

IBM Tivoli Asset Discovery for z/OS
Version 8 Release 1

*Troubleshooting, Messages, and
Reference Guide*



Note

Before using this information and the product it supports, read the information in "Notices" on page 99.

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Chapter 1. Troubleshooting, messages, and support

To isolate and resolve problems with your IBM® software, you can use the troubleshooting, messages, and support information. This information contains instructions for using the problem determination resources that are provided with your IBM products.

Troubleshooting a problem

Troubleshooting is a systematic approach to solving a problem. The goal of troubleshooting is to determine why something does not work as expected and how to resolve the problem.

The first step in the troubleshooting process is to describe the problem completely. Problem descriptions help you and the IBM technical-support representative know where to start to find the cause of the problem. This step includes asking yourself basic questions:

- What are the symptoms of the problem?
- Where does the problem occur?
- When does the problem occur?
- Under which conditions does the problem occur?
- Can the problem be reproduced?

What are the symptoms of the problem?

When starting to describe a problem, the most obvious question is “What is the problem?” This question might seem straightforward; however, you can break it down into several more-focused questions that create a more descriptive picture of the problem. These questions can include:

- Who, or what, is reporting the problem?
- What are the error codes and messages?
- How does the system fail? For example, is it a loop, hang, crash, performance degradation, or incorrect result?

The answers to these questions typically lead to a good description of the problem, which can then lead you a problem resolution.

Two main ways to approach any problem you encounter are understanding messages and using log files.

Messages

Messages are issued when unexpected events occur. Messages can have any of these severities:

Informational

The message confirms an event that was requested or describes another normal occurrence. Informational messages generally do not require any action. The identifier of an informational message ends with the letter I.

Warning

The message describes an event that might indicate a problem. Read the

message text and determine whether the event is normal or a problem. The identifier of a warning message ends with the letter W.

Error The message describes an event that requires a response. Read the message description and the suggested response. The identifier of an error message ends with the letter E.

Severe Error

The message describes an event that requires a response. Read the message description and the suggested response. The identifier of an error message ends with the letter S.

Unrecoverable Error

The message indicates that an unrecoverable error was encountered and no requests were processed. Read the message description. The identifier of an error message ends with the letter U.

You can find a message description easily by entering its identifier into the Search box in the information center.

Problems and solutions

Solution information helps you to understand the causes of an issue with your product and learn what to do to diagnose or resolve the problem.

Resolving SQLCODE -805 errors

If you receive a SQLCODE -805 error, operational jobs fail.

Symptoms

Tivoli® Asset Discovery for z/OS® operational jobs are failing.

Causes

The DSNACLI plan is not bound with the latest DB2® maintenance package, or the plan references a missing package.

Diagnosing the problem

Check the log files for error messages in the Tivoli Asset Discovery for z/OS operational jobs. The following log entry provides an example of the failure of the DSNCLIQR package:

```
Native Error Code: -805
{DB2 FOR OS/390}{ODBC DRIVER}{DSN10015}
  DSNT408I SQLCODE = -805,
ERROR:  DBRM OR PACKAGE NAME DBA2..DSNCLIQR.18F920E31-
        3F8F1D9
NOT FOUND IN PLAN DSNACLI. REASON 03
```

Resolving the problem

System administrator response: Rerun DSNTIJCL from hlq.SDSNSAMP for all packages that the DSNACLI plan requires to be bound at the same time. The list of packages is slightly different for each release of DB2 for z/OS.

System administrator response: Ensure that the DSNAOCLI package has the following parameters:

```
BIND PACKAGE (DSNAOCLI) MEMBER(DSNCLIMS) -
  CURRENTDATA(YES) ENCODING(EBCDIC)
  SQLERROR(CONTINUE)
```

Insufficient space in the DB2 work file database

When processing large amounts of data, you can encounter insufficient space in the DB2 work file database.

Symptoms

Tivoli Asset Discovery for z/OS operational jobs are failing.

Causes

When you run SQL queries that process large amounts of data, including sorts and joins, there is insufficient space in the work file database that is used for temporary storage.

Diagnosing the problem

Database administrator response: Check for examples of following messages in the DB2 MSTR address space:

```
DSNT501I -DE91 DSNIXWKF RESOURCE UNAVAILABLE 553
CORRELATION-ID=XXXXXX
CONNECTION-ID=DB2CALL
LUW-ID=AUIBMQXP.OMU1DE81.C4729058740C=0
REASON 00C900A5
TYPE 00000230
NAME 4K
DSNT501I -DE91 DSNIWKFL RESOURCE UNAVAILABLE 554
CORRELATION-ID=XXXXXX
CONNECTION-ID=DB2CALL
LUW-ID=AUIBMQXP.OMU1DE81.C4729058740C=0
REASON 00C90084
TYPE 00000230
NAME 4K
```

Database administrator response: View and check the sizes and extents of the physical data sets allocated to the table spaces in the work file database.

Resolving the problem

Database administrator response: Increase the sizes of the table spaces associated with the work file database. The sample DB2 hlq.SDSNSAMP(DSNTIJTM) job provides examples of how to increase the sizes of the table spaces.

Preventing timeouts and deadlocks during Inquisitor or Usage imports

To prevent timeouts or deadlocks, batch import jobs from the Inquisitor or the Usage Monitor require exclusive access to tables in the Repository database.

Symptoms

Tivoli Asset Discovery for z/OS operational jobs for Inquisitor or Usage import are failing.

Causes

When running Inquisitor import or Usage import batch jobs, multiple users using the Analyzer to access the Repository database can lead to timeouts or deadlocks. These batch jobs require exclusive accesses to the data in the tables. SQLCODE -904 error occurs with reason code 00C90083 or reason code 00C9008E.

Diagnosing the problem

Database administrator response: Check for examples of following messages in the DB2 MSTR address space:

```

DSNT501I  - DSNIDBET RESOURCE UNAVAILABLE  656
              CORRELATION-ID=AAAAAA
              CONNECTION-ID=DB2CALL
              LUW-ID=NETA.GGGGGG.UUUUD99=81188
              REASON 00C90083
              TYPE 00000200
              NAME XXXXXX.YYYYY

```

```

DSNT501I  - DSNIDBET RESOURCE UNAVAILABLE  656
              CORRELATION-ID=BBBBB
              CONNECTION-ID=DB2CALL
              LUW-ID=NETA.GGGGGG.IIIII222=81188
              REASON 00C9008E
              TYPE 00000200
              NAME XXXXXX.YYYYY

```

Resolving the problem

Database administrator response: You can perform one or more of the following changes to resolve the issue:

- Run these jobs during off-peak periods.
- Reduce the number of users that need to use the Analyzer during peak periods.
- Reduce the value of the COMMIT=1000 attribute to COMMIT=500 in PARMLIB members HSIQIP1 and HSIUIP1.
- Define the DSNACLI plan and the dependent packages to use uncommitted reads.
 - Modify all packages and plan in hlq.SDSNSAMP(DSNTIJCL) to have ISOLATION(UR) and then run the job.
 - When you change the settings for DSNACLI, ensure that this plan is not used by other applications or create the plan with a different name.
 - By setting ISOLATION(UR), when you run Analyzer reports, it is likely that the correct or latest information is not be displayed due to concurrency issues in DB2.

Updating your Global Knowledge Base (GKB) database

Tivoli Asset Discovery for z/OS provides a monthly update to the GKB that you can download from Fix Central. When you run the Inquisitor import, product identification is up-to-date if the latest copy of the GKB database is referenced.

Symptoms

Products displayed in the Analyzer reports are not correct.

Causes

The GKB database does not contain the latest updates

Diagnosing the problem

Operator response: Check the Analyzer reports to determine the accuracy of the products displayed. In the Analyzer Administration tab check the IQ Import logs report where the GKB version for each HSIQIM job run is displayed.

Database administrator response: To verify the latest version of the GKB database, check the log in HSIQIM job for GKB Version = yymmdd. yymmdd represents the version of GKB monthly update that is applied at your site.

Resolving the problem

System administrator response: Download the latest GKB monthly update file from Fix Central and apply it in your environment.

Applying updates of the GKB database:

Monthly Global Knowledge Base (GKB) updates are available on Fix Central. After you download an update file, you run the GKB load job to apply the updates to your environment.

Procedure

1. Login to Fix Central with a valid IBM user ID and password.
2. Specify the following values:

Field	Value
Product Family	Tivoli
Product	IBM Tivoli Asset Discovery for z/OS
Installed Version	8.1.0
Platform	z/OS

3. Display all fixes. The format of the fix is 8.1.0 Tiv-TADZ-z0S-LV020215. The last six digits signify the fix level and is in YYMMDD format.
4. Select the most recent version of the GKB update file, and download the file as binary. The name of the update file is TADZ81KB.XMI.
5. Upload the TADZ81KB.XMI file to the mainframe to a preallocated file with the attributes FB 80.
6. After the file is uploaded, receive the file, RECEIVE INDATASET(TADZ81KB.xmi).
7. When prompted for additional information enter, DA(filename).
8. In the GKB load job, HSI SGKBL, update the SET INDSN= value with the name of the file that you received, and then submit the job.

Overcoming space limits for very large DB2 sites

For very large DB2 sites where the space for usage data can exceed 64GB, you can overcome this limit by defining the VUSEMTD table space as a partition-by-growth table space.

Symptoms

The Tivoli Asset Discovery for z/OS HSI SUIMP operational job fails.

Causes

This issue can occur for the following reasons:

- Retaining too much usage data for long periods and not performing regular housekeeping tasks.
- Importing all usage data into a single repository instead of spreading the usage data across multiple repositories.

Diagnosing the problem

Database administrator response:

- Run the Database Statistics report from the **Administration** tab in the Analyzer online and check the statistics for the VUSEMTD table space and dependent objects.
- From ISPF, enter &SGBIGCAT.DSNDBD.&DB.VUSEMTD to list the physical allocation of the VUSEMTD table space.

Resolving the problem

Database administrator response:

You can configure the VUSEMTD table space as a partition-by-growth table space and introduce regular database housekeeping tasks to resolve the problem. Configuring the table space as a partition-by-growth table space has the following prerequisites:

- You are running DB2 for z/OS version 9 or later, with new function mode.
- To specify a value greater than 4G, the following conditions must be true:
 - DB2 is running with DFSMS Version 1 Release 5.
 - The data sets for the table space are associated with a DFSMS data class that has been specified with extended format and extended addressability.

The configuration is a significant task that requires appropriate preparation. Your environment must meet the prerequisites and you need to prepare an implementation plan before you proceed with the following task:

1. Run DB2 Runstats on the VUSEMTD table space.
2. Run the Database Statistics report from the **Administration** tab in the Analyzer online and keep a copy of the results.
3. Run the DB2 Unload utility to unload the TUSEMTD table.
4. Drop the VUSEMTD table space.
5. Create a VUSEMTD table space as a partition-by-growth table space.
6. Change the values for the table space based on site requirements. Refer to the sample definition.
7. Create the TUSEMTD table and dependent indexes. Definitions are available in the HSISSQ18 member in the PARMLIB.
8. Run the DB2 Load utility to load the TUSEMTD table.
9. Run DB2 Runstats on the VUSEMTD table space.
10. Run the Database Statistics report from the **Administration** tab on the Analyzer online.
11. Compare the number of records for the TUSEMTD table and its dependent indexes against the earlier Analyzer report. The results must be identical.

The following code provides a sample definition for partition-by-growth table space:

```
CREATE TABLESPACE VUSEMTD
  IN TADZREP1
  USING STOGROUP SGHSIBIG
  PRIQTY 140000
  SECQTY -1
  ERASE NO
  DSSIZE 4G
  MAXPARTITIONS 64
  LOCKSIZE PAGE LOCKMAX SYSTEM
  BUFFERPOOL BP1 SEGSIZE 64
  CLOSE NO
  CCSID EBCDIC;
COMMIT;
```

Database administrator response:

Perform regular maintenance, including the following activities:

1. Run the following jobs on a regular basis to delete old usage data, to save space, and to improve processing time:
 - a. Run the HSIUDELM job to delete usage data that is older than a specified period.

- b. Run the HSISSUM job to summarize usage data and compress records into monthly periods.
2. Run the HSIISLDEL job to delete obsolete discovery and usage data for a specified system (LPAR).

Tivoli Asset Discovery for z/OS messages

You can identify the type of message by the message prefix.

HSIA - Automation Server messages

Return codes

Table 1. Return codes and their meaning

Return code	Description
0	No errors encountered. All requests processed successfully.
16	Unrecoverable error. No requests processed. SYSIN or HSIPZIP or INQSOUT File cannot be used, or unsupported operating system.

Message suffix codes

Table 2. Message suffix codes and associated condition codes

Suffix	Meaning	Raises minimum condition code to:
I	Information message	0
W	Warning message	4
E	Error message	8
S	Severe error message	12
U	Unrecoverable error message	16, 20

Message texts and explanations

All numeric completion codes of system services reported in these messages are in hexadecimal unless otherwise stated.

HSIA001E EXPECTED CLOSE PARENTHESIS WAS NOT FOUND IN INPUT RECORD

Explanation: Parsing did not detect the expected close parenthesis.

System action: Terminates the processing of the HSIAPARM member contents.

Operator response: Correct the HSIAPARM member contents.

System programmer response: None.

Module: HSIAUTO HSIADSN

Explanation: No subparameter value was specified within the parentheses.

In the message text:

parm

name of parameter being processed.

System action: Terminates the processing of the HSIAPARM member contents.

Operator response: Correct the HSIAPARM member contents.

System programmer response: None.

Module: HSIAUTO HSIADSN

HSIA002E EXPECTED VALUE FOR *parm* NOT FOUND BEFORE THE CLOSE PARENTHESIS

HSIA003E THE *parm* PARAMETER IS NOT RECOGNIZED

HSIA004E • HSIA010E

Explanation: A parameter was detected which is not valid for the type of statement being processed.

In the message text:

parm

name of parameter being processed.

System action: Terminates the processing of the HSIAPARM member contents.

Operator response: Correct the HSIAPARM member contents.

System programmer response: None.

Module: HSIAUTO

HSIA004E THE VALUE SPECIFIED FOR *parm* IS INVALID

Explanation: The named parameter had a value which did not conform to syntax requirements.

In the message text:

parm

name of parameter being processed.

System action: Terminates the processing of the HSIAPARM member contents.

Operator response: Correct the HSIAPARM member contents.

System programmer response: None.

Module: HSIAUTO

HSIA005E NO "FTP" OR "JOB" STATEMENT BEFORE "DSN" STATEMENT

Explanation: There is no preceding action to relate the dsname mask to.

System action: Terminates the processing of the HSIAPARM member contents.

Operator response: Correct the HSIAPARM member contents.

System programmer response: None.

Module: HSIAUTO HSIADSN

HSIA006E *parm* IS AN UNRECOGNIZED STATEMENT TYPE

Explanation: A statement type other than FTP, JOB, or DSN was specified.

In the message text:

parm

name of parameter.

System action: Terminates the processing of the HSIAPARM member contents.

Operator response: Correct the HSIAPARM member contents.

System programmer response: None.

Module: HSIAUTO HSIADSN

HSIA007E TERMINATING - AUTOMATION SERVER IS ALREADY ACTIVE

Explanation: The Automation Server is already running. Only one concurrent copy can run in an operating system image.

System action: Program terminates with condition code 16. The established Automation Server continues.

Operator response: None.

System programmer response: None.

Module: HSIAUTO

HSIA008E TERMINATING - COULD NOT INITIALISE WITH BAD PARAMETERS

Explanation: The HSIAPARM contents contained an error so the Automation Server could not initialize.

System action: The program terminates with condition code 16.

Operator response: Correct the HSIAPARM member contents.

System programmer response: None.

Module: HSIAUTO HSIADSN

HSIA009E REFRESH IGNORED - COULD NOT PROCESS BAD PARAMETERS

Explanation: The HSIAPARM contents contained an error so the Automation Server could not update its operational parameters.

System action: Terminates the processing of HSIAPARM contents.

Operator response: Correct the HSIAPARM member contents.

System programmer response: None.

Module: HSIAUTO HSIADSN

HSIA010E NO FUNCTIONS WERE REQUESTED

Explanation: No actions were specified. The Automation Server has no work to do.

System action: Terminates the processing of HSIAPARM contents.

Operator response: Correct the HSIAPARM member contents.

System programmer response: None.

Module: HSIAUTO HSIADSN

HSIA011E NO DATA SET NAME MASKS WERE SPECIFIED

Explanation: No work was requested. The Automation Server has no work to do.

System action: Terminates the processing of HSIAPARM contents.

Operator response: Correct the HSIAPARM member contents.

System programmer response: None.

Module: HSIAUTO HSIADSN

HSIA012E NUMBER OF ACTIONS EXCEEDS MAXIMUM OF 1000

Explanation: Too many actions were requested.

System action: Terminates the processing of HSIAPARM contents.

Operator response: Reduce the number of actions specified.

System programmer response: None.

Module: HSIAUTO HSIADSN

HSIA013E NUMBER OF DATA SET NAME MASKS EXCEEDS THE MAXIMUM OF 2000

Explanation: Too many dataset name masks were specified.

System action: Terminates the processing of HSIAPARM contents.

Operator response: Reduce the number of dataset name masks.

System programmer response: None.

Module: HSIAUTO HSIADSN

HSIA014E MEMBER *mbr* WAS NOT FOUND IN THE HSIACNTL FILE

Explanation: Member HSIAPARM was found to be missing from the HSIACNTL file.

In the message text:

mbr
name of missing member.

System action: Terminates the processing of the member. If the member is HSIAPARM the Automation Server terminates. For template members the Automation Server continues processing.

Operator response: Create the required member in the HSIACNTL library.

System programmer response: None.

Module: HSIAUTO HSIADSN

HSIA015E INPUT LOGICAL RECORD LENGTH WAS NOT 80

Explanation: A record was read from the HSIACNTL library which was not 80 bytes long.

System action: The program terminates and takes no actions.

Operator response: Ensure the HSIACNTL library only contains fixed length 80 byte records.

System programmer response: None.

Module: HSIAUTO HSIADSN

HSIA016E EXPECTED OPEN PARENTHESIS WAS NOT FOUND IN INPUT RECORD

Explanation: Parsing did not detect the expected open parenthesis.

System action: Terminates the processing of the HSIAPARM member contents.

Operator response: Correct the HSIAPARM member contents.

System programmer response: None.

Module: HSIAUTO

HSIA017E VALUE SPECIFIED FOR *parm* IS TOO LONG

Explanation: A parameter value was specified which has a length greater than the maximum allowed for the named parameter.

In the message text:

parm
name of parameter.

System action: Terminates the processing of the HSIAPARM member contents.

Operator response: Correct the HSIAPARM member contents.

System programmer response: None.

Module: HSIAUTO HSIADSN

HSIA018E THE "NOTA" VALUE IS LESS THAN THE "NOTB" VALUE

Explanation: The action can never be performed because all days of the month have been excluded by the combination of the NOTA (not after) and NOTB (not before) specifications.

System action: Terminates the processing of the HSIAPARM member contents.

Operator response: Correct the HSIAPARM member contents.

System programmer response: None.

Module: HSIAUTO

**HSIA019I AUTOMATION SERVER
 INITIALIZATION COMPLETE**

Explanation: The Automation Server is commencing normal operations.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Module: HSIAUTO

**HSIA020I AUTOMATION SERVER HAS NOW
 TERMINATED**

Explanation: The Automation Server is ceasing normal operations.

System action: Processing concludes.

Operator response: None.

System programmer response: None.

Module: HSIAUTO

**HSIA999U HSIMSG/HSIAMSG FAILURE -
 MSGID=msgid RC=rc RS=rs**

Explanation: HSIMSG was called to produce a message text, but the call failed.

In the message text:

msgid
 identifier of the failing message.

rc HSIMSG return code.

HSIF - Conversion messages

Return codes

Table 3. Return codes and their meaning

Return code	Description
0	No errors encountered. All requests processed successfully.
4	Input/Output error in one or more program libraries.
8	Error - Incomplete data. Processing continues. OPEN or other system service error.
12	Syntax error.
16	Unrecoverable error.
20	Disastrous error. No requests processed. SYSPRINT file cannot be used.

Message suffix codes

Table 4. Message suffix codes and associated condition codes

Suffix	Meaning	Raises minimum condition code to:
I	Information message	0
W	Warning message	4
E	Error message	8
S	Severe error message	12
U	Unrecoverable error message	16

Message texts and explanations

All numeric completion codes of system services reported in these messages are in hexadecimal unless otherwise stated.

**HSIF000U PROCESSING TERMINATED - NO
 USABLE SYSPRINT FILE**

Explanation: The OPEN of the SYSPRINT file failed.

Note: This message is issued by WTO with ROUTCDE=(2,11).

System action: Terminates with a condition code of 20.

Operator response: Ensure a usable SYSPRINT file is allocated.

System programmer response: None.

Module: HSIIM2D HSIIS2D

**HSIF001S PROCESSING TERMINATED -
STORAGE OBTAIN ENCOUNTERED
AN ERROR, RC=*rc***

Explanation: Unable to acquire required amount of storage.

In the message text:

rc return code from STORAGE macro.

System action: Terminates with a condition code of 16.

Operator response: None.

System programmer response: Try increasing the region size specified in the region parameter on the JOB or EXEC statement in the JCL for the job. For additional information, examine the return code shown in the message and use for problem determination/resolution.

Module: HSIIM2D

**HSIF002S PROCESSING TERMINATED - DD
FOR SYSPRINT MISSING**

Explanation: DD statement missing for SYSPRINT.
Note: This message is issued by WTO with ROUTCDE=(2,11).

System action: Terminates with a condition code of 20.

Operator response: Ensure DD statement in the JCL is correct.

System programmer response: None.

Module: HSIIM2D HSIIS2D

**HSIF004S PROCESSING TERMINATED -
CANNOT OPEN FILE "*file*"**

Explanation: The OPEN of the file failed.

In the message text:

file
 name of file that failed the OPEN request.

System action: Terminates with a condition code of 16.

Operator response: Ensure a usable file is allocated.

System programmer response: None.

Module: HSIIM2D HSIIS2D

**HSIF005S PROCESSING TERMINATED - DD
FOR FILENAME "*file*" MISSING**

Explanation: DD statement missing for the file.

In the message text:

file
 name of file with missing DD statement.

System action: Terminates with a condition code of 16.

Operator response: Ensure DD statement in the JCL is correct.

System programmer response: None.

Module: HSIIM2D HSIIS2D

**HSIF007S PROCESSING TERMINATED -
INVALID SYSIN PARAMETER**

Explanation: Parsing detected an invalid parameter.

System action: Terminates with a condition code of 12.

Operator response: The final parameter displayed in the SYSPRINT report is in error. Correct the SYSIN file contents and rerun the program.

System programmer response: None.

Module: HSIIM2D HSIIS2D

**HSIF008S PROCESSING TERMINATED -
INVALID SYSIN PLX= PARAMETER.
MUST BE Y OR N**

Explanation: The SYSIN PLX= parameter must be set to Y or N.

System action: Terminates with a condition code of 12.

Operator response: Correct the SYSIN file contents and rerun the program.

System programmer response: None.

Module: HSIIM2D HSIIS2D

**HSIF009S PROCESSING TERMINATED -
INVALID SYSIN SYSPLEX=
PARAMETER. THE SYSPLEX NAME
MUST BE ENTERED**

Explanation: The SYSIN SYSPLEX NAME must be entered.

System action: Terminates with a condition code of 12.

HSIF010S • HSIF016S

Operator response: Correct the SYSIN file contents and rerun the program.

System programmer response: None.

Module: HSIIM2D

**HSIF010S PROCESSING TERMINATED -
INVALID SYSIN SSID= PARAMETER.
THE SMF SYSTEM IDENTIFIER MUST
BE ENTERED**

Explanation: The SYSIN SSID= parameter must be entered.

System action: Terminates with a condition code of 12.

Operator response: Correct the SYSIN file contents and rerun the program.

System programmer response: None.

Module: HSIIM2D HSIIS2D

**HSIF011S PROCESSING TERMINATED -
INVALID SYSIN SSMF= PARAMETER.
THE SMF SYSTEM IDENTIFIER MUST
BE ENTERED**

Explanation: The SYSIN SSMF= parameter must be entered.

System action: Terminates with a condition code of 12.

Operator response: Correct the SYSIN file contents and rerun the program.

System programmer response: None.

Module: HSIIM2D HSIIS2D

**HSIF012S PROCESSING TERMINATED -
INVALID SYSIN LPARNAME=
PARAMETER. THE LPAR NAME
MUST BE ENTERED**

Explanation: The SYSIN LPAR NAME must be entered.

System action: Terminates with a condition code of 12.

Operator response: Correct the SYSIN file contents and rerun the program.

System programmer response: None.

Module: HSIIM2D

**HSIF013S PROCESSING TERMINATED -
INVALID SYSIN SERIAL=
PARAMETER. THE SERIAL NUMBER
MUST BE ENTERED**

Explanation: The SYSIN SERIAL NUMBER parameter must be entered.

System action: Terminates with a condition code of 12.

Operator response: Correct the SYSIN file contents and rerun the program.

System programmer response: None.

Module: HSIIM2D

**HSIF014S PROCESSING TERMINATED -
INVALID SYSIN HWTYPE=
PARAMETER. THE HARDWARE TYPE
MUST BE ENTERED**

Explanation: The SYSIN HARDWARE TYPE parameter must be entered.

System action: Terminates with a condition code of 12.

Operator response: Correct the SYSIN file contents and rerun the program.

System programmer response: None.

Module: HSIIM2D

**HSIF015S PROCESSING TERMINATED -
INVALID SYSIN HWMODEL=
PARAMETER. THE HARDWARE
MODEL MUST BE ENTERED**

Explanation: The SYSIN HARDWARE MODEL must be entered.

System action: Terminates with a condition code of 12.

Operator response: Correct the SYSIN file contents and rerun the program.

System programmer response: None.

Module: HSIIM2D

**HSIF016S PROCESSING TERMINATED -
INVALID SYSIN UNM= PARAMETER.
MUST BE Y OR N**

Explanation: The SYSIN UNM= parameter must be set to Y or N.

System action: Terminates with a condition code of 12.

Operator response: Correct the SYSIN file contents and rerun the program.

System programmer response: None.

Module: HSIIM2D

**HSIF017S PROCESSING TERMINATED -
INVALID SYSIN JAC= PARAMETER.
MUST BE Y OR N**

Explanation: The SYSIN JAC= parameter must be set to Y or N.

System action: Terminates with a condition code of 12.

Operator response: Correct the SYSIN file contents and rerun the program.

System programmer response: None.

Module: HSIIM2D

**HSIF018S PROCESSING TERMINATED -
INVALID SYSIN PLANT=
PARAMETER. THE PLANT MUST BE
ENTERED**

Explanation: The SYSIN PLANT must be entered.

System action: Terminates with a condition code of 12.

Operator response: Correct the SYSIN file contents and rerun the program.

System programmer response: None.

