Reserved.
- 229-230** Processing errors occurred in a non-key where-clause. Contact SYSTEM 2000 Technical Support.
- 231** Key where-clause processing caused problems, probably due to a bad entry in the Hierarchical Table. Contact SYSTEM 2000 Technical Support.
- 232** File R (Scratch File 1) was empty when processing a REMOVE TREE command. Contact SYSTEM 2000 Technical Support.
- 233** Scratch File 2 contained no data or lacked essential data after REMOVE TREE processing. Contact SYSTEM 2000 Technical Support.
- 234** An unexpected value occurred while processing a REMOVE TREE command. Contact SYSTEM 2000 Technical Support.
- 235** SYSTEM 2000 found a bad entry on the re-usable space chain for the Hierarchical Table. Contact SYSTEM 2000 Technical Support.
- 236** Reserved.
- 237** SYSTEM 2000 found a bad value for initiating a non-key where-clause. Contact SYSTEM 2000 Technical Support.
- 238** SYSTEM 2000 found a bad entry in the operator stack for a non-key where-clause. Contact SYSTEM 2000 Technical Support.

- 239x** SYSTEM 2000 found a bad operator or end-of-file on Scratch File 2, instead of the expected data for non-key where-clause processing. Contact SYSTEM 2000 Technical Support. *x* indicates the routine in which the error occurred, as shown here.
- | | |
|-------------|--------|
| 239 | PREPRE |
| 239A | GENARG |
| 239B | WTEST |
| 239C | WORDR |
| 239D | TALLY |
- 240** A File Y (Scratch File 6) entry indicated more “if” entries, but none were there. Contact SYSTEM 2000 Technical Support.
- 241** At least one action must follow “if” entries, but none were found. Contact SYSTEM 2000 Technical Support.
- 242** File Y (Scratch File 6) was misordered; “if” entries were found after an action. Contact SYSTEM 2000 Technical Support.
- 243** In a match for File Y (Scratch File 6), an end-of-file was read instead of data. Contact SYSTEM 2000 Technical Support.
- 244** An invalid ISTAGE value was passed to overlay (3,7). Contact SYSTEM 2000 Technical Support.
- 245x** The length of the sorted file was not equal to the length of the input file while using SORT1; *x* indicates the file ID. Contact SYSTEM 2000 Technical Support.
- 246** An invalid (0) pointer was read from Scratch File 1. The cause is similar to error 251.
- 247** A Data Table address was 0, or a value that indicated the end of the current record was beyond the end of stored data.
- 248–249** Reserved.
- 250** The character count check did not find a 0 byte within 250 characters. Contact SYSTEM 2000 Technical Support.
- 251** SYSTEM 2000 tried to remove a data record pointer from the indexes and did not find the value in the Distinct Values Table. Contact SYSTEM 2000 Technical Support.
- 252** This error is similar to error 251 except the data value was found, but the pointer did not match the one to be removed.
- 253** This error is similar to errors 251 and 252, except the pointer was not in the Multiple Occurrence Table.
- 254** File *x* (Scratch File 2) contained a deletion entry after an addition entry. For PLEX load mode, *x* is Scratch File 5 and was positioned at a bad entry. Contact SYSTEM 2000 Technical Support.
- 255** A Directory entry that was to be removed did not exist. Contact SYSTEM 2000 Technical Support.
- 256** The last block in a Multiple Occurrence Table chain was empty. The cause is similar to error 251.

- 257 The number of deletions was negative. Contact SYSTEM 2000 Technical Support.
- 258 File *x* (Scratch File 2) was empty or had a bad first entry when overlay (3,8) started processing. For PLEX load mode, *x* is Scratch File 5. Contact SYSTEM 2000 Technical Support.
- 259 A bad pointer or bad end-of-table marker occurred when adding to the reusable space list for the Multiple Occurrence Table. The cause is similar to error 251.
- 260 SYSTEM 2000 tried to use a Multiple Occurrence block that was not “page-size” for more than 512 pointers. Contact SYSTEM 2000 Technical Support.
- 261 Problems occurred in multi-level index processing. The cause is similar to error 251.
- 262 Processing errors occurred at level 0 in multi-level indexing. The cause is similar to error 261.
- 263–269 SYSTEM 2000 errors occurred trying to process the indexes. Contact SYSTEM 2000 Technical Support.
- 270–299 Reserved.
- 300 CFNOW contained an invalid value, or CFNUMBER in CFOPEN was wrong. Contact SYSTEM 2000 Technical Support.
- 301 The open type in CFOPEN was invalid. Contact SYSTEM 2000 Technical Support.
- 302 The input Collect File did not have the proper ID in the first word. Contact SYSTEM 2000 Technical Support.
- 303 The current output file was already in use. Contact SYSTEM 2000 Technical Support.
- 304 Reserved.
- 305 CFBASE contained an invalid value. Contact SYSTEM 2000 Technical Support.
- 306 An invalid item number was passed in LOC0. Contact SYSTEM 2000 Technical Support.
- 307 SYSTEM 2000 tried to store a definition in a file that was already mapped. Contact SYSTEM 2000 Technical Support.
- 308 A read beyond the end-of-file occurred while trying to read a name. Contact SYSTEM 2000 Technical Support.
- 309 CFENDCOM (number of items in the Collect File record) was 0. Contact SYSTEM 2000 Technical Support.
- 310 A stack overflowed in the function processor. Contact SYSTEM 2000 Technical Support.
- 311 An invalid RDV pointer caused a read beyond an end-of-file. Contact SYSTEM 2000 Technical Support.
- 312 SYSTEM 2000 tried to read after an end-of-file. Contact SYSTEM 2000 Technical Support.

- 313** SYSTEM 2000 tried to store a Collect File item in a format that was incompatible with its definition. Contact SYSTEM 2000 Technical Support.
- 314** Reserved.
- 315** A stack underflow occurred in the function processor. Contact SYSTEM 2000 Technical Support.
- 316** A stack overflow occurred in the function processor. Contact SYSTEM 2000 Technical Support.
- 317** An end-of-file on Scratch File 1 occurred before SYSTEM 2000 found an end-of-list indicator. Contact SYSTEM 2000 Technical Support.
- 318** The Collect File could not be re-positioned. Contact SYSTEM 2000 Technical Support.
- 319** The number of selected data record lists and the number of Collect File records did not match. Contact SYSTEM 2000 Technical Support.
- 320–329** Reserved.
- 330** SYSTEM 2000 attempted to read Scratch File 2 beyond an end-of-file. Contact SYSTEM 2000 Technical Support.
- 331** The where-clause length in a header was larger than 400 words. SYSTEM 2000 could not read into the RIGHT array. Contact SYSTEM 2000 Technical Support.
- 332–359** Reserved.
- 360** SYSTEM 2000 tried to remove a data record pointer from the indexes. An error occurred as SYSTEM 2000 was addressing the index block (LDDPAG). Contact SYSTEM 2000 Technical Support.
- 361** SYSTEM 2000 tried to add a data record pointer to the indexes, but the value already exists (PENTS). Contact SYSTEM 2000 Technical Support.
- 362** Problems occurred in high-level index processing. SYSTEM 2000 found an error when attempting to remove a high-level index entry (DELHLI). Contact SYSTEM 2000 Technical Support.
- 363** Problems occurred in high-level index processing. SYSTEM 2000 found an error when attempting to allocate a high-level index entry (LDHLIB). Contact SYSTEM 2000 Technical Support.
- 364** SYSTEM 2000 tried to add a data record pointer to the indexes and encountered a bad mode (LDSPAG). Contact SYSTEM 2000 Technical Support.
- 365** Problems occurred in high-level index processing. The requested high-level index entry was greater than the number of high-level index entries in use (PENTSHLI). Contact SYSTEM 2000 Technical Support.
- 366** Problems occurred in high-level index processing. SYSTEM 2000 found an error when attempting to add a high-level index entry (PENTSHLI). Contact SYSTEM 2000 Technical Support.
- 367** Problems occurred in high-level index processing. SYSTEM 2000 found an error when attempting to update a high-level index entry (PENTSHLI). Contact SYSTEM 2000 Technical Support.

- 368** Problems occurred in high-level index processing. SYSTEM 2000 found an error when attempting to create a high-level index block (CREATE). Contact SYSTEM 2000 Technical Support.
- 369** SYSTEM 2000 tried to read an index record but encountered a bad record header (PENTS). Contact SYSTEM 2000 Technical Support.
- 370-400** Reserved.
- 485-499** REPORT processor errors occurred. See "REPORT Processor Messages" on page 24 for an explanation of these errors. Contact SYSTEM 2000 Technical Support.
- 500-556** Reserved.
- 557-559** Errors occurred while processing the Multiple Occurrence Table. Contact SYSTEM 2000 Technical Support.
- 560** A 0 word or a pointer from File J (Scratch File 2) was too large. The cause is similar to error 251.
- 561-566** Errors occurred while processing the Multiple Occurrence Table. Contact SYSTEM 2000 Technical Support.
- 567** While re-organizing the Distinct Values Table, the number of pages that contain index data plus the number of re-usable pages did not equal the total count of pages in use, which is stored in database File 1. Contact SYSTEM 2000 Technical Support.
- 568** A computed Distinct Values Table page number was greater than the largest existing Distinct Values Table page number. This error sets the damage flag for the database. A RELOAD command might correct the problem. Contact SYSTEM 2000 Technical Support.
- 569** A key item that had only 1 level 0 Distinct Values Table page before a REORGANIZE command had more than 1 Distinct Values Table page after re-organization. That is, the count of File M entries was greater than 1, but CPVDIR≠0. The database is marked as damaged. A RELOAD command might correct the problem. Contact SYSTEM 2000 Technical Support.
- 570** While chaining through the re-usable Distinct Values Table pages, a page was not marked as re-usable. This error is similar to error 73. The database is marked as damaged. A RELOAD command might correct the problem.
- 571** Not enough buffer space was available for processing a REORGANIZE DVT command. The size of the smallest scratch-file buffer in bytes must be twice the number of pages in the Distinct Values Table.
- 572-700** Reserved.
- 701** A scratch file was too long (more than 231 words). You did not cause the error. Contact SYSTEM 2000 Technical Support.
- 702** An open error occurred when SYSTEM 2000 tried to read an unopened file. Contact SYSTEM 2000 Technical Support.
- 703** A READ after a WRITE on a scratch file occurred. Contact SYSTEM 2000 Technical Support.

704	An open did not succeed. Usually this is a JCL error. A scratch file (S2KSYS) DD statement was probably missing.
705	SYSTEM 2000 tried to write too much. Contact SYSTEM 2000 Technical Support.
706	SYSTEM 2000 tried to read too much. Contact SYSTEM 2000 Technical Support.
707	SYSTEM 2000 tried to close a database that was not open. Contact SYSTEM 2000 Technical Support.
708-709	Reserved.
720	A Scratch File 1 EOD signal was found, even though the file was positioned correctly. Contact SYSTEM 2000 Technical Support.
721	A bad opcode was passed from the PLEX processor. Contact SYSTEM 2000 Technical Support.
722	PLEX internal processing errors occurred when trying to use the tree structure. Contact SYSTEM 2000 Technical Support.
723	PLEX found a negative character count code. Contact SYSTEM 2000 Technical Support.
724	PLEX found a bad value in the LINK routines.
725-728	Reserved.
729	A PLEX open database failure occurred.
730-731	PLEX stack processing errors occurred.
732-739	Reserved.
740-740B	Reserved.
741	PLEX internal processing errors occurred. An obsolete routine was called.
742-807	Reserved.
808	You tried to attach a database created under a SYSTEM 2000 release that is incompatible with the release being executed. This error replaces user abend 110.
809	You forced multi-volume positioning for a file that must be a single volume. The Keepfile and multiple condition where-clauses are all processed with the IBM macro POINT, which works poorly for multi-volume files. The error message accompanying SYSTEM 2000 Error Code 809 identifies the file (usually, S2KSYS03) that caused the problem. Try to change the file allocation so the file will fit on one volume either by increasing the primary and secondary space for disk or by using a device with more bytes per volume.
810-811	Bad parameters were passed to the FORMAT routine. Contact SYSTEM 2000 Technical Support.

- 812** SYSTEM 2000 tried to access a page that did not exist. One cause for this error is incorrect JCL; for example, the DDname for database File 6 points to the DSN for File 4, a non-standard utility was used to copy or move SYSTEM 2000 files. Contact SYSTEM 2000 Technical Support.
- 813-814** One of the database files used all available space. The VSAM file extension was forced, but the secondary space was unacceptable, unusable, or not there. If the messages accompanying the error indicate that the problem occurred on files other than the Data Table or the Hierarchical Table, a RELOAD command will rebuild as much of the database as possible. More space must be allocated to the appropriate file.
- 815** A bad unit or file name was found. A DDname was either missing or not allocated to DASD. This error also occurs if you open a database by using DISP=SHR in a single-user job and then attempt to update the database. Contact SYSTEM 2000 Technical Support.
- If DISP=SHR in a single-user job, this error code is issued for any attempt to update the shared database (even if Multi-User is not up). Disallowed updates include changes to data or the definition and any other commands that alter the status of the shared database, for example, CREATE INDEX or SUSPEND.
- Note:* Multi-User owns the shared database files. Therefore, if a shared database is being updated under Multi-User while a single-user job is retrieving data, the single-user output can contain out-of-date or conflicting information. △
- Updates made to databases that are shared under more than one Multi-User system are not protected. Also, file structure integrity can be compromised, for example, by the occurrence of error 812.
- 816** The value for the CPU time-of-day clock was less than its value when last inspected by SYSTEM 2000, which uses the value of the CPU time-of-day clock as a unique time stamp for various steps during processing. This error indicates that the time-of-day clock was modified during SYSTEM 2000 execution. Contact SYSTEM 2000 Technical Support.
- 817** An apparently permanent I/O error occurred. For this type of error, you receive the following set of messages:
- "I/O ERROR ENCOUNTERED"
 - SYNAD error analysis message as described in the IBM publication *Data Management Macro Instructions* under SYNADAF Macro description
 - SYSTEM 2000 Error Code 817.
- Database Rollback might not be effective for this error. The RESTORE (and APPLY) procedures can be used to recover the database.

- 817A** Another user job was previously terminated under error 817 while accessing the same database, the same scratch pad, or the S2KUSERS file. The 817A error is equivalent to an 817 error, except SYSTEM 2000 could not provide the SYNAD error analysis message from the previous failure.
- 818-819** Reserved.
- 820** An abnormal termination in the problem state occurred. Therefore, the last problem program PSW (words 5 and 6 in the ESTAE control block) is the same as the PSW at the time of the abend (words 7 and 8).
- 821** An 0C7 abend occurred when SYSTEM 2000 received an invalid packed-decimal value from the PLEX program subschema record. General Register 1 contains the address of the field that is causing the program interruption. The SYSTEM 2000 ESTAE work area contains the value for single-user and Multi-User environments in General Register 1.
- 822** This error is the same as error 820, except no ESTAE control block was available at the time of the abend. Only the abend code (system or user) was available.
- 823** Reserved.
- 824** This error is the same as error 820, except the abend was caused by a floating-point exception.
- 825** Reserved.
- 826** An abnormal termination in the supervisor state occurred. The last problem program PSW (words 5 and 6 of the ESTAE control block) was different from the PSW at the time of the abend (words 7 and 8). Look at the last PSW to determine when the problem program issued the SVC that abended.
- Usually, error 826 is caused by an attempt to open a database file, a Savefile, or a Keepfile that does not exist where the JCL said it did. However, the situation can become more complicated. If a COBOL PLEX program calls other programs that issue SVCs or if a COBOL SORT is performed, the real problem might have nothing to do with SYSTEM 2000. Words 5 and 6 point to the erring program. An x13 OS/390 abend occurred while the software was executing a SAVE or a RESTORE command in a PLEX program. This abend might indicate an invalid volume serial specification.
- 827-830** These errors are the same as errors 821-825. Contact SYSTEM 2000 Technical Support.
- 831** The first execution of subroutine S2K was not from a START S2K command. You did not cause this error. Contact SYSTEM 2000 Technical Support.
- 832-839** Reserved.
- 840** (PLEX) The DECIDE routine tried to open a database, and the name in memory did not match the COMMBLOCK from S2KCMVEC. Contact SYSTEM 2000 Technical Support.

841	CATTACH tried to open a database that was already open. Contact SYSTEM 2000 Technical Support.
842-849	Reserved.
850	An open failed while equating a scratch file. A DD statement was probably bad. Contact SYSTEM 2000 Technical Support.
851-852	Reserved.
853	A Multi-User code lock was set in single-user. Contact SYSTEM 2000 Technical Support.
854-855	Reserved.
856	One of the following situations occurred: <ul style="list-style-type: none">□ The number of Locate Files specified in a START S2K command (PLEX) was not available. This situation can be caused by a JCL error. You cannot receive this message if you use a scratch pad.□ The system tried to equate a Locate File to a scratch file other than Scratch File 1. You did not cause this error. Contact SYSTEM 2000 Technical Support
857-863	Reserved.
864	Generally, this error indicates an invalid user specification, for example, the VOL SER specification for a RESTORE database command. If the saved database occupies more than one volume, each volume must be specified in the RESTORE command or in the JCL. This error might also mean that an unrecoverable error prevented all database pages from being copied when a Savefile was created and caused a bad Savefile.
865	Reserved.
866	Rollback could not be performed because of an invalid Rollback Log. You might have specified the wrong Rollback Log for the database. Contact SYSTEM 2000 Technical Support.
867	A database failed to re-open logically after being opened previously. Contact SYSTEM 2000 Technical Support.
868	An error was detected in Coordinated Recovery (in module CRMAIN). Contact SYSTEM 2000 Technical Support.
869	The Update Log failed to properly equate to Scratch File 0. Contact SYSTEM 2000 Technical Support.
870	An inconsistency occurred in the data stored in the recovery work areas during analysis of the Update Log. Contact SYSTEM 2000 Technical Support.
871	SYSTEM 2000 could not read the Rollback Log during recovery analysis. Contact SYSTEM 2000 Technical Support.

872	An unexpected end-of-file occurred on Scratch File U during recovery analysis. Contact SYSTEM 2000 Technical Support.
873	An overflow of recovery work areas occurred during analysis of the Update Log. Contact SYSTEM 2000 Technical Support.
874	SYSTEM 2000 detected missing or invalid data on Scratch File U during recovery analysis. Contact SYSTEM 2000 Technical Support.
875	A bad equate of an Update Log to Scratch File 0 or Scratch File 7 occurred. Contact SYSTEM 2000 Technical Support.
876	SYSTEM 2000 tried to process an unopened Rollback Log. Contact SYSTEM 2000 Technical Support.
877–1060	Reserved.

IBM User Abends

006	SYSTEM 2000 could not build a User Communications Block (UCB) for you in the Multi-User region. (Multi-User environment only.) This message occurs during PLEX program execution (user partition region).
007	No copy area was available. The PLEX program required an area larger than that available in the copy area. The attempt to obtain the area by using GETMAIN failed, and your job was terminated. Increase the value for the COPYAREA execution parameter.
008	Under an OS/390 operating environment, the SVC was entered without the local lock held. The operating environment SVCTABLE needs to be zapped. (Multi-User environment only.) See the <i>SYSTEM 2000 Software: Product Support Manual, Version 1, First Edition</i> .
100	SYSTEM 2000 tried to issue an ESTAE SVC (generally an OS/390 problem). (Multi-User and single-user environments.)
101	Invalid execution parameters existed in the JCL or S2KPARMS file. At least one database, large or small, must be selected. That is, SDBS and LDBS cannot both be 0. Also, this error occurs if the pool specification parameters for buffer management are incorrect. (Multi-User and single-user environments.) In a Multi-User environment when OPI=YES, this error causes interrogation of the operator, not user abend 101. If OPI=NO, user abend 101 occurs.
102	An invalid PLEX op code occurred. (Multi-User and single-user environments.) You cannot correct the abend. Contact SYSTEM 2000 Technical Support.
103	The JUDGE routine returned an invalid result. (Multi-User environment only.) You cannot correct the abend. Contact SYSTEM 2000 Technical Support.
104	A problem occurred in formatting a scratch pad. A WTO message usually appears before termination; the WTO message indicates the specific cause of the abend. Contact SYSTEM 2000 Technical Support.

- 105** One of the following situations occurred in a Multi-User environment:
- The JCL specified LOCATE00 through LOCATE99 (100 files).
 - SYSTEM 2000 issued a conditional GETMAIN to obtain memory for PLEX Locate File control blocks or copy areas, and the GETMAIN failed.
- Decrease the number of Locate Files or copy areas, or increase the partition size.
- 106** The OVERLY routine found “responsibility” less than 0 for an OVERLY segment. (Multi-User and single-user environments.) You cannot correct the abend. Contact SYSTEM 2000 Technical Support.
- 107** The SYSTEM 2000 ABEND recovery routine detected recursive ESTAE processing. This is always caused by some previous error condition and, therefore, is not meaningful without information about the original abend. (Multi-User and single-user environments.)
- 108** At initialization time, SYSTEM 2000 found that all the needed scratch files (S2KSYS) were not allocated. This is a JCL error. (Single-user environment only.)
- 109** A DEVTYPE SVC failed, probably due to an OS/390 problem. (Multi-User and single-user environments.)
- 112** The SYSTEM 2000 release being executed reached its expiration date. (Multi-User and single-user environments.)
- 115** The buffer management routines could not obtain enough memory to set up the buffer pool configuration requested in the JCL or S2KPARMS parameters. (Multi-User and single-user environments.)
- 116** A buffer pool for scratch files was not available. At least one buffer pool must be designated with usage S, B, or BE. (Multi-User and single-user environments.)
- 117** At least one S2KSYS file must be allocated to disk. (Single-user environment only.)
- 119** A buffer pool size was invalid. Either it was not an allowed size or it was too large for the device, that is, greater than the track size. (Multi-User and single-user environments.)
- 120** Buffer-table work file block size was not double-word aligned. (Multi-User and single-user environments.) You cannot correct the abend. Contact SYSTEM 2000 Technical Support.
- 121** Multi-User found an SCF TP user job that was being terminated, but it could not locate the SCF TP user record (buffer). (Multi-User environment only.) You cannot correct the abend. Contact SYSTEM 2000 Technical Support.
- 122** A TP initialization error occurred. The WTO ahead of it tells why INITNLTP abended. (Multi-User environment only.) You cannot correct the abend. Contact SYSTEM 2000 Technical Support.

- 124 Reserved.
- 125 User-exit execution was specified with EXITS=YES, but the S2EXIT routine failed to load.
- 126 SYSTEM 2000 ran out of space in the thread extension table. You cannot correct the abend. Contact SYSTEM 2000 Technical Support.
- 300 The ACTUTIL program could not continue because of a probable user error.
- 400 The LOGDUMP program could not open a needed dataset because a DD statement was missing or invalid. SYSPRINT and S2KDIAG are required. SYSIN is an optional file.
- 408 Either CLEARS2K failed to clear the SVC table, or you ran CLEARS2K while XMS Multi-User was active. (Multi-User environment only.) You cannot correct the abend. Contact SYSTEM 2000 Technical Support.
- 514 Either no START S2K command was specified in a PLEX program or the START S2K command was not the first command executed. (Multi-User environment only.) This error message appears during PLEX program execution (user partition region).
- 516 Multi-User was not executing, and a user program requested it. (Multi-User environment only.) This error message appears during PLEX program execution (user partition region).
- 517 An open for an input or output file failed because a DD statement was missing. (Multi-User environment only.)
- 519 An attempt to issue ESTAE failed because of insufficient memory. (Multi-User environment only.) This error message appears during PLEX program execution (user partition region).
- 520 An invalid function code was passed to the SVC. Contact SYSTEM 2000 Technical Support with the dump information. (Multi-User environment only.)
- 524 The Run-Unit Controller was lost or overlaid. (Multi-User environment only.) This message appears during PLEX program execution (user partition region).
- 532 Your request for an initial communication link indicated that you were already active. (Multi-User environment only.) After the initial request, this abend occurs if your job was terminated from Multi-User software. It means you no longer occupy an SVC slot. See abend 544.
- 536 The SVC table did not have enough room for your job. Contact your local systems personnel to run CLEARS2K before initiating Multi-User. (Multi-User environment only.)
- 544 Your request to communicate to Multi-User software failed because your SVC slot is assigned to another user. This abend occurs when you are cancelled from Multi-User software while processing in the user region. Abend 532 occurs for the same cancel reason, but abend 532 means the SVC slot has not been re-assigned to another user.
- 550 Abend processing occurred. This user abend is set when a SYSTEM 2000 Error Code occurs. (Multi-User and single-user environments.)

- 551** A job was terminated because of a SYSTEM 2000 operator cancel, including cancellation of a PLEX program executing in TSO foreground. An operator cancel is not honored until updates are completed to ensure that the database will not be damaged. (Multi-User environment only.)
- 552** An abend has occurred in the dependent region and was trapped with ESTAE. When ESTAE processing is complete, ESTAE is disabled and abend 552 is invoked to terminate the job.
- 770** An ESTAE command failed because of insufficient memory. (Multi-User and single-user environments.)
- 771** A bad QEDIT occurred during a MODIFY console operator command. This problem is caused by either IBM or SYSTEM 2000 software. (Multi-User environment only.) You cannot correct the abend. Contact SYSTEM 2000 Technical Support.
- 772** When you tried to initialize SYSTEM 2000, the SVC assumed that SYSTEM 2000 was already available. Run the CLEAR2K program and start again. (Multi-User environment only.)
- 773** Multi-User failed to initialize properly because it could not attach the operator communication program S2CONSOL. (Multi-User environment only.)
- 776** An invalid function code was passed to the SVC. Contact SYSTEM 2000 Technical Support with the dump information. (Multi-User environment only.)
- 780** SYSTEM 2000 found an invalid system type. (Multi-User environment only.)
- 784** SYSTEM 2000 found an invalid parameter at Multi-User initialization time. The USERS execution parameter was larger than the USERS parameter specified in the Type 2 SVC generation. The execution parameter must be less than or equal to the Type 2 SVC generation parameter. (Multi-User environment only.)
- 788** SYSTEM 2000 found an insufficient number of URBs in the inter-region copy area (IRA) at Multi-User initialization time. This abend code indicates an error in SYSTEM 2000 processing. The USERS parm determines the number of IRA URBs to generate and is also passed to the SVC. These numbers should be identical. (Multi-User environment only.) You cannot correct the abend. Contact SYSTEM 2000 Technical Support.
- 800** The XMS Multi-User control program (S2KCMC) abended. For more information, see the console error messages displayed at the beginning of the job listing.
- 801** The console operator issued the Multi-User command CANCEL with the FORCE option to terminate Multi-User.
- 1202** A stack overflow occurred. Contact SYSTEM 2000 Technical Support.

Guidelines for IBM Completion Codes

The following cases represent some IBM completion codes that can cause problems at run time. SYSTEM 2000 traps these errors and terminates your job, usually with SYSTEM 2000 Error Code 820 or 826.

- 001** I/O Error
- The input record lengths were not the same as those indicated in the blocking descriptions in the DCB, the COBOL file description, or the DD statement LRECL parameter.
 - A READ occurred after an end-of-file.
 - A RECORDING MODE statement was missing; variable length records are assumed.
 - Register 1 of the SVRB points to the DCB that caused the I/O problem. Look for input record and blocking errors. That is, the input does not agree with the record and blocking description in the DCB or COBOL file description.
 - DISP=NEW was specified with the file opened as input.
- 002** Register 2 of registers at the entry to ABEND contains the address of the DCB for the file causing the I/O problem. Check the DCB list for the specific file.
- 013** A bad open occurred for a file. Check Register 2 at the entry to ABEND. That address points to the DCB in conflict.
- OC1** Operation Exception. An OC1 is caused by one of the following:
- A DD statement was missing.
 - A data set was unopened.
 - A DDname was incorrect or misspelled.
 - A COBOL program tried to write in an unopened output file.
 - An inconsistency existed in the JCL or an external name in a COBOL program.
 - No SYSOUT DD SYSOUT=A statement existed in the JCL when a COBOL program used DISPLAY but failed to specify Upon Console.
- OC4** Protection Exception
- You tried to read an unopened data set.
 - An output area was referenced before the data set was opened.
 - Block size and record size were not equal for variable record input and output.
 - Data was moved to an opened output.
 - A SELECT statement was missing if this error occurs during COBOL compilation.
 - A DD statement was missing.
 - An index or subscript was not initialized.
- OC5 and OC6** Addressing and Specification Exception
- A subscript of an index value exceeded the maximum, and instruction or table areas were overlaid.
 - An improper exit occurred from a procedure that was being operated on by a PERFORM statement.
 - A duplicate close of an input or output file occurred if DS formatting was discontinued.

- A sort occurred with an incorrect catalog procedure.
- A reference to an input-output area occurred before a READ or OPEN statement, respectively.
- Alignment was incorrect for COMPUTATIONAL data when the record was blocked and when the interrecord slack bytes were not inserted.
- There was an error in initialization of a subscript or an index value.
- A DD statement was missing.
- A SYSOUT DD SYSOUT=A statement did not exist in the JCL when the COBOL program used DISPLAY but failed to specify Upon Console.
- Subscripting through WORKING-STORAGE overlaid the DCB.

0C7**Data Exception**

- A data field was not initialized.
- Blanks occurred in a numeric field of an input record.
- A subscript or index value exceeded the maximum, which caused invalid data to be referenced.
- Data was moved from the DISPLAY field to the COMPUTATIONAL or COMPUTATIONAL-3 field at the group level. Therefore, no conversion was provided.
- ZEROES were moved to the group level of COMPUTATIONAL or COMPUTATIONAL-3 fields. A group-level move is always considered DISPLAY.
- A USAGE clause was omitted or erroneous.
- A Linkage Section data definition was incorrect, parameters were passed in the wrong order, a parameter was omitted, a USAGE clause was not carried over when necessary, or an incorrect length was defined for a parameter.
- Literals were wiped out by subscripting into the literal pool.

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An error occurred during execution of an OPEN statement for a data set on a mass storage device.

- The DISP parameter in a DD statement specified OLD for an output data set.
- An I/O error cannot be corrected when reading or writing the DSCB. Re-create the data set or re-submit the job. Check Register 14 of the registers at the entry to ABEND. This address points to the file that has no DSCB.

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An error occurred during the CLOSE for a data set on tape. An I/O error occurred that cannot be corrected, either in tape positioning or volume disposition. Re-submit the job and inform the field engineer if the error persists.

- 237** Error at EOV
- An incorrect volume serial number was specified in the SER subparameter for the VOLUME parameter in the DD statement.
 - An incorrect volume was mounted.
 - Incorrect labels were found.
 - An EOV label contained an incorrect block count.
- 400** If this completion code was generated during a compile step, the member to be compiled was not extracted from the source library for compilation.
- A volume serial number was not specified for an input data set.
 - A volume could not be mounted on the allocated device.
 - An I/O error occurred in reading the volume label. It cannot be corrected.
 - A data set that was expected to be output was incorrectly opened as input.

IBM Informative Messages

SYSTEM 2000, Version 1 supports only VSAM database files. Some of the more common VSAM related messages that a site may receive are documented as follows:

```
IEC161I rc[(sfi)]-ccc,jjj, sss,ddn,dev,ser,xxx, dsn,cat
```

where

<i>rc</i>	The reason code. This field indicates the reason for the error.
<i>(sfi)</i>	Subfunction information (error information returned by another subsystem or component). This field appears only for certain return codes, and its format is shown with those codes to which it applies.
<i>ccc</i>	Problem Determination Function (PDF) code. The PDF code is for use by IBM if further problem determination is required. If the PDF code has meaning for the user, the meaning will be documented with the corresponding reason code.
<i>jjj</i>	The job name.
<i>sss</i>	The step name. This field might contain the procedure step name and the job step name of the job step that called the procedure. The two names are not separated by a comma. If the step is part of a procedure, the eight-character procedure step name includes trailing blanks followed by the step name without trailing blanks.
<i>ddn</i>	The DDname.
<i>dev</i>	The device number if the error is related to a specific device.
<i>ser</i>	The volume serial number if the error is related to a specific volume.
<i>xxx</i>	The name of the cluster that contains the data set being processed when the error was detected, or when not available, the DSNAME specified in the DD statement indicated in the ACB.
<i>dsn</i>	The name of the data set that was being processed when the error was detected.
<i>cat</i>	The catalog name.

The return codes and their meanings are as follows:

- 047** The access method control block (ACB) specifies improved control interval (ICI) processing, but the data set attributes are not consistent with this mode of access. To obtain optimum performance, SYSTEM 2000 tries to open each database file by using the ACB option ICI. However, one of the requirements for ICI processing is that the control interval size must equal the actual physical block size of the file. When defining a VSAM file, VSAM always selects a physical block size based on device characteristics. *MVS/DFP Device Support Reference* contains tables that show the relationship between control interval size and physical block size. Performance may be enhanced by selecting a control interval size that equals the physical block size for your device type. SYSTEM 2000 will re-open the file without the ICI option. ICI processing only occurs in single-user mode.
- 056** The last request to close this data set was not completed successfully. A previous VSAM job might have ended abnormally and left the data set open. This is a usual message for a system data set during IPL.
- 062** VERIFY has been successfully run by the OPEN routine to determine the end of a VSAM data set that was not previously closed successfully.

Examples:

```
IEC161I 056-084,SNOMDW,LOGON TSOLOGON,EMPLOYEE5,, ,
```

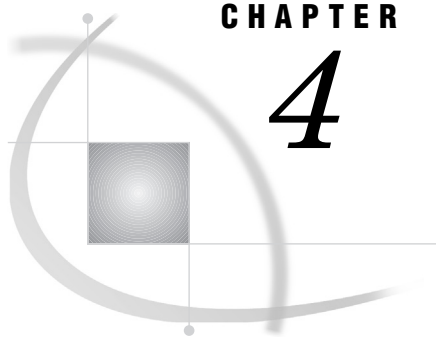
```
IEC161I SNOMDW.V1.EMPLOYEE5,SNOMDW.V1.EMPLOYEE5.DATA,SYS1.MKT.CATALOG
```

```
IEC161I 062-086,SNOMDW,LOGON TSOLOGON,EMPLOYEE5,, ,
```

```
IEC161I SNOMDW.V1.EMPLOYEE5,SNOMDW.V1.EMPLOYEE5.DATA,SYS1.MKT.CATALOG
```

```
IEC161I 047-061,SNOMDW,LOGON TSOLOGON,EMPLOYEE6,, ,
```

```
IEC161I SNOMDW.V1.EMPLOYEE6,SNOMDW.V1.EMPLOYEE6.DATA,SYS1.MKT.CATALOG
```

CHAPTER

4

Write-to-Operator (WTO) Messages

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Introduction

SYSTEM 2000 sends Write-To-Operator (WTO) messages to the computer operator console. These messages also appear at the beginning of a job listing. In a Multi-User or single-user environment, *WTO messages* give a computer operator information about the status of jobs, the status of databases, the number of users, and the pool assignments for scratch files and database files. Some WTO messages are informative, and some require an operator response; others are fatal error messages.

Format and Interpretation of WTO Messages

All WTO messages issued by SYSTEM 2000 and its supporting software have the following format:

S2Kaann / sid - text -

where

<i>aa</i>	is a 2-digit identifier for the general SYSTEM 2000 area related to the message. See the list of area identifiers on the next page.
<i>nn</i>	is a unique two-digit SYSTEM 2000 internal identifier within each <i>aa</i> .
<i>sid</i>	is the 2-digit system ID of the SYSTEM 2000 session that issues the message, as specified by the SID execution parameter. The default system ID is 01. For information about the SID execution parameter, see the <i>SYSTEM 2000 Software: Product Support Manual, Version 1, First Edition</i> .

00 indicates that the WTO message is from one of the following:

- a dependent (user) region job in the Multi-User environment.
- a SYSTEM 2000 single-user job.
- a SYSTEM 2000 stand-alone utility program, such as ACTUTIL, LOGDUMP, or CLEARS2K.
- a TP monitor (TSO, CICS).

text is the SYSTEM 2000 WTO message text. *text* is preceded by a hyphen (-) and a blank and followed by a blank and a hyphen (-).

Table 4.1 on page 104 shows the *aa* identifiers associated with the various SYSTEM 2000 areas.

Table 4.1 Two-Digit Area Identifiers

AA Identifier	SYSTEM 2000 Area
01	Initialization (single-user or Multi-User)
02	Processing (single-user or Multi-User)
07	VSAM
11	Multi-User-specific initialization
12	Multi-User-specific processing
13	Multi-User Accounting Log
14	Multi-User operator communication
19	MUSTATS and Tuning Tools
20	XBUF
21	LOGDUMP utility
22	ACTUTIL utility
23	CLEARS2K utility
25	PLEX
31	Multi-User dependent (user) region
32	TSO interface

Operator Intervention during System Initialization

The OPI execution parameter allows operator intervention in a Multi-User or a single-user environment. See the *SYSTEM 2000 Software: Product Support Manual* for information about execution parameters.

If OPI=NO (default) in a Multi-User or a single-user environment and an error occurs during initialization, user abend 101 occurs. The only exception is an invalid keyword in the EXEC statement. This error is ignored.

If OPI=YES, operator intervention is allowed as follows:

Single-user After the software parses the input execution parameters, the system does not request the operator to add or replace parameters. However, if a semantic error occurs, the system asks the operator to correct the problem. The operator can add or replace a parameter to correct a semantic error only. After the operator enters each parameter, the prompting message

```
S2K- REPLY NEW PARAMETER AND VALUE OR U
```

appears until the operator replies U. Then the parameters are checked again for semantic errors. User abend 101 should not occur.