Module: HSIIM2D

**HSIF019S PROCESSING TERMINATED -
OUTPUT HEADER NOT CREATED.
NO STATISTICS OR CAPACITY
RECORD IN INPUT FILE**

Explanation: The input file contains no Statistics or Capacity record.

System action: Terminates with a condition code of 16.

Operator response: Ensure a usable input file exists and rerun the program.

System programmer response: None.

Module: HSIIM2D

**HSIF020S PROCESSING TERMINATED -
HSIMONZP *func* FAILURE, RC=*rc***

Explanation: HSIIMONZP file processing failure.

In the message text:

func

file processing in error.

rc return code from HSIIMONZP.

System action: Terminates with a condition code of 16.

Operator response: Ensure the correct DD statements exist for the file and rerun the program. For additional

information, examine the return code shown in the message and use for problem determination/resolution.

System programmer response: None.

Module: HSIIM2D

**HSIF021S PROCESSING TERMINATED - NO DD
STATEMENT DETECTED FOR
HSIINQOT OR HSIINQZP**

Explanation: At least one of the DD statements must be included.

System action: Terminates with a condition code of 16.

Operator response: Correct the JCL and rerun the program.

System programmer response: None.

Module: HSIIS2D

**HSIF022S PROCESSING TERMINATED - *func*
FAILURE, RC=*rc***

Explanation: Processing failure.

In the message text:

func

processing in error.

rc return code.

System action: Terminates with a condition code of 16.

Operator response: None.

System programmer response: Contact IBM support.

Module: HSIIS2D

**HSIF023S PROCESSING TERMINATED -
HSIINQZP *func* FAILURE, RC=*rc***

Explanation: HSIINQZP file processing failure.

In the message text:

func

file processing in error.

rc return code.

System action: Terminates with a condition code of 16.

Operator response: None.

System programmer response: Examine the return code shown in the message and use for problem determination/resolution.

Module: HSIIS2D

HSIF024S **PROCESSING TERMINATED -**
HSIINQOT *func* **FAILURE, RC=rc**

Explanation: HSIINQOT file processing failure.

In the message text:

func

file processing in error.

rc return code.

System action: Terminates with a condition code of 16.

Operator response: None.

System programmer response: Examine the return code shown in the message and use for problem determination/resolution.

Module: HSIIS2D

HSIF025S **PROCESSING TERMINATED - TABLE**
#LPRTBL# *func* **FAILURE, RC=rc**

Explanation: Table processing failure.

In the message text:

func

table operation in error.

rc return code.

System action: Terminates with a condition code of 16.

Operator response: None.

System programmer response: Examine the return code shown in the message and use for problem determination/resolution.

Module: HSIIS2D

HSIF999U **HSIMSG/HSIFMSG FAILURE -**
MSGID=msgid RC=rc RS=rs

Explanation: HSIMSG was called to produce a message text, but the call failed.

In the message text:

msgid

identifier of the failing message.

rc HSIMSG return code.

rs HSIMSG reason code.

System action: Terminates with a condition code of 20.

Operator response: Inform the system programmer.

System programmer response: Ensure Joblib/Steplib contains the library where the HSIFMSG message module resides. If you cannot resolve this issue then contact IBM support.

Module: HSIIM2D HSIIS2D

HSII - REXX utility messages

Return codes

Table 5. Return codes and their meaning

Return code	Description
0	No errors encountered. All requests processed successfully.
4	Input/Output error in one or more program libraries.
8	Error - Incomplete data. Processing continues. OPEN or other system service error.
12	Syntax error.
16	Unrecoverable error.
20	Disastrous error. No requests processed. SYSPRINT file cannot be used.

Message suffix codes

Table 6. Message suffix codes and associated condition codes

Suffix	Meaning	Raises minimum condition code to:
I	Information message	0

Table 6. Message suffix codes and associated condition codes (continued)

Suffix	Meaning	Raises minimum condition code to:
W	Warning message	4
E	Error message	8
S	Severe error message	12
U	Unrecoverable error message	16

Message texts and explanations

All numeric completion codes of system services reported in these messages are in hexadecimal unless otherwise stated.

HSII001I READ FAILED FOR SYSIN, RC=*rc*

Explanation: The HSIICUST program could not read commands from the SYSIN DDname.

In the message text:

rc return code from EXECIO

System action: The program terminates and takes no actions.

Operator response: Correct the JCL and provide a SYSIN DD with valid control statements.

System programmer response: None.

Module: HSIICUST

prm

name of the parameter.

dft

supplied default.

System action: The program continues and uses the default as documented in the message.

Operator response: If the default value is to be overridden supply the parameter value in the HSISCUST Job SYSIN stream then resubmit.

System programmer response: None.

Module: HSIICUST

HSII002I REQUIRED PARAMETER *prm* IS MISSING FROM SYSIN

Explanation: The HSIICUST program did not find the required parm in the SYSIN supplied by the user.

In the message text:

prm

name of the parm that is missing.

System action: The program terminates and takes no actions.

Operator response: Correct the SYSIN and supply the required parm.

System programmer response: None.

Module: HSIICUST

HSII004I ALLOCATION OF DATASET *dsn* TO *dd* FAILED, RC=*rc*

Explanation: The HSIICUST program could not allocate the dataset to the ddname.

In the message text:

dsn

name of the dataset that failed allocation.

dd DD name to be allocated.

rc return code from the allocate command.

System action: The program terminates and takes no actions.

Operator response: Check the return code from the allocate command in the TSO commands manual. Correct the options and try running the program again. The probable option in error is HSIINST.

System programmer response: None.

Module: HSIICUST

HSII003I THE DEFAULT VALUE "*prm=dft*" IS BEING USED.

Explanation: The submitted HSISCUST Job SYSIN did not contain this parameter and the default value will now be used.

In the message text:

HSII005I *func* FAILED FOR *rsc*, RC=*rc*

Explanation: The HSIICUST/HSIISCR program could not perform a required ISPF function because an error occurred during the function execution.

In the message text:

func

name of ISPF function that failed.

rsc

resource that caused the failure.

rc return code from the ISPF function.

System action: The program terminates and takes no actions. The program may have written out JCL and parameter members. These members should be treated as suspect as they might contain errors in them due to the nature of this error.

Operator response: Check that the options specified do not exceed the field length requirements of the various options. If you cannot resolve this issue then gather appropriate diagnostic materials and contact IBM support.

System programmer response: None.

Module: HSIICUST HSIISCRT

HSII006I MODEL DATASET SHSISAMP HAS NOT BEEN FOUND.

Explanation: The HSIICUST program could not find the SHSISAMP dataset created during installation.

System action: The program terminates and takes no actions.

Operator response: Check that the HSI option is correctly specified and that the installation target libraries are available to the customization program.

System programmer response: None.

Module: HSIICUST

HSII007I CUSTOMIZATION TERMINATES ...

Explanation: The HSIICUST program encountered an error during execution.

System action: The program terminates and takes no further action.

Operator response: Check the previous message which will identify the component causing the problem.

System programmer response: None.

Module: HSIICUST

HSII008I *prm* PARAMETER VALUE *pval* IS > *plen* CHARACTERS.

Explanation: The HSIICUST program found a parameter value with a length greater than the allowed value for that parm.

In the message text:

prm

name of HSISCUST parameter that failed.

pval

contents of the PARM.

plen

length of Parameter value.

System action: The program terminates and takes no actions.

Operator response: Check the parameter in question and re-submit the HSISCUST JCL after correcting the length error.

System programmer response: None.

Module: HSIICUST

HSII009I *prm* DATASET *dsn* WAS NOT FOUND ON SYSTEM *system*

Explanation: The HSIICUST program found a parameter value, which requires a Dataset name. This Dataset name could not be found on the system.

In the message text:

prm

name of HSISCUST parameter that failed.

dsn

dataset name associated with the PARM.

system

Operating System name.

System action: The program terminates and takes no actions.

Operator response: Check the parameter in question and re-submit the HSISCUST JCL after correcting the DSN error.

System programmer response: None.

Module: HSIICUST

HSII010I *verb* STATEMENT VERB NOT ONE OF *list*

Explanation: During syntax parsing for a statement the verb found does not match any of the valid verbs for the program.

In the message text:

verb

word that is not a valid verb.

list

list of valid verbs.

System action: The program terminates and takes no actions.

Operator response: Update the statements to the program to correct the verb in error and supply a correct verb.

System programmer response: None.

Module: HSIKBT HSIIODEL HSIISCRT

HSII011I *word* NOT VALID FOR VERB *verb*

Explanation: During syntax parsing for a statement, a word was found that does not match the syntax of the statement for the verb that is being processed.

In the message text:

word

word that is not valid for the statement syntax for a verb.

verb

the verb of the statement that encountered the error.

System action: The program terminates and takes no actions.

Operator response: Update the statements to the program to correct the statement in error.

System programmer response: None.

Module: HSIKBT HSIIODEL HSIISCRT

HSII012I PARAMETER *prm* IS NOT A VALID HSISCUST PARAMETER

Explanation: An invalid HSISCUST SYSIN parameter has been found.

In the message text:

prm

parameter that is invalid.

System action: The program terminates.

Operator response: Remove the invalid parameter from the HSISCUST Job SYSIN then resubmit.

System programmer response: None.

Module: HSIICUST

HSII013I PARAMETER *prm* HAS A NULL VALUE

Explanation: The submitted HSISCUST Job SYSIN has encountered a parameter with a NULL value.

In the message text:

prm

name of the parameter that is null.

System action: The program terminates.

Operator response: Ensure that the HSISCUST parameter has a valid parameter value in the HSISCUST Job SYSIN then resubmit.

System programmer response: None.

Module: HSIICUST

HSII014I PARAMETER VALUE FOR *prm* HAS UNBALANCED QUOTES, PARAMETER VALUE IS *pval*

Explanation: An HSISCUST parameter contains unbalanced quotes.

In the message text:

prm

name of the parameter with unbalanced quotes.

pval

parameter value.

System action: The program terminates

Operator response: Ensure that the Parameter value is enclosed within single quotation marks then resubmit the HSISCUST Job.

System programmer response: None.

Module: HSIICUST

HSII015I DATASET *dsn stat*

Explanation: The HSIICUST program identifies the status of the output datasets that it is going to use.

In the message text:

dsn

name of output dataset.

stat

status of the output dataset.

System action: The HSIICUST program continues processing.

Operator response: Informational message, no action required.

System programmer response: None.

Module: HSIICUST

HSII016I UNMATCHED COMMENT DELIMITER IN HSISCUST STATEMENT: *stmt*

Explanation: The HSIICUST program found an error in the comment delimiters passed from the HSISCUST SYSIN stream.

In the message text:

stmt

statement where the error occurred.

System action: The program terminates and takes no actions.

Operator response: Correct the HSISCUST SYSIN statements and provide valid comment delimiters, /* */.

System programmer response: None.

Module: HSIICUST

HSII017I **PARAMETER *prm* MUST HAVE THE 1ST CHARACTER AS A VALUE BETWEEN A AND Z**

Explanation: The HSISCUST Job has encountered a parameter in the SYSIN DD stream where the 1st character is not alphabetic. This parameter value must start with a value between A and Z.

In the message text:

prm
name of the parameter that has a non alphabetic 1st character.

System action: The program terminates.

Operator response: Ensure that the HSISCUST parameter has a value between A and Z then resubmit the Job.

System programmer response: None.

Module: HSIICUST

HSII018I ***prm* VALUE *pval* MUST BE WITHIN THE VALID RANGE OF *val1* TO *val2***

Explanation: The HSIICUST program encountered a parameter that was outside the valid range of values allowed.

In the message text:

prm
name of the parameter in error.

pval
value of parameter in error.

val1
minimum value of valid range.

val2
maximum value of valid range.

System action: The program terminates and takes no actions.

Operator response: Correct the parameter in error and rerun the HSISCUST Job.

System programmer response: None.

Module: HSIICUST

HSII019I **DBTYPE MUST BE THE FIRST PARM IN THE SYSIN STREAM. CURRENT VALUE IS *prm***

Explanation: The HSIICUST program found an error in the first parameter passed from the HSISCUST SYSIN stream.

In the message text:

prm
statement where the error occurred.

System action: The program terminates and takes no actions.

Operator response: Correct the HSISCUST SYSIN statements and ensure that DBTYPE= is the first entry. Comment statements and blank lines may precede the DBTYPE= entry.

System programmer response: None.

Module: HSIICUST

HSII020I **TAILORING PARAMETERS:**

Explanation: HSIICUST progress message.

System action: The program continues.

Operator response: This is an informational progress message and no further action is required.

System programmer response: None.

Module: HSIICUST

HSII021I **CREATING POST-INSTALLATION DATASETS:**

Explanation: HSIICUST progress message.

System action: The program continues.

Operator response: This is an informational progress message and no further action is required.

System programmer response: None.

Module: HSIICUST

HSII022I **APPLYING TAILORING INFORMATION TO POST-INSTALLATION MEMBERS:**

Explanation: HSIICUST progress message.

System action: The program continues.

Operator response: This is an informational progress message and no further action is required.

System programmer response: None.

Module: HSIICUST

HSII023I **POST-INSTALLATION CUSTOMIZATION COMPLETE.**

Explanation: HSIICUST completion message.

System action: The program ends successfully.

Operator response: This is an informational progress message and no further action is required.

System programmer response: None.

Module: HSIICUST

**HSII024I PARAMETER *prm* CONTAINS AN
EXTRANEOUS VALUE: *xval***

Explanation: An HSISCUST parameter contains an extraneous value.

In the message text:

prm
name of the parameter with an extraneous value.

xval
the extraneous value(s).

System action: The program terminates

Operator response: Ensure that the Parameter value is correctly defined and that any comments are enclosed within comment delimiters.

System programmer response: None.

Module: HSIICUST

**HSII025I PARAMETER VALUE FOR *prm* MUST
BE IN QUOTES, PARAMETER VALUE
IS *pval***

Explanation: An HSISCUST parameter value contains no quotes.

In the message text:

prm
name of the parameter.

pval
parameter value.

System action: The program terminates

Operator response: Ensure that the Parameter value is enclosed within single quotation marks then resubmit the HSISCUST Job.

System programmer response: None.

Module: HSIICUST

**HSII026I PARAMETER *prm* MUST BE A VALUE
BETWEEN A-Z OR 0-9**

Explanation: The HSISCUST Job has encountered a parameter in the SYSIN DD stream where the 1st character is not alphanumeric. This parameter value must be a value between A-Z or 0-9

In the message text:

prm
name of the parameter that has a non
alphanumeric first character.

System action: The program terminates.

Operator response: Ensure that the HSISCUST parameter has a value between A-Z or 0-9 then resubmit the Job.

System programmer response: None.

Module: HSIICUST

**HSII027I *prm* VALUE *pval* FAILED. VALUE MUST
BE DB2, SQLITE OR REMOTE.**

Explanation: The HSIICUST program encountered an invalid DBTYPE value.

In the message text:

prm
name of the parameter in error.

pval
value of parameter in error.

System action: The program terminates and takes no actions.

Operator response: Correct the DBTYPE value and rerun the HSISCUST Job.

System programmer response: None.

Module: HSIICUST

**HSII028I PARAMETERS DB AND DBGKB
CANNOT HAVE THE SAME
DATABASE NAME: *db***

Explanation: The HSIICUST program found that the values of DB and DBGKB are the same.

In the message text:

db duplicate Database name.

System action: The program terminates and takes no actions.

Operator response: Correct the HSISCUST SYSIN statements and provide unique values for both DB and DBGKB.

System programmer response: None.

Module: HSIICUST

**HSII100I *prm* MISSING FROM
CONFIGURATION.**

Explanation: The utility requires the parameter in the TPARAM/SYSIN stream.

In the message text:

prm
parameter that is missing.

System action: The program terminates and takes no actions.

Operator response: Update the parameters in the TPARAM/SYSIN DD to add the missing parameter.

System programmer response: None.

Module: HSIIBT HSIODEL HSIISCRT

HSII107I *svc FROM rsc FAILED, RC=rc*

Explanation: An error has occurred executing the service for the resource specified. The service issued the return code mentioned.

In the message text:

svc

service that failed.

rsc

resource that failed.

rc return code from service.

System action: The program stops processing statements. No changes have been made.

Operator response: Report this error to the System Programmer.

System programmer response: For "EXECIO READ" service, this means that the resource specified (ddname) is missing or empty. If you cannot resolve this issue then gather appropriate diagnostic materials and contact IBM support.

Module: HSIKBT HSIODEL HSIISCR

HSII108I *SQL verb FAILED, SQLCODE=sqlcode*

Explanation: An error has occurred executing the SQL verb for the table specified.

In the message text:

verb

SQL verb and table name.

sqlcode

SQLCODE from failing statement.

System action: The program stops processing statements. The current statement changes to DB2 tables are backed out.

Operator response: Report this error to the System Programmer.

System programmer response: If you cannot resolve this issue then gather appropriate diagnostic materials and contact IBM support.

Module: HSIKBT HSIODEL HSIISCR

HSII202I *MISSING PID pid.*

Explanation: The SCRT Import utility has detected a missing PID.

In the message text:

pid

missing PID.

System action: The program continues.

Operator response: Supply IBM support with the

missing PID number and request a Global Knowledge Base (GKB) refresh.

System programmer response: None.

Module: HSIISCR

HSII300I *ERROR WRITING TO ddn.*

Explanation: The XML Export utility has a problem writing the XML file.

In the message text:

ddn

DDNAME of the file

System action: The program terminates.

Operator response: Check the Return Code and any preceding messages.

System programmer response: None.

Module: HSIKBT

HSII301I *NUMBER OF LINES WRITTEN TO SWKBTXML DD IS ocnt.*

Explanation: No. of Lines written to SWKBTXML DD by the XML Export utility.

In the message text:

ocnt

lines written to SWKBTXML DD.

System action: The program continues and takes no actions.

Operator response: Informational message, no action required.

System programmer response: None.

Module: HSIKBT

HSII302I *SQL WARNING FOR warn.*

Explanation: SQL warning was issued from a command

In the message text:

warn

SQL warning.

System action: The program continues.

Operator response: None.

System programmer response: None.

Module: HSIKBT

HSII303I SQL ERROR FOR *err*.

Explanation: The XML Export Utility has encountered an error.

In the message text:

err
SQL Error.

System action: The program terminates and takes no actions.

Operator response: Examine the SQL return code to determine the cause of the error. Inform the system programmer.

System programmer response: If you cannot resolve this issue then gather appropriate diagnostic materials and contact IBM support.

Module: HSIKBT

HSII304I *err*.

Explanation: The XML Export Utility has encountered a DSNREXX error.

In the message text:

err
DSNREXX error.

System action: The program terminates and takes no actions.

Operator response: Examine the preceding error messages to determine the error. Inform the system programmer.

System programmer response: If you cannot resolve this issue then gather appropriate diagnostic materials and contact IBM support.

Module: HSIKBT

HSII305I INVALID SCHEMA *sch*.

Explanation: The XML Export Utility has encountered a problem with an invalid Schema.

In the message text:

sch
schema name

System action: The program terminates and takes no actions.

Operator response: Ensure that the correct Schema is being used.

System programmer response: None.

Module: HSIKBT

**HSII999U MODULE HSIIMSG FAILED -
MSGID=*msgid* RC=*rc* RS=*rs***

Explanation: HSIIMSG was called to produce a message text, but the call failed.

In the message text:

msgid
identifier of the failing message.

rc HSIIMSG return code.

rs HSIIMSG reason code.

System action: Terminates with a condition code of 20.

Operator response: Inform the system programmer.

System programmer response: Contact IBM Support.

Module: HSIINQ

HSIP - Inquisitor for z/OS messages and codes

Return codes

Table 7. Return codes and their meaning

Return code	Description
0	No errors encountered. All requests processed successfully.
4	Input/Output error in one or more program libraries.
8	Error - Data collection is incomplete. Processing continues. The error is in a system service such as OPEN or DYNALLOC. Data that is collected can be processed normally.
12	Syntax error.
16	Unrecoverable error. No requests processed. SYSIN or HSIPZIP or HSIPOUT File cannot be used, or unsupported Operating System.
20	Disastrous error. No requests processed. SYSPRINT file cannot be used.

Message suffix codes

Table 8. Message suffix codes and associated condition codes

Suffix	Meaning	Raises minimum condition code to:
I	Information message	0
W	Warning message	4
E	Error message	8
S	Severe error message	12
U	Unrecoverable error message	16

Message texts and explanations

All numeric completion codes of system services reported in these messages are in hexadecimal unless otherwise stated.

HSIP000U NO USABLE SYSPRINT FILE

Explanation: The OPEN of the SYSPRINT file failed.
 Note: This message is issued by WTO with ROUTCDE=(2,11). All other messages are written to the SYSPRINT file.

System action: Terminates with a condition code of 20.

Operator response: Ensure a usable SYSPRINT file is allocated. The program overrides any unacceptable DCB values.

System programmer response: None.

Module: HSIPINQ

HSIP001U CANNOT OPEN SYSIN FILE

Explanation: The OPEN of the SYSIN file failed.

System action: Terminates with a condition code of 16.

Operator response: Ensure a usable SYSIN file is allocated.

System programmer response: None.

Module: HSIPINQ

HSIP004S UNKNOWN VERB "verb"

Explanation: Parsing detected unrecognised data when looking for a verb.

In the message text:

verb

name of the encountered verb.

System action: Terminates with a condition code of 12.

Operator response: Correct the SYSIN file contents and rerun the program.

System programmer response: None.

Module: HSIPINQ

HSIP005S UNKNOWN OPERAND "*op*"

Explanation: Parsing detected unrecognised data when looking for an operand.

In the message text:

op name of the encountered operand.

System action: Terminates with a condition code of 12.

Operator response: Correct the SYSIN file contents and rerun the program.

System programmer response: None.

Module: HSIPINQ

HSIP006S UNEXPECTED OPEN PARENTHESIS ENCOUNTERED

Explanation: Parsing detected an open parenthesis at an unexpected location.

System action: Terminates with a condition code of 12.

Operator response: Correct the SYSIN file contents and rerun the program.

System programmer response: None.

Module: HSIPINQ

HSIP007S UNEXPECTED CLOSE PARENTHESIS ENCOUNTERED

Explanation: Parsing detected a close parenthesis at an unexpected location.

System action: Terminates with a condition code of 12.

Operator response: Correct the SYSIN file contents and rerun the program.

System programmer response: None.

Module: HSIPINQ

HSIP008S EXPECTED OPEN PARENTHESIS MISSING

Explanation: Parsing did not detect the expected open parenthesis.

System action: Terminates with a condition code of 12.

Operator response: Correct the SYSIN file contents and rerun the program.

System programmer response: None.

Module: HSIPINQ

HSIP009S EXPECTED CLOSE PARENTHESIS MISSING

Explanation: Parsing did not detect the expected close parenthesis.

System action: Terminates with a condition code of 12.

Operator response: Correct the SYSIN file contents and rerun the program.

System programmer response: None.

Module: HSIPINQ

HSIP010U OPERATING SYSTEM NOT SUPPORTED - CODE "*code*"

Explanation: The value of the byte at CVTDCB was not X'9B'.

In the message text:

code

hexadecimal value of first byte of CVTDCB.

System action: Terminates with a condition code of 16.

Operator response: This version of the Inquisitor cannot be run on this Operating System. If necessary, gather appropriate diagnostic materials and contact IBM support.

System programmer response: None.

Module: HSIPINQ

HSIP011I MISSING CLOSE PARENTHESIS ASSUMED

Explanation: End-of-file was detected for SYSIN before an expected close parenthesis was detected.

System action: The request is accepted and processing continues.

Operator response: Correct the SYSIN file contents to avoid this message.

System programmer response: None.

Module: HSIPINQ

HSIP012S MISSING OPERAND SUBPARAMETER FOR *spm*

Explanation: A required subparameter of an operand was not specified.

In the message text:

spm

name of the operand being processed.

System action: Terminates with a condition code of 12.

Operator response: Correct the SYSIN file contents and rerun the program.

System programmer response: None.

Module: HSIPINQ

HSIP013S E-O-F INSTEAD OF EXPECTED CONTINUATION

Explanation: End-of-file was detected for SYSIN instead of an expected record required to continue the current statement being parsed.

System action: Terminates with a condition code of 12.

Operator response: Correct the SYSIN file contents and rerun the program.

System programmer response: None.

Module: HSIPINQ

HSIP014I COMPLETED REQUEST NUMBER *rno* - PROCESSING STATISTICS ARE:

Explanation: Processing of a request has been completed. One or more messages follow containing the statistics for the request.

In the message text:

rno

sequence number of the request.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Module: HSIPINQ

HSIP015I VOLUMES=*vol* DATASETS=*ds* BAD-D/S=*dsbad* PROGRAMS=*pgms*

Explanation: Processing of a request has been completed. Statistics related to the request are shown.

In the message text:

vol

count of volumes scanned for this request.

ds count of data sets successfully processed.

dsbad

count of data sets which could not be processed.

pgms

count of programs processed for this request.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Module: HSIPINQ

HSIP016I ACCEPTED REQUEST NUMBER *rno*

Explanation: Parsing of a request has been completed successfully. The request is stored for subsequent processing.

In the message text:

rno

sequence number of the request.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIPINQ

HSIP017E DYNALLOC FAILURE: RC=*rc* ERROR=*err* INFO=*inf* VOLUME=*vol*

Explanation: A data set could not be dynamically allocated. See message HSIP080I for the name of the dataset that incurred the problem.

In the message text:

rc return code of the DYNALLOC macro.

err

dynamic allocation return code (DARC).

inf

dynamic allocation information code.

vol

volume serial number of the data set.

System action: Processing of this data set is terminated.

Operator response: If necessary, rerun when the file is available for use. Note: The meanings of many DARC values are usually available in Appendix A of the ISPF Tutorial.

System programmer response: None.

Module: HSIPINQ

HSIP018W VTOC DYNALLOC FAILURE: RC=*rc* ERROR=*err* INFO=*inf* VOLUME=*vol*

Explanation: A VTOC could not be dynamically allocated.

In the message text:

rc return code of the DYNALLOC

err

dynamic allocation return code (DARC).

inf
dynamic allocation information code.

vol
volume serial number of the data set.

System action: Processing of this volume is terminated.

Operator response: If necessary, rerun when the VTOC is available for use to process this volume. Note: The meanings of many DARC values are usually available in Appendix A of the ISPF Tutorial.

System programmer response: None.

Module: HSIPINQ

HSIP020I *ocnt* INQUISITOR OUTPUT RECORDS WRITTEN

Explanation: Processing has concluded and all data files have been closed.

In the message text:

ocnt
number of records written.

System action: Termination continues.

Operator response: None required.

System programmer response: None.

Module: HSIPINQ

HSIP021S INVALID OPERAND SUBPARAMETER FOR *spm*

Explanation: The specified subparameter of an operand was not valid.

In the message text:

spm
name of the operand being processed.

System action: Terminates with a condition code of 12.

Operator response: Correct the SYSIN file contents and rerun the program.

System programmer response: None.