Multi-User After the software parses the input parameters, the operator is requested to intervene. After parsing each new parameter entered by the operator, the system prompts the operator continually until the operator replies U. Then the parameters are checked for semantic errors. If semantic errors are found, the system prompts the operator again. The operator should intervene and reply U again, and so on. User abend 101 should not occur.

Displaying the Status of All Databases

To display the status of all databases attached to the Multi-User software at any time, the console operator can issue the MODIFY (or F) *job-name* DISPLAY STATUS (D S) command.

When a user has a specific level of control over a database, the level of control (status of the database) and the user job name or terminal ID appear in the message. Only the highest level of control is displayed. More than one user can attach the same database, but only the one with the highest control level is listed. The control-level hierarchy and associated symbols are shown in Table 4.2. Blanks in the status and job name field indicate a retrieval status or inactive status.

Table 4.2 Control Levels and Their Symbols

Level of Control	Mnemonic
LOCK	L
ROLLBACK	R
HOLD	H
UPDATE	U

The operator can also request other information and can display or adjust execution parameter variables dynamically.

Table 4.3, Table 4.4, and Table 4.5 contain the job status symbols and their meanings.

Table 4.3 Job Status Symbols and Definitions

Type of Job...	Indicates...
ALT CON	Alternate console
PLX	Programming Language Extension (PLEX)
SCF	Self-Contained Facility, including all SCF TP run-units

Table 4.4 Wait Execute Status

Message...	Indicates...
E	The job is executing.
N	The job has a global hold on a database, but the job is not currently active in the Multi-User region. For example, a FRAME executed successfully, but the program has not yet returned to do another PLEX command. The database remains in hold status.
. (period)	The job is not executing or waiting for resources (no database hold). WT means waiting in a thread
W.	The job is waiting in the input queue (suspended).
In the following messages, WT means waiting in a thread:	
WT BUFFER	The job needs a buffer.
WT PAD	The job needs an allocation unit.
WT TAPE	A SAVE, RESTORE, KEEP, or APPLY command needs a tape.
WT UPDLOG	The job needs access to an Update Log.

Table 4.5 Current Resource Status

Message...	Indicates...
EXECUT	The job is in execute mode, not retrieval, hold, or update mode.
FRAME	The job is waiting to create a synchpoint or a global hold on a database (PLEX FRAME or an SCF command). The wait continues until all current updates and global holds are finished.
HOLD	The job requested a global hold on a database, which allows retrievals but prevents updating until the hold is relinquished. (HOLD option used in PLEX queue mode; SCF, implicitly holds during the where-clause phase of any QUEST update command or the QUEUE selection phase if the session contained updates.)

Message...	Indicates...
LHOLD	The job is waiting to obtain a local hold on a specific record (a PLEX GET/HOLD or an update if rollback is enabled). The wait continues until the job currently holding the record relinquishes it.
LOCK	The job requested exclusive use of a database; it waits if request is not granted; or, if TP, returns to TP. (OPEN/LOCK command used in PLEX; EXCLUSIVE DBN command used in SCF.)
LOCKR	LOCKR is the same as LOCK except LOCKR issues a return code to the PLEX program if request is not granted. (OPENR/LOCK command used in PLEX; not applicable in SCF.)
NKUPD	The job is waiting to perform a non-key update. The wait continues until all current updates and global holds are finished.
NO ACT	The job is not requesting any SYSTEM 2000 activity. The user program is currently active in the dependent region.
OPEN	The job requested non-exclusive use of a database; it waits if request is not granted; or, if TP, returns to TP. (OPEN command used in PLEX; DBN command used in SCF.)
OPENR	OPENR is the same as OPEN except OPENR issues a return code to the PLEX program if request is not granted. (OPENR command used in PLEX; not applicable in SCF.)
RETRV	Data is being retrieved because an active thread processed a command. This status continues until the retrieval processing specified by the command is completed. (Any PLEX or SCF command whose action verb does not imply an alteration of the database.)
ROLBK	The software is waiting for control of the database to perform recovery. The wait continues until all current updates, retrievals, and global holds are completed.
UP ACT	Activity is occurring in the user partition. UP ACT indicates that a thread is tied up on behalf of the user indicated. For example, control has temporarily been passed to the user partition while a message for a batch user is being written to the S2KMSG file.
UPDATE	The database is being updated because an active thread processed a command. This status continues until the update processing specified by the command is completed. (MODIFY, REMOVE, INSERT, or TERMINATE commands used in PLEX; SCF uses the action-clause of a QUEST command, or a TERMINATE command following the selection phase if the QUEUE session contained updates.)

These commands which include the STATUS operand, result in the output shown next. A line-by-line explanation follows the output.

```
F S2K,DISPLAY STATUS
MODIFY S2K,D S
```

Note: Use quotes if required by the operating environment, for example, 'DISPLAY STATUS' or 'D S'. Δ

S2K1429/01-	DBN	PLX	SCF	S	JOB	-
S2K1431/01-	DBONE	001	002	-		
S2K1431/01-	DBTWO	002	003	-		
S2K1430/01-	DBTHREE	000	001	U	JOB123	-
S2K1430/01-	DBFOUR	001	001	H	JOBPQR	-
S2K1430/01-	DBFIVE	002	001	R	JOBABC	-

The first line of output contains column headings, where PLX indicates the PLEX user count and SCF indicates the SCF user count, which includes all SCF TP users who are logged on to the system. This output shows that

DBONE has 1 PLEX user and 2 SCF users.

DBTWO has 2 PLEX users and 3 SCF users.

DBTHREE has 1 user (JOB123) who has a specific level of control over the database (UPDATE).

DBFOUR has user JOBPQR who has a HOLD on the database.

DBFIVE has user JOBABC who performs rollback on the database.

If no databases are active, the display output is NO ACTIVE DATABASES.

Displaying the Status of All Jobs

To display the status of all SYSTEM 2000 Multi-User jobs, the console operator issues one of these commands: F S2K, DISPLAY ACTIVE [, STATUS] or F S2K, D A [, S].

A list of job names and TP terminal IDs that are currently running under SYSTEM 2000 Multi-User appears. If the STATUS operand is included, a list of the databases that each user has open is displayed. Inactive terminal run-units are also listed with the WTO message S2K1437. Blanks denote the absence of an active database. When no jobs are active, WTO message S2K1401 is issued.

This command, which includes the STATUS operand produces the output shown next. A line-by-line explanation follows the output.

```
F S2K,DISPLAY ACTIVE
```

S2K1432/01-	JOB890	SCF	000.	NO ACT	-
S2K1432/01-	JOBABC	PLX	000 E	RETREV	-
S2K1432/01-	JOB123	SCF	000 E	UPDATE	-
S2K1432/01-	JOBPQR	PLX	000 E	HOLD	-
S2K1432/01-	JOBXYZ	SCF	000 E	EXECUT	-
S2K1433/01-	JOB345	PLX	000 W.	UPDATE DBTHREE	-
S2K1433/01-	JOBLMN	SCF	000 W.	LOCK DBTHREE	-
S2K1437/01-	TER123	TP	DBTWO		

This output shows:

JOB890	SCF	Self-Contained Facility job name or active terminal ID
	000	job priority
	.	(period) not executing; not waiting for resources
	NO ACT	no SYSTEM 2000 activity requested
JOBABC	PLX	PLEX
	000	job priority
	E	executing
	RETREV	in retrieval mode
JOB123	SCF	Self-Contained Facility job name or terminal ID
	000	job priority
	E	executing
	UPDATE	in update mode
JOBPQR	PLX	PLEX
	000	job priority
	E	executing
	HOLD	has a HOLD on a database
JOBXYZ	SCF	Self-Contained Facility job name or terminal ID
	000	job priority
	E	executing
	EXECUT	not in retrieval, hold, or update mode.
JOB345	PLX	PLEX
	000	job priority
	W.	waiting in the input queue
	UPDATE	resource request pending action by DBTHREE
JOBLMN	SCF	Self-Contained Facility jobname or terminal ID
	000	job priority
	W.	waiting in the input queue
	LOCK	resource request pending action by DBTHREE
TER123	TP	inactive terminal run-unit that is using database DBTWO.

This output is the same as the previous output for the DISPLAY ACTIVE command except that the name and status of each database opened for the session (or terminal ID) appears along with the job status.

This command, which includes the STATUS operand, produces the output shown next.

F S2K,D A,S

S2K1432/00-	JOB890	SCF	000.	NO ACT	-
S2K1429/00		DBN	PLX SCF	S JOB	-
S2K1431/00-	DBONE		001 002	-	
S2K1432/00-	JOBABC	PLX	000 E	RETREV	-
S2K1431/00-	DBONE		001 002	-	
S2K1430/00-	DBFIVE		002 001	JOBABC	-

WTO Messages from SYSTEM 2000 Utility Programs

SYSTEM 2000 software includes a set of utility programs that validate database files and dump the Accounting Log or Diagnostic Log files. Each program supports the general SYSTEM 2000 environment but separately from the actual production environment. Messages are sent from these programs to the computer operator console (WTO messages) or to the SYSPRINT file. Some WTO messages have accompanying SYSPRINT messages and vice versa.

See the *SYSTEM 2000 Software: Product Support Manual* for detailed discussions of the programs, facilities, and macros that issue WTO messages.

WTO Message Descriptions

The messages listed in this section appear as master console information at the beginning of a job listing. When the operator can intervene (OPI=YES), a prompting message might be displayed in addition to the error message. The operator can then attempt to correct the situation. See "Operator Intervention during System Initialization" on page 105 for information about OPI=YES or OPI=NO and operator intervention.

S2K0101/sid- OPEN FAILED FOR S2KPARMS DATA SET -

is an *informative* message that appears during SYSTEM 2000 initialization. No parameters were taken from the S2KPARMS file, and *sid* always equals 00.

S2K0102/sid- PARAMETER HAS AN INVALID KEYWORD -

S2K0102/sid- PARAMETER HAS AN INVALID VALUE -

is an echo of parameter in error that appears during SYSTEM 2000 initialization if the operator cannot intervene (followed by user abend 101). The message is followed by an echo of the erroneous parameter provided by the console operator. S2KPARMS was not processed, so *sid* equals 00.

S2K0103/sid- FOLLOWING {S2KPARMS|EXECCARD} PARAMETER HAS AN INVALID {KEYWORD|VALUE}

echo of parameter in error

is a *fatal* message if it comes from using the S2KPARM parameter or an *informative* message if it comes from using the EXECCARD parameter that appears during SYSTEM 2000 initialization if the operator cannot intervene. It is followed by user abend 101. The message is followed by an echo of an erroneous parameter from either S2KPARMS or the EXEC statement. No parameters were processed, so *sid* equals 00.

S2K0104/sid- SYSTEM 2000 INITIALIZATION PARAMETERS FOLLOW

is a *fatal* message that appears during SYSTEM 2000 initialization. This message is followed by a list of default values and user-specified parameters pertinent to the job. In this message, *sid* equals 00.

S2K0106/sid- NO DATABASES SPECIFIED -**S2K0105/sid- CHANGE THE 'SDBS' OR 'LDBS' PARAMETER -**

is a *fatal* message that appears during SYSTEM 2000 initialization if the operator cannot intervene. It is followed by user abend 101. Both the SDBS and LDBS parameters are 0. This precludes the use of any database.

Action: The operator can enter either the SDBS or the LDBS parameter or both parameters.

S2K0107/sid- AT LEAST FOUR BUFFERS MUST BE AVAILABLE FOR SCRATCH FILES -**S2K0108/sid- ALLOCATE MORE BUFFERS TO POOL7-**

is a *fatal* message that appears during SYSTEM 2000 initialization if the operator cannot intervene. It is followed by user abend 101. The POOL7 execution parameter(s) must specify a minimum of 4 buffers.

Action: The operator can change the POOL7 allocation by entering a standard POOL7 parameter.

S2K0109/sid- POOLn SIZE IS UNDEFINED OR SMALLER THAN PREVIOUS POOL SIZES -**S2K0110/sid- ALTER SIZE VALUE IN SPECIFIED POOL -**

is a *fatal* message that appears during SYSTEM 2000 initialization if the operator cannot intervene. It is followed by user abend 101. The buffer size for pool *n* must be less than or equal to the buffer size for pool *n+1*. The value for buffer size is given in the *SYSTEM 2000 Software: Product Support Manual* under the discussion of the POOL*n* execution parameter.

Action: The operator can change any POOL*n* allocation by entering a standard POOL*n* parameter.

S2K0111/sid- LOGLEVEL-PDATE AND LOGLEVEL-SDATE ARE MUTUALLY EXCLUSIVE -

is a *warning* message. You cannot specify both SDATE and PDATE for the LOGLEVEL execution parameter. The SDATE format for the date/time field is compatible with SAS software. The LOGDUMP and DIAG2000 utility programs do not recognize an SDATE time stamp. You must use the SAS System or your own program to read Diagnostic Log records created by using the SDATE format.

S2K0114/sid- NO DATABASE BUFFER POOLS ALLOCATED -**S2K0115/sid- ALLOCATE POOLS WITH 'D' OPTION -**

is a *fatal* message that appears during SYSTEM 2000 initialization if the operator cannot intervene. It is followed by user abend 101. No buffers were allocated for database table use.

Action: The operator can change or add any POOL n allocation by entering a standard POOL n parameter.

S2K0116/sid- TOTAL SIZE OF ALL BUFFERS FROM LARGEST POOL FOR DATABASE USAGE IS LESS THAN LDBSIZE*4. ALLOCATE MORE BUFFERS. -

is a *warning* message. These buffers are needed to map definition changes. If 1 or 2 buffers from any pool is adequate, the software uses that pool. If more than 2 buffers are needed, they are allocated from the largest pool for database usage.

S2K0117/sid- EITHER LOWER COMPONENT DEFINITION SIZES ('SDBSIZE', 'LDBSIZE') OR PROVIDE ADDITIONAL BUFFER SPACE -

is a *fatal* message that appears during SYSTEM 2000 initialization if the operator cannot intervene. It is followed by user abend 101. SYSTEM 2000 requires 4 bytes per component in the system work area that is used for definition mapping. The system can request a maximum of 2 buffers from a pool in order to obtain this space.

Action: The operator can change any POOL n allocation by entering a standard POOL n parameter or by entering new parameters for SDBSIZE or LDBSIZE.

S2K0118/sid- REPLY NEW PARAMETER AND VALUE OR 'U' -

is an *informative* message that appears during SYSTEM 2000 initialization. This message follows one or more messages that indicate an error condition or a request to fix an error. The requests and this message are repeated until the operator fixes all errors or cancels the job. Even if there are no errors in a Multi-User environment, this message appears in order to give the operator an opportunity to enter additional parameters.

S2K0119/sid- NO MAIN MEMORY AVAILABLE FOR LOCATE FILES -

is a *fatal* message during SYSTEM 2000 initialization. It is followed by user abend 105. SYSTEM 2000 issued a conditional GETMAIN to obtain memory for PLEX Locate File control blocks and the GETMAIN failed.

Action: You should decrease the number of PLEX Locate Files or increase the partition size.

S2K0120/sid- MORE THAN 15 LOCATE FILES SPECIFIED -

is a *fatal* message during SYSTEM 2000 initialization. It is followed by user abend 105. This message is only for single-user jobs.

S2K0121/sid- INITIALIZATION TERMINATED- OPEN FAILED FOR data-set-name DATA SET -

is a *fatal* message during SYSTEM 2000 initialization. It is followed by user abend 108. All of the needed scratch files (S2KSYS) were not allocated. This is a JCL error.

S2K0122/sid- INITIALIZATION TERMINATED- NO SCRATCH FILE POOLS ASSIGNED -

is a *fatal* message during SYSTEM 2000 initialization. It is followed by user abend 116. POOL7 must be provided for the work files.

S2K0123/sid- INITIALIZATION TERMINATED- NO DASD SCRATCH FILES -

is a *fatal* message during SYSTEM 2000 initialization. It is followed by user abend 117. At least one S2KSYS file must be allocated to disk.

- S2K0124/sid- INITIALIZATION TERMINATED- INVALID POOL SIZE -**
is a *fatal* message during SYSTEM 2000 initialization. It is followed by user abend 119. The pool size that was specified was not a valid size.
- S2K0125/sid- INITIALIZATION TERMINATED- SCRATCH FILE BLKSIZE EXCEEDS BUFFER SIZE -**
is a *fatal* message during SYSTEM 2000 initialization. It is followed by user abend 120. The work-file block size in the buffer table was not double-word aligned. You cannot correct this abend.
- S2K0126/sid- USI MODULE 'S2EXIT' NOT AVAILABLE -**
is a *fatal* message during SYSTEM 2000 initialization. It is followed by user abend 125. User-exit execution was specified by using EXITS=YES, but the S2EXIT routine failed to load.
- S2K0127/sid- WARNING - STAE ERROR TRAPPING NOT ENABLED -**
is an *informative* message during SYSTEM 2000 initialization. It indicates that STAE=NO was specified for the execution of SYSTEM 2000.
- S2K0128/sid- S2KPADnn HAS INVALID CISIZE -**
is a *warning* message. All permanent PAD files in a session must have the same CISIZE. One or more PAD files will be ignored.
- S2K0129/sid- SYSTEM 2000 TERMINATING- INITIAL STATE UNSUCCESSFUL -**
is a *fatal* message in a Multi-User or single-user environment. An ESTAE work area for SYSTEM 2000 could not be acquired, because there was not enough memory.
- S2K0130/sid- MULTI-USER MUST USE SCRATCH PADS -**
is a *fatal* message for Multi-User execution. It is followed by user abend 104. No PADnn parameters were specified.
- S2K0131/sid- S2KPADnn NOW BEING FORMATTED -**
is an *informative* message during SYSTEM 2000 initialization. The scratch pad PADnn is being formatted with binary zeros.
- S2K0132/sid- MEMORY NOT AVAILABLE FOR SCRATCH PADS CONTROL BLOCKS -**
is a *fatal* message during SYSTEM 2000 initialization. It is followed by user abend 104. Not enough memory was available for the scratch pad directory blocks, DCBs, and allocation unit control blocks.
- S2K0133/sid- OPEN FAILED FOR INITIALIZATION OF S2KPADnn -**
is a *fatal* message during SYSTEM 2000 initialization. It is followed by user abend 104. The system could not open a scratch pad data set (PADnn).
- S2K0134/sid- UNCORRECTABLE ERROR ENCOUNTERED FORMATTING S2KPADnn -**
is a *fatal* message during SYSTEM 2000 initialization. It is followed by user abend 104. An I/O error occurred when formatting scratch pad PADnn.
- S2K0135/sid- PADVOL SYSPARM IS REQUIRED FOR DYNAMIC ALLOCATION OF S2KPADnn FILES -**
is a *fatal* message during SYSTEM 2000 initialization. It is followed by user abend 104. SYSTEM 2000 requires a value for system parameter PADVOL in order to dynamically define a VSAM PAD file.
- S2K0138/sid- MEMORY NOT AVAILABLE FOR SCRATCH FILE CONTROL BLOCKS -**
is a *fatal* message during SYSTEM 2000 initialization. It is followed by user abend 104. Space was not available for scratch file DCBs in a single-user job.
- S2K0139/sid- PADS MUST BE NUMBERED CONSECUTIVELY AND BEGIN WITH 00 -**
is a *fatal* message during SYSTEM 2000 initialization. It is followed by user abend 104. A PADnn parameter either did not begin with 00 or was not consecutively numbered, except POOL7 is always the scratch pool.

S2K0141/sid- S2KPADnn NOW BEING REFORMATTED -

is an *informative* message during SYSTEM 2000 initialization. When re-using a scratch pad (PADnn), the block size for scratch files was not the same as the block size on the control record of the pad. The file was re-formatted with the new block size.

S2K0145/sid- NO MAIN MEMORY AVAILABLE -

is a *fatal* message that can appear while formatting a scratch pad when SYSTEM 2000 is being initialized. Not enough main memory was available.

S2K0146/sid- OPT012 SPECIFIES AN INVALID CISIZE -

is a *fatal* message. The CISIZE specified in the OPT012 execution parameter must be a valid SYSTEM 2000 CISIZE (see the *SYSTEM 2000 Software: Product Support Manual*). This WTO message is followed by user abend 101.

S2K0147/sid- NO USABLE BUFFER POOL FOR OPT012. DEFAULT CHANGED -

is an *informative* message. There is no buffer for OPT012 CISIZE. OPT012 is either larger than the largest pool, or pool usage is limited with the DE specification.

S2K0148/sid- DEFAULT IS 4096 IF POOL IS AVAILABLE, ELSE SMALLEST POOL FOR DATABASE USAGE -

is an *informative* message. It appears after WTO S2K0147 and indicates the CISIZE is defaulting to 4096 if a pool is available. If no pool is available for 4096, the default is the smallest pool for database usage. CISIZE 12288 will not be used unless that size is the only pool for database usage.

S2K0149/sid- POOL7 BUFFER SIZE CHANGED TO MATCH PAD00 CISIZE OF

..... -

is an *informative* message. The pad cannot be reformatted using a different CISIZE; therefore, CISIZE and the buffer size in POOL7 must be identical. The buffer size for POOL7 has been changed to be the same as S2KPAD00 CISIZE.

S2K0150/sid- YOU ARE EXECUTING A SAS INSTITUTE PRODUCT ON A PROCESSOR (CPU) WHICH IS NOT INCLUDED IN THE SETINIT DATA -

is a *fatal* message during SYSTEM 2000 initialization. It is followed by user abend 112. The CPU ID given to SAS Institute prior to installation is not the same as the one on which you are executing SYSTEM 2000.

S2K0201/sid- OPEN FAILED FOR S2KMSG DATA SET -

is a *fatal* message. It appears during user initialization in a single-user environment. It is followed by user abend 517. The SYSTEM 2000 Message File was not opened because an S2KMSG DD statement was invalid.

S2K0203/sid- S2KSNAP DCB NOT OPEN OR SNAP UNSUCCESSFUL- NO SNAP DUMP PROVIDED- DO NOT CANCEL USER JOB -

is an *informative* message stating that a user abend occurred. The job terminated without a dump because the S2KSNAP open was unsuccessful. Also, the STAE execution parameter might have been NO.

S2K0205/sid- TERMINATING USER- SYSTEM 2000 ERROR CODE nnnn -
 appears when a single-user SYSTEM 2000 job terminates because an error could not be recovered. The reason for the termination is described in Chapter 3, “Abnormal Job Termination Messages and Codes,” on page 81 where *nnnn* is the SYSTEM 2000 Error Code.

S2K0205/sid- TERMINATING USER- SYSTEM 2000 ERROR CODE nnn -
S2K1213/sid- DUMP COMPLETE -
S2K1203/sid- TERMINATING USER job-name- SYSTEM 2000 ERROR CODE nnn,
{SYS|USR} ABEND abend- DO NOT CANCEL USER JOB -
 is a set of three messages for the Multi-User environment. A system abend (SYS) or user abend (USR) occurred in SYSTEM 2000. The message indicates the user whose command caused the abend.

job-name is the cancelled job.

nnn is one of the following SYSTEM 2000 Error Codes: 820, 821, 822, 824, or 826.

abend is the system abend or user abend number.

The abend produces a dump of the Multi-User region. See Chapter 3, “Abnormal Job Termination Messages and Codes,” on page 81 for information about SYSTEM 2000 Error Codes and IBM user abend codes. (Multi-User environment only.)

The operator must not cancel the job. It will terminate without operator intervention.

S2K0207/sid- SYSTEM 2000 STAE EXIT ENTERED -
S2K0202/sid- DUMP COMPLETE -
S2K0210/sid- TERMINATING USER- SYSTEM 2000 ERROR CODE nnn, {SYS|USR}
ABEND abend-

is a three-line *fatal* message. A system abend (SYS) or a user abend (USR) occurred. The abend causes a dump to be produced.

nnn is a SYSTEM 2000 Error Code.

abend is the system abend or user abend number.

This three-line message is followed by user abend 550. See Chapter 3, “Abnormal Job Termination Messages and Codes,” on page 81 for information about SYSTEM 2000 Error Codes and IBM user abend codes.

S2K0208/sid- SYSTEM 2000 IN RECURSIVE ABEND- ABORTING SESSION -
 is a *fatal* message in a Multi-User or single-user environment. It is followed by user abend 107. This is always caused by some previous error condition and is not meaningful unless you have information about the original abend.

S2K0211/sid- STAE REINSTATEMENT FAILED- CONTINUING WITHOUT ACTIVE STAE -
 is an *informative* message in a Multi-User or a single-user environment. Main memory was not available to construct a new ESTAE work area after SYSTEM 2000 error processing completed.

S2K0212/sid- SYSTEM 2000 VERSION n.nn -
 is an *informative* message. SYSTEM 2000 was called for a single-user job or for the first Multi-User job that called SYSTEM 2000.

S2K0214/sid- xx BUFFER(S) NOT AVAILABLE FROM POOL(S) 1,2,...n -
 if a *fatal* message. SYSTEM 2000 Error Codes 0001, 41, and 42, with user abend 550, indicate a buffer shortage. Before the job is terminated, this message indicates the number of buffers requested and the pools eligible for the request. Pool assignments must be increased to allow this job to run.

S2K0215/sid- I/O ERROR ENCOUNTERED -

S2K0216/sid- synad-error-message-text -

is a two-line message. The message gives the text of the error message retrieved by the synad exit and passed to the user. The user job was terminated with SYSTEM 2000 Error Code 817.

S2K0217/sid- INVALID CONDITION FOR PAGE xxxx OF FILE DDnamexx...IOP OR LOCKED IS ON IN BSTAT -

is a *fatal* message that appears with SYSTEM 2000 Error Code 41. The current page buffer indicates that either an I/O was in progress or the page buffer was locked.

Action: Contact SYSTEM 2000 Technical Support.

S2K0218/sid- AT LEAST ONE FILE IS OUT OF SYNC FOR DATABASE

is an *informative* message. The sync markers on the database files were read and compared. Differences were found, indicating the database is out of sync. The S2K0219 messages following this message display the sync markers from each file. A database that is out of sync is treated like a damaged database in that you can RELEASE and RESTORE the database, but updates are not allowed.

S2K0219/sid - FILE n - YYDDD HH:MM:SS.SS 999999999999

is a *warning* message. It follows message S2K218 and displays the sync marker values for each database file. When doing value-to-value compares for the six database files, one or more were out of sync.

S2K0230/sid- DATABASE database HAS BEEN ROLLED BACK TO CYCLE c BY -

S2K0231/sid- JOB job-name STEP step-name PROGRAM pgm-name TERMINAL terminal-id -

These messages occur during the first phase of auto-recovery, which rolls the database back to the cycle where the Rollback Log was last reset. *c* is the update cycle where the database *database* was when the Rollback Log was re-set. *job-name*, *step-name*, *pgm-name*, and *terminal-id* identify the user who triggered auto-recovery.

S2K0232/sid- CYCLES b THRU e HAVE NOT BEEN APPLIED FOR -

S2K0233/sid- JOB job-name STEP step-name PROGRAM pgm-name TERMINAL terminal-id -

These messages occur during the roll-forward phase of auto-recovery. During this phase, SYSTEM 2000 automatically applies updates that are obtained from the Update Log. However, the roll-forward process skips the update cycles that belong to the user (or users) being removed from the database. *job-name*, *step-name*, *pgm-name*, and *terminal-id* identify that user. *b* through *e* are not necessarily all update cycles that are not rolled forward for the user; they can be a set of update cycles that were physically one after another on the Update Log for this user.

S2K0234/sid- DATABASE database NOW AT CYCLE c -

The auto-recovery process is complete for the database. *c* is the last update cycle found on the Update Log. This cycle was either re-applied or skipped.

S2K0235/sid- DATABASE database1 REQUIRES DATABASE database2 IN ORDER TO RECOVER -

SYSTEM 2000 attempted an auto-recovery on a database that has a logical unit of work on another database. SYSTEM 2000 could not open the other database. Therefore, the software could not completely remove the logical unit of work from all databases. The original database was not recovered.

S2K0236/sid- xxxxxxxx HAS NO USABLE SECONDARY ALLOCATION -

Either no secondary allocation was specified or the maximum allowable number of extents was exceeded for file xxxxxxxx. The maximum allowable is 123. The user

must provide more secondary extents. This error is fatal to the job and destructive to the database.

S2K0700/sid - VSAM RC=XXX, CODE=XXX FILE XXXXXXXX FOR GENCB ACB -
S2K0701/sid - VSAM RC=XXX, CODE=XXX FILE XXXXXXXX FOR GENCB RPL -
S2K0702/sid - VSAM RC=XXX, CODE=XXX FILE XXXXXXXX FOR SHOWCB -
S2K0703/sid - VSAM RC=XXX, CODE=XXX FILE XXXXXXXX FOR GET REQUEST -
S2K0704/sid - VSAM RC=XXX, CODE=XXX FILE XXXXXXXX FOR PUT REQUEST -
S2K0705/sid - VSAM RC=XXX, CODE=XXX FILE XXXXXXXX FOR OPEN -
S2K0706/sid - VSAM RC=XXX, CODE=XXX FILE XXXXXXXX FOR CLOSE -
S2K0707/sid - VSAM RC=XXX, CODE=XXX FILE XXXXXXXX FOR MODCB -
S2K0710/sid - VSAM RC=XXX, CODE=XXX GENCB EXITLIST ERROR

are all *batch fatal, nondestructive* errors. An unexpected error occurred during a VSAM request. See your VSAM manual for VSAM Macro Return and Reason Codes.

S2K0711/sid- VSAM INITIALIZATION TERMINATED-INCOMPATIBLE ACB LENGTH -
 is a *fatal* message during SYSTEM 2000 initialization. Contact SYSTEM 2000 Technical Support.

S2K1101/sid- NO BUFFERS AVAILABLE FOR SCF TP -

S2K1102/sid- ALLOCATE BUFFERS WITH SIZE=12288 -

is a *fatal* message that can occur during SYSTEM 2000 initialization if operator intervention is not allowed. It is followed by user abend 101. If any POOL n parameters are specified at SYSTEM 2000 initialization time and SCF TP is going to be used, one pool must be specified with a block size equal to 12288 and a usage of D or DE. For OS/390, the minimum of TPTHREADS or THREADS values suffices; a single buffer pool, having a block size exactly equal to 12288 bytes, is used for the S2KUSERS file.

Action: Change or add a POOL n allocation with a standard POOL n parameter, that is, 12288.

S2K1103/sid- POOL0 HAS BEEN USED FOR SCF TP BUFFERS -

is an *informative* message. If TPTHREADS is not equal to 0 then some 12288 buffers for the S2KUSERS file are required. Because no pools were specified, POOL0 is provided automatically.

S2K1104/sid- SCF TP ACCESS MUST BE IN THE SAME REGION -

is an *informative* message during SYSTEM 2000 initialization. For FPTPSYS=YES in VS systems, system areas are obtained at system initialization time, allowing TP access from different OS/390 address spaces. For FPTPSYS=NO, the memory overhead for these areas is not incurred, but the TP system must be executed in the same OS/390 address space as the data management system. This message also appears if FPTPSYS=NO and TPTHREADS is greater than 0 when using OS/390 with SCF TP.

S2K1105/sid- INVALID COPYAREA n ALLOCATION -

S2K1106/sid- CORRECT THE APPROPRIATE COPYAREA PARAMETER -

is a *fatal* message that can occur during SYSTEM 2000 initialization if operator intervention is not allowed. It is followed by user abend 101. The specified parameters included a COPYAREA n =size K/ m statement, but one of the following situations occurred:

- Size was 0 and m was not 0.
- Size was not larger for each larger value of n among all COPYAREA n statements.
- n was not in sequence starting with 1 and increasing by 1.

Action: The operator can enter a COPYAREAn=size K/m parameter.

S2K1107/sid- NO MAIN MEMORY AVAILABLE FOR COPYAREAS -

is a *fatal* message that appears when Multi-User fails to initialize correctly. It is followed by user abend 101. Not enough memory was available to initialize the interregional copy area needed. For Type 2 Multi-User software, this memory is in the CSA. For XMS Multi-User software, it is in the Multi-User region. (Multi-User environment only.)

S2K1108/sid- NO MAIN MEMORY AVAILABLE FOR SCF TP -

is a *fatal* message during Multi-User initialization for a non-zero TPTHREADS parameter (followed by user abend 122). Not enough main memory was available for the required control blocks. (Multi-User environment only.) OS/390 acquires space from the CSA. The storage area required for SCF TP is (A+B) bytes, where

A = Q x (the lesser of TPTHREADS or THREADS) For OS/390, Q = 4600.

B = number of TPSCRUN X 16.

S2K1111/sid- INVALID 'USERCOM' MODULE -

is a *fatal* message during Multi-User initialization for a non-zero TPTHREADS parameter. It is followed by user abend 122. SYSTEM 2000 found an unacceptable user common. This is an internal processing error. (Multi-User environment only.)

Action: Contact SYSTEM 2000 Technical Support.

S2K1112/sid- OPEN FAILED FOR S2KUSERS DATA SET -

is a *fatal* message during Multi-User initialization for a non-zero TPTHREADS parameter. It is followed by user abend 122. The SYSTEM 2000 S2KUSERS file was not opened because the S2KUSERS DD statement was missing or invalid. (Multi-User environment only.)

S2K1114/sid- MULTI-USER INITIALIZATION PHASE -

is an *informative* message that appears when Multi-User is activated (followed by a list of initialization parameters). (Multi-User environment only.)

S2K1115/sid- OPEN FAILED FOR S2KDIAG DATA SET -

is an *informative* message that appears when Multi-User is initialized, but only if the LOGLEVEL parameter was not set to NO. The Multi-User Diagnostic Log file could not be opened, probably because a DD statement was missing or erroneous. The Multi-User Diagnostic Log was disabled just as though LOGLEVEL=NO was specified. (Multi-User environment only.)

S2K1116/sid- ATTACH FAILED FOR 'NO522' MODULE -

is an *informative* message that appears when Multi-User is initialized. SYSTEM 2000 could not attach the NO522 program. Probably, NO522 was not in the STEPLIB data set. (Multi-User environment only.)

S2K1117/sid- MULTI-USER INITIALIZATION PHASE COMPLETE -

is an *informative* message that appears when initialization is complete for Multi-User activation. (Multi-User environment only.)

S2K1118/sid- ATTACH FAILED FOR 'S2CONSOL' MODULE -

is a *fatal* message that appears when Multi-User fails to initialize correctly. SYSTEM 2000 could not attach the operator communication program S2CONSOL. Probably, S2CONSOL was not in the STEPLIB data set. This error causes user abend 773. (Multi-User environment only.)

S2K1119/sid- S2K-CORE ACQUISITION FOR NON-NLTP FAILED -

is a *fatal* message that can appear during Multi-User initialization. It is followed by user abend 122. For SCF batch and PLEX users, there was insufficient CSA for the required control blocks. (Multi-User environment only.)

Action: Decrease the number of copy areas, users, or TP threads because the required CSA size for jobs that are not SCF TP equals COPYAREA + (USERS X 244) + (TPTHREADS X 52)

S2K1120/sid - DISP=SHR NOT ALLOWED FOR S2KUSERS DATA SET -

indicates a *fatal* error during Multi-User initialization (followed by user abend 122). The S2KUSERS data set cannot be shared.

S2K1121/sid - GENCB FAILED FOR S2KUSERS DATA SET -

is a *fatal* message during SYSTEM 2000 initialization. An unexpected error occurred during a VSAM request (Multi-User environment only). See your VSAM manual for VSAM Macro Return and Reason Codes.

S2K1122/sid- TPVOL SYSPARM IS REQUIRED FOR DYNAMIC ALLOCATION OF S2KUSERS FILE -

is a *fatal* message during SYSTEM 2000 initialization. SYSTEM 2000 software requires a value for system parameter TPVOL in order to dynamically define a VSAM S2KUSERS file (Multi-User environment only).

S2K1202/sid- TERMINATING USER job-name- SYSTEM 2000 ERROR CODE nnn- DO NOT CANCEL USER JOB -

appears when a dependent region job that is accessing Multi-User is being terminated. Multi-User cancels the user job. The operator should not cancel the user job. The reason for the termination is described in Chapter 3, "Abnormal Job Termination Messages and Codes," on page 81, where *nnn* is the SYSTEM 2000 Error Code. (Multi-User environment only.)

S2K1212/sid- MULTI-USER STAE EXIT ENTERED -**S2K1213/sid- DUMP COMPLETE -**

is a *fatal* message in a Multi-User environment. It always follows WTO message S2K0208 and appears when SYSTEM 2000 is in a recursive abend. Multi-User terminates after this message.

S2K1214/sid- SYSTEM 2000 ABORTED -

is a *fatal* message that appears when Multi-User fails to initialize properly. The ESTAE work area for Multi-User could not be acquired. This error causes user abend 770. (Multi-User environment only.)

S2K1215/sid- SYSTEM 2000 NORMALLY TERMINATED -

is an *informative* message in a Multi-User environment. The message appears because a console operator gave the cancel command 'C S2K' or because a fatal abend occurred.

The absence of this message in the described circumstance indicates that Multi-User failed to terminate properly, and the status of all databases is suspect.

S2K1216/sid- TERMINATING USER job-name- DEADLOCK DETECTED- SYSTEM 2000 ERROR CODE nnnn -

SYSTEM 2000 Error Code *nnnn* indicates a deadly embrace in contention for buffers, databases, or overlays. The message appears before the software cancels the job named in the message. For information about SYSTEM 2000 Error Codes see Chapter 3, "Abnormal Job Termination Messages and Codes," on page 81.

S2K1217/sid- MULTI-USER TERMINATION FORCED BY SYSTEM -

S2K1218/sid- ABEND SX22 HAS BEEN DETECTED -

indicates that Multi-User was terminated with a system X22 abend, where the value of X has one of the following meanings:

- 1 The operator cancelled the job.
- 2 The operator (or an authorized TSO user with operator capability) cancelled the job.
- 3 Execution took longer than the time specified in the EXEC or the JOB statement.