Module: HSIPINQ

HSIP022W I/O ERR MEMBER *mbr* IN *dsn*

Explanation: An I/O error was encountered while reading the contents of a load module.

In the message text:

mbr
name of the program being processed.

dsn
name of the data set being processed.

System action: Processing of this member continues.

Operator response: None required.

System programmer response: None.

Module: HSIPINQ

HSIP023W ABEND *abend* IN OPEN FOR *dsn*

Explanation: An abnormal end occurred while opening a data set.

In the message text:

abend
hexadecimal system abend and reason

dsn
name of the data set being processed.

System action: Processing of this data set is terminated.

Operator response: None required, but you may wish to exclude the data set from processing, or correct the cause of the abend.

System programmer response: None.

Module: HSIPINQ

HSIP024S BAD UCBSCAN RETURN CODE OF HEX *rc*

Explanation: An unexpected return code was received from UCBSCAN.

In the message text:

rc hexadecimal return code from UCBSCAN

System action: Processing of volume scanning for this request is terminated.

Operator response: Rerun the program when no dynamic reconfiguration changes are being implemented.

System programmer response: None.

Module: HSIPINQ

HSIP025U CANNOT OPEN HSIPOUT FILE

Explanation: The OPEN of the HSIPOUT file failed.

System action: Terminates with a condition code of 16.

Operator response: Ensure that the allocated HSIPOUT file is usable, or omit the HSIPOUT file in favour of using the HSIPZIP file.

System programmer response: None.

Module: HSIPINQ

**HSIP026E I/O ERROR ENCOUNTERED
READING VTOC OF VOLUME *vol* ON
DEVICE *dev***

Explanation: An I/O error was encountered while reading a VTOC.

In the message text:

vol
volume serial number being processed.

dev
device number of the volume.

System action: Processing of this track of the VTOC is terminated.

Operator response: None required, but you may wish to exclude the volume from processing, or correct the cause of the I/O error.

System programmer response: None.

Module: HSIPINQ

HSIP028U CANNOT OPEN HSIPDMP FILE

Explanation: The OPEN of the HSIPDMP file failed after DUMPTEXT was specified.

System action: Terminates with a condition code of 16.

Operator response: Ensure a usable HSIPDMP file is allocated, or remove all DUMPTEXT operand's from the contents of the SYSIN file. The DUMPTEXT operand should only be specified at the request of IBM support.

System programmer response: None.

Module: HSIPINQ

HSIP029I TEXT-DUMPS=*cnt*

Explanation: Processing of a request with DUMPTEXT specified has completed. This message follows HSIP015I.

In the message text:

cnt
count of load module text blocks written.

System action: Processing continues.

Operator response: None required. The DUMPTEXT operand should only be specified at the request of IBM support.

System programmer response: None.

Module: HSIPINQ

**HSIP030I "DUMPTEXT" OPERAND IGNORED
FOR "SCANDIR" VERB**

Explanation: A DUMPTEXT operand was encountered for a SCANDIR request. That is, the possible dumping of load module text blocks was specified in a request which does not have access to text blocks.

System action: The DUMPTEXT operand is ignored and processing continues.

Operator response: Remove the DUMPTEXT operand to avoid this message. The DUMPTEXT operand should only be specified at the request of IBM support.

System programmer response: None.

Module: HSIPINQ

HSIP031I BAD SELECTION CRITERIA FOR *dsn*

Explanation: Processing of a data set was specified but attributes did not match other selection criteria also specified in the request. This message is followed by HSIP038I which details the cause.

In the message text:

dsn
name of the data set being processed.

System action: Processing of this data set is terminated.

Operator response: If this data set is a program library which should be processed by the Inquisitor then modify or remove the conflicting selection criteria.

System programmer response: None.

Module: HSIPINQ

HSIP032I OBTAIN FAILED RC=*rc* VOLUME *vol*

Explanation: The system could not read the VTOC entry for the data set named in the HSIP033I message which follows this message. This message is only issued when a program parameter of "DSNMSG" or "ALLMSG" is specified.

In the message text:

rc hexadecimal return code of the OBTAIN macro.

vol
volume serial number being processed.

System action: Processing of this data set is terminated.

Operator response: Ensure the relevant catalog entry is correct. Ensure the relevant volume is online and available to the system. Ensure there is no I/O error in the relevant volume's VTOC. If necessary, gather appropriate diagnostic materials and contact IBM support.

System programmer response: None.

Module: HSIPINQ

HSIP033I OBTAIN FAILED FOR DATA SET *dsn*

Explanation: The system could not read the VTOC entry for the data set on the volume named in the previous HSIP032I message. This message is only issued when a program parameter of "DSNMSG" or "ALLMSG" is specified.

In the message text:

dsn

name of the data set being processed.

System action: Processing of this data set is terminated.

Operator response: Ensure the relevant catalog entry is correct. Ensure the relevant volume is online and available to the system. Ensure there is no I/O error in the relevant volumes VTOC. If necessary, gather appropriate diagnostic materials and contact IBM support.

System programmer response: None.

Module: HSIPINQ

HSIP034I REFER DATE WAS *date* **FOR** *dsn*

Explanation: A load library was opened. The reference date of the data set before the OPEN is reported in this message. This message is only issued when a program parameter of "DSNMSG" or "ALLMSG" is specified.

In the message text:

date

the Julian reference date from the VTOC entry.

dsn

name of the data set being processed.

System action: Processing of this data set continues.

Operator response: None required.

System programmer response: None.

Module: HSIPINQ

**HSIP036E OPEN ERROR ENCOUNTERED
READING VTOC OF VOLUME** *vol* **ON
DEVICE** *dev*

Explanation: The VTOC of the volume shown could not be opened.

In the message text:

vol

volume serial number being processed.

dev

device number of the volume.

System action: Processing of this track of the VTOC is terminated.

Operator response: None required, but you may wish to exclude the volume from processing, or correct the cause of the I/O error.

System programmer response: None.

Module: HSIPINQ

HSIP037E SECURITY ACCESS DENIED FOR *dsn*

Explanation: A RACROUTE macro determined the program had insufficient security access to read the data set.

In the message text:

dsn

name of the data set being processed.

System action: Processing of this data set is terminated.

Operator response: Contact Security Administration to obtain sufficient security access to read the data set or exclude the data set from processing.

System programmer response: None.

Module: HSIPINQ

HSIP038I BAD SELECTION CRITERIA WAS *dsn*

Explanation: Processing of a data set was specified but attributes did not match other selection criteria also specified in the request. This message follows HSIP031I which shows the data set name.

In the message text:

dsn

cause of the data set processing failure.

System action: Processing of this data set is terminated.

Operator response: If this data set is a program library which should be processed by the Inquisitor then modify or remove the conflicting selection criteria.

System programmer response: None.

Module: HSIPINQ

**HSIP039S ALL POSSIBLE DATA SETS ARE
EXCLUDED**

Explanation: An exclusion mask has been specified which excludes all possible data sets included by a selection mask. Both masks are shown after this message.

System action: Terminates with a condition code of 12.

Operator response: Modify or remove the conflicting selection criteria.

System programmer response: None.

Module: HSIPINQ

HSIP040S ALL POSSIBLE DASD VOLUMES ARE EXCLUDED

Explanation: An exclusion mask has been specified which excludes all possible DASD volumes included by a selection mask. Both masks are shown after this message.

System action: Terminates with a condition code of 12.

Operator response: Modify or remove the conflicting selection criteria.

System programmer response: None.

Module: HSIPINQ

HSIP041S ALL POSSIBLE PROGRAMS ARE EXCLUDED

Explanation: An exclusion mask has been specified which excludes all possible programs included by a selection mask. Both masks are shown after this message.

System action: Terminates with a condition code of 12.

Operator response: Modify or remove the conflicting selection criteria.

System programmer response: None.

Module: HSIPINQ

HSIP042S ALL POSSIBLE MODULES ARE EXCLUDED

Explanation: An exclusion mask has been specified which excludes all possible modules included by a selection mask.

System action: Terminates with a condition code of 12.

Operator response: Modify or remove the conflicting selection criteria. If no CSECT-level records are required then omit both MODULE and XMODULE operands.

System programmer response: None.

Module: HSIPINQ

HSIP043I "MODULE"/"CSECT" OPERAND IGNORED FOR "SCANDIR" VERB

Explanation: A MODULE operand was encountered for a SCANDIR request. That is, the output of program structure data was requested in a request which does not have access to this data.

System action: The MODULE operand is ignored and processing continues.

Operator response: Remove the MODULE operand to avoid this message.

System programmer response: None.

Module: HSIPINQ

HSIP044I "XMODULE"/"XCSECT" OPERAND IGNORED FOR "SCANDIR" VERB

Explanation: An XMODULE operand was encountered for a SCANDIR request. That is, the output of program structure data was implied in a request which does not have access to this data.

System action: The XMODULE operand is ignored and processing continues.

Operator response: Remove the XMODULE operand to avoid this message.

System programmer response: None.

Module: HSIPINQ

HSIP045I THE "XDSNAME" MASK IS NOT A SUBSET OF ANY "DSNAME" MASK

Explanation: The mask specified in the XDSNAME operand excludes possible values not included in the DSNAME operand. This message is issued to highlight possible inconsistencies in a request.

System action: Processing continues.

Operator response: Specify the XDSNAME operand as a further qualification of the DSNAME operand to avoid this message.

System programmer response: None.

Module: HSIPINQ

HSIP046I THE "XVOLUME" MASK IS NOT A SUBSET OF ANY "VOLUME" MASK

Explanation: The mask specified in the XVOLUME operand excludes possible values not included in the VOLUME operand. This message is issued to highlight possible inconsistencies in a request.

System action: Processing continues.

Operator response: Specify the XVOLUME operand as a further qualification of the VOLUME operand to avoid this message.

System programmer response: None.

Module: HSIPINQ

HSIP047I THE "XPROGRAM" MASK IS NOT A SUBSET OF ANY "PROGRAM" MASK

Explanation: The mask specified in the XPROGRAM operand excludes possible values not included in the PROGRAM operand. This message is issued to

highlight possible inconsistencies in a request.

System action: Processing continues.

Operator response: Specify the XPROGRAM operand as a further qualification of the PROGRAM operand to avoid this message.

System programmer response: None.

Module: HSIPINQ

HSIP048I THE "XMODULE" MASK IS NOT A SUBSET OF ANY "MODULE" MASK

Explanation: The mask specified in the XMODULE operand excludes possible values not included in the MODULE operand. This message is issued to highlight possible inconsistencies in a request.

System action: Processing continues.

Operator response: Specify the XMODULE operand as a further qualification of the MODULE operand to avoid this message.

System programmer response: None.

Module: HSIPINQ

HSIP049I THE "XSTOGROUP" MASK IS NOT A SUBSET OF ANY "STOGROUP" MASK

Explanation: The mask specified in the XSTOGROUP operand excludes possible values not included in the STOGROUP operand. This message is issued to highlight possible inconsistencies in a request.

System action: Processing continues.

Operator response: Specify the XSTOGROUP operand as a further qualification of the STOGROUP operand to avoid this message.

System programmer response: None.

Module: HSIPINQ

HSIP050I MODULES=*cnt*

Explanation: Processing of a request with MODULE specified has completed. This message follows HSIP015I.

In the message text:

cnt

count of CSECTs processed in this request.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIPINQ

HSIP051I ***** PARSE ONLY REQUEST PROCESSED - NO ACTION TAKEN *****

Explanation: Processing of a SCANCMD request has completed.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIPINQ

HSIP052U MISSING HSIPOUT AND HSIPZIP FILES

Explanation: Neither an HSIPOUT nor an HSIPZIP file is allocated. At least one output file is required.

System action: Terminates with a condition code of 16.

Operator response: Specify an output file and rerun the job.

System programmer response: None.

Module: HSIPINQ

HSIP053U COMPRESSION SUBROUTINE ERROR

Explanation: While processing the HSIPZIP file the compression subroutine encountered an error. The error message from the compression subroutine immediately follows this message.

System action: Terminates with a condition code of 16.

Operator response: Correct the error described in the message from the compression subroutine. If necessary, gather appropriate diagnostic materials and contact IBM support

System programmer response: None.

Module: HSIPINQ

HSIP054I "FULDIR" OPERAND IGNORED FOR "SCANDIR" VERB

Explanation: A FULDIR operand was encountered for a SCANDIR request. That is, the processing of load module member data was specified in a request which does not have access to this data.

System action: The FULDIR operand is ignored and processing continues.

Operator response: Remove the FULDIR operand to avoid this message.

System programmer response: None.

Module: HSIPINQ

HSIP056I *date time* **COMMENCING SCAN OF VOLUME *vol* ON UNIT *unit***

Explanation: A request without the CATALOG keyword began processing a DASD volume. This message provides feedback on the progress of long-running Inquisitor requests.

In the message text:

date
date of message.

time
time of message.

vol
serial number of volume.

unit
device number of volume.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIPINQ

HSIP057E *ABEND *abend** **PROCESSING VTOC OF VOLUME *vol* ON UNIT *unit***

Explanation: A request without the CATALOG keyword attempted to process a DASD volume VTOC and the OPEN or CLOSE abended. The volume may not not usable.

In the message text:

abend
hexadecimal system abend and reason codes.

vol
serial number of volume.

unit
device number of volume being processed.

System action: Processing of this volume is terminated.

Operator response: Vary the volume offline, and/or reformat the volume. Institute any appropriate volume recovery procedures.

System programmer response: None.

Module: HSIPINQ

HSIP058S **DUPLICATE OPERAND ENCOUNTERED: *op***

Explanation: An input request was found to have the indicated operand specified more than once.

In the message text:

op name of the duplicate operand

System action: Terminates with a condition code of 12.

Operator response: Correct the SYSIN file contents and rerun the program.

System programmer response: None.

Module: HSIPINQ

HSIP059W **BINDER FAILURE FOR MEMBER *mbr* RC=*rc* RS=*rs***

Explanation: The Binder could not successfully process a member of a PDSE.

In the message text:

mbr
name of the member being processed.

rc hexadecimal Binder FDA API return code.

rs hexadecimal Binder FDA API reason code.

System action: Terminates data collection for this member, writes out data already collected and continues processing the next member.

Operator response: None required.

System programmer response: The Binder Fast Data Access API return and reason codes provide more detailed indication of the cause.

Module: HSIPINQ

HSIP060S **SYMBOL SUBSTITUTION FAILURE - ASASYMBP RC=*rc***

Explanation: The system symbol substitution routine could not successfully perform symbol substitution. Data before and after substitution is shown in the SYSPRINT file.

In the message text:

rc hexadecimal return code.

System action: Terminates with a condition code of 12.

Operator response: Correct or remove the symbols in control statement input.

System programmer response: None.

Module: HSIPINQ

HSIP061I *pgm* **NON-REEDITABLE IN *dsn***

Explanation: A program object in a PDSE was encountered which cannot be processed by the Program Binder. The program was bound with the NE or OVLY attribute. This message is only issued when a program parameter of "PGMMMSG" or "ALLMSG" is specified.

In the message text:

pgm

name of program which cannot be processed.

dsn

name of the data set being processed.

System action: Further data collection for this member is terminated.

Operator response: None required.

System programmer response: None.

Module: HSIPINQ

HSIP062S THE CATALOG REQUEST NEEDS EXACTLY ONE DSNNAME MASK

Explanation: A request with the CATALOG operand either omitted the DSNNAME operand or specified more than one DSNNAME mask.

System action: Terminates with a condition code of 12.

Operator response: Correct the SYSIN file contents and rerun the program. To process multiple data set name masks via the CATALOG specify a separate Inquisitor request for each mask. There is no programmed limit to the number of requests which can be processed in a single Inquisitor run.

System programmer response: None.

Module: HSIPINQ

HSIP063S ALL POSSIBLE STORAGE GROUPS ARE EXCLUDED

Explanation: An exclusion mask has been specified which excludes all possible storage groups included by the selection mask. Both masks are shown after this message.

System action: Terminates with a condition code of 12.

Operator response: Modify or remove the conflicting selection criteria.

System programmer response: None.

Module: HSIPINQ

HSIP064W ABEND *abend* FOR *mbr* IN *dsn*

Explanation: A subtask processing a program object from a PDSE has abended. The abend probably occurred in the Program Binder API.

In the message text:

abend

hexadecimal system abend code.

mbr

name of the member being processed.

dsn

name of the data set being processed.

System action: Data collected for this member so far is retained. Other Data Management abends may follow, especially in CLOSE processing, which are unrecoverable and may abend the main Inquisitor task.

Operator response: Exclude the programs causing the failure and rerun the Job.

System programmer response: None.

Module: HSIPINQ

HSIP065S MCDS FILE FAILED VERIFICAION

Explanation: The MCDS data definition (DD) was found to be unusable by the Inquisitor. One or more of the following is true: 1) The MCDS file could not be opened. Message HSIP066E follows. 2) The MCDS file is not a VSAM key-sequenced data set (KSDS). 3) The KSDS relative key position (RKP) is not zero (0). 4) The KSDS key length is not forty-four (44).

System action: Terminates with a condition code of 12.

Operator response: Either ensure that the Inquisitor has read access to DFHSM's MCDS, or change the Inquisitor request(s) so that the MCDS is not required. MCDS access is required if either or both of the REMIGRATE and NOML2 keywords are specified.

System programmer response: None.

Module: HSIPINQ

HSIP066E MCDS OPEN ERROR - RC=*rc* RS=*rs*

Explanation: The OPEN of the MCDS data definition (DD) was not successful.

In the message text:

rc VSAM OPEN hexadecimal return code.

rs VSAM OPEN hexadecimal reason code.

System action: Issues message HSIP065S and terminates with a condition code of 12.

Operator response: Either ensure that the Inquisitor has read access to DFHSM's MCDS, or modify the Inquisitor request(s) so that the MCDS is not required. MCDS access is required if either or both of the REMIGRATE and NOML2 keywords are specified.

System programmer response: None.

Module: HSIPINQ

HSIP067E MCDS READ RC=*rc* RS=*rs* FOR *dsn*

Explanation: The MCDS record of a data set cataloged on volume MIGRAT could not be read. Either the record is missing or there was an I/O error.

In the message text:

rc VSAM GET hexadecimal return code.

rs VSAM GET hexadecimal reason code.

dsn

name of data set cataloged on volume MIGRAT.

System action: Processing of this data set is terminated.

Operator response: If the data set is not really migrated then correct the catalog entry. If the MCDS is corrupt then begin recovery procedures.

System programmer response: None.

Module: HSIPINQ

HSIP068W CATALOG RC=*rc* RS=*rs,modid cat*

Explanation: The Catalog Search Interface returned an entry which is flagged as being in error by Catalog Management.

In the message text:

rc Catalog Management decimal return code.

rs Catalog Management decimal reason code.

modid

Catalog Management module identifier.

cat

name of catalog entry in error.

System action: Processing of this data set is terminated.

Operator response: Correct the catalog entry. Refer to the System Messages manual for message IDC3009I to find out the meaning of the Catalog Management error codes.

System programmer response: None.

Module: HSIPINQ

HSIP069U PROGRAM IS NOT APF AUTHORIZED

Explanation: The Inquisitor has determined that it is not running in an APF authorized environment, and PARM=NOAPF was not specified.

System action: Terminates with a condition code of 20.

Operator response: Ensure that the HSIPINQ program is run in an APF authorized environment, or specify PARM=NOAPF in the JCL.

System programmer response: None.

Module: HSIPINQ

HSIP070E BAD BLKSIZE AFTER OPEN FOR *dsn*

Explanation: A BPAM DCB was opened for the named PDS, but despite the VTOC entry indicating a suitable blocksize, the blocksize in the DCB after the OPEN was not positive.

In the message text:

dsn

name of the data set being processed.

System action: Processing of member contents for this data set is terminated to avoid an S002-30 abend.

Operator response: The PDS is probably corrupt and should be deleted. Recreate it from a backup if appropriate.

System programmer response: None.

Module: HSIPINQ

HSIP071W IGNORING INVALID DSNAME IN *dsn*

Explanation: The Catalog Search Interface (CSI) returned a data set name with invalid characters. Although VTOC entries can contain keys that are not valid data set names, such entries cannot be cataloged. Therefore the entry returned from the CSI does not represent an actual data set.

In the message text:

dsn

name of the catalog being processed.

System action: The returned catalog entry is discarded.

Operator response: Ensure that the named catalog is not corrupt and contains no invalid entries.

System programmer response: None.

Module: HSIPINQ

HSIP072I BYPASS PROCESSING DATA SET *dsn*

Explanation: The name of the data set indicated that it does not contain programs which would normally be executed, and therefore the Inquisitor skipped processing it. This message is only issued when a program parameter of "DSNMSG" or "ALLMSG" is specified.

In the message text:

dsn

name of the data set being bypassed.

System action: The data set is not opened, and no data from it is collected.

Operator response: None required, but if the data set must be processed then specify its name in an inclusion mask without any generic masking characters, either by adding this mask to the existing request, or by adding

an additional request to the same Inquisitor run.

System programmer response: None.

Module: HSIPINQ

HSIP073I NO DATA WAS EXTRACTED FROM *dsn*

Explanation: The data set contained no members eligible for selection. This message is only issued when a program parameter of "DSNMSG" or "ALLMSG" is specified.

In the message text:

dsn

name of the processed data set.

System action: The data set was opened, but no data from it is collected.

Operator response: None required.

System programmer response: None.

Module: HSIPINQ

HSIP074S ABRIN OR ABRPRINT FILES NOT ALLOCATED

Explanation: A request had ABRMIG and/or ABRARC specified but at least one of the required ABRIN and ABRPRINT files was not defined in the JCL.

System action: Terminates with a condition code of 12.

Operator response: Ensure the required files are pre-allocated for the Inquisitor.

System programmer response: None.

Module: HSIPINQ

HSIP075W FDRABR ABEND *abend* CHECKING *dsn*

Explanation: An abend occurred during ABR processing while checking a data set which may have been archived.

In the message text:

abend

hexadecimal system abend code.

dsn

name of the data set being processed.

System action: Processing of this data set is terminated.

Operator response: Ensure the catalog entry for the data set is correct.

System programmer response: None.

Module: HSIPINQ

HSIP076E BAD LOAD *abend-rs: mbr dsn*

Explanation: The Inquisitor attempted to load a product tag data module from the named data set, but LOAD issued the displayed abend code.

In the message text:

abend

abend code returned by LOAD.

rs abend reason code returned by LOAD.

mbr

name of the member containing the tag data.

dsn

name of the data set containing the tag data module.

System action: Processing continues with the next member in the data set.

Operator response: Verify that the named data set contains no unusable modules. If necessary, delete any modules that are of no further use.

System programmer response: None.

Module: HSIPINQ

HSIP077W ISITMGD RC=*rc* RS=*rs* FOR *dsn*

Explanation: The Inquisitor executed an ISITMGD macro for the named data set, but ISITMGD issued a non-zero return code.

In the message text:

rc decimal return code issued by ISITMGD.

rs hexadecimal reason code issued by ISITMGD.

dsn

name of the data set being processed.

System action: Processing continues with the next data set.

Operator response: Consult the applicable DFSMS Macro Instructions for Data Sets manual to determine the meaning of the ISITMGD return and reason codes. Ensure that the named data set is a valid and accessible partitioned data set. If necessary, gather appropriate diagnostic materials and contact IBM support.

System programmer response: None.

Module: HSIPINQ

HSIP078W DESERV RC=*rc* RS=*rs* FOR *dsn*

Explanation: The Inquisitor executed a DESERV FUNC=GET_ALL macro for the named data set, but DESERV issued a non-zero return code.

In the message text:

rc decimal return code issued by DESERV.

rs decimal reason code issued by DESERV.

dsn

name of the data set being processed.

System action: Processing continues with the next data set.

Operator response: Consult the applicable DFSMS Macro Instructions for Data Sets manual to determine the meaning of the DESERV return and reason codes. Ensure that the named data set is a valid and accessible partitioned data set. If necessary, gather appropriate diagnostic materials and contact IBM support.

System programmer response: None.

Module: HSIPINQ

HSIP080I DYNALLOC FAILURE: DSN=*dsn*

Explanation: A data set could not be dynamically allocated.

In the message text:

dsn

name of the data set being processed.

System action: Depends upon other messages associated with this message.

Operator response: None required.

System programmer response: None.

Module: HSIPINQ

HSIP081S ALL POSSIBLE DEVICE NUMBERS ARE EXCLUDED

Explanation: An exclusion mask has been specified which excludes all possible device numbers included by a selection mask. Both masks are shown after this message.

System action: Terminates with a condition code of 12.

Operator response: Modify or remove the conflicting selection criteria.

System programmer response: None.

Module: HSIPINQ

HSIP082I THE "XDEVICE" MASK IS NOT A SUBSET OF ANY "DEVICE" MASK

Explanation: The mask specified in the XDEVICE operand excludes possible values not included in the DEVICE operand. This message is issued to highlight possible inconsistencies in a request.

System action: Processing continues.

Operator response: Specify the XDEVICE operand as a further qualification of the DEVICE operand to avoid this message.

System programmer response: None.

Module: HSIPINQ

HSIP083E RENAME FAILED FOR DATA SET *dsn*

Explanation: The rename operation to add one or more extra low-level qualifiers to a data set name as specified by the LLQ program parameter setting did not succeed. The named data set is allocated to either the HSIPZIP or HSIPOUT file. This message is preceded by either an associated explanatory message, or by messages from IDCAMS detailing the results of the rename attempt.

In the message text:

dsn

name of the HSIPZIP or HSIPOUT data set.

System action: The output data set retains its original name.

Operator response: Ensure that the specified LLQ string length does not exceed 44 bytes, that any symbols used are valid for this system, and that resultant data set names are not longer than 44 bytes. Examine associated messages to determine the reason for the rename failure.

System programmer response: None.

Module: HSIPINQ

HSIP084I ABEND *abend* OPENING DSN *dsn*

Explanation: An abnormal end occurred while opening a data set.

In the message text:

abend

hexadecimal system abend and reason

dsn

name of the data set being processed.

System action: Processing of this data set is terminated.

Operator response: None required, but you may wish to correct the cause of the abend.

System programmer response: None.

Module: HSIPINQ

HSIP085I ABEND *abend* CLOSING DSN *dsn*

Explanation: An abnormal end occurred while closing a data set.

In the message text:

abend

hexadecimal system abend and reason

dsn

name of the data set being processed.

System action: Processing of this data set is terminated.

Operator response: None required, but you may wish to correct the cause of the abend.

System programmer response: None.

Module: HSIPINQ

HSIP086S NO PROGRAMS OR TAG DATA FOUND - NO DATA FOR IMPORT WAS PRODUCED

Explanation: All scanning operations failed to find any executable programs or program tag data, so no data suitable for subsequent processing was created.

System action: Terminates with a condition code of 12.

Operator response: Correct any selection criteria errors and rerun the job.

System programmer response: None.

Module: HSIPINQ

HSIP087I SKIP INACCESSIBLE DATA SET *dsn*

Explanation: The named data set was encountered on an SMS-managed volume, but no matching catalog entry could be located, which means that the data set cannot be successfully allocated by any job.