S2K1219/sid- MULTIPLE LOCAL HOLDS BUFFER IS FULL FOR database -

is an *informative* message. It indicates that the Multiple Local Holds buffer for the database named in *database* is full. The PLEX program that tried to obtain a local hold receives Return Code 110, and the local holds of that program are dropped. For more information about Return Code 110, see Chapter 2, "Programming Facility (PLEX) Messages," on page 53.

S2K1220/sid- GETMAIN FAILED FOR n BYTES FOR MLH BUFFER FOR DATABASE database -

is an *informative* message. It indicates that a GETMAIN failed for the Multiple Local Holds buffer. The buffer space will be obtained from pool space.

S2K1221/sid- EXIT7 REQUESTED n BYTES. m BYTES ALLOCATED FOR MLH BUFFER FOR DB database -

is an *informative* message. User exit EXIT07 provided a buffer size that was unusable. This WTO message displays the buffer size (*m*) that was substituted.

S2K1301/sid- OPEN FAILED FOR S2KMANY DATA SET -

S2K1302/sid- OPEN FAILED FOR S2KMANX DATA SET -

S2K1308/sid- FATAL ERROR OCCURRED- ACCOUNTING MODULE DISABLED -

The accounting system could not open the Accounting Log file identified by the S2KMANX (if message S2K1302) or by the S2KMANY (if message S2K1301) DD statement. This two-line message appears during Multi-User accounting system initialization and disables the accounting system. If the error is not corrected, no accounting data is logged for the remainder of the Multi-User session. (Multi-User environment only.)

Action: The operator should close the Multi-User system down as soon as possible and correct the S2KMANX or the S2KMANY Accounting Log file.

S2K1303/sid- MISSING OR INVALID ACCOUNTING LOG FILE BLOCKSIZE -

S2K1308/sid- FATAL ERROR OCCURRED- ACCOUNTING MODULE DISABLED -

The block size for an Accounting Log file was missing, was too large for the device specified, or was too small to contain the largest accounting record + 4. This two-line message appears during Multi-User accounting system initialization and disables the accounting system. If the error is not corrected, no accounting data will be logged for the remainder of the Multi-User session. (Multi-User environment only.)

Action: The operator should close the Multi-User system down as soon as possible and correct the invalid block size.

S2K1304/sid- S2KMANY DATA SET FULL- PLEASE DUMP -

S2K1305/sid- S2KMANX DATA SET FULL- PLEASE DUMP -

is an *informative* message when Multi-User accounting is active. The Accounting Log file identified by the S2KMANX (if message S2K1305) or the S2KMANY (if message S2K1304) DD statement is full. The file is marked inactive and recording continues on the other Accounting Log file. (Multi-User environment only.)

Action: The operator should run the independent ACTUTIL utility program to dump the full Accounting Log file. If both files were full and accounting was suspended, you can start accounting with the START ACCOUNTING console command.

S2K1306/sid- ACCOUNTING LOG FILE RECORD LOST DUE TO LENGTH INVALID -
is an *informative* message when Multi-User accounting is active. The accounting system tried to write a record, but one of the following situations occurred:

- The record length was less than 4 bytes.
- The record length was not divisible by 4.
- The block size of the Accounting Log file was not large enough to accommodate the record.

The accounting record was lost. (Multi-User environment only.)

Action: The operator should notify the systems programmer of this condition.

S2K1307/sid- NOW RECORDING ACCOUNTING DATA ON S2KMANX -
S2K1307/sid- NOW RECORDING ACCOUNTING DATA ON S2KMANY -
is an *informative* message when Multi-User accounting is active. The accounting system switched its active recording to the Accounting Log file identified by the S2KMANX or the S2KMANY DD statement. (Multi-User environment only.)

S2K1310/sid- NO MAIN MEMORY AVAILABLE FOR ACCOUNTING LOG FILE BUFFER -

S2K1308/sid- FATAL ERROR OCCURRED- ACCOUNTING MODULE DISABLED -
The accounting system could not acquire the necessary address space for its I/O buffer. This two-line message appears during Multi-User accounting system initialization and disables the accounting system. If the error is not corrected, no accounting data is logged for the remainder of the Multi-User session. (Multi-User environment only.)

Action: The operator should close the Multi-User system down as soon as possible and allocate more storage for Multi-User.

S2K1311/sid- NO AVAILABLE ACCOUNTING LOG FILES -
S2K1309/sid- xxxxxxK ACCNT RECORDS LOST DUE TO FULL ACCOUNTING LOG FILE - PLEASE DUMP -

is an *informative* two-line message when Multi-User accounting is active. The accounting system attempted to log an accounting record, but both S2KMANX and S2KMANY were full. The accounting record was lost, and the tally of lost accounting records was incremented. (Multi-User environment only.)

Action: The operator should run the independent ACTUTIL utility twice to dump both of the full Accounting Log files. If both files were full and accounting was suspended, you can start accounting with the START ACCOUNTING console command.

S2K1312/00- ACCOUNTING NOT SUSPENDED, NOT STARTED -
is an *error* message that appears in response to an operator START ACCOUNTING command, but accounting is already started. No action is required.

S2K1313/00- XXXXXXXXX ACCOUNTING RECORDS LOST -
is an *error* message that appears when a Multi-User session terminates and accounting records have been lost during that session. No action is required.

S2K1314/00- ACCOUNTING SUSPENDED, ALL FILES FULL -
is an *informative* message received when all accounting files are full. Accounting is suspended until the operator command START ACCOUNTING is received.

Action: Dump your accounting logs with the ACTUTIL utility, and issue the operator command START ACCOUNTING after the dump process is complete.

S2K1315/00- ACCOUNTING HAS BEEN RESTARTED -

is an *informative* message received after accounting has been successfully re-started in response to the operator command START ACCOUNTING. No action is required.

S2K1316/00- S2KMANY RECFM OR DSORG NOT V1 COMPATIBLE -

is an *error* message received when the S2KMANY file has a record format other than variable blocked or has a data set organization other than physical sequential.

Action: Correct the problem identified with S2KMANY and cycle Multi-User to start using the corrected log.

S2K1317/00- S2KMANX RECFM OR DSORG NOT V1 COMPATIBLE -

is an *error* message received when the S2KMANX file has a record format other than variable blocked or has a data set organization other than physical sequential.

Action: Correct the problem identified with S2KMANX and cycle Multi-User to start using the corrected log.

S2K1401/sid- NO ACTIVE JOBS -

is the response to a DISPLAY ACTIVE operator command when no jobs were active. (Multi-User environment only.)

S2K1402/sid- NO ACTIVE DATABASES -

is the response to a DISPLAY STATUS operator command when no databases were attached to SYSTEM 2000. (Multi-User environment only.)

S2K1403/sid- JOB *job-name* MARKED FOR CANCELLATION -

is the response to a CANCEL *job-name* command or a CANCEL S2K command. (Multi-User environment only.)

S2K1404/sid- JOB *job-name* NOT FOUND -

is the response to the CANCEL *job-name* or the DISPLAY *job-name* operator command when the software could not find a job by that name. (Multi-User environment only.)

S2K1405/sid- INVALID REQUEST -

is the response when a console operator issues an invalid command. The command was ignored. (Multi-User environment only.)

S2K1406/sid- *job-name* ISSUED *text*-

echoes the text of an alternate console (S2OP) command that updated the Multi-User system. The message appears just before any output that is associated with the request.

S2K1407/sid- REQUESTED SEGMENT OF ACCOUNTING NOT ACTIVE - IGNORED -

The operator command START STAT *xx* has been issued, but that segment of accounting has not been specified in the SYSTEM 2000 parameters that are supplied at startup. See the PLSEG, NLSEG, and TPSEG execution parameter discussions in the *SYSTEM 2000 Software: Product Support Manual*.

S2K1408/sid- JOB *job-name* HAS INVALID JOB QUEUE STATUS *x* -

is the response to a DISPLAY ACTIVE, STATUS operator command when the status of a job (*job-name*) was not valid. This informative message indicates internal processing problems; however, the status of subsequent jobs will be displayed. (Multi-User environment only.)

S2K1409/sid- JOB *job-name* MARKED FOR CANCELLATION AWAITING UPDATE COMPLETION -

is the response to a CANCEL *job-name* operator command when the job that was specified for cancellation was for an active user (TP or batch). The job was updating a database and will be cancelled when the update command completes processing. This message can also be caused by CANCEL S2K processing. (Multi-User environment only.)

S2K1410/sid- SYSTEM 2000 WILL TERMINATE NOW -

is the response to a CANCEL S2K, NOW operator command. This message is preceded by cancellation messages for each active user on SYSTEM 2000; see WTO messages S2K1403 and S2K1409. (Multi-User environment only.)

S2K1411/sid- SYSTEM 2000 WILL TERMINATE WHEN THERE ARE NO USERS -

is the response to a CANCEL S2K, WHEN operator command. New SYSTEM 2000 users cannot log on to the system after the message appears. Current SYSTEM 2000 users can continue to process normally until they exit SYSTEM 2000 software. When all current users finish, the SYSTEM 2000 Multi-User session terminates with the final message S2K TERMINATED. (Multi-User environment only.)

S2K1412/sid- DUMP COMPLETE -

appears when a job termination finishes a complete dump.

S2K1413/sid- INVALID REQUEST FOR STATISTICS- ACCOUNTING LOG NOT ACTIVE -

indicates the rejection of a START STAT operator command because the ACCT execution parameter was set to NO. Accounting Log statistics cannot be logged. (Multi-User environment only.)

S2K1414/sid- STATISTICS HAVE STARTED -

is the response to a START STAT operator command that starts logging statistics for Multi-User accounting. (Multi-User environment only.)

S2K1415/sid- STATISTICS HAVE STOPPED -

is the response to a STOP STAT operator command that stops logging statistics for Multi-User accounting. (Multi-User environment only.)

S2K1416/sid - LOGLEVEL=UINIT/POPEN/TSTRT/USEGM/USPND/TSPND/MFLOW/TSPPIO/LOPEN -

is the response to a DISPLAY LOGLEVEL operator command. Only log levels that are active appear in the message. (Multi-User environment only.)

S2K1417/sid- LOGLEVEL HAS BEEN MODIFIED -

is the response when the LOGLEVEL=*exec-parms* operator command completes processing. (Multi-User environment only.)

S2K1418/sid- *terminal-id* WILL BE cancelled -

is the response to the CANCEL *job-name* operator command when the job being cancelled is an inactive SCF TP user. (Multi-User environment only.)

S2K1419/sid- SCF TP ACTIVITY BEING QUIESCED -

is the response to the CANCEL TP, WHEN operator command. New SCF TP users cannot log on to the system after this message appears. Current SCF TP users can continue to process normally until they issue 'EXIT:'. The SCF TP facility becomes inactive when all SCF TP run-units are cancelled, that is, when the last SCF TP user issues 'EXIT:'. (Multi-User environment only.)

S2K1420/sid- SCF TP ACTIVITY BEING TERMINATED -

is the response to the CANCEL TP, NOW operator command. New SCF TP users cannot log on to the system after this message appears. Current active SCF TP users can finish their individual segments. Inactive SCF TP run-units are cancelled immediately. After cancellation of all SCF TP run-units, the SCF TP facility becomes inactive with the final WTO message S2K1424. (Multi-User environment only.)

S2K1421/sid- SCF TP ACTIVATED -

is the response to the START TP operator command. SCF TP users can now use the system. (Multi-User environment only.)

S2K1422/sid- SCF TP RE-ACTIVATED -

is the response to the START TP operator command if the SCF TP facility was being quiesced. A prior CANCEL TP command was rescinded. New SCF TP users can now log on to the system. (Multi-User environment only.)

S2K1423/sid- SCF TP ALREADY ACTIVE -

is the response to the operator communications command START TP if the SCF TP facility is already active. That is, this START TP command follows either the STARTTP=YES execution parameter or a prior START TP command. (Multi-User environment only.)

S2K1424/sid- SCF TP ACTIVITY TERMINATED -

appears when all SCF TP run-units were cancelled successfully. This WTO message appears because the console operator issued one of the following commands earlier:

```
CANCEL TP [,NOW|,WHEN]
```

The SCF TP facility is now inactive. (Multi-User environment only.)

S2K1425/sid- FATAL ERROR DURING 'START TP' -

is the response to the START TP operator command if the SCF TP initialization failed for one of the following reasons: (Multi-User environment only.)

- The Type 2 SVC was generated with no SCF TP users, that is, TPUSERS=0.
- SYSTEM 2000 software was currently being cancelled.
- An internal error occurred. Contact SYSTEM 2000 Technical Support if neither of the first two reasons was true.
- TPTHREADS was greater than TPUSERS.

S2K1426/sid- NO SCF TP THREADS ALLOCATED -

appears when the execution parameter STARTTP=YES was rejected because Multi-User was initialized with no SCF TP threads. That is, the TPTHREADS execution parameter was 0. (Multi-User environment only.)

S2K1427/sid- PLEASE RE-ENTER -

is the response when a CANCEL *job-name* operator command was rejected. The CANCEL command was issued before processing was complete for a previous CANCEL *job-name* command. (Multi-User environment only.)

S2K1428/sid- QEDIT FAILED DURING OPERATOR 'MODIFY' COMMAND -

is a *fatal* message in a Multi-User environment. Multi-User could not establish or re-establish operator communication. This problem can be caused by either IBM or SYSTEM 2000. It is followed by user abend 771. (Multi-User environment only.)

S2K1429/sid- DBN PLX SCF S JOB -

S2K1430/sid- database-name no.-PLEX-users no.-SCF-users db-status job-name -

S2K1431/sid- database-name no.-PLEX-users no.-SCF-users -

are messages that appear when an operator requests the status of databases, that is, an F S2K, DISPLAY STATUS or MODIFY S2K,D S command. These messages also appear when the active status of a job (or jobs) is requested together with the database status, that is, F S2K, D A, S. (See also WTO messages S2K1432 and S2K1433.)

WTO message S2K1429 is a header message for the information contained in WTO messages S2K1430 and S2K1431. If a database status (control level) of LOCK (L), ROLLBACK (R), HOLD (H), or UPDATE (U) exists, WTO message S2K1430 appears. If the database is in either retrieval or inactive status, that is, not under one of the control levels just mentioned, WTO message S2K1431 appears. (Multi-User environment only.)

S2K1432/sid- jobname job-type priority execute-status resource-status -

displays ALT CON if an active user is an alternate console, for example, an S2OP CICS transaction. Also, if a user is assigned to a thread but waiting on a resource, the user status WT in the text is followed by the name of the resource:

WT UPDLOG	user needs an Update Log being used by another user.
WT TAPE	SAVE, RESTORE, KEEP, or APPLY needs a tape.
WT PAD	user needs an allocation unit.
WT BUFFER	user needs a buffer.

and/or

S2K1433/sid- jobname job-type priority wait-status resource-status data-name -

and/or

S2K1437/sid- terminal-id TP database-name -

WTO messages S2K1432, S2K1433, and S2K1437 appear when the console operator requests the active status of all jobs or a specific job, that is, F S2K,D A. WTO message S2K1432 appears for a job that is executing. WTO message S2K1433 appears for a job that is waiting in a thread or in an input queue. WTO message S2K1437 appears for an inactive TP terminal run-unit that has a database open but is

- not currently sending a command
- waiting for the results of a command
- receiving the results of a command, that is, operator "think time."

These messages also appear when the operator requests the database status and the active status of a job or jobs, that is, F S2K, D A, S. See also WTO messages S2K1429, S2K1430, and S2K1431. (Multi-User environment only.)

S2K1434/sid- CMD IS text -

echoes the text of any operator command that was submitted. The message appears just before the output that is associated with the request. The text contains the optional requests that are made in the operator command after the standard MODIFY S2K or F S2K portion of the command. For example, F S2K, D A would be echoed as S2K1434/sid- CMD IS D A, followed by the results.

**S2K1435/sid- {PRTY|FIFO} [/queue-examine-threshold/
priority-adjustment-factor]-**

appears in response to an operator command to display the current PQA (Priority Queuing Algorithm), that is, F S2K,D PQA or F S2K,DISPLAY PQA. The optional thresholds are displayed only for the PRTY setting. (Multi-User environment only.)

S2K1436/sid- PRIORITY QUEUING ALGORITHM HAS BEEN MODIFIED -

appears in response to an operator command that dynamically changes the Priority Queuing Algorithm (PQA), that is,

F S2K, PQA= {PRTY|FIFO} [/nnn/yyy]

(Multi-User environment only).

S2K1438/sid- CONSOLE ECB NOT AVAILABLE. "MODIFY MULTI-USER" NOT AVAILABLE -

is issued if Multi-User was unable to recognize a MODIFY *job-name* command, for example, when Multi-User was initialized more than one time under TSO.

S2K1440/sid- LOGCOUNT HAS BEEN MODIFIED TO xxxxx -

indicates the S2KDIAG data set ran out of space before reaching the limit that is specified by the LOGCOUNT execution parameter. The system changed the LOGCOUNT execution parameter to the value displayed in the WTO message (*xxxxx*).

S2K1441/sid- SPACE ALLOCATED FOR S2KDIAG NOT SUFFICIENT FOR MINIMUM OF 1000 RECORDS -

indicates that the space allocated for the S2KDIAG data set was not large enough to handle at least 1000 Diagnostic Log records. This WTO message is followed by WTO message S2K1442.

S2K1442/sid- LOGLEVEL HAS BEEN TURNED OFF -

indicates that the LOGLEVEL execution parameter was turned off. This WTO message is preceded by WTO message S2K1441, which says that insufficient space was allocated for the Diagnostic Log.

S2K1444/sid- ALLOCATION/UNALLOCATION COMPLETE FOR THE database DATABASE -

is an *informative* message. It appears when the VARY console operator command completes successfully, and it indicates that the specified database was varied offline or online.

S2K1445/sid- ALLOCATION/UNALLOCATION FAILED FOR THE database DATABASE -

is a *warning* message. The VARY operator console command failed, and the specified database could not be varied offline or online. The database files probably do not exist, or may be allocated to another job.

S2K1446/sid- OFFLINE IS PENDING UNTIL THE LAST USER IS OFF OF THE database DATABASE -

is an *informative* message. It appears when the VARY database OFFLINE operator console command cannot complete because other users are still using the specified database. When the last user job closes the database, the software will mark the database as being offline.

S2K1447/sid- database DATABASE NOT OPEN -

is an *informative* message. It appears when the console command 'CANCEL DB=' was issued for a database that was not open.

S2K1448/sid - database DATABASE HAS BEEN TAKEN OFF LINE -

is an *informative* message. A database can be taken offline in one of two ways:

- by using a console or S2OP VARY OFFLINE command. VARY ONLINE is the only way to allow a database to be re-opened in your Multi-User session.
- by using the SCF FREE command. If the database is identified in S2KDBCNT, FREE sets the lock byte to 1 to show that the database is unavailable.