In the message text:

dsn

name of the data set being skipped.

System action: The data set is bypassed and processing continues.

Operator response: None required, but you may wish to either catalog the data set to make it accessible, or delete it to reclaim the disk space.

System programmer response: None.

Module: HSIPINQ

HSIP088I DEVICES=*vol* CU-GROUPS=*ds* USED-CHPIDS=*dsbad*

Explanation: Processing of a SCANDEV request has been completed. Counts of online I/O devices, device groups and used channel paths are shown. A group of devices with the same device type, control unit, and CHPID connectivity generates one CU record. A CP record is generated for each online CHPID connected to at least one online I/O device.

In the message text:

vol

count of online I/O devices discovered.

ds count of CU records written.

dsbad

count of CP records written.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Module: HSIPINQ

HSIP089E INSUFFICIENT AUTHORIZATION TO PROCESS "SCANDEV" REQUEST

Explanation: To process a SCANDEV request either the Inquisitor must be APF authorized or the user must have UPDATE access to the IOSCDR entity in the FACILITY security class.

System action: Processing continues with the next request.

Operator response: Get the appropriate authorization, or omit the SCANDEV request.

System programmer response: None.

Module: HSIPINQ

HSIP090I EXCESSIVE DESERV DELAY FOR *dsn*

Explanation: This message is issued when a DESERV macro has not returned control to the Inquisitor after 15 minutes. This might indicate that the data set being processed is corrupt and unusable.

In the message text:

dsn

name of the data set being scanned.

System action: Processing continues, possibly without making any further progress.

Operator response: If the scan does not progress, and the delay is not caused by contention with other work, cancel the job. Either delete the data set, or add an exclusion to the Inquisitor control statement before rerunning the job.

System programmer response: None.

Module: HSIPINQ

HSIP097E CATALOG SEARCH INTERFACE ERROR RC=*csirc*

Explanation: A request with the CATALOG keyword was specified, and the Catalog Search Interface encountered an error.

In the message text:

csirc

return code from the Catalog Search Interface.

System action: Processing catalog entries for the request is terminated.

HSIP098E • HSIP999U

Operator response: Correct any related catalog errors.

System programmer response: None.

Module: HSIPINQ

HSIP098E CATALOG SEARCH INTERFACE
ERROR RC=csirc CATALOG RC=rc
CATALOG RS=rs

Explanation: A request with the CATALOG keyword was specified, and the Catalog Search Interface encountered an error.

In the message text:

csirc

return code from the Catalog Search Interface.

rc return code from Catalog Management.

rs reason code from Catalog Management.

System action: Processing catalog entries for the request is terminated.

Operator response: Correct any related catalog errors.

System programmer response: None.

Module: HSIPINQ

HSIP099E CATALOG SEARCH INTERFACE
ERROR RC=csirc CATALOG RC=rc
CATALOG RS=rs MODULE=modid

Explanation: A request with the CATALOG keyword was specified, and the Catalog Search Interface encountered an error.

In the message text:

csirc

return code from the Catalog Search Interface.

rc return code from Catalog Management.

rs reason code from Catalog Management.

modid

module identifier.

System action: Processing catalog entries for the request is terminated.

Operator response: Correct any related catalog errors.

System programmer response: None.

Module: HSIPINQ

HSIP999U MODULE HSIPMSG FAILED -
MSGID=msgid RC=rc RS=rs

Explanation: HSIMSG was called to produce a message text, but the call failed.

In the message text:

msgid

identifier of the failing message.

rc HSIMSG return code.

rs HSIMSG reason code.

System action: Terminates with a condition code of 20.

Operator response: Inform the system programmer.

System programmer response: Contact IBM Support.

Module: HSIPINQ

HSIT - Product tagging messages

Return codes

Table 9. Return codes and their meaning

Return code	Description
0	No errors encountered. All requests processed successfully.
4	Warning issued. Processing continues. Input/Output error in one or more program libraries.
8	Error - Incomplete data. Processing continues. OPEN or other system service error.
12	Syntax error. Processing terminates. Utility failure or syntax error.
16	Unrecoverable error. No requests processed. SYSIN file cannot be used.
20	Disastrous error. No requests processed. SYSPRINT file cannot be used.

Message suffix codes

Table 10. Message suffix codes and associated condition codes

Suffix	Meaning	Raises minimum condition code to:
I	Information message	0
W	Warning message	4
E	Error message	8
S	Severe error message	12
U	Unrecoverable error message	16

Message texts and explanations

All numeric completion codes of system services reported in these messages are in hexadecimal unless otherwise stated.

HSIT001U HSITAGP COULD NOT OPEN THE INPUT FILE *file*

Explanation: A required file could not be opened successfully.

In the message text:

file
name of file.

System action: Processing terminates with condition code 16.

Operator response: Correct the file definition and rerun the job.

System programmer response: None.

Module: HSITAGP

HSIT002S UNRECOGNIZED STATEMENT TYPE: *stattyp*

Explanation: Input text was encountered which does not match any known statement type.

In the message text:

stattyp
encountered input data.

System action: Processing terminates with condition code 12.

Operator response: Correct the input and rerun the job.

System programmer response: None.

Module: HSITAGP

HSIT003S DUPLICATE VALUE SUPPLIED FOR *stattyp*

Explanation: More than one occurrence of the named statement type was encountered, but only one value can be accepted.

In the message text:

stattyp
name of the statement verb.

System action: Processing terminates with condition code 12.

Operator response: Remove the redundant statement and rerun the job.

System programmer response: None.

Module: HSITAGP

HSIT004S VALUE MISSING IN *stattyp* STATEMENT

Explanation: An input statement of the type indicated was encountered, but no non-blanks followed the statement type name.

In the message text:

stattyp
name of the statement verb.

System action: Processing terminates with condition code 12.

Operator response: Supply an appropriate value after the statement type name.

System programmer response: None.

Module: HSITAGP

HSIT005S VALUE SPECIFIED FOR LICENSED WAS NEITHER "YES" NOR "NO"

Explanation: A LICENSED statement was processed which had a value specified other than one of the valid values.

System action: Processing terminates with condition code 12.

Operator response: Correct the value and rerun the job.

System programmer response: None.

Module: HSITAGP

HSIT006S THE *parm* PARAMETER HAD NO SUBPARAMETER VALUE SPECIFIED

Explanation: A statement parameter or operand was specified, but the required subparameter, or value of the parameter, was not specified. One cause for this condition is the omission of a parenthesis.

In the message text:

parm

name of the parameter or operand being processed when the error is detected.

System action: Processing terminates with condition code 12.

Operator response: Correct the input and rerun the job.

System programmer response: None.

Module: HSITAGP

HSIT007I A CLOSING PARENTHESIS ASSUMED FOR *parm*

Explanation: End-of-file was raised when processing input statements before an expected close parenthesis was encountered.

In the message text:

parm

name of the parameter or operand being processed when the error is detected.

System action: Processing continues as if the expected close parenthesis had been specified.

Operator response: Check that the resulting processing is as expected. Correct the input file for future use, and rerun the job if the desired processing was not performed.

System programmer response: None.

Module: HSITAGP

HSIT008S UNEXPECTED OPEN PARENTHESIS ENCOUNTERED AFTER *parm*

Explanation: An open parenthesis was encountered when one was not expected. If this occurred while a parameter or operand was being processed, then it is named in the message.

In the message text:

parm

name of the parameter or operand being processed when the error is detected.

System action: Processing terminates with condition code 12.

Operator response: Correct the input file and rerun the job.

System programmer response: None.

Module: HSITAGP

HSIT009S UNEXPECTED CLOSE PARENTHESIS ENCOUNTERED AFTER *parm*

Explanation: A close parenthesis was encountered when one was not expected. If this occurred while a parameter or operand was being processed, then it is named in the message.

In the message text:

parm

name of the parameter or operand being processed when the error is detected.

System action: Processing terminates with condition code 12.

Operator response: Correct the input file and rerun the job.

System programmer response: None.

Module: HSITAGP

HSIT010S *parm* IS AN UNKNOWN SELECT PARAMETER

Explanation: Input data was encountered which is not a recognized parameter, or operand, of the SELECT statement.

In the message text:

parm

the encountered input data.

System action: Processing terminates with condition code 12.

Operator response: Correct the input file and rerun the job.

System programmer response: None.

Module: HSITAGP

HSIT011S MEMBER NAME *parm* HAS EMBEDDED BLANK(S)

Explanation: The value specified on the TAGMEM statement was not a valid partitioned data set member name, a blank was found within the eight character member name.

In the message text:

parm

the input value specified on the TAGMEM statement.

System action: Processing terminates with condition code 12.

Operator response: Correct the input file and rerun the job.

System programmer response: None.

Module: HSITAGP

HSIT012S MISSING OPEN PARENTHESIS AFTER *parm*

Explanation: Whilst parsing the SELECT statement looking for a subparameter, or value, in parentheses specified for the parameter or operand named in the message, text was encountered which was not enclosed in parentheses.

In the message text:

parm

name of the parameter or operand being processed when the error is detected.

System action: Processing terminates with condition code 12.

Operator response: Correct the input and rerun the job.

System programmer response: None.

Module: HSITAGP

HSIT013S VALUE *data* TOO LONG FOR PARAMETER *parm*

Explanation: The length of a subparameter or value was found to exceed the maximum length allowed. The maximum length allowed depends on the specific parameter or operand being processed. For example, a data set name mask exceeding 44 characters in length causes this condition, as will a volume mask exceeding six characters in length.

In the message text:

data

encountered input data.

parm

name of the parameter or operand being processed when the error is detected.

System action: Processing terminates with condition code 12.

Operator response: Correct the input and rerun the job.

System programmer response: None.

Module: HSITAGP

HSIT014S END OF INPUT REACHED, EXPECTED CONTINUATION IS MISSING

Explanation: End-of-file was raised on the input (SYSIN) file, but the SELECT statement currently being processed was expected to continue on the next record.

System action: Processing terminates with condition code 12.

Operator response: Either supply the missing input data, or remove the continuation character from the last input record. Rerun the job.

System programmer response: None.

Module: HSITAGP

HSIT017S NO VALUE FOR *stattyp* WAS SPECIFIED

Explanation: A value for a statement of the type named in the message is required, but was not found in the input file.

In the message text:

stattyp

the type of input statement required to specify the missing value.

System action: Processing terminates with condition code 12.

Operator response: Supply a statement of the named type which specifies a value.

System programmer response: None.

Module: HSITAGP

HSIT019E DESERV FAILED - RC=*rc* RS=*rs* FOR DATA SET *dsn*

Explanation: A DESERV FUNC=GET_ALL macro was issued to acquire the member list for a data set, but DESERV issued a non-zero return code.

In the message text:

rc the decimal return code issued by DESERV.

rs the hexadecimal reason code issued by DESERV.

dsn

the name of the data set being processed by DESERV.

System action: The named data set is not processed, and processing continues with the next relevant data set.

Operator response: Consult the applicable DFSMS Macro Instructions for Data Sets manual to determine the meaning of the DESERV return and reason codes. Ensure that the named data set is a valid and accessible program library. If necessary, gather appropriate diagnostic materials and contact IBM support.

System programmer response: None.

Module: HSITAGP

HSIT020S DYNAMIC ALLOCATION FAILURE - BPXWDYN RC=*rc*

Explanation: BPXWDYN was called to dynamically allocate a required work file, but BPXWDYN issued a non-zero return code. As a result, processing cannot proceed.

In the message text:

rc the hexadecimal return code issued by BPXWDYN.

System action: Processing terminates with condition code 12.

Operator response: Consult the applicable Using REXX and z/OS UNIX System Services manual to determine the meaning of the return code. Examine the job log and messages to see any associated dynamic allocation error message.

System programmer response: None.

Module: HSITAGP

HSIT022S RC=*rc* WAS RETURNED BY PROGRAM *pgm*

Explanation: Either the High Level Assembler (program ASMA90) or the Program Binder (program IEWL) was dynamically started to assist with creating the output data, but the named program issued a non-zero return code.

In the message text:

rc the decimal return code issued by the named program.

pgm

the name of the program that was started.

System action: Processing terminates with condition code 12.

Operator response: Examine all associated job output to determine if the problem is caused by a correctable environmental error. If so, make the correction and rerun the job. If not, gather all relevant diagnostic materials and contact IBM support.

System programmer response: None.

Module: HSITAGP

HSIT023I PROCESSING TERMINATED DUE TO ENCOUNTERED ERROR CONDITION

Explanation: Because of a previously reported error, the Product Tagging Utility is terminating unilaterally, without processing all of the specified program library data sets, and without generating all of the requested program product tagging data.

System action: Processing terminates.

Operator response: Investigate any previously reported error conditions.

System programmer response: None.

Module: HSITAGP

HSIT024E ISITMGD FAILED - RC=*rc* RS=*rs* FOR FILE *file* AND DATA SET *dsn*

Explanation: An ISITMGD macro was issued against a program library, but ISITMGD issued a non-zero return code.

In the message text:

rc the decimal return code issued by ISITMGD.

rs the decimal reason code issued by ISITMGD.

file

the name of the file being processed by ISITMGD.

dsn

the name of the data set being processed by ISITMGD.

System action: The named data set is not processed, and processing continues with the next relevant data set.

Operator response: Consult the applicable DFSMS Macro Instructions for Data Sets manual to determine the meaning of the ISITMGD return and reason codes. Ensure that the named data set is a valid and accessible partitioned data set. If necessary, gather the appropriate diagnostic materials and contact IBM support.

System programmer response: None.

Module: HSITAGP

HSIT025I *pgmcnt* PROGRAMS FOUND TO TAG FROM DATA SET *dsn*

Explanation: Input processing of the named data set has completed, resulting in data from the reported number of programs being accumulated for subsequent output.

In the message text:

pgmcnt

the number of programs processed.

dsn

the data set name containing the processed programs.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSITAGP

**HSIT026I PROCESSING COMPLETE - RC=*rc*
AND *pgmcnt* PROGRAMS TAGGED IN
TOTAL**

Explanation: The Product Tagging Utility program HSITAGP has completed processing. This message reports the return code issued by HSITAGP, and the number of programs from which data has been collected during this run.

In the message text:

rc the return code issued by the HSITAGP upon termination.

pgmcnt
 the number of programs processed in this run of HSITAGP.

System action: Processing is completed with the displayed return code.

Operator response: None required.

System programmer response: None.

Module: HSITAGP

**HSIT028W UNABLE TO ACQUIRE ANY
PRODUCT MAINTENANCE LEVEL
DATE**

Explanation: After having processed all of the relevant programs, HSITAGP was unable to acquire any date stamp for use as a maintenance level indicator.

System action: Blanks are placed in the maintenance level field and processing continues.

Operator response: None required.

System programmer response: None.

Module: HSITAGP

**HSIT029S *stattyp* STATEMENT VALUE LENGTH
EXCEEDS THE ALLOWED MAXIMUM
OF *max* BYTES**

Explanation: The value specified for the named statement type was found to be longer than the maximum allowed. The maximum byte count allowed for a value of this statement type is shown in the message.

In the message text:

stattyp
 the type of input statement being processed.

max
 number of bytes.

System action: Processing terminates.

Operator response: Correct the input and rerun the job.

System programmer response: None.

Module: HSITAGP

**HSIT030S INVALID TEXT CHARACTER X"*char*"
FOUND IN *stattyp* STATEMENT**

Explanation: The displayed data byte was encountered when processing the value specified for the statement type indicated. The value specified on the statement is expected to be a string. Valid byte values for text data are in the range from X'40' to X'FE' inclusive. The control code encountered is either not valid input, or not valid input in this location. The only control codes that can be used in the input value are SO (X'0E') and SI(X'0F'), when they are used to encapsulate DBCS data.

In the message text:

char
 the hexadecimal value of the invalid text code point.

stattyp
 the type of input statement being processed.

System action: Processing terminates.

Operator response: Remove the undisplayable characters from the input value. If using DBCS, ensure that SO precedes DBCS text and SI terminates DBCS text, and that the DBCS text is an even number of valid text bytes.

System programmer response: None.

Module: HSITAGP

**HSIT999U HSIMSG/HSITMSG FAILURE -
MSGID=*msgid* RC=*rc* RS=*rs***

Explanation: HSIMSG was called to produce a message text, but the call failed.

In the message text:

msgid
 identifier of the failing message.

rc HSIMSG return code.

rs HSIMSG reason code.

System action: Terminates with a condition code of 20.

Operator response: Inform the system programmer.

System programmer response: Ensure Joblib/Steplib contains the library where the HSITMSG message module resides. If you cannot resolve this issue then contact IBM support.

Module: HSITAGP

HSIX - Inquisitor for z/OS UNIX messages and codes

Return codes

Table 11. Return codes and their meaning

Return code	Description
0	No errors encountered. All requests processed successfully.
4	Input/Output error in one or more program libraries.
8	Error - Incomplete data. Processing continues. OPEN or other system service error.
12	Syntax error.
16	Unrecoverable error. No requests processed. SYSIN or HSIPZIP or HSIPOUT File cannot be used, or unsupported Operating System.
20	Disastrous error. No requests processed. SYSPRINT file cannot be used.

Message suffix codes

Table 12. Message suffix codes and associated condition codes

Suffix	Meaning	Raises minimum condition code to:
I	Information message	0
W	Warning message	4
E	Error message	8
S	Severe error message	12
U	Unrecoverable error message	16

Message texts and explanations

All numeric completion codes of system services reported in these messages are in hexadecimal unless otherwise stated.

HSIX002I THE SPECIFIED DIRECTORY NAME DOES NOT START WITH A SLASH

Explanation: A record from file HSIXROOT was read and was found to start with a non-blank that is not a slash. It is reported in case processing errors result from the non-standard directory name.

System action: Processing continues.

Operator response: Correct the input if it is incorrect.

System programmer response: None.

Module: HSIXINQ

HSIX003I PROGRAM PARAMETER "parm" DISCARDED

Explanation: The program parameter contained some unrecognized data.

In the message text:

parm
parameter in error.

System action: The displayed part of the program parameter is ignored.

Operator response: Correct the program parameter.

System programmer response: None.

Module: HSIXINQ

HSIX004I FUNCTION *func* COMPLETED WITH RC=*rc* AND REASON=*rs*

Explanation: The named z/OS UNIX system service issued a negative return value.

In the message text:

func
function name.

rc hexadecimal return code.

rs hexadecimal reason code.

System action: Processing continues.

Operator response: Determine the meaning of the return and reason codes, and correct the problem if appropriate. Information relating to the failing UNIX function can be found in the UNIX System Services Assembler Callable Services manual. Information relating to the Return Code and Reason Code of the failing UNIX function can be found in the UNIX System Services Messages and Codes manual.

System programmer response: None.

Module: HSIXINQ

HSIX006E RENAME FAILED FOR DATA SET *dsn*

Explanation: The rename operation to add one or more extra low-level qualifiers to a data set name as specified by the LLQ program parameter setting did not succeed. The named data set is allocated to either the HSIXZIP or HSIXOUT file. If this message is not followed by an associated explanatory message then an IDCAMS report detailing the results of the rename attempt will have been written to SYSPRINT.

In the message text:

dsn

name of the HSIXZIP or HSIXOUT data set.

System action: The output data set retains its original name.

Operator response: Ensure that the specified LLQ string length does not exceed 44 bytes, that any symbols used are valid for this system, and that resultant data set names are not longer than 44 bytes. Examine associated messages to determine the reason for the rename failure.

System programmer response: None.

Module: HSIXINQ

HSIX007E FUNCTION *func* FAILED, RC=*rc*, REASON=*rs*, FOR PATH *pth*

Explanation: The named z/OS UNIX system service issued a negative return value.

In the message text:

func

function name.

rc hexadecimal return code.

rs hexadecimal reason code.

pth

path in error.

System action: Processing continues.

Operator response: Determine the meaning of the return and reason codes, and correct the problem if

appropriate. Information relating to the failing UNIX function can be found in the UNIX System Services Assembler Callable Services manual. Information relating to the Return Code and Reason Code of the failing UNIX function can be found in the UNIX System Services Messages and Codes manual.

System programmer response: None.

Module: HSIXINQ

HSIX008E FUNCTION *func* WAS DENIED ACCESS TO PATH *pth*

Explanation: The named z/OS UNIX system service issued a return code of hexadecimal 6F which indicates that access was denied.

In the message text:

func

function name.

pth

path in error.

System action: Processing continues.

Operator response: Grant the user access to the parts of the UNIX file system to be scanned.

System programmer response: None.

Module: HSIXINQ

HSIX009S NO EXECUTABLE SOFTWARE FOUND - NO DATA FOR IMPORT WAS PRODUCED

Explanation: All scanning operations failed to find any programs or other executable software, so no data suitable for subsequent processing was created.

System action: Terminates with a condition code of 12.

Operator response: Correct any selection criteria errors and rerun the job.

System programmer response: None.

Module: HSIPINQ

HSIX999U HSIMSG/HSIXMSG FAILURE - MSGID=*msgid* RC=*rc* RS=*rs*

Explanation: HSIMSG was called to produce a message text, but the call failed.

In the message text:

msgid

identifier of the failing message.

rc HSIMSG return code.

rs HSIMSG reason code.

System action: Terminates with a condition code of 20.

Operator response: Inform the system programmer.

System programmer response: Ensure Joblib/Steplib

contains the library where the HSIXMSG message module resides. If you cannot resolve this issue then contact IBM support.

Module: HSIXINQ

HSIZ - Usage Monitor messages

Return codes

Table 13. Return codes and their meaning

Return code	Description
0	Normal termination.
16	Initialization failed.

Message suffix codes

Table 14. Message suffix codes and associated condition codes

Suffix	Meaning	Raises minimum condition code to:
I	Information message	0
W	Warning message	4
E	Error message	8
S	Severe error message	12
U	Unrecoverable error message	16

Message texts and explanations

All numeric completion codes of system services reported in these messages are in hexadecimal unless otherwise stated.

HSIZ001I USAGE MONITOR INITIALIZING

Explanation: The Usage Monitor has been started.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

Module: HSIZMON

HSIZ002I *csid* DETECTED UNSUPPORTED OPERATING SYSTEM

Explanation: The Usage Monitor may not run on an unsupported operating system.

In the message text:

csid
current system identifier.

System action: Processing terminates.

Operator response: None required.

System programmer response: None.

HSIZ003I *csid* USAGE MONITOR NOT APF AUTHORIZED

Explanation: The Usage Monitor needs to be executed in an APF authorized environment.

In the message text:

csid
current system identifier.

System action: Processing terminates.

Operator response: See System Programmer to correct the error.

System programmer response: APF authorize the load libraries that the Usage monitor runs from.

Module: HSIZMON

HSIZ005I *csid* USAGE MONITOR ALREADY ACTIVE

Explanation: The Usage Monitor is already running.

Only one concurrent copy can run in an operating system image.

In the message text:

csid
current system identifier.

System action: Processing terminates. The established Usage Monitor task continues.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

HSIZ006I *csid* USAGE MONITOR QEDIT
BUFFER SET FAILED

Explanation: A QEDIT issued to set up MODIFY command processing has failed.

In the message text:

csid
current system identifier.

System action: Processing terminates.

Operator response: Notify the system programmer.

System programmer response: Gather appropriate diagnostic materials and contact IBM support.

Module: HSIZMON

HSIZ007I *csid* USAGE MONITOR MODULE *mod*
FAILED - RC=*rc*

Explanation: A Usage Monitor subroutine has failed.

In the message text:

csid
current system identifier.

mod
failing module name.

rc decimal return code.

System action: Processing terminates.

Operator response: Notify the system programmer.

System programmer response: If the return code is 312, then you must increase your MAXCAD parameter. This requires an IPL. For any other return codes, gather appropriate diagnostic materials and contact IBM support.

Module: HSIZMON

HSIZ008I *csid* USAGE MONITOR INITIALIZED -
ASID *asid* SET IN AVT *avt*

Explanation: An Anchor Vector Table (AVT) has been acquired or reacquired, and has been updated for the

current server address space, which has completed initialization.

In the message text:

csid
current system identifier.

asid
ASID number.

avt
AVT Address.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

HSIZ009I DATA WRITTEN TO DSN=*dsn*

Explanation: Usage Monitor data has been written to the named data set.

In the message text:

dsn
data set name of the created output.

System action: Processing continues.

Operator response: Transfer the named data set to the system where the database resides so it can be processed.

System programmer response: None.

Module: HSIZMON

HSIZ010E *csid* USAGE MONITOR - WRITER
TASK ENDED - RC=*rc*

Explanation: A writer task has ended with a non-zero return code.

In the message text:

csid
current system identifier.

rc return code of writer task.

System action: Processing continues.

Operator response: Notify the system programmer.

System programmer response: Gather appropriate diagnostic materials and contact IBM support.

Module: HSIZMON

HSIZ011E *csid* USAGE MONITOR - WRITER
TASK ABENDED - *Sabend*

Explanation: A writer task has ended abnormally.

In the message text:

csid

current system identifier.

abend

abend code from writer task.

System action: Processing continues.

Operator response: Notify the system programmer.

System programmer response: Local reasons for system abends should be investigated. If necessary, gather appropriate diagnostic materials and contact IBM support.

Module: HSIZMON

HSIZ012I **DATA LOSS UNUSABLE DSN=*dsn***

Explanation: It is likely that Usage Monitor data has been lost because of unexpected behaviour by a writer task. Any compressed output data that has been written will probably be unusable.

In the message text:

dsn

data set name of the created output file.

System action: Processing continues.

Operator response: Examine any preceding messages to determine the likely cause of the writer task error. If the output data set is complete it can be used, otherwise if the data is compressed it is unusable. If the data set is empty then this fact can be noted and the data set can be deleted. Unless retaining an unusable data set for diagnosis reasons it can be deleted.

System programmer response: Investigate any writer task abends.

Module: HSIZMON

**HSIZ013I *csid* USAGE MONITOR -
UNRECOGNISED PROGRAM
PARAMETER IGNORED**

Explanation: An unrecognised program parameter was specified.

In the message text:

csid

current system identifier.

System action: Processing continues.

Operator response: Remove or correct the program parameter.

System programmer response: None.

Module: HSIZMON

**HSIZ014I *csid* USAGE MONITOR - COULD NOT
OPEN FILE HSIZIN**

Explanation: The HSIZIN file could not be opened by the Usage Monitor.

In the message text:

csid

current system identifier.

System action: Processing terminates.

Operator response: Supply or correct the HSIZIN DD statement in the JCL.

System programmer response: None.

Module: HSIZMON

**HSIZ015I *csid* USAGE MONITOR - COULD NOT
OPEN FILE HSIZMSG**

Explanation: The HSIZMSG file could not be opened by the Usage Monitor.

In the message text:

csid

current system identifier.

System action: Processing terminates.

Operator response: Supply or correct the HSIZMSG DD statement in the JCL.

System programmer response: None.

Module: HSIZMON

**HSIZ016I *csid* USAGE MONITOR
TERMINATING - INVALID OR
MISSING HSIZIN DATA**

Explanation: At least one HSIZIN input statement was invalid, or input required to be present in the HSIZIN file was missing.