Invoking the ALLOC command or the VARY ONLINE command allocates the files and allows you to open the database. If the database is not identified in S2KDBCNT, it is not protected by the lock byte; the files can be re-allocated by using the ALLOC command or the DBN or NDB commands for the database.

S2K1449/00- ALLOC=TBL HAS BEEN SPECIFIED BUT SYSTEM 2000 CANNOT ALLOCATE S2KDBCNT FILE -

is a *fatal* message in a Multi-User or single-user environment. It is followed by user abend 101. ALLOC=TBL was specified, but SYSTEM 2000 was unable to allocate the required S2KDBCNT file.

S2K1450/00- ACCOUNTING EITHER DISABLED, OR NOT SUSPENDED -

The START ACCOUNTING operator command has been issued, but accounting is either inactive or not suspended. This command is only valid when accounting is active and suspended.

S2K1451/sid- INVALID STAT OPTION, MUST BE TP,NL,PL OR ALL -

An operator command to START STAT *xx* has been issued but the parameter value '*xx*' is incorrect. It must be one of the following:

TP	start collecting stats for SCF/TP users.
NL	start collecting stats for SCF batch users.
PL	start collecting stats for PLEX users.
ALL	start collecting stats for all users.

S2K1901/sid- BUFFERS**S2K1902/sid- DBNS****S2K1903/sid- DBN=****S2K1904/sid- DBNU=****S2K1905/sid- DBSTAT=****S2K1905/sid- DBSTATS=****S2K1906/sid- HELP****S2K1907/sid- MLH=****S2K1907/sid- LHOLDS=****S2K1908/sid- PADS****S2K1909/sid- POOLS****S2K1910/sid- QUEUES****S2K1911/sid- THREADS****S2K1912/sid- USER=****S2K1913/sid- WHY=****S2K1916/sid- USERS**

The MUSTATS console operator commands have unique WTO numbers. Refer to the *SYSTEM 2000 Software: Product Support Manual* for detailed explanations of all fields in these WTOs.

S2K2000/sid- XBUF NOT ACTIVE -

is issued if you enter an XBUF console command and the XBUF execution parameter is XBUF=NO. The XBUF software is not available unless XBUF=YES.

- S2K2001/sid- XBUF COULD NOT LOAD MEMBERS: XBUFTBL, S2KXBUF -**
 is a *fatal* initialization error message. It is issued if XBUF software cannot be loaded. If you specify XBUF=YES in your execution parameters, SYSTEM 2000 checks to see whether members named S2KXBUF and XBUFTBL are on the load library (JOBLIB or STEPLIB). This WTO message appears if either or both members cannot be loaded. It is followed by user abend 601.
- S2K2020/sid- XBUF CANNOT LOG I/O RATES. TOD CLOCK IS yyyyyy -**
 indicates an initialization error. The initial STCK instruction, which started the clock for subsequent rate computations, received a bad return code. Either a hardware failure occurred or the operator changed the master system clock. The exact reason is given in yyyyyy, that is, IN ERROR STATE, STOPPED, or NOT OPERATIONAL. XBUF runs, but the rates contain 0s in the display.
- S2K2027/sid- XBUF FOUND BLANK FIELD -**
 indicates an error in an XBUF console command. You probably forgot to fill in a required field.
- S2K2028/sid- XBUF FOUND CFSIZE nnnnn FOR xxxxxxxx, -**
XBUF BUT yyyyyyy CFSIZE IS mmmmm -
XBUF SETTING xxxxxxxx RUNTYPE = 'NONE' -
 are *warning* messages that appear when the sizes do not match. The CFSIZE of the database files must be identical to the CFSIZE of their data space. nnnnn is the CFSIZE of database file xxxxxxxx, and mmmmm is the CFSIZE size of data space yyyyyyy. The database file in error will not be included in the data space.
- S2K2031/sid- XBUF FOUND INVALID CHARACTER x IN DDNAME FIELD -**
 indicates an error in an XBUF console command. The character displayed in the message (x) is not allowed in IBM DDnames.
- S2K2038/sid- XBUF FOUND NO POOL FOR CFSIZE nnnnn, DATA SPACE**
xxxxxxx -
 indicates an initialization error. SYSTEM 2000 pools, as specified in the execution parameters, cannot handle the CFSIZE nnnnn for data space xxxxxxx. Because the system cannot proceed, this message is followed by an abend.
- S2K2044/sid- XBUF FOUND TOO MANY CHARACTERS IN DDNAME FIELD -**
 indicates an error in an XBUF console command. IBM allows only 8 characters in a DDname, but you have requested some action for a longer DDname.
- S2K2045/sid- XBUF FOUND UNRECOGNIZABLE COMMAND -**
 indicates an error in an XBUF console command. The only valid commands are D and DISPLAY.
- S2K2046/sid- XBUF FOUND UNRECOGNIZABLE THIRD FIELD IN COMMAND -**
 indicates an error in an XBUF console command. If you specified DDnames or an asterisk (*) in the second command field, you cannot specify anything but RATES or PAGES in the third field.
- S2K2047/sid- XBUF FOUND VERSION #nnnn IN XBUFTBL. THIS IS XBUF**
mmmm. -
 indicates an initialization error. An incompatible table was loaded. The version of your XBUFTBL is not the same as the executing system. This message is followed by user abend 2. You must re-assemble your XBUFTBL table using the correct version of XBUF macros.

S2K2052/sid- XBUF GETMAIN FAILED FOR xxxxxxxx DSCT -

XBUF cannot acquire storage for data space xxxxxxxx. When the software is processing irregular workloads, XBUF sometimes needs more memory for DSCTs. If XBUF cannot acquire the memory, that specific data space reaches its limit of DSCTs. XBUF does not attempt any more GETMAINS that would fail.

S2K2053/sid- XBUF GETMAIN FAILED FOR xxxxxxxx ... SETTING RUNTYPE TO 'NONE' -

Database processing has stopped. During open processing for the database file with DDNAME xxxxxxxx, XBUF needed to acquire memory for control blocks. Either this was its first open or the file grew more than 256 pages since it was last opened.

S2K2063/sid- XBUF DATA SPACE=xxxxxxx CISIZE=nnnnn,COUNT=yyyyyy -

is an *informative* message issued as XBUF data spaces are being created. xxxxxxxx identifies the data space. nnnnn is the control interval size of the databases whose data will make up this data space. yyyyyy is the number of buffers allocated to this data space.

S2K2070/sid- XBUF DUAL LOGGING/DISK CACHING ARE NO LONGER SUPPORTED. -

is an *informative* message issued during XBUF initialization. In Version 1, support for dual logging and disk caching was dropped.

S2K2601/sid- QASTAT OUTPUT FILE DEFINITION MISSING -

appears if a call was made to QASTAT and the TIMEIO (or FT09F001) DD statement was missing. That is, the DD statement for the output file was missing.

S2K3101/sid- OPEN FAILED FOR S2KMSG DATA SET -

appears during initialization of the dependent region for an SCF user in a Multi-User environment. A user abend 517 occurred. The SYSTEM 2000 Message File was not opened because an S2KMSG DD statement was invalid. (Multi-User environment only.)

S2K3102/sid- OPEN FAILED FOR S2KMSG DATA SET -

appears during initialization of the dependent region for a PLEX user in a Multi-User environment. A user abend 519 occurred. The SYSTEM 2000 Message File was not opened because the S2KMSG DD statement was invalid. (Multi-User environment only.)

S2K3103/sid- ATTACH FAILED FOR 'NO522' MODULE -

is an *informative* message that appears when an SCF or PLEX user job is initialized in a Multi-User environment. The Multi-User interface could not attach the NO522 program to the dependent region. Probably NO522 was not in the STEPLIB data set. (Multi-User environment only.)

S2K3108/sid- OPEN FAILED FOR S2KCOMD DATA SET -

appears while initializing the dependent region for an SCF user in a single-user or Multi-User environment. A user abend 517 occurred. The SYSTEM 2000 Command File was not opened because the S2KCOMD DD statement was missing or invalid. (Multi-User environment only.)

S2K3109/sid- STAE EXIT ENTERED- TERMINATING USER- DO NOT CANCEL -

appears when a user abend occurs. Either Multi-User told the user region to abend or the user region abended itself. A dump on the S2KSNAP file follows this message.

Note: The operator must not cancel the job. It will terminate without operator intervention. △

S2K3110/00- ERROR ENABLING PLXTRUE -

CICS command-level interface only: The task-related user exit PLXTRUE could not be enabled. Either a PPT entry does not exist or PLXTRUE does not exist in a user loadlib. This message is written to the operator console.

S2K3214/sid- STAE INITIALIZATION FAILED -

appears when a user abend occurs. The TSO interface attempted to initialize ESTAE processing in order to trap B37 abends. The ESTAE initialization failed.

S2K3216/sid- SYSTEM 2000 EXTERNAL CONSOLE INTERFACE READY -

appears when an alternate console is available under Multi-User. S2OP is a program that looks like an alternate console to Multi-User software. It runs with CICS, TSO, and OS/390 batch. As an alternate console, S2OP accepts all master console operator commands.

S2K3217/sid - USER ALREADY ACTIVE IN MULTI-USER -

indicates that a terminal is attempting to log on, but the terminal is already listed as an active entry in the Multi-User TP table. You can issue a console command to try to cancel the terminal, but status flags in the table (for example, command in progress or terminal in process of being entered in table) will probably prevent the cancel from taking place.

S2K3219/sid- TERMINAL READ ERROR. POSSIBLY TERMINAL DISCONNECT -

appears when a non-zero return code was returned from a read request. User abend 552 terminated the job.

S2K3220/sid- TERMINAL WRITE ERROR. POSSIBLY TERMINAL DISCONNECT -

appears when a non-zero return code was returned from a write request. User abend 552 terminated the job.

S2K4001/sid- INVALID SVC NUMBER FOR PCBINDER...MUST BE > 200 -

appears if you specify the SVC number, and it was not in the range of 201 through 255.

S2K4002/sid- INVALID PC ROUTINE LOADED...ABENDING -

appears when S2KCMC loads an invalid S2KPC load module. Be sure that the correct load module from the installation tape resides in the authorized library. Re-assemble or re-link the S2KPC load module.

S2K4003/sid- S2KPC LOAD MODULE INVALID OR NOT FOUND...ABENDING -

appears if one of the following situations occurred:

- S2KCMC could not find the S2KPC load module on the authorized library.
- S2KCMC could not open the partitioned data set on which S2KPC resides. Re-assemble or re-link the S2KPC load module.
- The directory for the partitioned data set on which S2KPC resides was invalid.

S2K4004/sid- ENTRY LIST FORMAT ERROR FOUND AFTER USER EXIT PROCESSING -

appears when user exit S2KCMX1 improperly modified the first two words of the DSECT cross-memory Entry Table. Correct the error in the user exit, and re-run your job.

S2K4005/sid- INVALID EX NUMBER(S) FOUND AFTER USER EXIT PROCESSING -
appears if one of the following situations occurred:

- User-exit S2KCMX1 tried to define cross-memory Entry Table indexes that were not in the range of 1 through 255.
- User-exit S2KCMX1 requested a number of Entry Table entries, and the number was not the same as the number of Entry Table entries that were defined.

Correct the error in the user exit, and re-run your job.

S2K4006/sid- MISSING DD STATEMENT FOR S2KCOM -
appears if the control program S2KCMC could not find the DD statement for the S2KCOM file. Correct the JCL error, and re-submit the Multi-User JCL.

S2K4007/sid- S2KCOM FILE IS IN USE BY ANOTHER MULTI-USER -
appears if another Multi-User system is running, and it is using the S2KCOM file that you specified in your Multi-User JCL. Assign a different data set name or volume serial number to the S2KCOM file, and re-submit the Multi-User JCL.

S2K4008/sid- SVC/FLIST TABLE FREEMAIN FAILED -
appears when the control program S2KCMC could not do a FREEMAIN for an area in the private area of Multi-User because Multi-User abended.

S2K4009/sid- OPEN FAILED FOR S2KCOM - MULTI-USER COMMUNICATION TERMINATED -
appears when S2KCMC tried to open the S2KCOM file. It either found the DD statement for the S2KCOM file in error, or it could not find the DD statement for the S2KCOM file. Either correct the DD statement or add the DD statement to your JCL, then re-run your job.

S2K4010/sid- I/O ERROR ON S2KCOM - MULTI-USER COMMUNICATION TERMINATED -
appears when your job could not read the S2KCOM file because Multi-User abended. Re-submit your job when Multi-User is up-and-running.

S2K4011/sid- MULTI-USER cancelled BY THE MULTI-USER 'CANCEL S2K FORCE' COMMAND -
appears when the console operator issues a CANCEL command with the FORCE option to terminate Multi-User.

S2K4018/sid- ENQ OF S2KCOM FILE FAILED -
appears when the ENQ macro issued for the S2KCOM file DSN failed to enqueue the file. This WTO message is followed by WTO message S2K4021, S2K4022, or S2K4007, then WTO S2K4026.

S2K4019/sid- PUT FAILED FOR S2KCOM FILE -
appears if a PUT fails for the S2KCOM file.

S2K4020/sid- GET FAILED FOR S2KCOM FILE -
appears if a GET fails for the S2KCOM file.

S2K4021/sid- LIMIT FOR CONCURRENT ENQ REQUESTS HAS BEEN REACHED -
appears when the limit for concurrent ENQ requests is reached. This message might appear after WTO message S2K4018.

S2K4022sid- ACTIVE TASK ALREADY HAS CONTROL OF S2KCOM FILE -
appears if the task already has control of the S2KCOM file. This WTO message might appear after WTO S2K4018.

S2K4023/sid- DEQ OF S2KCOM FILE FAILED -

appears when the DEQ macro issued for the S2KCOM file DSN failed to dequeue the file. This WTO message is followed by WTO message S2K4024 or S2K4025, then WTO message S2K4026.

S2K4024/sid- S2KCOM ENQ REQUESTED BUT TASK HAS NOT BEEN ASSIGNED CONTROL -

appears when the ENQ macro was issued but the task has not been assigned control of the file.

S2K4025/sid- S2KCOM DID NOT HAVE AN ENTRY ON THE LIST -

appears when the S2KCOM file did not have an entry on the list, which indicates that an ENQ macro was never issued for the S2KCOM file.

S2K4026/sid- S2KCOM dsn -

appears after WTO messages S2K4018 and S2K4023. *dsn* is the data set name for the S2KCOM file. A maximum of 44 characters is allowed.

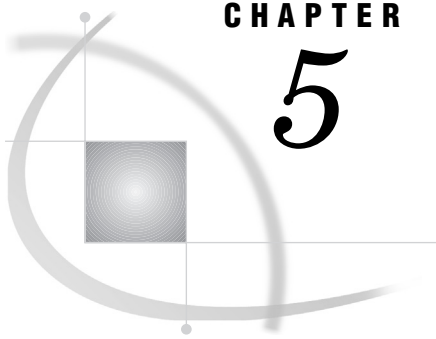
OS/390 Error Recording

The OS/390 version of the Type 2 SVC incorporates facilities to log software errors to an SCP log file. This error information can help the Database Administrator and systems personnel provide support to the Multi-User system. Through use of the SCP SETRP and SETFR macros, information regarding software errors is recorded in the SYS1.LOGREC log file.

Various Functional Recovery Routines (FRRs) used by the SVC are listed below. In general, they provide error recording, not error recovery. Each FRR writes the System Diagnostic Work Area (SDWA) to the SYS1.LOGREC log file.

Table 4.6 Functional Recovery Routines

Name	Logrec ID	Function
SVCFRR	SVCBLEW	is entered if an error occurs in executing the SVC or 'COPY'. It provides a cover for executing the SVC and frees local locks. It also provides a record of SVC failure, which can help the Database Administrator and systems personnel determine the cause of any SVC abnormal terminations.
SRFRR	SRREC	is entered if an error occurs in executing the service request SRPOST. It provides a cover for executing the service request SRPOST, frees local and SALLOC locks, and returns allocated SRBs to the allocated queue (if an SRB was allocated and not yet freed). The service request SRPOST must (by definition) exit unlocked. If SRPOST fails, the locks it acquired must be released. SRPOST returns SRBs to the available queue after they are no longer needed. If SRPOST fails, an SRB might not be returned to the available queue. SRFRR frees any locks that might be held and returns the allocated SRB.
RMTRFRR	RMTRREC	is entered if an error occurs in executing the Resource Manager Termination Routine SRRMTR. It provides a cover for executing the SRRMTR routine, frees local and SALLOC locks, and returns allocated SRBs to the available queue (if an SRB was allocated and not yet freed). The SRRMTR must (by definition) exit unlocked. If SRRMTR fails, the locks it acquired must be released. SRRMTR returns SRBs to the available queue after they are not needed anymore. If SRRMTR fails, an SRB might not be returned to the available queue. This RMTRFRR frees any locks that might be held and returns the allocated SRB.
BINDFRR	BINDFRR	is in the S2KPC load module. It is entered if an error occurs while executing some macros that initialize or terminate the dependent region or the XMS Multi-User. If the error results in an IBM system error code S052 that has a 512 reason code, BINDFRR does not trap the error. Processing continues.



CHAPTER

5

Messages from Utility Programs and the XBUF Feature

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Introduction

This chapter discusses messages that are issued from SYSTEM 2000 utility programs. It also lists error messages that can appear when you are assembling the front-end caching macros for XBUF software.

The single-user jobs that execute utility programs can issue two types of messages: WTO messages to the console operator, and messages sent to the SYSPRINT file of the user. For each SYSPRINT message, the corresponding WTO message is noted.

See the *SYSTEM 2000 Software: Product Support Manual, Version 1, First Edition* for more information about the utility programs.

Accounting Log Messages

The DUMP function of the ACTUTIL utility program dumps the filled Accounting Log files. ACTUTIL messages are classified as follows:

- the DUMP function
- the WTO or the SYSPRINT data set
- fatal errors or informative messages.

The WTO messages appear as master console information and at the beginning of the job listing.

WTO Messages from ACTUTIL

The following WTO messages can appear when you are running the ACTUTIL program. They are listed here in numerical order.

S2K2201/sid- ACTUTIL BEGIN -

is an *informative* message. The ACTUTIL program started execution of the DUMP function.

S2K2202/sid- DUMP OF THE ACTIVE ACCOUNTING LOG FILE REQUESTED -

S2K2208/sid- REPLY 'Y' TO CONTINUE, 'N' TO ABORT -

is a *warning* message from the DUMP function. The ACTUTIL program acknowledged the request to dump the currently active Accounting Log file. ACTUTIL processing is suspended until the operator indicates what action to take in response to the prompting message.

Action: Reply Y to initiate the dump, N to abort the dump.
Unpredictable conditions will result from entering Y while
Multi-User is active and trying to write in the file to be dumped.

S2K2204/sid- DUMP OF THE ACTIVE ACCOUNTING LOG FILE cancelled -

is an *informative* message that appears if a DUMP job ends abnormally. The ACTUTIL program aborted the attempt to dump the active Accounting Log file. Corresponding SYSPRINT Message: DUMP OF ACTIVE ACCT. FILE cancelled

S2K2205/sid- ACTUTIL NORMAL END -

is an *informative* message that appears when a DUMP job ends normally. The ACTUTIL program completed successfully and set the return code to 0. Corresponding SYSPRINT message: PROGRAM EXECUTION SUCCESSFUL

S2K2206/sid- ACTUTIL ABNORMAL END -

is a *fatal* error message that appears immediately before userabend 300. A previous message indicates the cause of the failure. Corresponding SYSPRINT message: PROGRAM EXECUTION UNSUCCESSFUL

S2K2207/sid- OPEN FAILED FOR SYSPRINT DATA SET -

is a *fatal* error message. It appears before userabend 300 in a DUMP job. The ACTUTIL program could not open the SYSPRINT data set. Correct the SYSPRINT DD statement and try again.

SYSPRINT Messages from ACTUTIL

The following messages are sent to the SYSPRINT file. They are listed here in alphabetical order.

BLOCKSIZE TOO SMALL FOR DUMPFIL

is a *fatal* error message. It appears before user abend 300 in a DUMP job. The block size specified in the DUMPFIL DD statement was not large enough to contain the longest accounting record plus 4 bytes for the block descriptor word. The minimum block size is 184. Correct the invalid block size and try again.

DUMP OF ACTIVE ACCT. FILE CANCELLED

is an *informative* message. It appears when a DUMP job ends normally. The ACTUTIL program aborted an attempt to dump the active Accounting Log file. Corresponding WTO message: S2K2204/sid- DUMP OF THE ACTIVE ACCOUNTING LOG FILE CANCELLED

FILE DUMP SUCCESSFUL

is an *informative* message. It appears when a DUMP job ends normally. The ACTUTIL program successfully dumped the Accounting Log file.

FUNCTION IS DUMP

is an *informative* message. The ACTUTIL program started executing the DUMP function.

NO RECORDS ON INPUT FILE

is an *informative* message. It appears when a DUMP job ends normally. The selected Accounting Log did not contain any accounting records to be dumped.

PROGRAM EXECUTION SUCCESSFUL

is an *informative* message. It appears when a DUMP job ends normally. The ACTUTIL program completed successfully and set the return code to 0. Corresponding WTO message: S2K- ACTUTIL NORMAL END

PROGRAM EXECUTION UNSUCCESSFUL

is a *fatal* error message. It appears before user abend 300 in a DUMP job. A previous message indicates the cause of the failure. Corresponding WTO message: S2K2206/sid- ACTUTIL ABNORMAL END

UNABLE TO OPEN DDNAME={DUMPFIL|ACCTFILE}

is a *fatal* error message. It appears before user abend 300 in a DUMP job. The ACTUTIL program could not open the DUMPFIL or the ACCTFILE data set. Either the DUMPFIL or the ACCTFILE DD statement must be corrected.

AQUMAIN Utility Messages

The following messages can be issued by the AQUMAIN utility:

AQU001 PARAMETER ERROR ON xxxxxxxx, INDICATING {BLANK CARD|INVALID KEYWORD|NO VALUE INPUT|VALUE TOO LARGE|ILLOGICAL STRUCTURE}

AQU002 ERROR IN INITIALIZATION

AQU003 ERROR IN OPEN PROCESS

ARPMAIN Utility Messages

The following messages can be issued by the ARPMAIN utility:

```

ARP001 PARAMETER ERROR ON xxxxxxxx, INDICATING {BLANK CARD|INVALID
KEYWORD|NO VALUE INPUT|NO EQUAL SIGN|VALUE TOO LARGE|ILLOGICAL STRUCTURE}

ARP002 ERROR IN INITIALIZATION

ARP003 ERROR IN OPEN PROCESS

```

LOGDUMP Program Messages

Messages are recorded in the Multi-User Diagnostic Log file (S2KDIAG) during SYSTEM 2000 Multi-User processing. The LOGDUMP program dumps the Diagnostic Log file. The following WTO messages appear as master console information and at the beginning of the job listing when you dump the file.

WTO Messages from LOGDUMP

The WTO messages are listed here in numerical order.

S2K2101/sid- LOGDUMP BEGIN -

is an *informative* message. LOGDUMP started executing.

S2K2102/sid- OPEN FAILED FOR SYSPRINT DATA SET -

is a *fatal* error message. It appears before user abend 400. LOGDUMP could not open the SYSPRINT data set because the SYSPRINT DD statement was missing.

S2K2103/sid- OPEN FAILED FOR S2KDIAG DATA SET -

is a *fatal* error message. It appears before user abend 400. LOGDUMP could not open the S2KDIAG data set because the S2KDIAG DD statement was missing.

S2K2104/sid- LOGDUMP NORMAL END -

is an *informative* message. It appears when the Diagnostic Log file was dumped successfully.

S2K2105/sid- OPEN FAILED FOR SYSIN DATA SET -

is a *fatal* error message. It appears before user abend 400. LOGDUMP could not open the SYSIN data set. Check the SYSIN DD statement for errors.

SYSPRINT Messages from LOGDUMP

These messages are sent to the SYSPRINT file. They are listed here in alphabetical order. Informative messages occur in the SYSPRINT file with formatted output.

S2K DIAGNOSTIC LOG

*hh.mm.ssss*JOBNAME UUTMSG#DATA

is a two-line *informative* message displayed at the top of each output page. The second line contains column headings for the data. For more information, see the LOGDUMP program discussed in the *SYSTEM 2000 Software: Product Support Manual*.

*** * * SYNTAX ERROR IN COMMAND * * ***

is a *fatal* error message. It appears before a job ends with condition code 8. The SYSIN data set contained a directive with an unacceptable keyword or operand. Nothing was dumped.

//S2KDIAG DATA SET FAILED TO OPEN

is a *fatal* error message. It appears before user abend 400. LOGDUMP could not open the S2KDIAG data set because of a missing S2KDIAG DD statement.

//SYSIN DATA SET FAILED TO OPEN

is a *fatal* error message. It appears before user abend 400. LOGDUMP could not open the SYSIN data set. Check the SYSIN DD statement for errors.

END-OF-FILE *n* RECORDS PRINTED

is an *informative* message. It appears when the Diagnostic Log file was dumped successfully. The number *n* is a count of the diagnostic records displayed.

DIAG2000 Program Messages

DIAG2000 is a post-processor for the Multi-User Diagnostic Log (S2KDIAG file). It summarizes the information found in the S2KDIAG file to highlight potential resource contention and performance problems. You can also use it to produce reports that summarize thread, database, and job activity and interaction. For more information about DIAG2000, see the *SYSTEM 2000 Software: Product Support Manual*.

DIAG2000 issues the following types of messages:

**** WARNING ****

means the message warns you about a condition that should be investigated but can be ignored.

**** ERROR ****

means the message indicates a processing error that is not serious enough to cause termination of DIAG2000, for example, a discrepancy in the S2KDIAG file input.

**** FATAL ERROR ****

means the error is serious enough to cause cancelling the execution of DIAG2000.

DIAG2000 ** WARNING ** Messages

**** WARNING ** THE S2KDIAG LOG BEING ANALYZED HAS WRAPPED AROUND-**
The LOGCOUNT parameter that was specified was too small to contain all the messages that were written to the S2KDIAG log file. Earlier messages were overlaid by succeeding messages. (Many error messages usually follow this message, but most of them can be ignored because they are a result of unmatched S2KDIAG messages caused by the wrap-around.)

**** WARNING ** JOB DETAIL RECORD WITH NO PRECEDING JOB START RECORD**
time jobname user-ID thread-ID message-ID

An S2KDIAG message contained information about a user job that did not have a preceding job start message (type 4 or 5). At this point, DIAG2000 starts logging information for the job.

DIAG2000 ** ERROR ** Messages

**** ERROR ** THREAD NUMBER IN S2KDIAG RECORD EXCEEDS MAXIMUM ALLOWED S2KDIAG RECORD FOLLOWS: S2KDIAG record**

The thread number in the S2KDIAG record was greater than 63, which is the maximum allowed by SYSTEM 2000.

**** ERROR ** A THREAD TERMINATION (201) RECORD FOUND WITH NO CORRESPONDING BEGIN RECORD (200). FOLLOWING RECORD IGNORED: S2KDIAG record**

An 'initialize thread' record (S2KDIAG message number 200) was not found before the 'thread terminate' record (S2KDIAG message number 201). The 201 record that displayed was ignored.

**** ERROR ** A THREAD DISPATCHED (206) RECORD FOUND WITH NO CORRESPONDING BUFFER SUSPEND RECORD (202). FOLLOWING RECORD IGNORED: S2KDIAG record**

A 'wait for buffer' record (S2KDIAG message number 202) was not found before the corresponding 'thread dispatch' record (S2KDIAG message number 206). The 206 record that displayed was ignored.

**** ERROR ** A THREAD DISPATCHED (207) RECORD FOUND WITH NO CORRESPONDING DATABASE SUSPEND RECORD (203). FOLLOWING RECORD IGNORED: S2KDIAG record**

A 'wait for database' record (S2KDIAG message number 203) was not found before the corresponding 'thread dispatch' record (S2KDIAG message number 207). The 207 record that displayed was ignored.

**** ERROR ** A THREAD DISPATCHED (208) RECORD FOUND WITH NO CORRESPONDING OVERLAY SUSPEND RECORD (204). FOLLOWING RECORD IGNORED: S2KDIAG record**

A 'wait for overlay' record (S2KDIAG message number 204) was not found before the corresponding 'thread dispatch' record (S2KDIAG message number 208). The 208 record that displayed was ignored.

**** ERROR ** A THREAD DISPATCHED (209) RECORD FOUND WITH NO CORRESPONDING TAPE SUSPEND RECORD (205). FOLLOWING RECORD IGNORED: S2KDIAG record**

A 'wait for tape' record (S2KDIAG message number 205) was not found before the corresponding 'thread dispatch' record (S2KDIAG message number 209). The 209 record that displayed was ignored.

**** ERROR ** A THREAD DISPATCHED (215) RECORD FOUND WITH NO CORRESPONDING SCRATCH PAD SUSPEND RECORD (214). FOLLOWING RECORD IGNORED: S2KDIAG record**

A 'wait for scratch pad' record (S2KDIAG message number 214) was not found before the corresponding 'thread dispatch' record (S2KDIAG message number 215). The 215 record that displayed was ignored.

**** ERROR ** A THREAD DISPATCHED (212) RECORD FOUND WITH NO CORRESPONDING I/O SUSPEND RECORD (211). FOLLOWING RECORD IGNORED: S2KDIAG record**

A 'wait for I/O' record (S2KDIAG message number 211) was not found before the corresponding 'thread dispatch' record (S2KDIAG message number 212). The 212 record that displayed was ignored.

**** ERROR ** A THREAD DISPATCHED (217) RECORD FOUND WITH NO CORRESPONDING UPDATE LOG SUSPEND RECORD (216). FOLLOWING RECORD IGNORED: S2KDIAG record**

A 'wait for Update Log' record (S2KDIAG message number 216) was not found before the corresponding 'thread dispatch' record (S2KDIAG message number 217). The 217 record that displayed was ignored.

**** ERROR ** S2KDIAG FILE CONTAINS MORE THAN 64 DATABASE NAMES (PROGRAM LIMIT EXCEEDED). FOLLOWING RECORD IGNORED: time jobname user-ID thread-ID message-ID**

The DIAG2000 program can analyze a maximum of 64 unique database names. Records that refer to a new database name are ignored after the maximum is reached.

**** ERROR ** CLOSE RECORD (101 OR 103) FOUND WITH NO CORRESPONDING OPEN RECORD (100 OR 102). S2KDIAG RECORD FOLLOWS: S2KDIAG record**

Either a 'physical database close' record (S2KDIAG message number 101) or a 'logical database close' record (S2KDIAG message number 103) was found without the corresponding 'open' record for the database (S2KDIAG message number 100 for physical open, 102 for logical open). The S2KDIAG record that displayed was ignored. The only normal circumstance where this occurs is a 'wrapped-around' S2KDIAG file.

**** ERROR ** 100 JOB TABLE SIZE EXCEEDED. FOLLOWING RECORD IGNORED: time jobname user-ID thread-ID message-ID**

The DIAG2000 program can accumulate data for a maximum of 100 jobs at a time. That is, no more than 100 jobs can be executing concurrently under Multi-User. Messages that refer to a new job name are ignored after the maximum is reached.

**** ERROR ** JOB job-name STARTED TWICE WITH NO INTERVENING TERMINATION. SECOND START RECORD FOLLOWS: time jobname user-ID thread-ID message-ID**

Two start records were found in the S2KDIAG file for the job name listed in the message. The DIAG2000 program simulates the discovery of a termination record for the first job before acting on the second start record. Usually this error occurs because of an abending user job.

DIAG2000 ** FATAL ERROR ** Messages

**** FATAL ERROR ** INPUT FILE HAS NO DATA**

The input parameter file INPUT contained no records. Report selection statements must be given to DIAG2000 in this file. DIAG2000 terminated.

**** FATAL ERROR ** INVALID CARD TYPE IN INPUT FILE. BAD CARD FOLLOWS
INPUT record**

All report selection parameter statements must contain a 1 in column 1. DIAG2000 terminated.

**** FATAL ERROR ** THREAD REPORT TYPE *report-type* IS INVALID. BAD CARD
FOLLOWS: INPUT record**

report-type must be either 'D' for detail report or 'S' for summary report (in column 6). DIAG2000 terminated.

**** FATAL ERROR ** DATABASE REPORT TYPE *report-type* IS INVALID. BAD
CARD FOLLOWS: INPUT record**

report-type must be either 'D' for a detail report or 'S' for a summary report (in column 6). DIAG2000 terminated.

**** FATAL ERROR ** *report-selection* IS NOT A VALID REPORT TYPE. BAD
CARD FOLLOWS: INPUT record**

report-selection must be one of the following (in column 2):

THRD	for thread utilization report
DB	for database utilization report
JOB	for user-job activity report
ALL	for all possible reports

The DIAG2000 program terminated.

CVRTV1 Conversion Program Messages

During the database conversion process, programs and sub-programs respond to the main program, CVRTV1, with return codes that produce messages from the error message table. Except where noted, all of these are fatal errors, which indicates that the conversion was unsuccessful.

- *04 - **CNVPARAM FILE OPEN ERROR**
The OPEN for the CNVPARAM file failed.
- *08 - **END OF FILE ON CNVPARAM FILE**
An end-of-file condition occurred in the CNVPARAM data set before any valid parameters were found.
- *12 - **I/O ERROR ON CNVPARAM FILE**
A GET for the CNVPARAM file failed.
- *16 - **INVALID OPTION ON CNVPARAM CARD**
A parameter card was read, but it contained an invalid option. Choices are PAD/NOPAD and INDEX/NOINDEX.
- *24 - **I/O ERROR ON SAVEFILE**
A GET for the Savefile failed.
- *28 - **SAVEFILE OPEN ERROR**
The OPEN for the Savefile failed.
- *32 - **GETMAIN ERROR**
An attempt to GETMAIN storage failed.
- *36 - **I/O ERROR ON DATABASE FILE xxxxxxxx**
An attempt to access the indicated file failed.
- *40 - **DATABASE FILE OPEN ERROR xxxxxxxx**
The OPEN for the indicated database file failed.
- *48 - **I/O ERROR ON KEYS DATA SET**
An attempt to access the KEYS data set failed.
- *52 - **SYSOUT DATA SET OPEN ERROR**
The OPEN for the SYSOUT data set failed.
- *56 - **DATABASE ALREADY EXISTS**
Database File 1 contains information that implies a database currently exists in the file. The conversion will not write over an existing database.
- *60 - **UNRECOVERABLE ERROR IN LOADFMT**
An unrecoverable error occurred while trying to write zero pages to a database file.
- *64 - **UNRECOVERABLE ERROR IN PGSTRK**
An unrecoverable error occurred while trying to calculate the number of pages per track during the FORMAT process.
- *68 - **INVALID CONVERSION RELEASE**
Page 1 from File 1 in the Savefile indicates a database release that is not supported by this conversion program.
- *72 - **SAVEFILE - - PAGE COUNT FAIL**
Page 1 of File 1 in the Savefile contains a table that defines how many pages are written to the Savefile for each database file. When the Savefile was read, the number of pages that were supposed to be in the Savefile did not match the number of pages actually read.

- *76 - **REBLOCK REQUIRED, NOT SPECIFIED**
The block sizes from the saved database and the block sizes of the new database files do not match and no REBLOCK parameter has been specified.
- *80 - **INVALID KEYS FILE. DB CONVERTED**
The database has been successfully converted, but the KEYS file that was built is probably not complete.
- *88 - **SAVE FILE DBN CHECK FAIL**
The database name on Page 1 of File 1 in the Savefile does not match the database name specified on the conversion parameter card.
- *92 - **NO VALUED RECORDS, CANNOT CONVERT**
The database in the Savefile does not contain any record occurrences.
- *96 - **RG NUMBER INVALID IN FILE 5 ENTRY**
A File 5 entry from the Savefile contains a record number larger than the maximum component.
- *100- **MXCOMP GREATER THAN 10000**
The maximum number of components found on Page 1 of File 1 in the Savefile is greater than the maximum number allowed.
- *104- **BAD CPLOC ON REMOVED FILE 5 ENTRY**
An available space entry in the saved File 5 contains an invalid component number.
- *108- **COMPONENT NUMBER NOT RG NUMBER**
An entry in the saved File 5 contains a component number that does not point to a record definition in File 1.
- *112- **TEMP FILE 2 DYNAM ALLOCATE FAILED**
Dynamic allocation for TEMPFIL2 failed.
- *116- **TEMP FILE 4 DYNAM ALLOCATE FAILED**
Dynamic allocation for TEMPFIL4 failed.
- *120- **TEMP FILE 2 OPEN FAILED**
The OPEN for TEMPFIL2 failed.
- *124- **TEMP FILE 4 OPEN FAILED**
The OPEN for TEMPFIL4 failed.
- *128- **FILE 2 OPEN FAILED (BDAM)**
The OPEN for database File 2 failed.
- *132- **FILE 4 OPEN FAILED (BDAM)**
The OPEN for database File 4 failed.
- *136- **SCRATCH FILE ALLOCATION FAILED**
The dynamic allocation for a scratch file failed.
- *144- **INVALID FILE 2 CONVERSION DATA**
A File 2 entry was found with invalid data.
- *148- **LOC5 VALUE BEYOND EOF FILE 4**
A File 2 entry was found that contained a File 4 pointer that pointed past the end of File 4.
- *152- **CPNUM FOR AVSPE < BLOCKSIZE**
This is not a user error. Contact SYSTEM 2000 Technical Support for details.
- *156- **SVC99 ERROR, DYNAMIC ALLOC**
The issuance of the dynamic allocation SVC resulted in a bad return code.