In the message text:

csid

current system identifier.

System action: Processing terminates.

Operator response: Examine the HSIZMSG output report. Correct any invalid statements. Ensure a valid data set name prefix was specified.

System programmer response: None.

Module: HSIZMON

**HSIZ017I *csid* USAGE MONITOR
TERMINATING - NOW WRITING
CAPTURED DATA**

Explanation: A STOP command has been encountered.

The current repository contents are written before the Usage Monitor terminates.

In the message text:

csid
current system identifier.

System action: The Usage Monitor starts a writer task and waits for its completion before terminating.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

HSIZ018I *csid* **USAGE MONITOR HAS NOW TERMINATED**

Explanation: The Usage Monitor has now freed resources and is about to terminate.

In the message text:

csid
current system identifier.

System action: Processing terminates.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

HSIZ019I *csid* **USAGE MONITOR REPOSITORY FULL - NOW SWITCHING**

Explanation: The current Usage Monitor data collection repository is full.

In the message text:

csid
current system identifier.

System action: A new repository is created and used for subsequent data collection. A writer task is initiated for the full repository.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

HSIZ020I *csid* **THE SPECIFIED NUMBER WAS TOO SMALL**

Explanation: The numeric value of a command subparameter was too small to be valid in the command context.

In the message text:

csid
current system identifier.

System action: The command is discarded.

Operator response: Correct the numeric value and reissue the command.

System programmer response: None.

Module: HSIZMON

HSIZ021I *csid* **THE SPECIFIED NUMBER WAS TOO LARGE**

Explanation: The numeric value of a command subparameter was too large to be valid in the command context.

In the message text:

csid
current system identifier.

System action: The command is discarded.

Operator response: Correct the numeric value and reissue the command.

System programmer response: None.

Module: HSIZMON

HSIZ022I *csid* **PASSIVE MODE SET FROM PROGRAM PARAMETER**

Explanation: PASSIVE was specified in the program parameter.

In the message text:

csid
current system identifier.

System action: The Usage Monitor starts in passive mode unless overridden by input from the HSIZIN file.

Operator response: Set the Usage Monitor into collection mode to start data collection.

System programmer response: None.

Module: HSIZMON

HSIZ023I *csid* **PROGRAM NAME MASK** *mask* **NOT ADDED - ALREADY IN TABLE**

Explanation: A command to add a program name mask to a program mask table was issued, but the mask was already present in the table.

In the message text:

csid
current system identifier.

mask
program mask specified in command.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

HSIZ024I *csid* PROGRAM NAME MASK *mask*
ADDED TO TABLE

Explanation: A command to add a program name mask to a program mask table was issued, and the mask was added successfully.

In the message text:

csid
current system identifier.

mask
program mask specified in command.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

HSIZ025I *csid* PROGRAM NAME MASK *mask*
NOT DELETED - NOT FOUND IN
TABLE

Explanation: A command to delete a program name mask from a program mask table was issued, but the mask was not present in the table.

In the message text:

csid
current system identifier.

mask
program mask specified in command.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

HSIZ026I *csid* PROGRAM NAME MASK *mask*
DELETED FROM TABLE

Explanation: A command to delete a program name mask to a program mask table was issued, and the mask was deleted successfully.

In the message text:

csid
current system identifier.

mask
program mask specified in command.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

HSIZ027I ECSA APPEARS TO BE EXHAUSTED -
INCREASE SIZE FOR NEXT IPL

Explanation: The Usage Monitor has attempted to acquire storage from ECSA, but was given CSA storage by the system. This indicates that there is insufficient ECSA for the current workloads, and that it should be increased for the next IPL.

System action: Processing continues.

Operator response: Notify the system programmer.

System programmer response: Add around 50 to 100 megabytes to the ECSA size in the system IPL parameters. Check the capacity of the COMMON page data set.

Module: HSIZMON

HSIZ028I ECSA AND CSA APPEAR TO BE
EXHAUSTED - INCREASE ECSA NEXT
IPL

Explanation: The Usage Monitor has attempted to acquire some common storage, but the requested amount was unavailable. This indicates that there is insufficient ECSA for the current workloads, and that it should be increased for the next IPL.

System action: Processing continues.

Operator response: Notify the system programmer.

System programmer response: Add around 50 to 100 megabytes to the ECSA size in the system IPL parameters. Close some applications using CSA. If necessary, commence orderly shutdown and reIPL before the system crashes. Check the capacity of the COMMON page data set.

Module: HSIZMON

HSIZ029I *csid* THERE IS CURRENTLY NO
EXCLUDE TABLE

Explanation: A request was made to change or display the program name mask exclude table, but there is currently no exclude table.

In the message text:

csid
current system identifier.

System action: Processing continues.

Operator response: None required. The EXC command may be used to create a table.

System programmer response: None.

Module: HSIZMON

HSIZ030I *csid* **USAGE MONITOR - NO DATA COLLECTED SO SKIPPING WRITE**

Explanation: Before a writer task was initiated to output the contents of a Usage Monitor repository, it was found that the repository contained no data, and that therefore data output processing could be omitted.

In the message text:

csid
current system identifier.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

HSIZ031I *csid* **INITIATING REPOSITORY SWITCH**

Explanation: A switch (SWI) command was issued and the requested action is being initiated.

In the message text:

csid
current system identifier.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

HSIZ032I *csid cmd* **COMMAND UNKNOWN**

Explanation: A command was issued but was not recognised.

In the message text:

csid
current system identifier.

cmd
name of the issued command.

System action: The command is ignored. Processing continues.

Operator response: If necessary, correct and reissue the command.

System programmer response: None.

Module: HSIZMON

HSIZ033I *csid cmd* **COMMAND PROCESSED**

Explanation: A command was issued and has been processed successfully.

In the message text:

csid
current system identifier.

cmd
name of the issued command.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

HSIZ034I *csid cmd* **COMMAND HAS INVALID OPERAND**

Explanation: A command was issued but an invalid operand was encountered.

In the message text:

csid
current system identifier.

cmd
name of the issued command.

System action: The command is ignored. Processing continues.

Operator response: If necessary, correct and reissue the command.

System programmer response: None.

Module: HSIZMON

HSIZ035I *csid cmd* **COMMAND FAILED**

Explanation: A command was issued but insufficient resources were available to execute it successfully.

In the message text:

csid
current system identifier.

cmd
name of the issued command.

System action: The command is ignored. Processing continues.

Operator response: Try again after more resources become available.

System programmer response: None.

Module: HSIZMON

HSIZ036I *csid cmd* **COMMAND CAUSED NO CHANGE**

Explanation: A command was issued but the state to be set by the command was found to already exist.

In the message text:

csid
current system identifier.

cmd
name of the issued command.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

HSIZ037I *csid cmd* COMMAND REJECTED

Explanation: A recognised command was issued at a time when the Usage Monitor is unable to process the command.

In the message text:

csid
current system identifier.

cmd
name of the issued command.

System action: The command is ignored. Processing continues.

Operator response: Try again after the Usage Monitor has freed the resources.

System programmer response: None.

Module: HSIZMON

HSIZ038I *csid* CURRENT USAGE MONITOR PROGRAM EXCLUDE LIST:

Explanation: A D-X command was issued to display the program name exclude table contents. The active entries are shown after this message.

In the message text:

csid
current system identifier.

System action: The data is displayed and processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

HSIZ039I *csid* REPOSITORY SWITCH HAS BEEN QUEUED

Explanation: A repository switch was triggered by a SWI or STOP command, or by the current repository becoming full, but a writer task is already active. This message is followed by message HSIZ040I which shows the creation timestamp of the active writer task.

In the message text:

csid
current system identifier.

System action: Data collection is suspended. Wait for the current writer task to complete whereupon a new writer task is created, and a new repository is created, and data collection is resumed.

Operator response: Check that there are sufficient resources to dispatch the Usage Monitor address space. Check that there are no serialization problems with system components such as device allocation which could be inhibiting writer task processing.

System programmer response: None.

Module: HSIZMON

HSIZ040I *csid* WAITING FOR WRITER TASK ATTACHED *ts*

Explanation: A repository switch was triggered by a SWI or STOP command, or by the current repository becoming full, but a writer task is already active. This message follows message HSIZ039I and shows the creation timestamp of the active writer task.

In the message text:

csid
current system identifier.

ts Time stamp of write task.

System action: Data collection is suspended. Wait for the current writer task to complete whereupon a new writer task is created, and a new repository is created, and data collection is resumed.

Operator response: Check that there are sufficient resources to dispatch the Usage Monitor address space. Check that there are no serialization problems with system components such as device allocation which could be inhibiting writer task processing.

System programmer response: None.

Module: HSIZMON

HSIZ041I *csid* CURRENT USAGE MONITOR OUTPUT DYNALLOC PARMS:

Explanation: A D-A command was issued to display the current output dynamic allocation parameters, which are shown after this message.

In the message text:

csid
current system identifier.

System action: The data is displayed and processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

**HSIZ042I CURRENT USAGE MONITOR
OUTPUT SYSTEM ID IS "csid"**

Explanation: A D-I command was issued to display the current system identifier which is to be contained in output header records.

In the message text:

csid
current system identifier.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

**HSIZ043I csid DATA DISCARDED DUE TO ECSA
STORAGE LIMIT**

Explanation: The Usage Monitor has detected for the first time in the life of the repository or since a CSA setting change that program usage event data has been discarded due to the ECSA storage usage limit being reached. This limit was set with the CSA command.

In the message text:

csid
current system identifier.

System action: Processing continues.

Operator response: Adjust the Usage Monitor CSA limit as appropriate for the particular system. Ensure that the ECSA size has been generously defined for the system, and that the common page data set size is adequate. Ensure that the Usage Monitor address space is running at a higher priority than all CPU-bound workloads. Generally, monitors need to run at a higher priority than the workloads being monitored.

System programmer response: None.

Module: HSIZMON

**HSIZ044I csid SWITCH-AND-WRITE
TIME-OF-DAY IS SET TO hh:mm**

Explanation: A D-T command was issued to display the switch-and-write time-of-day setting for this system.

In the message text:

csid
current system identifier.

hh Hour of the day.

mm minute of the hour.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

HSIZ045I csid CREATED REPOSITORY token-alet

Explanation: A repository was created to hold collected program usage data.

In the message text:

csid
current system identifier.

token
space token of the repository data space.

alet
ALET of the repository data space.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

HSIZ046I csid DELETED REPOSITORY token-alet

Explanation: A repository which was no longer needed was deleted.

In the message text:

csid
current system identifier.

token
space token of the repository data space.

alet
ALET of the repository data space.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

**HSIZ047I csid USAGE MONITOR - ATTACHING
WRITER SEQ-NO-seqnbr**

Explanation: A writer task is being attached to write out repository contents. The writer task sequence number is also reported. The first writer task to run after the Usage Monitor starts has a sequence number of 1.

In the message text:

csid
current system identifier.

seqnbr
sequence number of writer task this run.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

HSIZ048I *csid* USAGE MONITOR - IDENTIFY FAILED HEX RC=*rc*

Explanation: The Usage Monitor executed an IDENTIFY macro which failed.

In the message text:

csid

current system identifier.

rc hexadecimal return code of the IDENTIFY macro.

System action: Processing terminates.

Operator response: Notify the system programmer.

System programmer response: Investigate why an IDENTIFY macro would fail with that return code.

Module: HSIZMON

HSIZ049I *csid* DATA SET NAME MASK NOT DEACTIVATED, NOT FOUND IN LIST

Explanation: A command to delete a data set name mask from a data set name mask list was issued, but the mask was not present in the list.

In the message text:

csid

current system identifier.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

HSIZ050I *csid* DATA SET NAME MASK *mask* LIST *list*

Explanation: A D-D command was issued to display the data set name mask include and exclude lists. These header and trailer lines mark the start and end of the lists.

In the message text:

csid

current system identifier.

mask

INCLUDE or EXCLUDE.

list

START or END.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

HSIZ051I *csid* ECSA QUEUING STORAGE LIMIT: *limit*

Explanation: Either a CSA command was issued to change the limit setting, or a D-S command was issued. The CSA queuing storage limit can be used to limit the quantity of ECSA to be used to hold program usage data elements queued for storing into the data space repository. When this limit is reached further data is discarded. A count of discarded elements is maintained and reported at termination. A limit of zero means the usage monitor never tries to limit ECSA storage usage. If the system supplies CSA storage because ECSA is full, the CSA storage is freed and the data is discarded.

In the message text:

csid

current system identifier.

limit

NO LIMIT or kilobyte limit.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

HSIZ053I *csid* MONITORING UNIX PROGRAMS? *ans*

Explanation: Either a USS command was issued to change the UNIX program monitoring status or a D-S command was issued. When the answer is YES the usage of programs fetched from UNIX files is monitored. When the answer is NO only the usage of programs from PDS and PDSE libraries is monitored.

In the message text:

csid

current system identifier.

ans

YES or NO.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

HSIZ054I *csid* MONITORING LINK PACK AREA PROGRAMS? *ans*

Explanation: Either an LPA command was issued to change the LPA program monitoring status or a D-S command was issued. When the answer is YES the usage of programs residing in the Link Pack Area is monitored. When answer is NO only the usage of

programs loaded into address space regions (and sometimes into CSA) is monitored.

In the message text:

csid

current system identifier.

ans

YES or NO.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

HSIZ056I *csid* PREFER VOLUME SYMBOL OVER SERIAL? *ans*

Explanation: Either a SYM command was issued to change the volume symbol status or a D-S command was issued. When the answer is YES a matching system static symbol which evaluates to the volume serial is collected instead of the volume serial if such a symbol exists, otherwise the actual volume serial is collected. When the answer is NO the captured volume serial number is always output. A YES setting may be useful to improve data matching when system software platform volume switches take place.

In the message text:

csid

current system identifier.

ans

YES or NO.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

HSIZ058I *csid* FILE HSIZIN IS NOT ALLOCATED - CANNOT PERFORM REFRESH

Explanation: A REF command was issued to refresh settings from commands in the HSIZIN file, but the HSIZIN file had been freed, and was no longer allocated to the Usage Monitor.

In the message text:

csid

current system identifier.

System action: The refresh operation is suppressed and processing continues.

Operator response: Ensure FREE=CLOSE is not specified in the HSIZIN JCL DD statement. Recycle the Usage Monitor to refresh the settings if necessary.

System programmer response: None.

Module: HSIZMON

HSIZ059I *csid* REFRESH PERFORMED WITH NO ERRORS

Explanation: A REF command was issued to refresh settings from commands in the HSIZIN file. All commands in the HSIZIN file were completed successfully.

In the message text:

csid

current system identifier.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

HSIZ060I *csid* REFRESH PERFORMED BUT ERROR(S) FOUND

Explanation: A REF command was issued to refresh settings from commands in the HSIZIN file. At least one command in the HSIZIN file resulted in an error.

In the message text:

csid

current system identifier.

System action: Processing terminates.

Operator response: Examine the output in the HSIZMSG file to determine the problem(s).

System programmer response: None.

Module: HSIZMON

HSIZ062I *csid* MAXCAD=*val* IS PROBABLY TOO SMALL

Explanation: A DSPSERV CREATE macro issued a return code of 12. This is usually caused by the maximum number of SCOPE=COMMON data spaces already existing, so that no more can be created. To increase this maximum specify a larger value for MAXCAD in the system parameter library for the next IPL.

In the message text:

csid

current system identifier.

val

current value of MAXCAD.

System action: Processing terminates.

Operator response: Restart the Usage Monitor after a SCOPE= COMMON data space has been deleted.

System programmer response: Allow a greater

number of concurrent SCOPE=COMMON data spaces by increasing MAXCAD in PARMLIB.

Module: HSIZMON

HSIZ063I *csid* COLLECTING "UNKNOWN" EVENTS? *ans*

Explanation: Either a UNK command was issued or a D-S command was issued. When the answer is YES this message indicates that the Usage Monitor logs events with incomplete data which would not normally be collected. Data base content is not affected.

In the message text:

csid
current system identifier.

ans
YES or NO.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

HSIZ064I *csid* WILL WRITER TASK COMPRESS THE DATA? *ans*

Explanation: Either a ZIP command was issued to change the output compression setting or a D-S command was issued. When the answer is YES the writer task writes compressed data to reduce I/O volumes.

In the message text:

csid
current system identifier.

ans
YES or NO.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

HSIZ065I *csid* WILL WRITER TASK CORRECT LINKLIST DSN? *ans*

Explanation: Either an LLC command was issued or a D-S command was issued. When the answer is YES the writer task will perform a BLDL for programs known to have been fetched from the link list, and each output record for such programs will be altered to reflect the link list data set name that the writer task found the program in.

In the message text:

csid
current system identifier.

ans
YES or NO.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

HSIZ066I *csid nbr* IDLE ELEMENT(S) "LOST" DUE TO ZERO POINTER

Explanation: The Usage Monitor was terminating normally when a storage accounting discrepancy was discovered. The storage for the idle element chain was being freed when it was found to be terminated by a zero pointer before the expected number of elements had been processed. The most probable cause is a storage overlay. This may or may not represent a Usage Monitor logic error. The size of common storage which may be unusable until the next IPL can be calculated by multiplying the element count by the size of an element.

In the message text:

csid
current system identifier.

nbr
the number of elements being reported.

System action: Termination continues.

Operator response: Determine if the size of the potential loss of common storage is likely to impact upon system stability, and take the appropriate action. Ensure that all appropriate maintenance has been applied.

System programmer response: None.

Module: HSIZMON

HSIZ067I *csid* SAVE ELEMENTS ON THE IDLE CHAIN? *ans*

Explanation: Either an IDL command was issued or a D-S command was issued. When the answer is YES the Usage Monitor will place processed work elements on a chain for idle elements instead of freeing the storage. When an address space needs an element to record a program usage event, one from the idle chain will be used in preference to acquiring more storage. Use of the idle chain can reduce GETMAIN/FREEMAIN processing and therefore improve overall efficiency.

In the message text:

csid
current system identifier.

ans

YES or NO.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

HSIZ068I *csid* COLLECTING JOB ACCOUNTS
NOW? *ans*

Explanation: A D-S command was issued. When the answer is YES job account data is currently being collected as program usage events are recorded. When the answer is NO job account data is not being collected currently.

In the message text:

csid

current system identifier.

ans

YES or NO.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

HSIZ069I *csid* COLLECTING JOB ACCOUNTS
LATER? *ans*

Explanation: Either a JAC command was issued or a D-S command was issued. When the answer is YES job account data will be collected after the next Usage Monitor collection repository switch. If the answer is NO job account data will not be collected from that time onwards.

In the message text:

csid

current system identifier.

ans

YES or NO.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Module: HSIZMON

HSIZ070I *csid* COLLECTING REGISTERED
PRODUCT DATA NOW? *ans*

Explanation: A D-S command was issued. When the answer is YES registered software product data from SMF is currently being collected by the Usage Monitor.

When the answer is NO then this SMF data is not being currently collected.

In the message text:

csid

current system identifier.

ans

YES or NO.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Module: HSIZMON

HSIZ071I *csid* COLLECTING REGISTERED
PRODUCT DATA LATER? *ans*

Explanation: Either a PRS command was issued or a D-S command was issued. When the answer is YES registered software product data from SMF will be collected after the next Usage Monitor collection repository switch. When the answer is NO this SMF data will not be collected after the next switch.

In the message text:

csid

current system identifier.

ans

YES or NO.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Module: HSIZMON

HSIZ072I *csid* COLLECTING DYNAMIC
CAPACITY DATA NOW? *ans*

Explanation: A D-S command was issued. When the answer is YES hardware capacity information is currently being collected by the Usage Monitor. When the answer is NO hardware capacity information is not being currently collected.

In the message text:

csid

current system identifier.

ans

YES or NO.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Module: HSIZMON

HSIZ073I *csid* COLLECTING DYNAMIC
CAPACITY DATA LATER? *ans*

Explanation: Either a CAP command was issued or a D-S command was issued. When the answer is YES the Usage Monitor will collect hardware capacity information after the next Usage Monitor collection repository switch. When the answer is NO the hardware capacity information will not be collected after the next switch.

In the message text:

csid
current system identifier.

ans
YES or NO.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Module: HSIZMON

HSIZ074I *csid* OUTPUT NAMES OF COLLECTED
USERS? *ans*

Explanation: Either a UNM command was issued or a D-S command was issued. When the answer is YES collected user names will be included in the data output by the Usage Monitor writer task. When the answer is NO user names will not be written to the output data set. Even if the answer is YES, no user names will be output if no user information was collected.

In the message text:

csid
current system identifier.

ans
YES or NO.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Module: HSIZMON

HSIZ075I *csid* COLLECTING USER
INFORMATION NOW? *ans*

Explanation: A D-S command was issued. When the answer is YES the identifier and name of each program user is currently being collected by the Usage Monitor. When the answer is NO these user details are not being currently collected.

In the message text:

csid
current system identifier.

ans
YES or NO.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Module: HSIZMON

HSIZ076I *csid* COLLECTING USER
INFORMATION LATER? *ans*

Explanation: Either a UID command was issued or a D-S command was issued. When the answer is YES the identifier and name of each program user will be collected after the next Usage Monitor collection repository switch. When the answer is NO these userid details will not be collected after the next switch.

In the message text:

csid
current system identifier.

ans
YES or NO.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Module: HSIZMON

HSIZ077I *csid* COLLECTING JOB NAMES NOW?
ans

Explanation: A D-S command was issued. When the answer is YES the names of jobs using programs are currently being collected by the Usage Monitor. When the answer is NO only generic address space type data such as JOB, STC and TSU is currently being collected instead of individual job names.

In the message text:

csid
current system identifier.

ans
YES or NO.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Module: HSIZMON

HSIZ078I *csid* COLLECTING JOB NAMES
LATER? *ans*

Explanation: Either a JNM command was issued or a D-S command was issued. When the answer is YES the names of jobs using programs will be collected after the

next Usage Monitor collection repository switch. When the answer is NO only generic address space type data such as JOB, STC and TSU will be collected after the next switch instead of individual job names.

In the message text:

csid
current system identifier.

ans
YES or NO.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Module: HSIZMON

HSIZ079I *csid* ALLOWING CICS EVENT COLLECTION? *ans*

Explanation: A D-S command was issued. When the answer is YES this message indicates that CICS event collection from suitably customized CICS regions is enabled. When the answer is NO CICS generated program usage information will not be collected.

In the message text:

csid
current system identifier.

ans
YES or NO.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

HSIZ080I *csid dsn*

Explanation: Displays the dataset name mask for a D-D command.

In the message text:

csid
current system identifier.

dsn
data set name.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

HSIZ081I *csid* MONITORING PREVIOUSLY RUNNING PROGRAMS? *ans*

Explanation: A D-S command was issued. When the answer is YES this message indicates usage data for programs resident in the regions of jobs which are older than the current Usage Monitor data space and which have SMF interval recording active will be collected. When the answer is NO there will be no usage data collected for programs which were running before the current data space was created and do not terminate before the data space collection period ends.

In the message text:

csid
current system identifier.

ans
YES or NO.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

HSIZ082I *csid* RETAINING ALL BATCH JOB IDENTIFIERS? *ans*

Explanation: Either a JID or a D-S command was issued. When the answer is YES the message indicates that data for batch jobs with different JES job identifiers will not be aggregated together but will be reported as usage by separate jobs. When the answer is NO data for usage of programs will be aggregated only by userid and job name and only the most recent job identifier will be retained. Aggregation corresponding to the NO answer is always used for started tasks and TSO sessions.

In the message text:

csid
current system identifier.

ans
YES or NO.

System action: Processing continues.

Operator response: None required.

System programmer response: None.

Module: HSIZMON

HSIZ201I DYNALLOCFailure RC=*rc* ERROR=*s99error* INFO=*s99info* DSN=*dsn*

Explanation: The writer task could not dynamically allocate a new output data set.

In the message text:

rc DYNALLOCFailure return code.

s99error

dynamic allocation reason code (DARC).

s99info

dynamic allocation information code.

dsn

name of the data set being allocated.

System action: Processing of the repository is terminated, and the data lost.

Operator response: Correct the cause of the allocation failure. If necessary, use the DSN, PRI, SEC and UNT commands to customize the allocation request for your installation. Note: The meanings of most DARC values are usually available in Appendix A of the ISPF Tutorial.

System programmer response: None.

Module: HSIZ0203

HSIZ202I USAGE MONITOR - COMPRESSION SUBROUTINE ERROR

Explanation: While processing repository data the compression subroutine encountered an error. The error message from the compression subroutine immediately follows this message.

System action: Processing of the repository is terminated, and the data lost.

Operator response: Correct the error described in the message from the compression subroutine. If you cannot resolve this issue then gather appropriate diagnostic materials and contact IBM support.

System programmer response: None.

Module: HSIZ0203

HSIZ203I USAGE MONITOR - SORT FAILED - RC=*rc*

Explanation: While sorting repository data the SORT task ended with a non-zero condition code which is taken to mean that the sort was not successful. This message is followed by message HSIZ205I.

In the message text:

rc decimal return code of the sort subtask.

System action: The output data set is closed, and the writing of unsorted data to the same data set is attempted.

Operator response: Consult the documentation of the SORT utility. The contents of the SORT report file (DDNAME=SYSOUT) may be helpful.

System programmer response: None.

Module: HSIZ0203

HSIZ204I USAGE MONITOR - SORT ABENDED - ABEND CODE=*abend*

Explanation: While sorting repository data the SORT task ended abnormally. This message is followed by message HSIZ205I.

In the message text:

abend

the abend code of the sort subtask.

System action: The output data set is closed, and the writing of unsorted data to the same data set is attempted.

Operator response: Investigate why such an abend could occur. The contents of the SORT report file (DDNAME=SYSOUT) may be helpful.

System programmer response: None.

Module: HSIZ0203

HSIZ205I USAGE MONITOR - UNSORTED DATA WILL BE WRITTEN

Explanation: The sorting of output data has failed so the data is now written unsorted.

System action: The message is preceded by either HSIZ203I or HSIZ204I. After the SORT task ended the output data set has been closed and reopened. Repository data is about to be written to the output data set.

Operator response: Investigate why the sort failed.

System programmer response: None.

Module: HSIZ0203

HSIZ206I *errmsg*

Explanation: The HSISHRNK compression routine issued an error message which is displayed.

In the message text:

errmsg

error message from HSISHRNK.

System action: The message is preceded by message HSIZ202I.

Operator response: Examine the message for further information.

System programmer response: None.

Module: HSIZ0203

HSIZ207I *mb* MB NOT AVAILABLE - IARV64 RC=*rc* REASON=*rs*

Explanation: The writer task tried to acquire extra storage to assist with sorting data, but the requested storage was not available.

In the message text:

mb megabytes requested.

rc return code from IARV64.

rs reason code from IARV64.

System action: Processing continues. Some output records may not be in sort order.

Operator response: Investigate the IARV64 feedback. If appropriate, increase MEMLIMIT for the Usage Monitor.

System programmer response: None.

Module: HSIZ0203

HSIZ301I DESERV FUNC=EXIT RC=*rc*
REASON=*rs*

Explanation: DESERV FUNC=EXIT issued a non-zero return code.

In the message text:

rc return code from DESERV.

rs reason code from DESERV.

System action: The DESERV exit is not installed.

Operator response: Notify the system programmer.

System programmer response: Research the DESERV feedback to determine why the exit could not be installed.

Module: HSIZ0303

HSIZ302I CSVDYNEX ADD (*excd*) RC=*rc*
REASON=*rs*

Explanation: CSVDYNEX ADD issued a non-zero return code. An exit could not be dynamically defined for the named exit point.

In the message text:

excd
dynamic exit point name.

rc return code from CSVDYNEX.

rs reason code from CSVDYNEX.

System action: The SMF exit is not installed.

Operator response: Notify the system programmer.

System programmer response: Research the CSVDYNEX feedback to determine why the exit could not be installed. Ensure that IEFU84 is an active SMF exit for the system or subsystem. If you cannot resolve this issue then gather appropriate diagnostic materials and contact IBM support.

Module: HSIZ0303

HSIZ303I ATTRIBUTE MISMATCH - *mod* NOT
INSTALLED

Explanation: The examined SVC table entry did not have the expected attributes.

In the message text:

mod
module name.

System action: The SVC intercept is not installed.

Operator response: Notify the system programmer.

System programmer response: Gather appropriate diagnostic materials and contact IBM support.

Module: HSIZ0303

HSIZ306I BAD *statnm* ENTRY PGM=*pgm* JOB=*jbn*
USER=*user* ID=*id* DATE=*date* REJECTED

Explanation: An invalid work element has been detected and some of its contents are displayed.

In the message text:

statnm
status name.

pgm
program name.

jbn
job name.

user
user name.

id id name.

date
date.

System action: Attempted to dump some data to HSIZSNAP if the file is allocated, and will then try to free the work element without processing its contents.

Operator response: Notify the system programmer.

System programmer response: The problem is indicative of a storage overlay. Gather appropriate diagnostic materials and contact IBM support.

Module: HSIZ3060

HSIZ310I MODULE *mod* INSTALLED AT
ADDRESS *loadpt* SIZE *size*

Explanation: The Usage Monitor has dynamically loaded a module into common storage and will now register it in DLPA.

In the message text:

mod
module name.

loadpt
module load point.

size
module size.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Module: HSIZ0303

HSIZ311I CSVDYLPA RC=rc RS=rs FOR mod

Explanation: The Usage Monitor attempted to register a newly installed module in DLPA, but CSVDYLPA issued a non-zero return code.

In the message text:

rc decimal return code issued by CSVDYLPA.

rs hexadecimal reason code issued by CSVDYLPA.

mod
name of the module being registered.

System action: Processing continues.

Operator response: Notify the system programmer.

System programmer response: Investigate why the

named module could not be registered in the current DLPA configuration.

Module: HSIZ0303

HSIZ999U HSIMSG/HSIZMSG FAILURE - MSGID=msgid RC=rc RS=rs

Explanation: HSIMSG was called to produce a message text, but the call failed.

In the message text:

msgid
identifier of the failing message.

rc HSIMSG return code.

rs HSIMSG reason code.

System action: Terminates with a condition code of 20.

Operator response: Inform the system programmer.

System programmer response: Ensure Joblib/Steplib contains the library where the HSIZMSG message module resides. If you cannot resolve this issue then gather appropriate diagnostic materials and contact IBM support.

Module: HSIZMON

HSIC - Operation messages

Return codes

Table 15. Return codes and their meaning

Return code	Description
0	No errors encountered. All requests processed successfully.
16	Unrecoverable error. No requests processed. SYSIN or HSIPZIP or INQSOUT File cannot be used, or unsupported operating system.

Message suffix codes

Table 16. Message suffix codes and associated condition codes

Suffix	Meaning	Raises minimum condition code to:
I	Information message	0
W	Warning message	4
E	Error message	8
S	Severe error message	12
U	Unrecoverable error message	16

Message texts and explanations

All numeric completion codes of system services reported in these messages are in hexadecimal unless otherwise stated.

HSIC002E A message is missing from the internal repository

Explanation: A message is missing from the internal message repository. When the default language is not English, it could simply mean that no translation of the given message exists. If the default language is English, that would indicate an error in the given application.

System action: The application would normally continue ignoring the given message number, but the specific action depends on the code attempting to issue the message which could also terminate the application.

User response: Contact IBM support.

HSIC003U The internal message repository is corrupted

Explanation: When attempting to issue a message, the internal message repository layout did not follow the expected format.

System action: The application terminates.

User response: Contact IBM support.

HSIC020E *application-name* encountered errors. Error code = *errorcode*

Explanation: The Application has encountered errors during processing. This is a general message on completion indicating that an error has occurred.

System action: Completes with given error code.

User response: Refer to additional message, or to the section "Return codes" on page 66, and to the log for more details on the specific error. Contact IBM support.

HSIC021S *application-name* encountered fatal errors. Error code = *error-code*

Explanation: The Application has encountered fatal errors during processing.

System action: Terminates with given error code

User response: Refer to additional message, or to the section "Return codes" on page 66, and to the log for more details on the specific error. Contact IBM support.

HSIC023E Inquisitor Import error occurred in opening: *filename*

Explanation: The Inquisitor import could not open the given file.

System action: Terminates without processing any records.

User response: Check that the file exists, and if it does, check for any additional log message identifying the error. Contact IBM support.

HSIC024E Inquisitor Import input file is in error. It looks like a usage data file

Explanation: The inquisitor import has encountered an invalid input file.

System action: Terminates without processing any records.

User response: Check that the input file is a valid file. Contact IBM support.

HSIC025E Inquisitor Import input file is in error. It looks like a hardware data file

Explanation: The Inquisitor Import has encountered an invalid input file.

System action: Terminates without processing any records.

User response: Check that the input file is a valid file. Contact IBM support.

HSIC026E Inquisitor Import detected that table *tablename* is missing or invalid

Explanation: The expected table is missing from the database or has invalid format. This suggests a mismatch between the database and this version of the product.

System action: Terminates without processing any records.

User response: Check for a version mismatch between the database and the version of the product. Contact IBM support.

HSIC027S Inquisitor Import table *tablename* is missing a column

Explanation: The given table is missing an expected column. This suggests a mismatch between the database and this version of the product.

System action: The application terminates without processing any records.

User response: Check for a version mismatch between the database and the version of the product. Contact IBM support.

HSIC028S Inquisitor Import table *tablename* appears to be an old version

Explanation: The given table in the database does not have the expected format.

System action: The application terminates without processing any records.

User response: Check for a version mismatch between the database and the version of the product. Contact IBM support.

HSIC029S **Inquisitor Import error when writing to table** *tablename*

Explanation: An SQL error occurred when attempting to write to the given table.

System action: The application terminates.

User response: Check the log for additional details about the given error. Contact IBM support.

HSIC030S **The Inquisitor Import did not find a valid system header record in the input file**

Explanation: The input file does not follow the expected format.

System action: The application terminates.

User response: Check that the correct input file is supplied, and that there is no version mismatch. Contact IBM support.

HSIC034S **Error reading Repository TPARAM table**

Explanation: An error occurred while reading the TPARAM Repository table.

System action: The application terminates.

User response: Check the log for any additional messages indicating the cause of the error. Contact IBM support.

HSIC035E **The Repository is in use by the** *application-name*

Explanation: The application cannot run because the Repository is already in use by another application. Wait until *application-name* completes before running the current application. If the Repository is not in use by *application-name*, then the cause could be that it was previously run, but did not run to completion. To correct the problem, either rerun the *application-name* identified in this message, or alternatively, run the HSISTPRM supplied job to reset FVALUE to 0 where FKEY = PROCRUN in the TPARAM table.

System action: The application terminates.

User response: Check the application is not already in use, before running this application.

HSIC036E **Syntax error scanning TPARAMS file on line** *linenumber*

Explanation: The TPARAM file does not conform to the required syntax on the given line.

System action: The specified option or value is ignored, and its default value is used where applicable.

User response: Check that valid options/values are supplied as specified in the documentation of the

application that you are running.

HSIC037E **Schema** *schemavalue* **is too long in param** *param*

Explanation: A schema id that is too long has been specified.

System action: The application terminates.

User response: Check that the schema id does not exceed 8 characters in length.

HSIC038E **Unbalanced quote for value:** *value* **in param:** *param*

Explanation: A starting quote was found for the given parameter that has no matching end quote.

System action: The application terminates.

User response: Check that the given parameter has matching quotes

HSIC039E **Illegal character in value:***value* **of param:***param*

Explanation: An invalid character was found in the given value.

System action: The application terminates.

User response: Check that the given parameter value is valid for its type.

HSIC040E **Reserved word:** *reservedword* **in param:** *param*

Explanation: A reserved word or system value schema ID was chosen as a parameter value.

System action: The application terminates.

User response: Specify a different parameter value

HSIC041W **value:***value* **in param:***param* **is not a recommended schema ID**

Explanation: The value is not recommended because of possible conflicts with existing values.

System action: The application continues.

User response: Please choose a different value to avoid any conflicts

HSIC042E **TPARAM file:** *param:param* **has an invalid proposed value:** *value*

Explanation: The parameter cannot be set to the given value, because the value is not valid..

System action: The value is ignored, and the application continues.

User response: Please choose a valid value as per the

documentation of the given application

HSIC043E **The application has failed to open the TPARAM file. Error: *errordescription***

Explanation: The application could not open the TPARAM file. The error description contains more details regarding the reason for the error.

System action: The application terminates.

User response: Check that the TPARAM file exists and is valid.

HSIC045E **String *string* cannot exceed *numberchars* in length**

Explanation: A parameter length limit has been exceeded.

System action: The application terminates.

User response: Ensure that the specified parameter length is not exceeded.

HSIC050E **The *program-name* program has detected an invalid date parameter**

Explanation: A date parameter was found to be invalid.

System action: The application terminates.

User response: Ensure that the date format is valid, and start dates do not overlap end dates.

HSIC051S **Error adding record**

Explanation: An SQL error occurred when adding a record to a table.

System action: The application terminates.

User response: Check the log for additional information about the error. Contact IBM support.

HSIC052S **Error updating record**

Explanation: An SQL error occurred when updating a record in a table.

System action: The application terminates.

User response: Check the log for additional information about the error. Contact IBM support.

HSIC053S **Error deleting record**

Explanation: An SQL error occurred when deleting a record from a table.

System action: The application terminates.

User response: Check the log for additional information about the error. Contact IBM support.

HSIC054E **Usage Summary detected an invalid SUMBY value**

Explanation: The Usage Summary detected an invalid SUMBY value.

System action: The specified value is ignored. The application continues using the default SUMBY value.

User response: Refer to the documentation of the Usage Summary parameter for valid SUMBY values.

HSIC055S **Table initialization failure during Repository Merge**

Explanation: At least one table initialization failed when merging repositories.

System action: The application terminates.

User response: Check the log for any additional details about this error. Contact IBM support.

HSIC056S **Some table destination fields are smaller than source**

Explanation: Some fields in the target repository are not large enough to fit the contents of fields in the source repository.

System action: The application terminates, and the repositories are not merged.

User response: Check that the destination repository is not an older version than the source repository. You can recreate the destination repository using the latest version of the product. If the problem persists, contact IBM support.

HSIC057E **A value for parameter: *parameter-name* must be specified**

Explanation: A mandatory parameter for this application has not been specified.

System action: The application terminates during the syntax checking of input parameters.

User response: Ensure that a value for the given parameter is specified. Refer to the documentation of the failing application for an explanation of the given parameter and/or valid parameter values.

HSIC058E **Could not open *filename***

Explanation: File could not be opened.

System action: The application terminates.

User response: Check the log for additional information about the error. Contact IBM support.

HSIC059E Could not read *filename*

Explanation: File could not be read.

System action: The application terminates.

User response: Check the log for additional information about the error. Contact IBM support.

HSIC060E IQDATA DD does not contain unzipped IQ data

Explanation: The input IQDATA dataset does not contain unzipped IQ data.

System action: The application terminates.

User response: Check the log for additional information about the error. Contact IBM support.

HSIC061E Internal error hcreate(*number*) phase1a failed

Explanation: An internal error has occurred.

System action: The application terminates

User response: Check the log for additional information about the error. Contact IBM support.

HSIC062E No SMF 30-2 or 30-4 data matched IQ data

Explanation: No match was found for the SMF data and IQ data.

System action: The application terminates.

User response: Check that the correct data sets have been used. Contact IBM support

HSIC063E Internal error hsearch(*key*) table add failed

Explanation: An error occurred when inserting data into a table.

System action: The application terminates.

User response: Check the log for additional information about the error. Contact IBM support.

HSIC064E Could not write *type* to FMOUT

Explanation: Could not write to file FMOUT.

System action: The application terminates.

User response: Check the log for additional information about the error. Contact IBM support.

HSIC065E SYSUT1 data is not IQ text or UM text

Explanation: The SYSUT1 dataset does not contain the expected data.

System action: The application terminates.

User response: Check that the SYSUT1 dataset is correct. Contact IBM support.

HSIC066E Internal error hsearch(*key*) table failed

Explanation: An error occurred when retrieving data from a table.

System action: The application terminates.

User response: Check the log for additional information about the error. Contact IBM support.

HSIC067E Unable to acquire storage

Explanation: An error has occurred when attempting to acquire storage.

System action: The application terminates.

User response: Try increasing the region size specified in the region parameter on the JOB or EXEC statement in the JCL for the job. Contact IBM support.

HSIC068E IBMMOD Internal error

Explanation: An internal error has occurred.

System action: The application terminates.

User response: Check the log for additional information about the error. Contact IBM support.

HSIC069E IBMMOD_INIT internal error

Explanation: An error occurred when retrieving data from a table.

System action: The application terminates.

User response: Check the log for additional information about the error. Contact IBM support.

HSIC070I A full rematch will be performed

Explanation: A full import and rematch will be performed, which will not try to exclude modules of unchanged libraries. The default behaviour is to exclude such libraries from matching, which would normally lead to faster processing.

The program performs a full rematch, if any of the following is true :

- If requested by the FULLREMATCH option.
- When the specified inventory is not found, for example on the first run when the inventory has not yet been created, and no previous match was done.

- If it is safer to perform a full rematch, as when a GKB change is detected or the REPLACEFULL option is in effect.

More specific details on why a full rematch is being performed, can be found in the log.

System action: A full rematch of the data is performed. All libraries are processed.

User response: Ensure that a FULLREMATCH and the REPLACEFULL options are not in effect for better performance, unless a full rematch is desired.

If this is the first run of the Inquisitor Import, or there has been recent a change to the GKB, then no action is necessary; the program will try on subsequent runs (subsequent to loading the current data into the repository) to exclude unchanged libraries.

HSIC071I *&number_modules* **modules in**
 &number_libraries **unchanged libraries**
 were ignored

Explanation: This is a report of the number of the modules and libraries that are ignored when the FULLREMATCH option is not in effect. Details of these ignored libraries are in the log.

System action: None.

User response: None.

HSIC073E **Usage Import for system SID on *time* is a duplicate and will be ignored.**

Explanation: This input file has already been processed.

System action: The file is not processed. Processing is terminated.

User response: Provide an input file that is the output of a more recent Usage Monitor output.

HSIC074E **IQ input file dated *time1* is earlier than the latest *os_type* scan for SID *sid* dated *time2*.**

Explanation: The input file is earlier than an input file that was already processed for this system.

System action: The file is not processed. Processing is terminated.

User response: Provide an input file that is the output of a more recent Inquisitor scan.

HSIC075I *num_libs* **libraries containing**
 num_modules **modules are mirrors.**

Explanation: The program encountered mirror libraries, which are libraries that are identical in name and volume to libraries that the program previously processed on different SIDs.

System action: The program records the names and locations of such libraries but does not process their contents of modules. The program displays the names of such libraries in the log, as well as their current and base SIDs.

User response: This operation is normal as long as the repository is set up correctly to receive SIDs containing libraries that are unique in library and volume name except when they are copies or shared, and no other SIDs that do not conform to these rules were mistakenly placed into the repository. Refer to the Inquisitor Import description for more information. Refer to the log for a list of mirror libraries and their base SIDs. You can run the System Deletion Job to remove any SIDs that have been placed recently but incorrectly into this repository.

HSIC076E **IQ input file dated *time* is a duplicate of the last *os_type* scan for SID *sid*.**

Explanation: This input file has already been processed.

System action: The file is not processed. Processing is terminated.

User response: Provide an input file that is the output of a more recent Inquisitor scan.

HSIC077I **Analyzer initialization complete.**

Explanation: The Analyzer has started.

System action: Processing continues.

User response: None.

HSIC078I **Analyzer has now terminated.**

Explanation: The Analyzer has stopped.

System action: Processing continues.

User response: None.

HSIC079I **Analyzer is unable to display URL because gethostname returned a null string for the host name.**

Explanation: The analyzer attempted to get the host name of the system it is running on using the z/OS C/C++ gethostname library function and a null string was returned. This may happen if the TCP/IP TCPIP.DATA configuration file does not have a HOSTNAME statement.

System action: The analyzer is unable to display the url that clients can use to access it in its log. The analyzer continues processing and listening for connections from clients.

User response: Add a HOSTNAME statement to the TCP/IP TCPIP.DATA configuration file. In order for this change to have an effect, the TCP/IP address space

would need to be stopped and restarted. Refer to the z/OS Communications Server: IP Configuration Reference for more information on the HOSTNAME statement, on the TCPIP.DATA configuration file and how to modify them.

HSIC080I Analyzer is unable to display URL because getaddrinfo for host hostName failed with errno errnoNumericValue, errnoDescriptionString.

Explanation: The analyzer attempted to get the fully qualified domain name and IP address for the host it is running on which is named hostName. The z/OS C/C++ getaddrinfo library function was used and it returned the errno shown.

Return codes

6016	Input text file open error	6205	Unix System Services header record not found in input file
6060	Input Parameter error	6206	No system header record found in input file
6061	Database open error	6208	Error writing to TPARAM table
6062	Database commit error	6209	Error opening input file
6063	Error reading repository TPARAM table	6211	Fatal error writing system record
6065	Repository is in use	6212	Fatal error writing library record
6066	Unknown SID parameter value	6213	Fatal error writing module record
6067	SQL error	6218	Input file looks like a usage data file
6068	Expected parameter missing from the TPARAM table	6219	Input file looks like a hardware data file
6069	Specified SID is not found	6220	Index missing error
6070	Invalid data was encountered	6221	Vendor product version table processing error
6071	Usage Import file is duplicate	6222	Tagged module key table processing error
6072	IQ Import file is duplicate or of earlier date.	6223	Error encountered when retrieving the inventory ID
6203	Inquisitor Import table open fail	6224	Error encountered when retrieving the current GKB version
6204	MVS system header record not found in input file		

System action: The analyzer is unable to display the url that clients can use to access it in its log. The analyzer continues processing and listening for connections from clients.

User response: Refer to the z/OS Communications Manager: IP and SNA Codes manual for a description of Resolver return codes. It is possible that the host name could not be resolved due to a Resolver configuration problem or a Domain Name System (DNS) configuration problem. Refer to z/OS Communications Server: IP Configuration Guide and the z/OS Communications Server: IP Configuration Reference for information about how to configure Resolver and the BIND 9-based Domain Name System.

6225	Error encountered when retrieving the inventory GKB version
6237	Inquisitor Import table does not exist or is missing a column
6238	Inquisitor Import table does not exist
6239	Inquisitor Import table appears to be an old version
6240	Error updating fGPassLibID record
6241	Error deleting empty libraries
6244	Error assigning package information to TMODULE records
6260	Nothing to import, as no module records were found in IQ file
6400	Knowledge Base type is incorrect
6402	Failure in initializing IQ tables
6403	IQ TMODULE open error
6404	IQ TMODULE index error
6405	IQ database is empty
6409	TDECISION table open error
6413	Error creating scorecard tables for Match Engine
6417	GKB table is empty
6428	Local KB TRULES table open error
6434	Failure to open archive file
6435	Error creating index
6436	Error setting current index

6437	Search KB phase error
6438	Volume serial library phase error
6439	Inter Library phase error
6440	Rules processing phase error
6444	LPA phase error
6448	Error while clearing LMOD count
6449	TDECISION Table is missing FDECRPTION and/or FCATEGORY fields
6450	GKB TPRODUCT record seek error
6451	LKB TPRODUCT record seek error
6452	TDECISION record edit error
6453	KB TVERSION record access error
6454	KB TPRODUCT record access error
6455	KB TVENDOR record access error
6600	Match Engine tables TDECISION and/or TMIGREPORT are missing
6619	Error opening TPACKAGE table
6620	Repository table initialization failed
6621	Failure opening IQ table
6622	Unable to access GKB TVERSION table
6623	IQ TMODULE table is empty
6624	Predecessor inventory ID key does not exist
6625	Repository is not enabled for Unix System Services

6626	Repository must be enabled for Unix System Services, when the REPLACE option is in effect
6627	SYSPLEX ID mismatch in inventory record
6628	SMFID mismatch in inventory record
6629	Inventory ID key of zero is not valid
6630	Error in deleting library record
6632	Error transferring TLIBRARY information from IQ to Repository
6633	Error accessing TINVCTL table
6634	Mismatch found between the TINVCTL record flag and the REPLACE option
6635	Error updating FMODCNT field in TLIBRARY and TPOVLIB tables
6636	Product version key error
6637	Module key error
6639	Error updating FINVID18 fields in TUIMPORTCTRL table
6640	Error updating FINVID field in TINVREG table
6641	Error updating FINVID field in TINVREG table
6642	Error updating summary tables
6643	Error querying table in FMODID order
6645	Error marking TLIBRARY, TMODULETPOVLIB and TPOVINV records as deleted
6647	Repository type does not match IQ type

6648	When using a Continuous Inventory, an Inventory Name must be specified
6666	Error when accessing the TLIBSYS table
6800	At least one repository failed during initialization
6802	No matching LPAR found in table
6803	Primary Inventory ID set to 0 for LPAR
6804	Error trying to find FMODID or FLIBID
6805	Inventory ID does not exist
6806	Unable to find or create TLPAR record for LPAR
6807	Error trying to find or create Job or User entry
6808	Error writing MTD record
6809	Error updating summary tables
6810	Error adding TUSELIBRARY record
6811	TLIBRARY update error
6812	Summary table error
6813	Error reading import control record
6814	User initiated stop
7000	At least one table failed initialization
7002	Invalid usage summary parameters
7003	Invalid month in usage summary parameter
7004	Date order error

7005	TMODULE record seek error
7011	Error inserting record into TMODULE table
7013	TJOBDATA record seek error
7014	TJOBDATA record add error
7015	TUSERDATA record seek error
7016	TUSERDATA record add error
7017	TUSEMTD record seek error
7018	TUSEMTD record add error
7019	TUSEMTD record edit error
7020	TUSEMTD record delete error
7021	TPOVINV record seek error
7022	TPERIODS record seek error
7023	TPERIODS record add error
7024	TPERIODS record edit error
7025	TUSEPOVLIB record seek error
7026	TUSEPOVLIB record add error
7027	TUSEPOVLIB record edit error
7028	TUSEPOV record seek error
7029	TUSEPOV record add error
7030	TUSEPOV record edit error
7034	TUSEMTD critical failure
7035	TUSEMTD error updating record with zero FMTDID

7036	TVERSION record seek error
7037	TUSEPO record seek error
7038	TUSEPO record seek error
7039	TUSEPO record edit error
7040	TUSEPO record delete error
7043	TMODULE record edit error
7044	TUSEPOVLIB record delete error
7045	TUSEPOV record delete error
7046	TPERIODS record delete error
7051	TUSELIB record delete error
7052	IDS_USUM_TUSELIB_ AUTONUM_ERROR
7055	TLPAR record edit error
7056	TUSELIB record seek error
7057	TUSELIB record add error
7058	TPOVLIB record seek error
7060	TLPAR record seek error
7061	Join record seek error
7062	TLIBRARY record edit error
7063	TLIBRARY record seek error
7065	Invalid SUMBY value
7066	Date formatting error
7067	Usage Summary schema is empty

7068	PRODUCT_USE delete error
7069	PRODUCT_USE_DETAIL delete error
7201	Inventory to be deleted does not exist in repository
7203	TLIBRARY record delete failure
7204	TPOVINV record delete failure
7205	TPERIODS record delete failure
7206	TLPAR record delete failure
7207	TUIMPCTRL record delete failure
7208	Failure updating Delete Inventory ID record
7209	Failure deleting TINVCTL records of deleted inventory
7210	Error scanning product version
7211	Error reassigning predecessor links in successor InvCTL records
7600	Table initialization failure
7601	Destination repository column size failure
7602	TINVCTL record seek error
7603	TINVCTL record edit error
7604	TINVCTL record add error
7605	TINVCTL record delete error
7606	TLIBRARY record seek error
7607	TLIBRARY record edit error

7608	TLIBRARY record add error
7609	TLIBRARY record delete error
7610	Transfer product version join seek error
7611	TPOVLIB record seek error
7612	TPOVLIB record edit error
7613	TPOVLIB record add error
7614	TPOVLIB record delete error
7615	TPOVINV record seek error
7616	TPOVINV record edit error
7617	TPOVINV record add error
7618	TPOVINV record delete error
7619	Table TINVPOV failed in initialization
7620	TVERSION record seek error
7621	TVERSION record edit error
7622	TVERSION record add error
7623	TVERSION record delete error
7624	Table TVERSION open failed
7625	TPRODUCT record seek error
7626	TPRODUCT record edit error
7627	TPRODUCT record add error
7628	TPRODUCT record delete error
7629	TPRODUCT open error

7630	TVENDOR record seek error
7631	TVENDOR record edit error
7632	TVENDOR record add error
7633	TVENDOR record delete error
7634	TVENDOR open error
7635	TMODULE record seek error
7636	TMODULE record edit error
7637	TMODULE record add error
7638	TMODULE record delete error
7639	TREGCLASS record seek error
7640	TREGCLASS record edit error
7641	TREGCLASS record add error
7642	TREGCLASS record delete error
7643	TREGION record seek error
7644	TREGION record edit error
7645	TREGION record add error
7646	TREGION record delete error
7647	TREGLEAF record seek error
7648	TREGLEAF record edit error
7649	TREGLEAF record add error
7650	TREGLEAF record delete error
7651	TINVREG record seek error

7652	TINVREG record edit error
7653	TINVREG record add error
7654	TINVREG record delete error
7655	TJOBDATA record seek error
7656	TJOBDATA record edit error
7657	TJOBDATA record add error
7658	TJOBDATA record delete error
7659	TUSERDATA record seek error
7660	TUSERDATA record edit error
7661	TUSERDATA record add error
7662	TUSERDATA record delete error
7663	TLPAR record seek error
7664	TLPAR record edit error
7665	TLPAR record add error
7666	TLPAR record delete error
7667	TUSEMTD record seek error
7668	TUSEMTD record edit error
7669	TUSEMTD record add error
7670	TUSEMTD record delete error
7671	TUSELIB record seek error
7672	TUSELIB record edit error
7673	TUSELIB record add error

7674	TUSELIB record delete error	7696	TUIMPORTCTRL record add error 7697
7675	TPERIODS record seek error	7697	TUIMPORTCTRL record delete error
7676	TPERIODS record edit error	7698	Source and destination repositories are not the same type
7677	TPERIODS record add error	7699	Source and/or Destination Repositories are not the correct category database
7678	TPERIODS record delete error		
7679	TUSEPOVLIB record seek error		
7680	TUSEPOVLIB record edit error		
7681	TUSEPOVLIB record add error		
7682	TUSEPOVLIB record delete error		
7683	TUSEPOVLIB open error		
7684	TUSEPOV record seek error		
7685	TUSEPOV record edit error		
7686	TUSEPOV record add error		
7687	TUSEPOV record delete error		
7688	TUSEPOV open error		
7689	TUSEPO record seek error		
7690	IDS_MRGE_TUSEPO_EDIT_ERROR		
7691	TUSEPO record add error		
7692	TUSEPO record delete error		
7693	TUSEPO open error		
7694	TUIMPORTCTRL record seek error		
7695	TUIMPORTCTRL record edit error		

Chapter 2. Reference information for Tivoli Asset Discovery for z/OS

Reference information includes messages, repository table layouts, and performance and tuning.