- *164- **DD NAME EDIT FAILURE**
A DD name used for dynamic allocation contained blanks or binary zeros.
- *168- **SORTIN FILE OPEN ERROR**
The OPEN for the SORTIN data set failed.
- *172- **SFIO INVALID FUNCTION**
This is not a user error. Contact SYSTEM 2000 Technical Support.
- *176- **SORTOUT FILE OPEN ERROR**
The OPEN for the SORTOUT data set failed.
- *184- **ERROR IN SORT UTILITY**
A call to the system SORT facility resulted in a bad return code.
- *188- **INVALID BLKSIZE/LRECL FOR xxxxxxxx**
The indicated database file has an invalid SYSTEM 2000 CISIZE. See the *SYSTEM 2000 Software: Product Support Manual* for valid file sizes.
- *192- **INVALID FILE 4 CLOSE**
- *196- **INVALID FILE 4 PUT**
- *200- **INVALID FILE 4 MODCB**
- *204- **INVALID FILE 4 GET**
- *208- **INVALID FILE 4 OPEN**
- *212- **INVALID FILE 4 GENCB**
The indicated function for File 4 failed.
- *216- **OPTION DEFAULTED TO CONVERT**
is an *informative* message. The only value found in the Convert parameter card was the database name. The process defaulted to CONVERT.
- *220- **INVALID FILE 2 CLOSE**
- *224- **INVALID FILE 2 MODCB**
- *228- **INVALID FILE 2 OPEN**
- *232- **INVALID FILE 2 GENCB**
- *236- **INVALID FILE 2 GET**
- *240- **INVALID FILE 2 PUT**
The indicated function for File 2 failed.
- *244- **INVALID FILE 5 CLOSE**
- *248- **INVALID FILE 6 GENCB**
- *252- **INVALID FILE 5 GENCB**
- *256- **INVALID FILE 5 OPEN**
- *260- **INVALID FILE 6 PUT**
- *264- **INVALID FILE 5 GET**
The indicated operation for the database file failed.
- *272- **INVALID FORMAT GENCB**
- *276- **INVALID FORMAT PUT**
The indicated function for the FORMAT process failed.
- *280- **INVALID FILE 1 GENCB**
- *284- **INVALID FILE 1 GET**
- *288- **INVALID FILE 1 CLOSE**
- *292- **INVALID FILE 1 MODCB**
- *296- **INVALID FILE 1 OPEN**
- *300- **INVALID FILE 1 PUT**
- *304- **INVALID FILE 3 GENCB**
- *308- **INVALID FILE 3 PUT**
- *312- **INVALID FILE 5 PUT**
The indicated operation for the database file failed.

***316- OUT-OF-SYNC DATABASE SAVEFILE**

is an *informative* message. The Savefile contains a database that is out-of-sync. This can occur only with a Version 1 database.

***999- UNRECOGNIZED RETURN CODE**

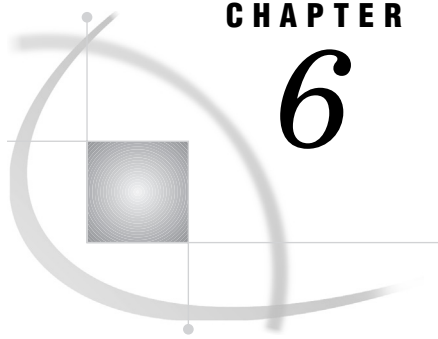
This is not a user error. Contact SYSTEM 2000 Technical Support.

XBUF Messages

These messages appear because of errors in specifying the front-end XBUF macros. Some messages are issued by macros that are generated at layers below the simple macros. If you receive an error message that you do not understand, contact SYSTEM 2000 Technical Support.

The messages are listed here in alphabetical order by the message code prefix.

XB-01	FIRST POSITIONAL PARAMETER MUST BE EITHER 'START' OR 'END'
XB-02	XB START MUST BE FIRST MACRO IN XBUF TABLE
XB-03	EITHER USER-SPECIFIED OR SYSTEM-ASSIGNED FILES MUST BE SPECIFIED
XB-04	XB END MACRO OUT OF ORDER. MUST FOLLOW XBSTAT OR XBMEMORY END MACRO.
XBDD-01	DDNAME MUST HAVE 8-CHARACTER VALUE
XBDD-02	DDNAME MUST START WITH ALPHA CHARACTER
XBDD-03	DDNAME MUST HAVE NUMERIC 8TH CHARACTER
XBDD-04	XBDD MACRO CANNOT FOLLOW XB END MACRO
XBDDVER-00	DUPLICATE DDNAME
XBMEMORY-01	FIRST POSITIONAL PARM MUST BE 'START' OR 'END'
XBMEMORY-02	AT LEAST ONE XBDD MACRO MUST BE ASSOCIATED WITH THIS XBMEMORY MACRO
XBMEMORY-03	XBMEMORY END MACRO OUT OF ORDER. MUST FOLLOW XBDD MACRO.
XBMEMORY-04	XBMEMORY START MACRO OUT OF ORDER. MUST FOLLOW XBMEMORY END, OR XB START MACRO.
XBMEMORY-05	XBMEMORY START MACRO REQUIRES BOTH CISIZE AND COUNT PARAMETERS
XBMEMORY-06	CISIZE AND COUNT PARAMETERS NOT VALID ON XBMEMORY END MACRO
XCISIZE-01	CISIZE IS INCORRECT. PLEASE VERIFY AND CORRECT.



CHAPTER

6

Messages for Interactive CICS and TSO Users

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Introduction

Telecommunications (TP) code handles the communication between interactive users and SYSTEM 2000 software. TP messages are issued from the interfaces that have CICS and TSO (foreground) and are sent to the console of the user.

Other Self-Contained Facility (SCF) messages and SYSTEM 2000 Error Codes can also be issued to the TP user, but they are sent to the Message File (S2KMSG file) of the user. By default, the Message File is the interactive device that is being used by the TP user, but it can also be assigned to an alternate file by the user. SCF messages and other messages issued during the SYSTEM 2000 session are discussed in other chapters in this manual.

Messages for the CICS User

Each message to the CICS user implies that the input message was not processed. If the error was caused by heavy activity or not enough control blocks, the error is temporary, and the software asks you to “TRY AGAIN.” When you receive a non-paging message, any output that was accumulated in the page file is purged. All messages that result from paging commands are identified as being associated with paging-control commands.

The messages are listed here in alphabetical order.

COMMAND EDITOR NOT AVAILABLE

The Command Editor is disabled for this session because S2KLIB is not available.

CURRENT PAGE = *nnn*, LAST PAGE = *kkk*

This message appears in response to a P,T command.

ERROR ACCESSING S2KCOM FILE

An S2KCOM file access attempt received a bad return code. Verify that S2KCOM is defined to CICS correctly, and that you are using the correct S2KCOM file.

*** ERROR * - KEY OTHER THAN ENTER WAS DEPRESSED**

NOTE: RE-ENTER ALL FIELDS-> THEN PRESS ENTER KEY

When you sign on by using the S2KU screen, the only valid key is the ENTER key. If you press any other key, you will receive this message.

EXCEEDED S2K TP TERMINAL TABLE SPACE

The SYSTEM 2000 execution parameter TPSCRUNS determines the maximum number of TP SCF users. This message means that the limit was exceeded. One of the current users must sign off before a new user can sign on.

*** ERROR * - EXCLUSIVE USE RESPONSE NOT YES OR NO**

On the sign-on screen, YES or NO are the only valid values for specifying exclusive use of a database.

INVALID PAGING REQUEST

You entered an invalid paging function.

INVALID SVC REQUEST CODE

A problem exists in the CICS interface or in SYSTEM 2000 software. Contact SYSTEM 2000 Technical Support.

INVALID URB FOR THIS CALL

A problem exists in the CICS interface or in SYSTEM 2000 software. Contact SYSTEM 2000 Technical Support.

*** ERROR * - MISSING OR INCORRECT DATABASE FIELD**

The sign-on screen requires a valid database name. Re-enter all required fields.

*** ERROR * - MISSING OR INCORRECT USER FIELD**

The sign-on screen requires a valid user password. Re-enter all required fields.

MULTI-USER TP BUSY TRY AGAIN

The number of users concurrently processing a command exceeds the number of slots provided by the TPTHREADS execution parameter. If this message appears frequently, you should increase the value of the TPTHREADS execution parameter. For details about the TPTHREADS execution parameter, see the *SYSTEM 2000 Software: Product Support Manual*.

MULTI-USER TP NOT ACTIVE

Either Multi-User software is not active or the STARTTP execution parameter was set to NO and the STARTTP operator command was not issued to Multi-User.

*** ERROR * - MUTUALLY EXCLUSIVE KEYWORDS USED**

You incorrectly responded YES in both the new database field and the exclusive use field for an existing database on the sign-on screen. You must re-enter all required fields, and enter YES only where appropriate.

*** ERROR * - NEW DATABASE RESPONSE NOT YES OR NO**

The only valid response to the NEW DATABASE field on the sign-on screen is either YES or NO. The default is NO.

NO OUTPUT TO AUTOPAGE

A request to autopage was received after all the pages were displayed.

NO SUCH SVC RETURN CODE

An unknown SVC return code has been received. Contact SYSTEM 2000 Technical Support.

***** NO USERS FOUND *****

A request to list all SCF, all PLEX, or 'all' users failed, because no active user IDs were found in the URBs or in the STACE table for SCF.

******* PAGE BUFFER FULL - NO MORE DISPLAY *******

All the pages allocated to the paging process are filled, and no more data can be processed. The pages already built might not contain all of the output for the command.

PAGE MODIFICATION SUCCESSFUL

is an *informative* message. It appears in response to a paging-modification command for a 3270-type terminal.

P,LMAX=nnnn P,PAGE=nnn P,LINE=nnn

PAGING MODE DISABLED

This message appears in response to a P,D command. Paging was disabled.

QUEUE ID ERROR ON READ

Expected member on the paging queue is unavailable.

PAGING MODE ENABLED

This message appears in response to a P,E command. Paging was enabled.

REQUEST CANCELLED - S2KTP BEING QUIESCED

The console operator gave a CANCEL S2K command to SYSTEM 2000, and Multi-User is going down. New users cannot sign on.

REQUESTED PAGE OUT OF RANGE

You requested a page beyond the last available page.

S2K TP BUSY . . . NO URBS AVAILABLE - TRY AGAIN

All SCF user request blocks (URBs) are assigned to terminals, and another SCF user requested a URB. URBs are re-usable and are made available at the completion of an SCF command.

S2K TP BUSY - NO PCI BLOCKS - TRY AGAIN

The GENPCI macro in TPUPCI did not generate enough Paging Control Information (PCI) blocks. PCI blocks are not re-usable.

S2KK001 - INVALID OPTION, MUST BE S2KU, S2KE, S2OP

An option was found in the input that does not match one of the expected options. Correct the error and try again.

S2KK002 - INVALID SBA PARSED IN INPUT

A Set Buffer Address (SBA) parsed in the input data stream is not one of the expected SBAs. Contact SYSTEM 2000 Technical Support.

S2KK003 - NO DATA FOLLOWING VALID SBA

An acceptable SBA was found in the input but no data was associated with it. Try the S2KK transaction again.

S2KK004 - DELETE PROCESSING COMPLETE

A request to delete current PF key settings for a particular environment is complete, and the PF key settings have returned to the defaults.

S2KK005 - INVALID COMMON AREA IDENTIFIED

The work area that was passed to the S2KPFKY program did not fit one of the expected formats. Contact SYSTEM 2000 Technical Support.

S2KK006 - ERROR ON REWRITE TO S2KLIB

An error condition was reported while S2KK was trying to update a PF key member that existed on the S2KLIB data set. Contact SYSTEM 2000 Technical Support.

S2KK007 - ERROR ON REWRITE TO TEMP STORAGE

An error condition was reported while S2KK was trying to update a PF key member that existed on the CICS temporary storage facility. Contact SYSTEM 2000 Technical Support.

S2KK008 - ERROR TRYING TO WRITE TO S2KLIB AND TEMP STORAGE

An error condition was reported while S2KK was trying to write an original member to either the S2KLIB data set or to CICS temporary storage. Contact SYSTEM 2000 Technical Support.

S2KK010 - NORMAL END OF PROCESSING

S2KK processing has terminated.

S2KK022 - INVALID TRANSACTION ID PARSED

The transaction ID found in the input message was not as expected. Correct it and try the transaction again.

S2KLIST 001 - INVALID PARAMETER ON INPUT

The parser found a parameter that was either unrecognizable or unexpected in the input.

S2KLIST 002 - PAGING PROCESSING FAILED

The paging processor received a return code that indicated that an error condition was encountered.

S2KLIST 003 - NO PCI BLOCKS AVAILABLE

Paging control information (PCI) blocks are not available for use by this transaction. Try the transaction again; the PCI blocks are re-usable.

S2KLIST 004 - UNSUPPORTED TERMINAL TYPE

The terminal type that was indicated by the CICS control blocks is not supported by the interface.

S2KLIST 005 - END OF LIST PROCESSING

List processing is complete.

TERMINAL ALREADY ACTIVE IN MULTI-USER

Multi-User is currently processing a command for this user.

TERMINAL EXIT PROCESSED

An SCF "EXIT:" command was received and processed. This is the logical end of the SCF session.

TRANSACTION NOT ALLOWED HERE

The input transaction may not be issued from the current screen or session.

UNKNOWN ERROR POSTED BY TP HANDLER

A problem exists in the interface to CICS or in SYSTEM 2000. An SCF user was probably terminated by SYSTEM 2000 software.

WHAT?

The CICS interface received a zero-length message during a TP SCF session.

Terminate Transaction Messages

The terminate transactions can receive the following messages:

S2KTERM - 01 PROCESSING COMPLETE FOR TERMINATE TRANSACTION

is an *informative* message. It indicates the successful completion of a terminate request.

S2KTERM - 02 INVALID INPUT, PLEASE CHECK SYNTAX

The parser found a parameter in the input that was either unrecognizable or unexpected.

S2KTERM - 03 USER ID SPECIFIED NOT FOUND

The user ID specified in the terminate command was not active in the interface.

S2KTERM - 04 TRAN CODE IS INVALID

The transaction that initiated S2KTERM is invalid.

S2KTERM - 05 TERMINATE DONE, NO USERS TO LIST

The termination request has been processed, and there are no users left in the interface to list.

Command Editor Messages

The software can issue these messages when you use the Command Editor:

S2E000 NULL EDIT COMMAND. REENTER.
 S2E001 UNRECOGNIZED EDITOR COMMAND.
 S2E002 INVALID KEYWORD.
 S2E003 MEMBER NOT FOUND. ASSUMED NEW.
 S2E004 INVALID WRITE PASSWORD.
 S2E005 INVALID READ PASSWORD.
 S2E006 LIBRARY NOT FOUND.
 S2E007 INVALID MODIFY INPUT.
 S2E008 VALUE NOT FOUND IN TABLE.
 S2E009 INVALID PARAMETER VALUE.
 S2E011 AID WRITE FAILURE.
 S2E012 AID STORAGE ERROR.
 S2E013 VSAM BROWSE ERROR.
 S2E014 NO CONTROL RECORD.
 S2E015 CONTROL RECORD STORAGE ERROR.
 S2E016 BAD CONTROL RECORD WRITE.
 S2E017 GET AREA FAILED FOR NEW MEMBER.
 S2E018 POINTER MANIPULATION ERROR.
 S2E019 MEMBER NOT RETRIEVED.
 S2E020 MODIFY NOT VALID.
 S2E021 DELETE NOT VALID.
 S2E025 MEMBER NOT FOUND.
 S2E026 INVALID MEMBER TYPE.
 S2E027 EMPTY MEMBER.
 S2E028 MAXIMUM LINES EXCEEDED.
 S2E029 EMPTY LIBRARY.
 S2E030 TEXT NOT FOUND.
 S2E031 S2KLIB REWRITE FAILURE.
 S2E032 S2KLIB WRITE FAILURE.
 S2E033 USE S2KK FOR PF KEY PROCESSING.
 S2E999 INVALID ERROR CODE.

Messages for the TSO User

Each WTO message to the TSO user means that the input message was not processed. If the error was caused by heavy activity or not enough control blocks, the message TRY AGAIN appears. The error is temporary.

The messages are listed here in numerical order.

S2K3201/00- MULTI-USER SCF TP NOT ACTIVE - PLEASE RETRY -

Either Multi-User was not active or STARTTP=NO was specified in S2KPARMS, but the STARTTP operator command was not issued.

S2K3202/00- INVALID SVC REQUEST CODE -

Contact SYSTEM 2000 Technical Support to report a possible problem in the TP interface or in SYSTEM 2000.

S2K3203/00- INVALID URB -

Contact SYSTEM 2000 Technical Support to report a possible problem in the TP interface or in SYSTEM 2000.

S2K3204/00- INVALID ENTRY IN SVC TABLE -

If this message appears when you try to sign on to SYSTEM 2000, CLEARS2K was not run prior to bringing up SYSTEM 2000. If it appears during a TP session, it indicates a problem in the TP interface or SYSTEM 2000. Contact SYSTEM 2000 Technical Support.

S2K3205/00- MULTI-USER TP SCF BUSY- ...PLEASE RETRY -

The number of users concurrently processing a command exceeded the number of SVC slots provided by the TPUSERS Type 2 SVC parameter or the TPTHREADS execution parameter. If this message appears frequently, increase the values of these parameters. See the MU parameter specification in the *SYSTEM 2000 Software: Product Support Manual*.

S2K3206/00- COPY AREA SPACE NOT AVAILABLE -

FPTPSYS=NO was specified for a VS system. See the MU parameter specification in the *SYSTEM 2000 Software: Product Support Manual*.

S2K3207/00- TP SCF TERMINAL TABLE SIZE EXCEEDED -

The SYSTEM 2000 TPSCRUN execution parameter determines the maximum number of TP SCF users. That maximum was exceeded. You can sign on after another user signs off.

S2K3208/00- TP SCF BEING QUIESCED - REQUEST CANCELED -

The operator gave a 'CANCEL S2K' or 'CANCEL TP' command to SYSTEM 2000, and Multi-User is going down. New users cannot sign on.

S2K3209/00- UNKNOWN ERROR POSTED BY TP SCF HANDLER -

Contact SYSTEM 2000 Technical Support to report a possible problem in the TP interface or in SYSTEM 2000.

S2K3210/00- TERMINAL EXIT PROCESSED -

A SYSTEM 2000 EXIT command was processed for the terminal, and control was returned to TSO.

S2K3212/00- SYSTEM 2000 INTERACTIVE INTERFACE READY -

The initial CALL SYS2KTSO command was accepted. You can issue the USER command.

S2K3213/00- WHAT? -

The interface received a zero-length message during a TP SCF session.

S2K3214/00- STAE INITIALIZATION FAILED -

The interface could not initialize an ESTAE exit to trap system abends in the interface. This failure caused the interface to terminate. Contact SYSTEM 2000 Technical Support.

S2K3215/00- ENTER SYSTEM 2000 COMMANDS -

Either the interface received a zero-length message, or you pressed the BREAK key when the interface was waiting to receive input for SYSTEM 2000. You should enter SYSTEM 2000 commands.

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