Repository table layouts

This topic describes the tables in the Repository including column names, types, and length.

Table 17. *NODE*

Column name	Column type	Column length	Description
NODE_KEY	Char	32	Global Unique ID (GUID) for this entry
NODE_TYPE	Char	4	Entry Type: HW or LPAR
HW_TYPE	Char	4	System z [®] Hardware Type, for example 2096
HW_MODEL	Char	3	System z Hardware Model, for example P03
HW_PLANT	Char	2	System z Hardware Plant, for example 02
HW_SERIAL	Char	12	System z Hardware Serial, for example. 000000013EED
HW_NAME	Char	10	Configured Hardware Name
HW_VENDOR	Char	10	System z Hardware Vendor, for example IBM
LPAR_NUMBER	Integer		Logical Partition Number, for example 1
LPAR_NAME	Char	10	Logical Partition Name, for example LPARSYS1
VMGUEST_NAME	Char	10	z/VM [®] Guest Name (if z/OS is running under z/VM)
HW_NODE_KEY	Char	32	NODE_KEY for related hardware parent
LAST_UPDATE_TIME	Timestamp		Time stamp entry was last updated

Table 18. *NODE_CAPACITY*

Column name	Column type	Column length	Description
NODE_KEY	Char	32	NODE GUID
PERIOD	Date		Month for this entry
START_TIME	Timestamp		First date that this entry is applicable for this Month
END_TIME	Timestamp		Last date that this entry is applicable for this Month
METRIC_TYPE	Char	10	Metric Type: MSU, SUBCAPMSTY
LAST_UPDATE_TIME	Timestamp		Time stamp entry was last updated
QUANTITY	Integer		Metric Value
MODEL_CAPACITY	Char	4	CPU model for capacity planning purpose

Table 19. PRODUCT

Column name	Column type	Column length	Description
SW_KEY	Char	32	Global Unique ID (GUID) for this entry. For SW_TYPE=VERSION this will be the same value as VERSION_GUID For SW_TYPE=FEATURE this will be the same value as FEATURE_GUID
SW_TYPE	Char	8	Entry type - VERSION or FEATURE
VENDOR_NAME	Char	50	Vendor name
PRODUCT_NAME	Char	50	Product name, which is a normalized form of Version Name in order to group different versions of products under the same product name
VERSION	Integer		Version
VERSION_NAME	Char	50	Product Version Title
FEATURE_NAME	Char	50	Product Feature Title
PID	Char	16	Product Identifier
EID	Char	8	Entitlement Identifier for the Product Feature
SSPID	Char	8	Subscription & Support Product Identifier
SSEID	Char	8	Subscription & Support Entitlement Identifier for the Product Feature
PRICETYPE	Char	10	Price Type (not used in 7.2)
SUBCAPACITY	Char	20	IPLA Subcapacity type: Execution-based, Reference-based, z/OS-based, Not eligible, NULL
ICA	Char	1	Y or N: IBM Company Agreement license
IPLA	Char	1	Y or N: International Program License Agreement
VUE	Char	8	IPLA Value Unit Exhibit
VENDOR_GUID	Char	32	Globally Unique ID for VENDOR_NAME
PRODUCT_GUID	Char	32	Globally Unique ID for VENDOR_NAME + PRODUCT_NAME
VERSION_GUID	Char	32	Globally Unique ID for VENDOR_NAME + VERSION_NAME + VERSION
FEATURE_GUID	Char	32	Globally Unique ID for VENDOR_NAME + VERSION_NAME + VERSION + FEATURE_NAME
LAST_UPDATE_TIME	Timestamp		Time stamp entry was last updated
ALT_PRODUCT_NAME	Char	50	Alternate product name
FOBSERVEDELETED	Timestamp		Date and time that the library was deleted from Inquisitor data.

Table 20. PRODUCT_INSTALL

Column name	Column type	Column length	Description
SW_KEY	Char	32	Product GUID
SYSTEM_KEY	Char	32	System GUID

Table 20. *PRODUCT_INSTALL* (continued)

Column name	Column type	Column length	Description
INSTALL_DATE	Date		Date the product was first observed to be installed on this System
UNINSTALL_DATE	Date		Date the product was first observed to be missing from this System
LAST_USED_DATE	Date		Date the product was last used on this System
LAST_UPDATE_TIME	Timestamp		Time stamp entry was last updated

Table 21. *PRODUCT_NODE_CAPACITY*

Column name	Column type	Column length	Description
SW_KEY	Char	32	Product GUID
NODE_KEY	Date		Node GUID
PERIOD	Timestamp		Month for this entry
START_TIME	Timestamp		First date that this entry is applicable for this Month
END_TIME	Timestamp		Last date that this entry is applicable for this Month
METRIC_TYPE	Integer		Metric Type: INSTALLED, JOBNAMES, MODULES, USERS, SUBCAPMSU
LAST_UPDATE_TIME	Timestamp		Time stamp entry was last updated
QUANTITY	Float		Metric Value

Table 22. *PRODUCT_USE*

Column name	Column type	Column length	Description
PERIOD	Date		Month for this entry
SYSTEM_KEY	Char	32	System GUID
SW_KEY	Char	32	Product GUID
FLPARID	Integer		TLPAR.FLPARID for convenient linking with PRODUCT_USE_DETAIL
HW_NODE_KEY	Char	32	NODE GUID for Hardware NODE that this System was last running on in this month
USER_CNT	Integer		MAX distinct Userid count
JOBNAME_CNT	Integer		MAX distinct Job Name count
ACCOUNT_CNT	Integer		MAX distinct Account Code count
SCRT_MSU			Sub-capacity Reporting Tool MSU (millions of service units per hour)
EVENT_CNT	Double		SUM of Module usage
START_DATE	Date		Date within this Period that usage was for first recorded
END_DATE	Date		Date within this Period that usage was for last recorded
LAST_UPDATE_TIME	Timestamp		Time stamp entry was last updated

Table 23. PRODUCT_USE_DETAIL

Column name	Column type	Column length	Description
PERIOD	Date		Month for this entry
FLPARID	Integer		System TLPAR.FLPARID for convenient linking with PRODUCT_USE
VERSION_GUID	Char	32	Product Version GUID
FEATURE_GUID	Char	32	Product Feature GUID
USERNAME	Char	8	User ID
JOBNAME	Char	8	Job Name
ACCOUNTCODE	Char	20	First 20 chars of the Job Account Code
EVENT_CNT	Double		SUM of Module usage
START_DATE	Date		Date within this Period that usage was for first recorded
END_DATE	Date		Date within this Period that usage was for last recorded

Table 24. SYSTEM

Column name	Column type	Column length	Description
SYSTEM_KEY	Char	32	Global Unique ID (GUID) for this entry
LAST_UPDATE_TIME	Timestamp		Time stamp entry was last updated
SID	Char	4	Product system ID. By default this is the SMFID. In cases where the same SMFID is used on different systems, the SID must be defined to a unique value for the customer enterprise in the Usage Monitor
SMFID	Char	4	z/OS SMF ID
SYSPLEX	Char	8	z/OS Sysplex name
IPADDR	Varchar	45	Host TCP/IP address
HOSTNAME	Varchar	256	Host TCP/IP name

Table 25. SYSTEM_NODE

Column name	Column type	Column length	Description
SYSTEM_KEY	Char	32	System GUID
NODE_KEY	Char	32	Node GUID
PERIOD	Date		Month this entry is for
START_TIME	Timestamp		Time it was first observed that this system is using this Node in this month period
END_TIME	Timestamp		Time it was last observed that this system is using this Node in this month period
LAST_UPDATE_TIME	Timestamp		Time stamp entry was last updated

Table 26. TACCOUNT

Column name	Column type	Column length	Description
FACCOUNTID	Integer		Account ID
FACCOUNTCODE	Char	20	Job Account Code, truncated to 20 characters

Table 27. TALTERNATE

Column name	Column type	Column length	Description
PRODUCT_NAME	Char	50	Product name, which is a normalized form of Version Name in order to group different versions of products under the same product name
ALT_PRODUCT_NAME	Char	50	Alternate product name

Table 28. TANNOTATE

Column name	Column type	Column length	Description
FTYPE	Char	1	Annotation type: • A – Asset • D- Discovery • B - Both
PRODUCT_GUID	Char	32	Globally Unique ID for VENDOR_NAME + PRODUCT_NAME
FANNOTATION	Varchar	255	Text that is annotation

Table 29. TCHANNEL_PATH

Column name	Column type	Column length	Description
SID	Char	4	Product system ID. By default this is the SMFID
CP_CHPID	Char	4	Channel path identifier
CP_TYPE	Char	5	Channel path type acronym
PERIOD	Date		Month for this entry
CP_DESC	Char	32	Channel path description

Table 30. TCONTROL_UNIT

Column name	Column type	Column length	Description
SID	Char	4	Product system ID. By default this is the SMFID
PERIOD	Date		Month for this entry
CU_DEV1	Char	4	First device number
CU_DEV2	Char	4	Last device number
CU_DEVCT	Integer		Device count for CU record
CU_UNTNM	Char	8	Generic device unit name
CU_CHN1	Char	4	Channel path 1
CU_CHN2	Char	4	Channel path 2
CU_CHN3	Char	4	Channel path 3
CU_CHN4	Char	4	Channel path 4
CU_CHN5	Char	4	Channel path 5
CU_CHN6	Char	4	Channel path 6
CU_CHN7	Char	4	Channel path 7
CU_CHN8	Char	4	Channel path 8

Table 30. TCONTROL_UNIT (continued)

Column name	Column type	Column length	Description
CU_TYPE	Char	6	Control unit type
CU_MODEL	Char	3	Control unit model
CU_MFR	Char	3	Control unit manufacturer
CU_PLANT	Char	2	Control unit plant of manufacture
CU_SEQNUM	Char	12	Control unit sequence number

Table 31. TISVEOS

Column name	Column type	Column length	Description
FPOVID	Integer		Product ID
FEOSDATE	Timestamp		End of Service Date

Table 32. TJOBDATA

Column name	Column type	Column length	Description
FJOBNAME	Char	8	Job Name
FJOBID	Integer		Job ID
FJOBTYP	Char	6	Job Type

Table 33. TLIBRARY

Column name	Column type	Column length	Description
FLIBID	Integer		Library ID
FLIBNAME	Char	128	Library name
FINVID	Integer		Inventory ID
FCREATIONDATE	Timestamp		Library creation date on Mainframe
FLIBDEVNUM	Char	4	DASD device number
PREFERENCEDATE	Timestamp		Date library last referenced
FLIBVOLSER	Char	8	Volser library resides on
FTRACKSALLOC	Char	10	Number of allocated tracks
FTRACKSUSED	Char	10	Number of used tracks
FORIGIN	Char	1	Blank - PDS, E - PDSE, V - VTOC
FCATALOG	Char	1	S - SMS managed, C - Cataloged, U uncataloged W - cataloged on wrong volume
FLINKLIST	Char	1	Is this a link listed library?
FLINKPACK	Char	1	Is this library in the Linkpack
FAPFAUTH	Char	1	Is this library APF authorized
FLASTUSAGE	Date		1st month of the most recent usage applied to any module in this library
FUSEFLAG	Smallint		Flag for library usage
FMODCNT	Integer		Number of modules in library
FOBSERVEFIRST	Timestamp		Date and time that library was first observed
FOBSERVELAST	Timestamp		Date and time that library was last observed

Table 33. TLIBRARY (continued)

Column name	Column type	Column length	Description
FOBSERVEDELETED	Timestamp		Date and time that library was deleted from Inquisitor data.
FCHECKSUM	Char	40	A checksum of module names and sizes in a given library used to determine whether a library has changed.
FSTORAGEGROUP	Char	8	The storage group the library belongs to

Table 34. TLIBSYS

Column name	Column type	Column length	Description
FLIBID	Integer		Library ID
FLPARID	Integer		LPAR ID
FOBSERVEFIRST	Timestamp		Date and time that library was first observed
FOBSERVELAST	Timestamp		Date and time that library was last observed
FOBSERVEDELETED	Timestamp		Date and time that library was deleted from Inquisitor data

Table 35. TLOGIQ

Column name	Column type	Column length	Description
FIQDATE	Timestamp		Inquisitor date
FIMPORTDATE	Timestamp		Inquisitor Import date
FSID	Char	4	Product system ID. By default this is the SMFID
FSYSPLEXID	Char	8	z/OS Sysplex name
FFULLREMATCH	Char	1	Y or N. Described in job HSIQIM
FPRODUCTONLY	Char	1	Y or N. Described in job HSIQIM
FOSTYPE	Char	4	z/OS or USS
FPLX	Char	1	PLX option (Y or N) as defined in Inquisitor scan
FVERSIONGKB	Char	15	The version of the GKB that the IQ is matched with
FSPNUM	Char	8	System Product number of the z/OS
FFMID	Char	8	FMID of the z/OS
FOSNUM	Char	8	Product ID of the z/OS
FOSVERSION	Char	8	Version of the z/OS
HW_TYPE	Char	4	System z hardware type
HW_MODEL	Char	4	System z hardware model
HW_SERIAL	Char	12	System z hardware serial
FFILTER	Varchar	256	List of filters in the Inquisitor file

Table 36. TLOGUI

Column name	Column type	Column length	Description
FUMONDATE	Timestamp		Usage Monitor date

Table 36. TLOGUI (continued)

Column name	Column type	Column length	Description
FIMPORTDATE	Timestamp		Usage Import date
FSID	Char	4	Product system ID. By default this is the SMFID
FSYSPLEXID	Char	8	z/OS Sysplex name
HW_TYPE	Char	4	System z Hardware Type
HW_MODEL	Char	4	System z Hardware Model
HW_SERIAL	Char	12	System z Hardware Serial
FFILTER	Varchar	256	List of filters in the UMON file

Table 37. TLPAR

Column name	Column type	Column length	Description
FLPARID	Integer		LPAR ID
FLPARNAME	Char	20	Name of the LPAR
FUSEFLAG	Smallint		Indicates if usage has been attributed to this LPAR
FEDITFLAG	Smallint		Has this LPAR record been updated manually
FMANF	Char	10	Machine manufacturer
FMACHINE	Char	12	CPU Model
FSERIALNO	Char	12	CPU Serial number
FSYSPLEXID	Char	8	Sysplex name if in a Sysplex
FMIPS	Integer		Number of MIPS for LPAR
FHW_NAME	Char	10	Configured hardware name
FIPADDR	Varchar	45	Host TCP/IP address
FHOSTNAME	Varchar	256	Host TCP/IP name

Table 38. TMACHINE_RESOURCE

Column name	Column type	Column length	Description
HW_NODE_KEY	Char	32	NODE GUID for Hardware NODE that this System was last running on in this month
LPAR_NAME	Char	10	Logical partition name
PERIOD	Date		Month for this entry
LPAR_NUMBER	Integer		Logical partition number
LPC_NAME	Char	10	LPC name
OSTYPE	Char	8	OS name
ENGINE_CNT1	Char	4	CPU available count
ENGINE_CNT2	Char	4	CPU online count
ENGINE_CNT3	Char	4	CPU dedicated count
ENGINE_CNT4	Char	4	zAAP available count
ENGINE_CNT5	Char	4	zAAP online count
ENGINE_CNT6	Char	4	zAAP dedicated count
ENGINE_CNT7	Char	4	IFL available count

Table 38. TMACHINE_RESOURCE (continued)

Column name	Column type	Column length	Description
ENGINE_CNT8	Char	4	IFL online count
ENGINE_CNT9	Char	4	IFL dedicated count
ENGINE_CNT10	Char	4	ICF available count
ENGINE_CNT11	Char	4	ICF online count
ENGINE_CNT12	Char	4	ICF dedicated count
ENGINE_CNT13	Char	4	zIIP available count
ENGINE_CNT14	Char	4	zIIP online count
ENGINE_CNT15	Char	4	zIIP dedicated count
ENGINE_CNT16	Char	4	Other available count
ENGINE_CNT17	Char	4	Other online count
ENGINE_CNT18	Char	4	Other dedicated count

Table 39. TMODULE

Column name	Column type	Column length	Description
FMODID	Integer		Module ID
FMODNAME	Char	40	Module name
FLIBID	Integer		Library ID
FPOVLIBID	Integer		Product Library ID
FMODFLAG	Smallint		Module indication flag as to which product version it belongs to and whether it has been superseded.
FFMID	Char	12	FMID
FMODSIZE	Char	8	Module size
FUSEFLAG	Smallint		Flag for module usage
FMODTYPE	Smallint		Type of module
FOBSERVEFIRST	Timestamp		Date and time that module was first observed
FOBSERVELAST	Timestamp		Date and time that module was last observed
FOBSERVEDELETED	Timestamp		Date and time that module was deleted from Inquisitor data
LINKEDITDATE	Date		Link edit date of module

Table 40. TPARAM

Column name	Column type	Column length	Description
FKEY	Char	64	Parameter Key
FVALUE	Char	254	Parameter Value

Table 41. TPERIODS

Column name	Column type	Column length	Description
FPERIOD	Date		Calendar month for usage
FINVID	Integer		Inventory ID
FSUMMARISED	Smallint		Summary status

Table 42. TPOVINV

Column name	Column type	Column length	Description
FPOVINVID	Integer		Unique ID
FPOVID	Integer		Product ID
FINVID	Integer		Inventory ID
FPOVGID	Integer		Global Knowledge Base Version ID
FOBSERVEFIRST	Timestamp		First time observation was made
FOBSERVELAST	Timestamp		Last time observation was made
FOBSERVEDELETED	Timestamp		First time observation was not found in this library
FPRODUCTID	Integer		Product ID
FVENDORID	Integer		Vendor ID
FPRODINVID	Integer		Product and Inventory ID
FPATCHLIST	Varchar	254	List of current patches applied to z/OS UNIX product.

Table 43. TPOVLIB

Column name	Column type	Column length	Description
FPOVLIBID	Integer		Unique ID
FPOVINVID	Integer		Product inventory ID
FLIBID	Integer		Library ID
FPOVLIBPID	Integer		Previous Product Version ID
FMATCHCODE	Char	3	Matching code
FMATCHID	Integer		Link to Inquisitor Decision table
FPRODUCTPCT	Integer		Product percentage used during match
FVERSIONPCT	Integer		Version percentage used during match
FOBSERVEFIRST	Timestamp		First time observation was made
FOBSERVELAST	Timestamp		Last time observation was made
FOBSERVEDELETED	Timestamp		First time observation was not found in this library
FMODCNT	Integer		Number of load modules in library for product

Table 44. TPRODUCT

Column name	Column type	Column length	Description
FPRODUCTID	Integer		Product ID
FPRODUCTNAME	Char	50	Product Name (could be alias name)
FGLOBALNAME	Char	50	Product Name (always Global Name if Alias is used)
FOPTIONNAME	Char	30	Option Name
FVENDORID	Integer		Vendor ID
FPRODSTATUS	Smallint		Billable Status
FCATEGORY	Char	30	Product Category
FDESCRIPTION	Varchar	254	Product Description

Table 44. TPRODUCT (continued)

Column name	Column type	Column length	Description
FOBSERVEDELETED	Timestamp		Date and time that the library was deleted from Inquisitor data.

Table 45. TPRODUCT_REGISTRATION

Column name	Column type	Column length	Description
SID	Char	4	Product system ID. By default this is the SMFID
PID	Char	16	Product Identifier
PRODUCT_OWNER	Char	16	Product owner or vendor
PRODUCT_NAME	Char	50	Product name
PRODUCT_FEATURE	Char	16	Product feature or option name
PRODUCT_VERSION	Char	6	Product version
PRODUCT_FLAGS	Char	8	Register state entry flags
PERIOD	Date		Month for this entry

Table 46. TREGISTERED_PRODUCT_USAGE

Column name	Column type	Column length	Description
SID	Char	4	Product system ID. By default this is the SMFID
PRODUCT_OWNER	Char	16	Product owner or vendor
PRODUCT_NAME	Char	50	Product name
PRODUCT_VERSION	Char	8	Product version
PRODUCT_QUALIFIER	Char	8	Product qualifier
PERIOD	Date		Month for this entry
PID	Char	16	Product Identifier
PRODUCT_FLAGS	Char	8	Register usage entry flags
SMFRECORDS	Integer		SMF record count
TCBTIME	Integer		Product TCB time
SRBTIME	Integer		Product SRB time

Table 47. TUIMPORTCTRL

Column name	Column type	Column length	Description
FINVID1	Integer		Primary Inventory ID
FINVID2	Integer		Second ID
FINVID3	Integer		Third ID
FINVID4	Integer		Fourth ID
FINVID5	Integer		Fifth ID
FINVID6	Integer		Sixth ID
FINVID7	Integer		Seventh ID
FINVID8	Integer		Eighth ID
FMODVPOV	Char	1	If non 0 allows relaxed VPOV assignment

Table 47. TUIMPORTCTRL (continued)

Column name	Column type	Column length	Description
FLPARNAME	Char	20	LPAR name

Table 48. TUSELIB

Column name	Column type	Column length	Description
FUSELIBID	Integer		Unique ID
FLPARID	Integer		LPAR ID
FLIBID	Integer		Library ID

Table 49. TUSEMTD

Column name	Column type	Column length	Description
FMTDID	Integer		Unique ID
FLPARID	Integer		LPAR ID
FMODID	Integer		Module ID
FJOBID	Integer		Job ID
FUSERID	Integer		User ID
FPOVLIBID	Integer		Product Library ID
FEVENTCNT	Float		Total calls to module for this month
FPERIOD	Date		Calendar month that usage occurred
FFIRSTDATE	Date		First day of usage in the month
FLASTDATE	Date		Last day of usage in the month
FPROVIDER	Char	4	Provider Service
FPOVINVID	Integer		Unique ID
FPRODINVID	Integer		Product and Inventory ID
FACCOUNTID	Integer		Account ID
FJESID	Char	8	Last JES job ID updated for the month
FTCBCNT	Float		TCB count
FTCBTIME	Float		TCB time

Table 50. TUSEPOV

Column name	Column type	Column length	Description
FUSEPOVINVID	Integer		Unique ID
FLARPID	Integer		LPAR ID
FPOVINVID	Integer		POVINV ID
FJOBCNT	Integer		Number of distinct Jobs for a product
FUSERCNT	Integer		Number of distinct Users for a product
FEVENTCNT1	Float		Sum of calls to this product current month
FEVENTCNT3	Float		Sum of calls to this product previous 3 month
FEVENTCNT6	Float		Sum of calls to this product previous 4-6 month
FEVENTCNT9	Float		Sum of calls to this product previous 7-9 month

Table 50. TUSEPOV (continued)

Column name	Column type	Column length	Description
FEVENTCNT12	Float		Sum of calls to this product previous 10-12 month
FPERIOD	Date		Calendar month in which usage occurred
FFIRSTUSED	Date		The earliest usage date in month
FLASTUSED	Date		The most recent usage date in month
FPRODINVID	Integer		Product Inventory ID
FSEQNO	Smallint		Internal use only
FACCCNT	Integer		Number of distinct account codes
FTCBCNT	Float		TCB count
FTCBTIME	Float		TCB time

Table 51. TUSEPOVLIB

Column name	Column type	Column length	Description
FUSEPOVLIBID	Integer		Unique ID
FLARPID	Integer		LPAR ID
FPOVLIBID	Integer		POVLIB ID
FJOBCNT	Integer		Number of distinct Jobs for a product
FUSERCNT	Integer		Number of distinct Users for a product
FEVENTCNT1	Float		Sum of calls to this product current month
FEVENTCNT3	Float		Sum of calls to this product previous 3 month
FEVENTCNT6	Float		Sum of calls to this product previous 4-6 month
FEVENTCNT9	Float		Sum of calls to this product previous 7-9 month
FEVENTCNT12	Float		Sum of calls to this product previous 10-12 month
FPERIOD	Date		Calendar month in which usage occurred
FFIRSTUSED	Date		The earliest usage date in month
FLASTUSED	Date		The most recent usage date in month
FSEQNO	Smallint		Internal use only
FACCCNT	Integer		Number of distinct account codes
FTCBCNT	Integer		TCB count
FTCBTIME	Integer		TCB time
FTCBCNT	Float		TCB count
FTCBTIME	Float		TCB time

Table 52. TUSEPRS

Column name	Column type	Column length	Description
FUSEPRSID	Integer		Unique ID for TUSEPRS table
FREGVEND	Char	16	Product Registration Vendor name
FREGPROD	Char	16	Product Registration Product name

Table 52. TUSEPRS (continued)

Column name	Column type	Column length	Description
FREGFEAT	Char	16	Product Registration Feature name
FREGVRN	Char	6	Product Registration Version
FREGPID	Char	8	Product Registration Product identifier
FREGFLAGS	Char	8	Product Registration flags
FLPARID	Integer		LPAR ID
FPERIOD	Date		Calendar month when usage occurred
FFIRSTDATE	Date		The earliest usage date in month
FLASTDATE	Date		The most recent usage date in month

Table 53. TUSERDATA

Column name	Column type	Column length	Description
FUSERID	Integer		User ID
FUSERNAME	Char	10	User Name
FORGNAME	Char	8	Owning Organization
FREALNAME	Char	20	Real person's name

Table 54. TVENDOR

Column name	Column type	Column length	Description
FVENDORID	Integer		Vendor ID
FVENDORNAME	Char	50	Vendor Name (could be alias name)
FGLOBALNAME	Char	30	Reserved
FVENDORGUID	Char	32	Vendor globally unique ID
FOBSERVEDELETED	Timestamp		Date and time that the library was deleted from Inquisitor data.

Table 55. TVERSION

Column name	Column type	Column length	Description
FPOVID	Integer		Version ID
FVERSIONNAME	Char	44	Version name
FPPNUMNAME	Char	16	PPNUM
FPRODUCTID	Integer		Product Option ID
FMINUSAGE	Float		Minimum usage threshold
FVERSIONGUID	Char	32	Product version globally unique identifier. PRODUCT.SW_KEY for SW_TYPE = VERSION
FFEATUREGUID	Char	32	Product feature globally unique identifier. PRODUCT.SW_KEY for SW_TYPE = FEATURE
FOBSERVEDELETED	Timestamp		Date and time that the library was deleted from Inquisitor data.

Post-installation jobs

After installation, you can create a custom version of any job in the JCLLIB library or any parameter in the PARMLIB library, by copying and editing the relevant job in the HSISCUST member in the hsi.SHSISAMP data set.

Jobs generated in JCLLIB for a DB2 environment

The custom JCLLIB members that you create with post-installation customization in a DB2 environment are used to submit jobs to implement the product.

Post installation jobs

The following table lists the post-installation jobs generated in the JCLLIB library when the DBTYPE is set to DB2.

Table 56. Post-installation jobs generated for a DB2 database

Job	Description
HSISDB01	Job to define DB2 storage groups
HSISDB02	Job to define the GKB database
HSISDB03	Job to define the repository database
HSISGKBL	Job to populate the GKB, GKB for z/OS UNIX, and Inquisitor filters.
HSISGRNT	Job to grant administrator access to the repository and GKB databases
HSISGRTB	Job to grant SELECT access to the repository and GKB tables
HSISANS1	Job to set up RACF security profiles in the Analyzer utility.
HSISANS2	Job to set up new SSL certificates in the Analyzer utility.
HSISANS3	Job to use existing SSL certificates in the Analyzer utility.

Operations jobs

The following table lists the operations jobs generated in the JCLLIB library when the DBTYPE is set to DB2.

Table 57. Operations jobs generated for a DB2 database

Job	Description
HSISGKBL	Job to populate the GKB, GKB for z/OS UNIX, and Inquisitor filters. To be run when monthly updates are provided.
HSISINQZ	Job to run the Inquisitor.
HSISINQU	Job to run the Inquisitor for z/OS UNIX.
HSISIQIM	Job to run the Inquisitor Import for z/OS and z/OS UNIX.
HSIJMON	Started task - Usage Monitor
HSISUMON	Job to run the Usage Monitor.
HSISUIMP	Job to run the Usage Import.
HSIJAUTO	Started task - Automation Server
HSIASALC	Job to allocate the Automation Server control file.
HSIASSCT	Job to run the Automation Server Scout utility.

Reporting jobs

The following table lists the reporting jobs generated in the JCLLIB library when the DBTYPE is set to DB2.

Table 58. Reporting jobs generated for a DB2 database

Job	Description
HSIJANLO	Started task - Analyzer online mode.
HSISANLO	Job to run Analyzer reporting in online mode.
HSISANLB	Job to run Analyzer reporting in batch mode.

Utility jobs

The following table lists the Utility jobs generated in the JCLLIB library when the DBTYPE is set to DB2.

Table 59. Utility jobs generated for a DB2 database

Job	Description
HSISZCAT	Job to concatenate and aggregate Usage Monitor data sets.
HSISPTAG	Job to run the Product Tagging utility.
HSISUDEL	Job to run the usage deletion
HSISUSUM	Job to run the Usage Summary.
HSISLDEL	Job to run the system deletion.
HSISLLST	Job to create an HLQ listing for the Usage Monitor.
HSISSCRT	Job to read SCRT CSV files and populate the repository.
HSISKBT	Job to run the XML utility. The XML output is for SmartCloud Control Desk.
HSISSMF	Job to get the historical usage information from existing SMF data.
HSISIBM	Job to filter out non-IBM programs from the Inquisitor utility and usage data.
HSISPLTX	Job to create a PLT entry for CICS.
HSISENAX	Job to enable CICS GLUE program.
HSISUT01	Sample job to backup the repository database.
HSISUT02	Sample job to restore the repository database.
HSISUT03	Sample job to reorganize the repository database.
HSISUT04	Sample job to run the RUNSTATS utility on the repository database.
HSISTPRM	Diagnostic. Job to update the repository TPARAM table.
HSISCSI	Diagnostic. Job to gather SMP/E diagnostics data

Jobs for porting data between repositories

The following table lists the jobs generated in the JCLLIB library for porting data between repositories when the DBTYPE is set to DB2.

Table 60. Jobs generated for porting data between repositories for a DB2 database

Job	Description
HSISUN81	Job to unload the repository database.
HSISLO81	Job to load the repository database.

Migration jobs

The following table lists the migration jobs generated in the JCLLIB library when the DBTYPE is set to DB2.

Table 61. Migration jobs generated for a DB2 database

Job	Description
HSISMI75	Job to export V7.2 Usage data to V.81.
HSISMI76	Job to add new column to table in existing V7.5 repository.
HSISMI81	Job to add new DB2 objects in existing V7.5 repository.
HSISMI82	Job to populate records and also delete obsolete records in existing V7.5 repository
HSISMI83	Job to drop obsolete DB2 objects in existing V7.5 repository.
HSISMI84	Job to verify that the migration tasks for the existing V7.5 repository have been successfully implemented.

Globalization jobs

The following table lists the globalization jobs generated in the JCLLIB library when the DBTYPE is set to DB2.

Table 62. Globalization jobs generated for a DB2 database

Job	Description
HSISMCMP	Job to compile Japanese messages for MMS.

Jobs generated in JCLLIB for a remote environment

The custom JCLLIB members that you create with post-installation customization in a remote environment are used to submit jobs to implement the product.

Operations jobs

The following table lists the operations jobs generated in the JCLLIB library when the DBTYPE is set to REMOTE.

Table 63. Operations jobs generated for a remote environment

Job	Description
HSISINQZ	Job to run the Inquisitor.
HSISINQU	Job to run the Inquisitor for z/OS UNIX.
HSIJMON	Started task - Usage Monitor
HSISUMON	Job to run the Usage Monitor.
HSIJAUTO	Started task - Automation Server
HSIASALC	Job to allocate the Automation Server control file.

Table 63. Operations jobs generated for a remote environment (continued)

Job	Description
HSIASSCT	Job to run the Automation Server Scout utility.

Utility jobs

The following table lists the Utility jobs generated in the JCLLIB library when the DBTYPE is set to REMOTE.

Table 64. Utility jobs generated for a remote environment

Job	Description
HSISZCAT	Job to concatenate and aggregate Usage Monitor data sets.
HSISPTAG	Job to run the Product Tagging utility.
HSISSMF	Optional. Job to get the historical usage information from existing SMF data.
HSISIBM	Optional. Job to filter out non-IBM programs from the Inquisitor and usage data.
HSISPLTX	Optional. Job to create a PLT entry for CICS.
HSISENAX	Optional. Job to enable CICS GLUE program.
HSISCSI	Diagnostic. Job to gather SMP/E diagnostics data

Globalization jobs

The following table lists the globalization jobs generated in the JCLLIB library when the DBTYPE is set to REMOTE.

Table 65. Globalization jobs generated for a remote environment

Job	Description
HSISMCMP	Job to compile Japanese messages for MMS.

Jobs generated in JCLLIB for a SQLite environment

The custom JCLLIB members that you create with post-installation customization in a SQLite environment are used to submit jobs to implement the product.

Post installation jobs

The following table lists the post-installation jobs generated in the JCLLIB library when the DBTYPE is set to SQLITE.

Table 66. Post-installation jobs generated for a SQLite database

Job	Description
HSISDB01	Job to create SQLite zFS file system.
HSISDB02	Job to define the GKB database
HSISDB03	Job to define the repository database
HSISGKBL	Job to populate the GKB, GKB for z/OS UNIX, and Inquisitor filters.
HSISGRNT	Job to grant access to z/OS OMVS groups.
HSISANS1	Job to set up RACF security profiles in Analyzer

Table 66. Post-installation jobs generated for a SQLite database (continued)

Job	Description
HSISANS2	Job to set up new SSL certificates in Analyzer
HSISANS3	Job to to use existing SSL certificates in Analyzer

Operations jobs

The following table lists the operations jobs generated in the JCLLIB library when the DBTYPE is set to SQLITE.

Table 67. Operations jobs generated for a SQLite database

Job	Description
HSISGKBL	Job to populate the Global Knowledge Base, Global Knowledge Base for z/OS UNIX, and Inquisitor filters. To be run when monthly updates are provided.
HSISINQZ	Job to run the Inquisitor.
HSISINQU	Job to run the Inquisitor for z/OS UNIX.
HSISIQIM	Job to run the Inquisitor Import for z/OS and z/OS UNIX.
HSIJMON	Started task - Usage Monitor
HSISUMON	Job to run the Usage Monitor.
HSISUIMP	Job to run the Usage Import.
HSIJAUTO	Started task - Automation Server
HSIASALC	Job to allocate the Automation Server control file.
HSIASSCT	Job to run the Automation Server Scout utility.

Reporting jobs

The following table lists the reporting jobs generated in the JCLLIB library when the DBTYPE is set to SQLITE.

Table 68. Reporting jobs generated for a SQLite database

Job	Description
HSIJANLO	Started task - Analyzer online mode.
HSISANLO	Job to run Analyzer reporting in online mode.
HSISANLB	Job to run Analyzer reporting in batch mode.

Utility jobs

The following table lists the Utility jobs generated in the JCLLIB library when the DBTYPE is set to SQLITE.

Table 69. Utility jobs generated for a SQLite database

Job	Description
HSISZCAT	Job to concatenate and aggregate Usage Monitor data sets.
HSISPTAG	Job to run the Product Tagging utility.
HSISUDEL	Job to run the Usage Deletion

Table 69. Utility jobs generated for a SQLite database (continued)

Job	Description
HSISUSUM	Job to run the Usage Summary.
HSISLDEL	Job to run the System Deletion.
HSISSCRT	Job to read SCRT CSV files and populate the Repository.
HSISSMF	Job to get the historical usage information from existing SMF data.
HSISIBM	Job to filter out non-IBM programs from the Inquisitor and usage data.
HSISPLTX	Job to create a PLT entry for CICS.
HSISENAX	Job to enable CICS GLUE program.
HSISUT01	Sample job to backup SQLite zFS file system.
HSISUT02	Sample job to restore SQLite zFS file system.
HSISTPRM	Diagnostic. Job to update the Repository TPARAM table.
HSISSQLT	Diagnostic. Job to display SQLite database files.
HSISMNT	Diagnostic. Job to mount SQLite zFS file system and optionally delete the zFS file system.
HSISMNTU	Diagnostic. Job to unmount SQLite zFS file system after an IPL.

Jobs for porting data between repositories

The following table lists the jobs generated in the JCLLIB library for porting data between repositories when the DBTYPE is set to SQLITE.

Table 70. Jobs generated for porting data between repositories for a SQLite database

Job	Description
HSISUN81	Job to unload the repository database.
HSISLO81	Job to load the repository database.

Migration jobs

The following table lists the migration jobs generated in the JCLLIB library when the DBTYPE is set to SQLITE.

Table 71. Migration jobs generated for a SQLite database

Job	Description
HSISMI75	Job to export V7.2 Usage data to V.81.

Globalization jobs

The following table lists the globalization jobs generated in the JCLLIB library when the DBTYPE is set to SQLITE.

Table 72. Globalization jobs generated for a SQLite database

Job	Description
HSISMCMP	Job to compile Japanese messages for MMS.

Database performance and tuning

You can perform various configurations to tune your database to provide the best performance for your Tivoli Asset Discovery for z/OS environment.

DB2 performance and tuning

Various configuration options are available to assist you in optimizing performance for your environment.

Initial space allocation

This section is useful for the database administrator who must determine space requirements for Tivoli Asset Discovery for z/OS. Listed in the table Table 73 are guidelines for the initial spaces allocation based on the number of LPARs. The value for the SIZE parameter is specified in HSISCUST.

Table 73. Initial space allocation for the product

SIZE=	Initial space allocation	Number of LPARs
1	1600 cylinders	1-10
2	3750 cylinders	11-20
3	12600 cylinders	>20

Table 74. Initial space allocations for the 3 largest tables

SIZE=	VMODULE (Repository modules)	VUSEMTD (Repository usage records)	VPRODET (Repository Product Use Detail Records)
1	120,960 KB for 1,000,000 modules	72,000 KB for 1,000,000 records	13,680 KB for 100,000 records
2	302,400 KB for 2,500,000 modules	432,000 KB for 6,000,000 records	68,400 KB for 500,000 records
3	846,720 KB for 7,000,000 modules	1,800,000 KB for 25,000,000 records	684,000 KB for 5,000,000 records

For some sites, table space VUSEMTD can be large. For performance and space management requirements, you should consider defining the table space as a partitioned table space.

Choosing a DB2 subsystem for this product

The DB2 resources required for this product do not need to be defined in a production DB2 subsystem in order to minimize competition for mainframe resources in the DB2 production environments. To avoid competing for mainframe resources, run the jobs for the Inquisitor Import and Usage Import during off-peak periods. In addition, run the utilities Usage Summary and Usage Deletion during off-peak periods.

Buffer pools

By allocating the appropriate buffer pool to the respective table spaces and indexes, as defined in HSISCUST, you can manage your system resources accordingly. For DB2 performance, first investigate the buffer pools. Check with your site specialist on the types and size of buffer pools that are defined for this product.

Space allocation and utilization

In terms of space utilization, -1 has been set for all SECQTY to enforce Sliding Secondary Extents. This enables DB2 to manage secondary extents efficiently, and minimizes extension failures. You need to extrapolate the PRIQTY for the table spaces and indexes for the large tables according to your requirements. Definitions for these DB2 objects are listed in the respective jobs in JCLLIB.

Repository tables with the biggest impact on performance due to size are TMODULE, TUSEMTD, and TJOBDDATA. Data for the TMODULE table is populated during Inquisitor Import process. TUSEMTD, and TJOBDDATA tables are populated during Usage Import. For example, you might have more than 300 million usage records in the TUSEMTD table, and more than 20 million modules identified in the TMODULE table. To minimize space utilization and improve SQL query performance, you must prune your usage records by running the Usage Deletion job HSISUDEL.

Declared Global Temporary tables

Declared Global Temporary tables are used during the Asset Aggregator process. The Work file table spaces must be large enough to handle this process. When the Aggregator job step is run, indexes on declared global temporary tables are created. By default, the bufferpool used by the index is dependent on the bufferpool defined for the Work file database. Parameter IXBUFFERPOOL in PARMLIB member HSISAGP1 can be used to substitute the default value.

Work file database

When you run some of the SQL queries, they can produce a large amount of output. In order to avoid any excessive output, increase the number and size of the table spaces in the work file database.

Reorganization and RUNSTATS

It is important to run reorganization of the Repository table spaces periodically, especially after Inquisitor Imports, Usage Imports, and Usage Deletion. After reorganization of the Repository table spaces, it is also a good idea to run RUNSTATS for these table spaces.

SQLite performance and tuning

General zFS performance queries

zFS performance is dependent on many factors. To help you to optimize performance, zFS provides performance information to help determine bottlenecks. You can enter the following system commands to get information about the current operation of zFS:

- F ZFS,QUERY,SETTINGS
- F ZFS,QUERY,ALL

To query and reset performance counters, enter the following z/OS UNIX System Services command:

zfsadm command to query and reset performance counters.

Resource Management Facility (RMF) support for zFS

RMF support is available for zFS. When you are considering zFS performance, investigate the zFS components that are involved in I/O processing to or from a zFS file system. In a shared file system environment it is better for performance if you can mount a file system as read-only rather than as read-write. If a file system is mounted as read-write, but is accessed primarily from a single system, such as SYS1, it can improve performance if that file system is z/OS UNIX owned on system SYS1.

You can also optimize zFS performance by tailoring the size of its caches to reduce I/O rates and path length. It is also important to monitor DASD performance to

ensure that no disc volumes or channels are required to perform beyond the intended capacity.

Monitoring and tuning cache size to improve zFX performance

You can improve the performance of zFS by controlling the size of the caches that hold file system and log data. Monitor the following caches so that you can control them effectively to reduce I/O rates:

- The user file cache is used for all user files and performs I/O for all user files greater than 7 KB.
- The metadata cache performs I/O for all user files that are smaller than 7 KB.
- The log file cache stores file record transactions that describe changes to the file system.

Database resources used by Tivoli Asset Discovery for z/OS

Some database resources are affected when you migrate from an earlier version to a more recent version of Tivoli Asset Discovery for z/OS.

The following table lists the &GKBZSCHM_GKB7 database resources that are affected by application data migration. The PARMLIB members provides definitions for these database resources.

Table 75. &GKBZSCHM_GKB7 database resources affected by migration

Version 8.1 qualifier	Table name	Version 7.2 table space	Version 7.5 table space	Version 8.1 table space
&GKBZSCHM_GKB7	PRODUCT	WVDRGKB	WVDRGKB	WVDRGKB
&GKBZSCHM_GKB7	TPARAM	WRULGKB	WRULGKB	WRULGKB
&GKBZSCHM_GKB7	TPRODLINK	WVDRGKB	WVDRGKB	WVDRGKB
&GKBZSCHM_GKB7	TPRODUCT	WPDTGKB	WPDTGKB	WPDTGKB
&GKBZSCHM_GKB7	TPRSMAP	WRULGKB	WRULGKB	WRULGKB
&GKBZSCHM_GKB7	TPTFFMID	WRULGKB	WRULGKB	WRULGKB
&GKBZSCHM_GKB7	TRULES	WRULGKB	WRULGKB	WRULGKB
&GKBZSCHM_GKB7	TSCORPAT	WSCPGKB	WSCPGKB	WSCPGKB
&GKBZSCHM_GKB7	TVENDOR	WVDRGKB	WVDRGKB	WVDRGKB
&GKBZSCHM_GKB7	TVERSION	WVERGKB	WVERGKB	WVERGKB

The following table lists the &GKBZSCHM_GKU7 database resources that are affected by application data migration. The PARMLIB members provides definitions for these database resources.

Table 76. &GKBZSCHM_GKU7 database resources affected by migration

Version 8.1 qualifier	Table name	Version 7.2 table space	Version 7.5 table space	Version 8.1 table space
&GKBZSCHM_GKU7	TPARAM	WRULGKU	WRULGKU	WRULGKU
&GKBZSCHM_GKU7	TPRODUCT	WPDTGKU	WPDTGKU	WPDTGKU
&GKBZSCHM_GKU7	TPTFFMID	WRULGKU	WRULGKU	WRULGKU
&GKBZSCHM_GKU7	TRULES	WRULGKU	WRULGKU	WRULGKU
&GKBZSCHM_GKU7	TSCORPAT	WSCPGKU	WSCPGKU	WSCPGKU

Table 76. &GKBZSCHM_GKU7 database resources affected by migration (continued)

Version 8.1 qualifier	Table name	Version 7.2 table space	Version 7.5 table space	Version 8.1 table space
&GKBZSCHM_GKU7	TVENDOR	WVDRGKU	WVDRGKU	WVDRGKU
&GKBZSCHM_GKU7	TVERSION	WVERGKU	WVERGKU	WVERGKU

The following table lists the &GKBZSCHM_IQF7 database resources that are affected by application data migration. The PARMLIB members provides definitions for these database resources.

Table 77. &GKBZSCHM_IQF7 database resources affected by migration

Version 8.1 qualifier	Table name	Version 7.2 table space	Version 7.5 table space	Version 8.1 table space
&GKBZSCHM_IQF7	TCOMPILERS	WIQFILTR	WIQFILTR	WIQFILTR
&GKBZSCHM_IQF7	TIQFILTERS	WIQFILTR	WIQFILTR	WIQFILTR
&GKBZSCHM_IQF7	TPARAM	WIQFILTR	WIQFILTR	WIQFILTR
&GKBZSCHM_IQF7	TUXFILTERS	WIQFILTR	WIQFILTR	WIQFILTR
&GKBZSCHM_IQF7	TXPCMODULES	WIQFILTR	WIQFILTR	WIQFILTR
&GKBZSCHM_IQF7	TXPCSPEC	WIQFILTR	WIQFILTR	WIQFILTR
&GKBZSCHM_IQF7	TXVENDORS	WIQFILTR	WIQFILTR	WIQFILTR

The following table lists the &REPZSCHM_LKB7 database resources that are affected by application data migration. The PARMLIB members provides definitions for these database resources.

Table 78. &REPZSCHM_LKB7 database resources affected by migration

Version 8.1 qualifier	Table name	Version 7.2 table space	Version 7.5 table space	Version 8.1 table space
&REPZSCHM_LKB7	TPARAM	WLOCLKB	WLOCLKB	WLOCLKB
&REPZSCHM_LKB7	TPRODUCT	WLOCLKB	WLOCLKB	WLOCLKB
&REPZSCHM_LKB7	TPTFMID	WLOCLKB	WLOCLKB	WLOCLKB
&REPZSCHM_LKB7	TRULES	WLOCLKB	WLOCLKB	WLOCLKB
&REPZSCHM_LKB7	TSCORPAT	WLOCLKB	WLOCLKB	WLOCLKB
&REPZSCHM_LKB7	TVENDOR	WLOCLKB	WLOCLKB	WLOCLKB
&REPZSCHM_LKB7	TVERSION	WLOCLKB	WLOCLKB	WLOCLKB

The following table lists the &REPZSCHM_LKU7 database resources that are affected by application data migration. The PARMLIB members provides definitions for these database resources.

Table 79. &REPZSCHM_LKU7 database resources affected by migration

Version 8.1 qualifier	Table name	Version 7.2 table space	Version 7.5 table space	Version 8.1 table space
&REPZSCHM_LKU7	TPARAM	WLOCLKU	WLOCLKU	WLOCLKU
&REPZSCHM_LKU7	TPRODUCT	WLOCLKU	WLOCLKU	WLOCLKU
&REPZSCHM_LKU7	TPTFMID	WLOCLKU	WLOCLKU	WLOCLKU

Table 79. &REPZSCHM_LKU7 database resources affected by migration (continued)

Version 8.1 qualifier	Table name	Version 7.2 table space	Version 7.5 table space	Version 8.1 table space
&REPZSCHM_LKU7	TRULES	WLOCLKU	WLOCLKU	WLOCLKU
&REPZSCHM_LKU7	TSCORPAT	WLOCLKU	WLOCLKU	WLOCLKU
&REPZSCHM_LKU7	TVENDOR	WLOCLKU	WLOCLKU	WLOCLKU
&REPZSCHM_LKU7	TVERSION	WLOCLKU	WLOCLKU	WLOCLKU

The following table lists the &REPZSCHM database resources that are affected by application data migration. The PARMLIB members provides definitions for these database resources.

Table 80. &REPZSCHM database resources affected by migration

Version 8.1 qualifier	Table name	Version 7.2 table space	Version 7.5 table space	Version 8.1 table space
&REPZSCHM	NODE	VAGGR	VAGGR	VAGGR
&REPZSCHM	NODE_CAPACITY	VAGGR	VAGGR	VAGGR
&REPZSCHM	PRODUCT	VAGGR	VPRODUCT	VPRODUCT
&REPZSCHM	PRODUCT_INSTALL	VAGGR	VPRODINS	VPRODINS
&REPZSCHM	PRODUCT_NODE_CAPACITY	VAGGR	VAGGR	VAGGR
&REPZSCHM	PRODUCT_USE	VAGGR	VPRODUSE	VPRODUSE
&REPZSCHM	PRODUCT_USE_DETAIL	VSHARE	VPRODDDET	VPRODDDET
&REPZSCHM	SYSTEM	VAGGR	VAGGR	VAGGR
&REPZSCHM	SYSTEM_NODE	VAGGR	VAGGR	VAGGR
&REPZSCHM	TACCOUNT	VSHARE	VSHARE	VSHARE
&REPZSCHM	TALTERNATE	N/A	N/A	VADMIN
&REPZSCHM	TANNOTATE	N/A	N/A	VADMIN
&REPZSCHM	TCHANNEL_PATH	N/A	N/A	VCHANNEL
&REPZSCHM	TCONTROL_UNIT	N/A	N/A	VCONTROL
&REPZSCHM	TINVCTL	VSHARE	VSHARE	deprecated
&REPZSCHM	TINVREG	VSHARE	VSHARE	deprecated
&REPZSCHM	TIQHISTORY	VSHARE	VSHARE	deprecated
&REPZSCHM	TISVEOS	N/A	N/A	VADMIN
&REPZSCHM	TJOBDATA	VJOBDATA	VJOBDATA	VJOBDATA
&REPZSCHM	TLIBRARY	VSHARE	VLIBRARY	VLIBRARY
&REPZSCHM	TLIBSYS	N/A	VTLIBSYS	VTLIBSYS
&REPZSCHM	TLOGIQ	N/A	N/A	VLOGIQ
&REPZSCHM	TLOGUI	N/A	N/A	VLOGUI
&REPZSCHM	TLPAR	VSHARE	VSHARE	VSHARE
&REPZSCHM	TMACHINE_RESOURCE	N/A	N/A	VMACHINE
&REPZSCHM	TMODULE	VMODULE	VMODULE	VMODULE
&REPZSCHM	TPARAM	VSHARE	VSHARE	VSHARE

Table 80. &REPZSCHM database resources affected by migration (continued)

Version 8.1 qualifier	Table name	Version 7.2 table space	Version 7.5 table space	Version 8.1 table space
&REPZSCHM	TPERIODS	VSHARE	VSHARE	VSHARE
&REPZSCHM	TPOVINV	VSHARE	VPOVINV	VPOVINV
&REPZSCHM	TPOVLIB	VSHARE	VPOVLIB	VPOVLIB
&REPZSCHM	TPRODUCT	VSHARE	VSHARE	VSHARE
&REPZSCHM	TPRODUCT_ REGISTRATION	N/A	N/A	VPRODREG
&REPZSCHM	TREGCLASS	VSHARE	VSHARE	deprecated
&REPZSCHM	TREGION	VSHARE	VSHARE	deprecated
&REPZSCHM	TREGISTERED_ PRODUCT_USAGE	N/A	N/A	VREGUSAG
&REPZSCHM	TREGLEAF	VSHARE	VSHARE	deprecated
&REPZSCHM	TUIMPORTCTRL	VSHARE	VSHARE	VSHARE
&REPZSCHM	TUSELIB	VSHARE	VUSELIB	VUSELIB
&REPZSCHM	TUSEMTD	VUSEMTD	VUSEMTD	VUSEMTD
&REPZSCHM	TUSEPO	VSHARE	VUSEPO	deprecated
&REPZSCHM	TUSEPOV	VSHARE	VUSEPOV	VUSEPOV
&REPZSCHM	TUSEPOVLIB	VSHARE	VUPOVLIB	VUPOVLIB
&REPZSCHM	TUSEPRS	VSHARE	VUSEPRS	VUSEPRS
&REPZSCHM	TUSERDATA	VSHARE	VUSRDATA	VUSRDATA
&REPZSCHM	TVENDOR	VSHARE	VSHARE	VSHARE
&REPZSCHM	TVERSION	VSHARE	VSHARE	VSHARE

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